Sandia National Laboratories/New Mexico Environmental Restoration Project

MIXED WASTE LANDFILL CORRECTIVE MEASURES IMPLEMENTATION REPORT

JANUARY 2010

APPENDIX A
VOLUME 2 – ATTACHMENTS

United States Department of Energy
Sandia Site Office

Sandia is a multiprogram laboratory managed and operated by Sandia Corporation, a wholly-owned subsidiary of Lockheed Martin Corporation, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

APPENDIX A

Mixed Waste Landfill Alternative Cover Construction Quality Assurance Report January 2010

Volume 2
Attachments

List of Attachments

Attachment	*Title*
1	Record of Meetings and Approvals 2006 Meetings 2009 Meetings
2	CQA Submittals and Approvals 2009 QA Submittal Cover Pages 2009 Cover Layer Approval Forms
3	Daily Quality Control Reports 2006 Daily Quality Control Reports 2009 Daily Quality Control Reports
4	Receiving Inspection Forms and Documentation 2005 Biointrusion Rock 2009 Biointrusion Rock 2009 Aggregate 2009 Seed and Mulch 2009 Seed Bag Labels
5	Construction Inspection Forms 2006 Construction Inspection Forms 2009 Construction Inspection Forms
6	Testing Inspection Forms 2006 Testing Inspection Forms 2009 Testing Inspection Forms
7	Laboratory and Field Test Results and Supporting Data 2006 Standard Proctor, Gradation, and Classification Tests 2006 Density and Moisture Tests 2009 Standard Proctor, Gradation, and Classification Tests 2009 Density and Moisture Tests 2009 Saturated Hydraulic Conductivity Tests
8	Summary Report for the Extension of Monitoring Well MWL-MW4 at the Mixed Waste Landfill

ATTACHMENT 1

Record of Meetings and Approvals

2006 Meetings

RECORD OF MEETING

DATE: 6-5-06 JOB NAME: SNL MWL Subgrade Construction JOB NO.: 06-22-0011

RECORDED BY: Kelly Peil and Corey Woods

ATTENDANCE (Name and Company):

(Attendance log attached to this meeting record)

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Pre-construction Meeting

ITEMS DISCUSSED: Meeting agenda attached to this meeting record. Items discussed include:

Joe Fritts:

1) Presented project organization charts (attached to this meeting record).
2) The COA Fugitive Emissions Permits (2) covers the two borrow areas to be used for collection of subgrade cover material.
3) The Excavation Permit is complete and includes the two borrow areas. It was noted that some of the areas will be undisturbed and the personnel should watch for unusual items.
4) The Stormwater Permit should be approved this week.

Tim Goering:

5) Presented a site history
6) Discussed the Corrective Measures Implementation Plan (CMIP), which is awaiting approval by NMED. Reviewed the design drawing and specifications contained in the CMIP. Stated the reason for a partial construction contract thru the subgrade only is the possibility of NMED changing the cover design for the layers above the subgrade.
7) The existing contaminant of concern is tritium which is currently measured below action levels. The activities will be monitored by RCT staff until the concern can be mitigated.
8) The security fence around the classified area of the MWL will be removed for the subgrade work and the Sandia security staff will be more involved until another fence is constructed. A security plan will describe the required procedures for personnel.

9) The grubbed vegetation may contain tritium and will be mulched and stored for placement with the topsoil at a later time.

Dick Fate:

10) As Sandia's responsible manager for the project, Dick reminded the team that the MWL is the last of the 268 ER sites for remediation at Sandia. The project will be visited by DOE and NMED and what they see could influence the completion schedule for the site. The key concern for the project is the team's safety.

Don Schofield:

11) The schedule for the subgrade work was developed from past experience of similar work and has a completion of Dec 12, 2006. If the total cover was installed without unscheduled delays the completion would be June 14, 2007 (not including demob and the final report).

Ben Martinez:

12) Presented a map of the haul route from the borrow areas to the MWL soil stockpile area. The route will require coordination with the security base of operations and the short sled track personnel.

13) The total quantity of material to be moved and the number of miles for the trucks was presented.

14) Will start the soil excavation and screening as early as this week.

Anthony Martinez:

15) Alternate H&S Officer will be Dave Ransbarger.

16) Will have daily tailgate meetings to discuss hazards, proper PPE, days events.

17) Presented map of evacuation route, Sandia Medical Clinic, and muster areas.

18) Will have site radios for everyone which are used for emergency notice.

19) Emergency contact information will be posted inside the trailer.

20) Everyday sign in and out sheet for personnel on location.

21) Weather information will be printed daily; shut-downs for high winds and lightning.

22) Copy of site HASP is available for reading and signing for verification of training.

23) Air and noise monitoring instruments will be used to determine the need for PPE.

24) Personnel should be aware of high risk for grass fires caused by vehicles. Extinguishers are available in all vehicles and the office trailers.

Kelly Peil:

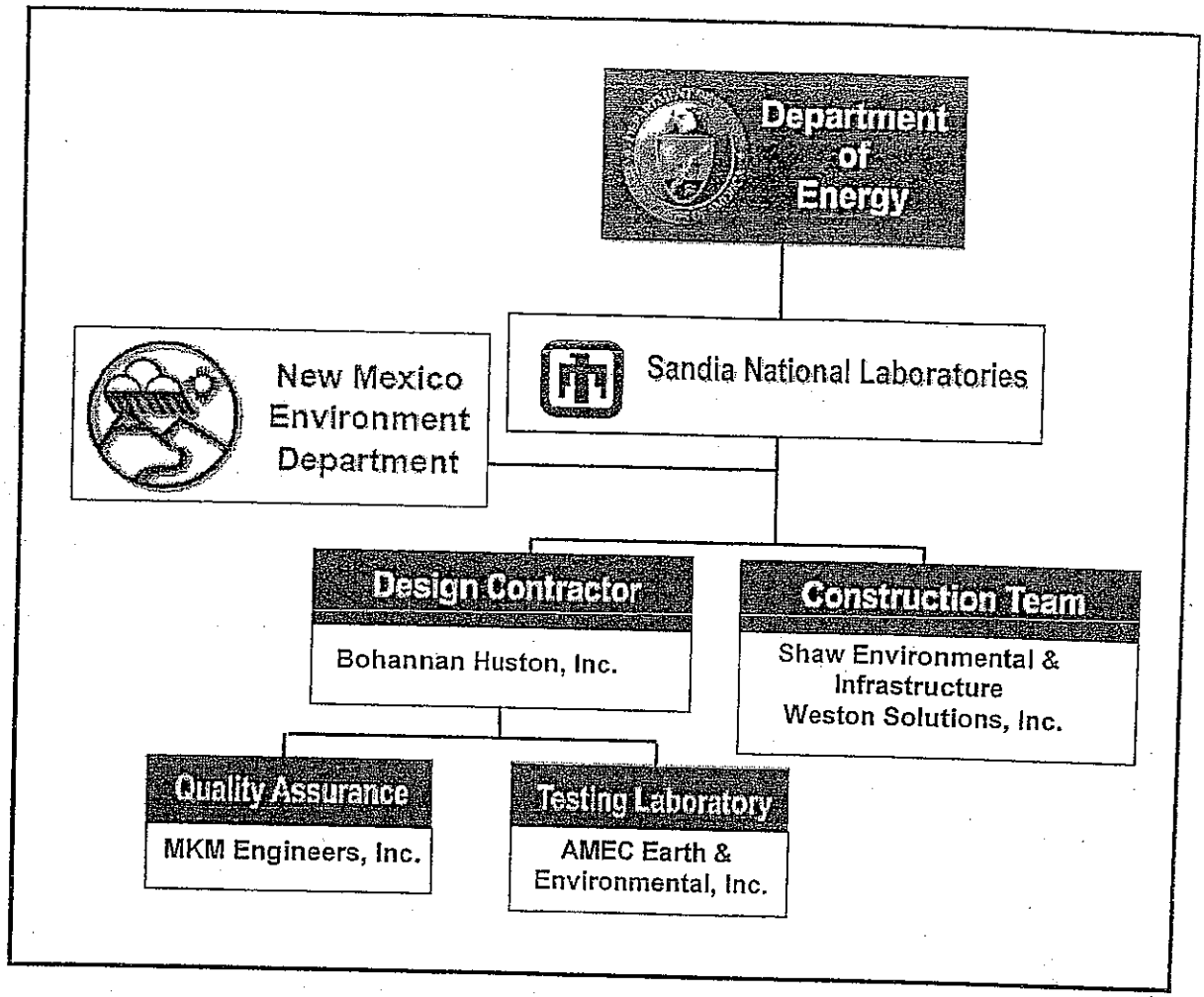
25) Reviewed the CQA Plan to present the major areas of:

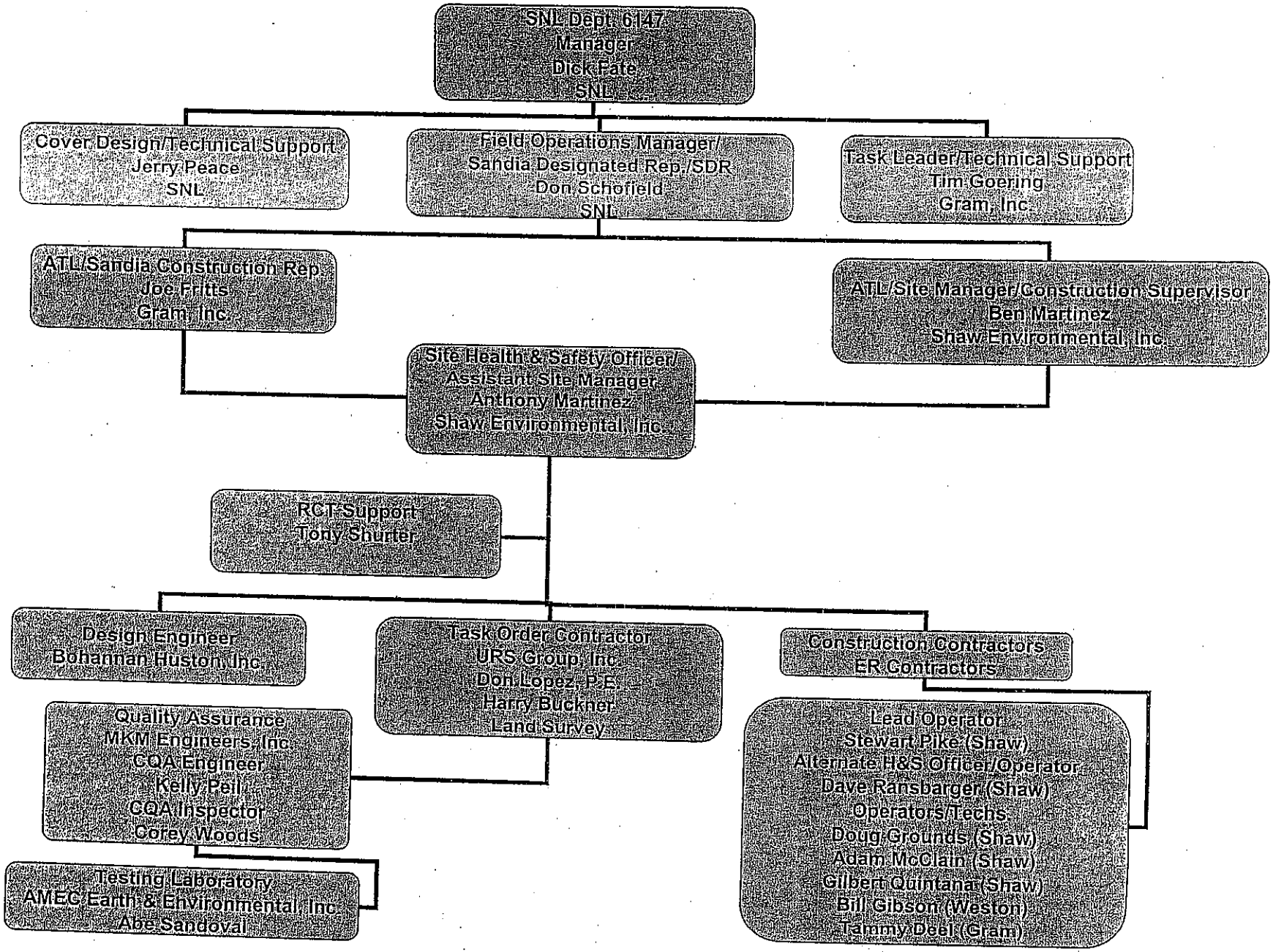
- The Plan purpose and objectives
- The qualifications and responsibilities of each project team entity
- The importance of Team communication and the documentation of meetings and decisions
- The inspection checklists for the various project activities and tests
- The importance of everyone reading the ten project specifications
- Reporting of nonconformances and the corrective actions
- Documentation of the project.

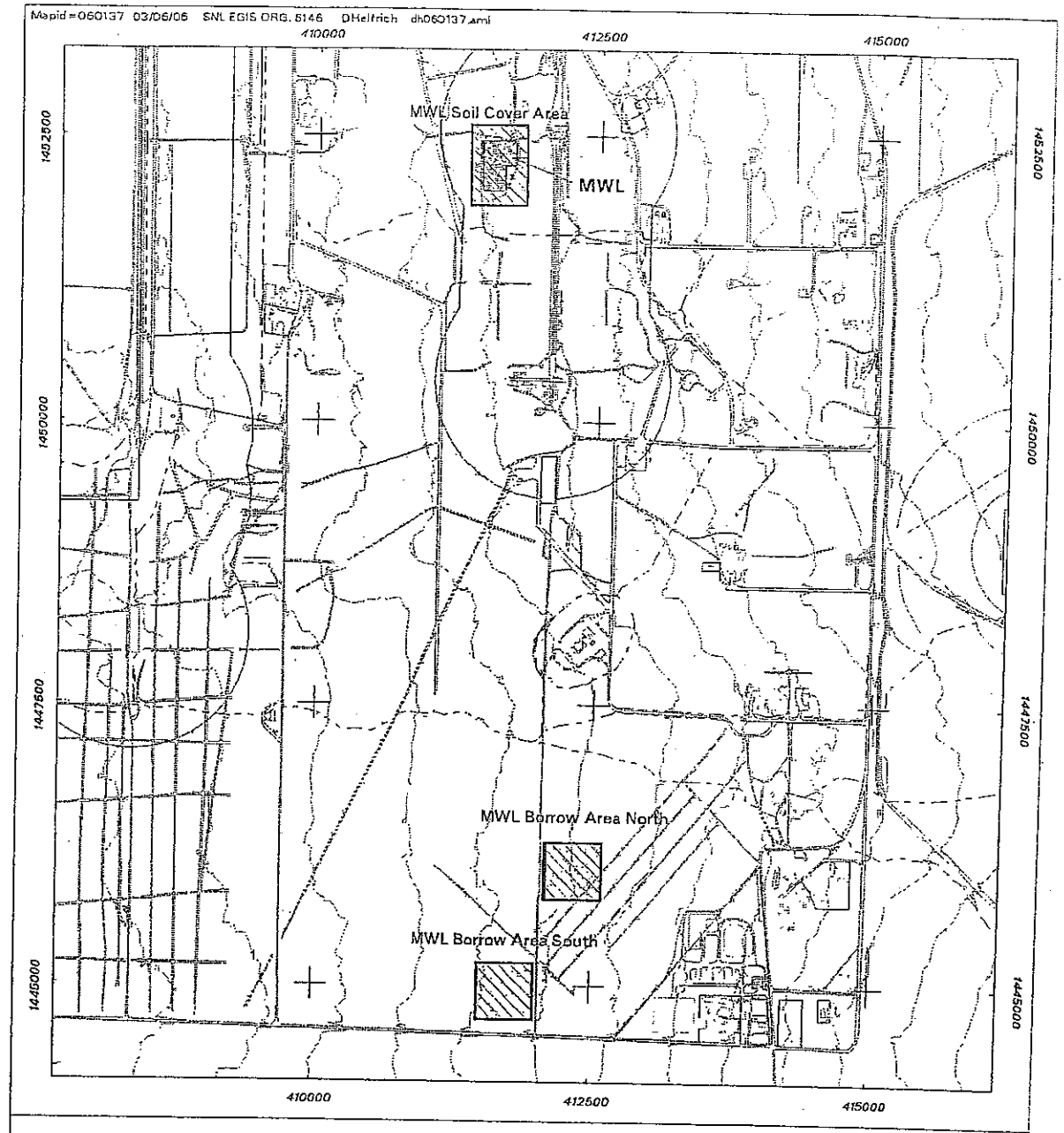
MWL SUBGRADE START-UP MEETING

JUNE 5, 2006
0900
AGENDA

WELCOME AND ORGANIZATION	Joe
COA FUGITIVE EMISSIONS PERMIT	Joe
EXCAVATION PERMIT	Joe
REVIEW SITE HISTORY DESIGN DRAWINGS	Tim
MGR COMMENTS	Dick
SCHEDULE	Don
STRATEGY BY THE NUMBERS HAUL ROUTE ETC	Ben
HASP	Anthony
CONSTRUCTION QUALITY ASSURANCE PLAN	Kelly


Department of Energy
New Mexico Environment Department
Sandia National Laboratories
Design Contractor
Bohannan Huston, Inc.
Construction Team
Shaw Environmental & Infrastructure
Weston Solutions, Inc.
Quality Assurance
MKM Engineers, Inc.
Testing Laboratory
AMEC Earth & Environmental, Inc.


SNL Dept. 6147
Manager
Dick Fate
SNL
Cover Design/Technical Support
Jerry Peace
SNL
Field Operations Manager/
Sandia Designated Rep./SDR
Don Schofield
SNL
Task Leader/Technical Support
Tim Goering
Gram, Inc.
ATL/Sandia Construction Rep.
Joe Fritts
Gram, Inc.
ATL/Site Manager/Construction Supervisor
Ben Martinez
Shaw Environmental, Inc.
Site Health & Safety Officer/
Assistant Site Manager
Anthony Martinez
Shaw Environmental, Inc.
RCT Support
Tony Shurter
Design Engineer
Bohannan Huston Inc.
Task Order Contractor
URS Group, Inc.
Don Lopez, P.E.
Harry Buckner
Land Survey
Construction Contractors
ER Contractors
Quality Assurance
MKM Engineers, Inc.
CQA Engineer
Kelly Peil
CQA Inspector
Corey Woods
Testing Laboratory
AMEC Earth & Environmental, Inc.
Abe Sandoval
Lead Operator
Stewart Pike (Shaw)
Alternate H&S Officer/Operator
Dave Ransbarger (Shaw)
Operators/Techs.
Doug Grounds (Shaw)
Adam McClain (Shaw)
Gilbert Quintana (Shaw)
Bill Gibson (Weston)
Tammy Deel (Gram)



Legend

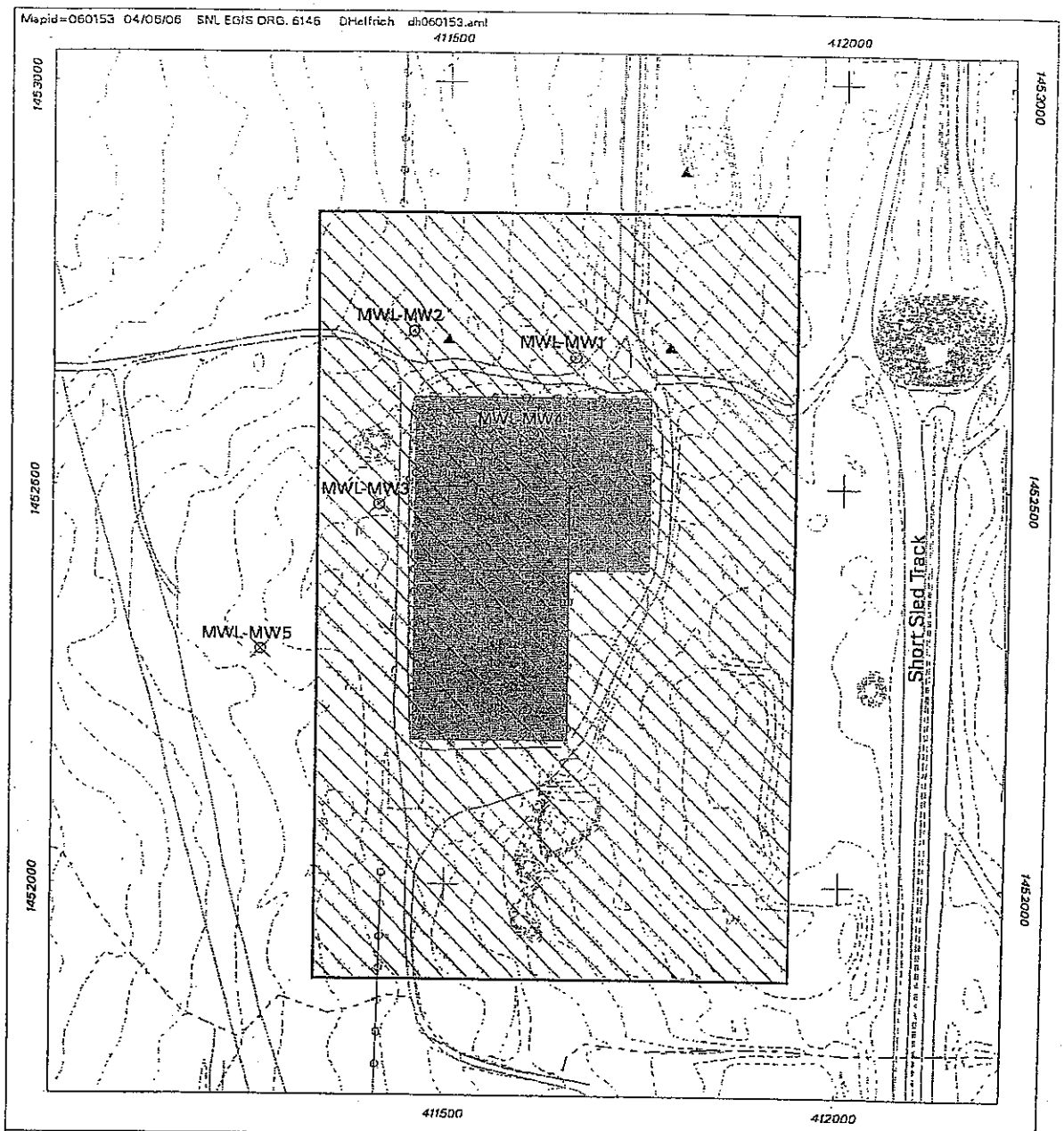
- Surface Drainage
- Road
- 10-ft. Contour
- Other SWMU Boundary
- Area of Possible Soil Disturbance
- SWMU 76, MWL

Soil Cover Area and Borrow Pit Areas for SWMU 76, Mixed Waste Landfill

0 700 1400
Scale in Feet

0 168 336
Scale in Meters

Sandia National Laboratories, New Mexico
Environmental Geographic Information System



Legend

- Air Sampling Station
- Monitoring Well
- Fence
- Unpaved Road
- 1-ft. Contour
- Surface Drainage
- Area of Possible Soil Disturbance
- SWMU 76, MWL

Soil Cover Area at SWMU 76, Mixed Waste Landfill

0 100 200
Scale in Feet

0 24 48
Scale in Meters

Sandia National Laboratories, New Mexico
Environmental Geographic Information System

ALBUQUERQUE ENVIRONMENTAL HEALTH DEPARTMENT - AIR QUALITY DIVISION (DEPARTMENT)
11850 SUNSET GARDENS SW - ALBUQUERQUE, NEW MEXICO 87121
(505) 768 - 1930 (VOICE) (505) 768 - 2482 (TTY) (505) 768 - 1977 (FAX)

APPLICATION FOR A FUGITIVE DUST CONTROL PERMIT IN BERNALILLO COUNTY
ALBUQUERQUE - BERNALILLO COUNTY AIR QUALITY CONTROL BOARD REGULATION 20.11.20 NMAC
[CONSTRUCTION PERMIT FOR SURFACE DISTURBANCE/DEMOLITION (NON-PROGRAMMATIC)]

DIVISION RECEIPT STAMP BELOW THIS LINE

EFFECTIVE DATE OF THIS FORM: 3/1/04

COPY

SUBMITTAL DATE/TIME 8/13/04
RECEIVED BY Felicia
PERMIT # ~~348-10-2925~~ CAA
10-348-2925

PERMIT APPLICATION - PART A. - PROJECT INFORMATION AND GENERAL ACTIVITIES (20.11.20.15) (PRINT OR TYPE)

1. PROJECT NAME Tech Area III Borrow Site Cell No. 1

2. PROJECT LOCATION Sandia National Laboratories Tech Area III

SUBMIT AS AN ATTACHMENT TO THIS APPLICATION, AT MINIMUM, AN (8 ½" X 11" OR 11" X 17") SITE MAP OR PLAT OF PROJECT LOCATION

3. PROJECT STREET ADDRESS (if available) Not Applicable - See Map

4. MAJOR CROSS STREETS OR INTERSECTION NEARBY Not Applicable - See Map

UNIFORM PROPERTY CODE(S) (required information): Not Applicable

6. LATITUDE/LONGITUDE (if available): NORTH 34° 58' 20.26" WEST 106° 32' 33.78"

7. UNIVERSAL TRANSVERSE MERCATOR (UTM Coordinates), if available: ask Jeremy NORTHING _____ EASTING

8. SCOPE OF PROJECT (check all that apply): ☐NEW BUILDING(S) CONSTRUCTION ☐SUBDIVISION DEVELOPMENT ☐UTILITY IMPROVEMENTS
☐STRUCTURE DEMOLITION/RENOVATION ☐ROADWAY DEVELOPMENT X OTHER (please describe) Borrow Site Concrete & Asphalt Accumulation

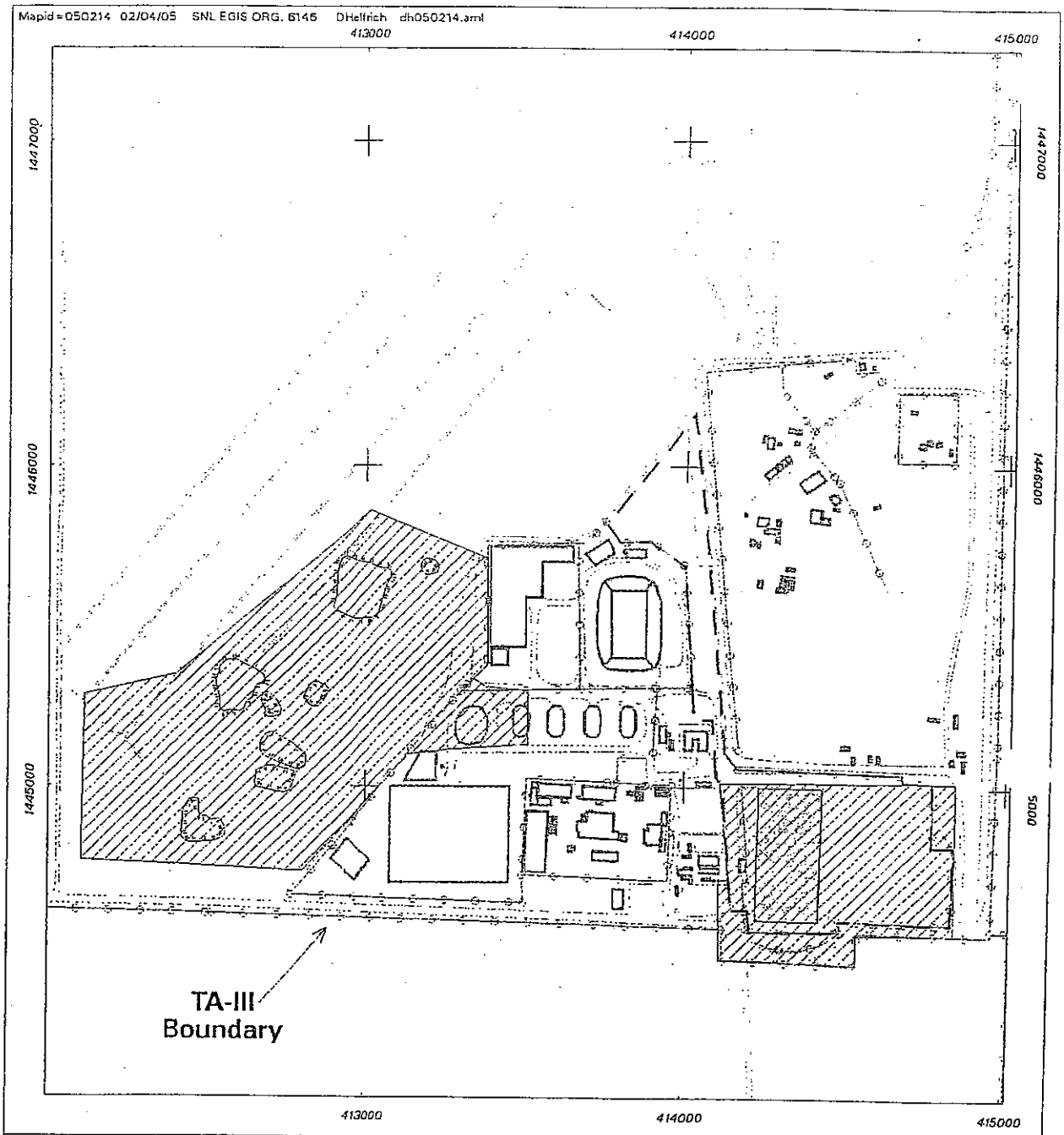
9. ACTIVE OPERATIONS (check all that apply): X SURFACE DISTURBANCE X BULK MATERIAL HAULING OR HANDLING ☐UNPAVED ROADS
☐PAVED ROADS ☐UTILITY REMOVAL/INSTALLATIONS ☐STRUCTURE DEMOLITION/RENOVATION ☐MILLING/GRINDING/CUTTING OF SURFACES
☐OTHER (please describe) _____

10. TOTAL AREA TO BE DISTURBED (acres or square feet) 17.5 acres; _____ ft², or, FOR DEMOLITION: TOTAL CUBIC FEET _____ ft³

NOTE: A FUGITIVE DUST CONTROL PERMIT APPLICATION IS REQUIRED FOR A BUILDING DEMOLITION PROJECT OF OVER 75,000 FT³ AND MUST BE RECEIVED BY THE DEPARTMENT 10 BUSINESS DAYS BEFORE THE ANTICIPATED PROJECT START DATE. ASBESTOS NOTIFICATION FOR DEMOLITION/RENOVATION OF ANY COMMERCIAL BUILDING, RESIDENTIAL BUILDING OF 5 OR MORE DWELLINGS, OR RESIDENTIAL STRUCTURE TO BE DEMOLISHED TO BUILD A NON-RESIDENTIAL STRUCTURE MUST BE RECEIVED BY THE DEPARTMENT, USING A SEPARATE FORM, 10 WORKING DAYS BEFORE THE ANTICIPATED PROJECT START DATE. BUILDING DEMOLITIONS IN BERNALILLO COUNTY REQUIRE DEPARTMENT SIGNATURES FOR PROPER DUST CONTROL AND ASBESTOS NOTIFICATION BEFORE A DEMOLITION PERMIT WILL BE ISSUED BY THE CITY OR COUNTY (20.11.20.22).

11. A FUGITIVE DUST CONTROL PERMIT APPLICATION, FOR TOTAL AREA TO BE DISTURBED OF ¾ ACRE UP TO 25 ACRES, MUST BE RECEIVED BY THE AIR QUALITY DIVISION 10 BUSINESS DAYS BEFORE THE ANTICIPATED PROJECT START DATE. A FUGITIVE DUST CONTROL PERMIT APPLICATION, FOR TOTAL AREA TO BE DISTURBED OF MORE THAN 25 ACRES, MUST BE RECEIVED BY THE AIR QUALITY DIVISION 20 BUSINESS DAYS BEFORE THE ANTICIPATED PROJECT START DATE. ANTICIPATED PROJECT START DATE IS: ~~08/06/2004~~ ~~9/1/04~~ 9/1/06

AN APPROVED FUGITIVE DUST CONTROL PERMIT SHALL BE VALID FOR 1 YEAR FROM THE DATE OF APPROVAL BY THE DEPARTMENT OR THE ANTICIPATED PROJECT COMPLETION DATE, WHICHEVER IS LONGER, BUT NO MORE THAN 5 YEARS. IF THE SCOPE OF PROJECT, PROJECT ACTIVITIES, EXPIRATION DATE, TOTAL AREA TO BE DISTURBED, OR PROPOSED CONTROL MEASURE CHANGE IN ANY MANNER THAT ARE DETERMINED BY THE DEPARTMENT TO REQUIRE ADDITIONAL CONDITIONS, THEN A NEW FUGITIVE DUST CONTROL PERMIT SHALL BE REQUIRED.



Legend

- Borrow Pit Piles
- Fence
- Paved & Unpaved Road
- CWL Operational Boundary
- Building / Structure
- Chemical Waste Landfill
- Area of Possible Penetration

CWL Penetration Permit Boundaries

0 250 500
Scale in Feet

0 60 120
Scale in Meters

Sandia National Laboratories, New Mexico
Environmental Geographic Information Syster

EXCAVATION PERMIT NUMBER: 0502-264

This Section Completed by Requestor

Requestor: Joe Fritts | Org./Company: 6146 | Date: 2/15/05

Telephone: 845-8703 | Project/Task or Service Order #: 7221.02.02.03

Proposed Start Date: 3/7/05 | Proposed Completion Date: 7/29/05

Task	Soil Excavation ☐	Asphalt Removal ☐	Sidewalk Removal ☐	Other (see description) ☒

Location, Depth, and Description of Work: (site drawings required with this request)

An engineered soil cover will be placed over a remediated landfill (CWL) near the SE corner of TA III. Attached map indicates the affected area. Dirt from borrow piles (west side of map) will be moved to the east side of the map. Questions to Joe Fritts at 845-8703. Site 74.

Investigation Results

Utilities have been identified in the area of work. If yes, composite drawings MUST BE ATTACHED — YES ☐ NO ☒

Operations are on or near an Environmentally Sensitive Site. **If yes, a Jobsite Hazard Evaluation MUST BE ATTACHED.** ER Reviewer: Emil Vinato 2/16/05 — YES ☒ NO ☒

☐ Drawings
☒ FGIS

Drawing #s:

Utilities Identified / Spotted — Date Spotting Requested:

- ☐ Power Distribution
- ☐ Gas Distribution
- ☐ Steam Distribution
- ☐ Chiller Distribution
- ☐ Water Distribution
- ☐ Storm Drain Lines
- ☐ Communication Lines
- ☐ Other (see description)
- ☐ Sanitary Sewer Lines

Exercise caution when excavating, as unknown or uncharted utilities may exist. Wear personal protective equipment as appropriate. Electrically rated gloves and eye protection are required for jack hammering and saw cutting operations. Dielectrically tested boots are required for saw cutting operations. Verify location of utilities by hand digging or potholing within 5 feet of spotted utilities.

Mechanical Spotter's Comments: NO KNOWN MECH. UTILITIES LOCATED

Spotter's Name & Initials: JH & MF — Date:

Electrical Spotter's Comments: NO POWER DETECTED USE CAUTION

Spotter's Name & Initials: HV — Date:

NOTICE TO PROCEED

(Not valid without signature of Utility Coordinator, Excavation Coordinator & Authorizing Supervisor)

List all attachments:

Utility Coordinator's Signature: [signature] — Phone # 844-9996 — Date: 2/22/05

SNL Excavation Coordinator: — Phone # — Date:

Supervisor Authorizing Excavation: — Phone # — Date:

Permit not VALID if Reverse Side is not Copied

EXCAVATION PERMIT

Supervisor Authorizing Excavation: _____ Phone # _____ Date: _____

1. This permit is task specific (see side one).
2. This permit is required for each excavation activity over 12 inches or any excavation beneath concrete sidewalks or asphalt.
3. This permit is valid from the proposed start date to the proposed completion date. **Excavator is responsible for maintaining spotter's marks after permit is issued.** *Request a Re-Spot if spotter's marks are not clearly visible.*
4. This permit and all attachments **MUST BE KEPT AT THE EXCAVATION SITE** during excavation activities.
5. This permit is not intended to be a complete work release document. Other documents or attachments may be required (e.g. Job-site Hazard Evaluation, ER Site work release) prior to work.

Caution – SNL has taken reasonable steps to identify hidden hazards prior to excavation activities necessary to complete the assigned work. The possibility exists, however, that unidentified hazards may be encountered. To mitigate risk, the Excavator is responsible for completing a site investigation utilizing methods that would not penetrate hidden hazards (e.g. visual inspection) prior to performing excavation activities identified on this permit, and using appropriate caution when utility locations cannot be identified.

Personnel assigned this activity must wear the appropriate Personal Protective Equipment and use equipment that is in good working order and properly grounded.

SUSPEND WORK!!!

Any and all personnel working under this permit are authorized and required to stop any activity if:

- Conditions differ from those that have been investigated
- Unusual odors are discovered during excavation activities
- Soils are stained
- Buried debris or visible signs of contamination are observed
- There is any question about the validity of this permit or accuracy of the spotting or utility location

Notify the SNL Excavation Coordinator (e.g. Construction Observer) immediately for instructions.

Obtain an excavation permit for any of the following activities:

1. Digging, saw cutting, drilling, coring, or trenching into soil, concrete sidewalks, or asphalt to a depth greater than 12 inches or into soil beneath concrete sidewalks or asphalt.
2. Excavation into subsurface soil in buildings beneath slabs.
3. Scraping, blading, or excavation of any area previously undisturbed or that appears to be undisturbed, such as areas covered with native vegetation, and blading or improvements to previously unimproved roads or paths.

System Contacts:

EMERGENCY ..... 911 or 845-0911 for cellular phones
Power distribution and perimeter lighting 844-3477
Communications 284-2009
Gas, steam, water, and sanitary/storm sewers 844-3222
Off-hour emergencies ..... 844-8881 or 844-3842
Environmental Restoration 845-0836

RECORD OF MEETING

DATE: 6-21-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Pell and Corey Woods

ATTENDANCE :

Don Schofield Tim Goering

Joe Fritts Ben Martinez

Anthony Martinez Members of field crew

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting

ITEMS DISCUSSED: Meeting agenda will be standard for each meeting. Items discussed include:

1) The QC staff will record and distribute the minutes of the Progress Meetings.
2) The SWPPP was approved and two items are required at the borrow pits.
   a. A vehicle entrance and exit will be constructed at each borrow pit used.
   b. A berm will be constructed to prevent strom water from exiting the pit. The drawings and notes for the berms were misleading and unclear. Joe has the action to clarify the design requirements with the SWPPP contractor. It was decided to construct the berms with the available caliche material.
   c. The following day Joe found that there were mistakes in the design of the berms; they will only be on the down stream side and the dimensions of the berms was clarified to be much smaller than initially indicated.
3) To date 1200 cyds of soil had been screened.
4) The initial water allowance will not be adequate for the summer and Tim will pursue the change to the allowance. Water usage is being recorded by the water truck operator.
5) Ben or Anthony will print the notifications for work stopage due to wind, lightning, and heat.
6) Future Progress Meetings will be held on Mondays at 1:00 pm at the CWL building.

RECORD OF MEETING

DATE: 6-26-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil and Corey Woods

ATTENDANCE :

Don Schofield Tim Goering

Joe Fritts Ben Martinez

Anthony Martinez Dick Fate

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Corrections to the SWPPP borrow pit berm design were made; the size was decreased per the text, there will be no rock layer or straw mat over the berm.
2) The SWPPP features and work area will be inspected per the requirements, the inspector will be Joe Fritts or his designee, the rainfall will be recorded, and the forms will be filed as records.
3) The gravel for the borrow pit entrance/exit drives is on order.
4) Recent samples and analyses by the Sandia lab and Severn Trent indicated no tritium in the borrow area soils. These results will be filed as records.
5) Don Schofield will conduct weekly inspections of the work areas as requested by the Sandia Construction Safety Advisory Board. The results will be used by the Board to watch for trends in performance. The inspection reports will be filed as records for the project.
6) The CMIP referenced quarterly progress reports prepared by Sandia for NMED. Dick Fate will develop the format and prepare the reports.
7) The water usage allowance was increased to over one million gallons.
8) Anthony stated that daily safety briefing begin at 7:30 am.
9) Corey will request AMEC to take samples of the screened soil by gradation testing. Dave Ransbarger and Corey will coordinate the photographic record log.
10) Next meetings will be Wednesday, July 5 at 1:30 pm at the CWL building.

RECORD OF MEETING

DATE: 7-5-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Pell and Corey Woods

ATTENDANCE :

Don Schofield Tim Goering

Joe Fritts Ben Martinez

Anthony Martinez Dick Fate

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) The SWPPP borrow pit berm was completed and has performed as designed during the recent two rain events.
2) The SWPPP features and work area were inspected by Joe Fritts after the two rainfall events of at least 0.5 inches.
3) The borrow pit entrance/exit pad was constructed and is operational.
4) Approximately 2600 cyds of soil has been excavated, screened and stock piled.
5) The soil stabilization solution (MgCl) tank was delivered and will be set-up next week.
6) There have been no safety issues.
7) The RWP has been signed and the RCT will begin attending the progress meetings when activities begin at the MWL site.
8) The CMIP referenced quarterly progress reports prepared by Sandia for NMED have been investigated by Tim Goering and he will continue to pursue if the MWL can be included with the standard quarterly ER reports or if a separate submittal needs to be prepared for NMED.
9) Corey will request AMEC to take samples of the screened soil for gradation testing next week.
10) Dick Fate reported that the presentation to NMED last week went well. Sandia will submit a letter stating the reasons why the total MWL cover should be constructed without a break in the schedule.
11) Next meeting will be Monday, July 17 at 1:30 pm at the CWL building.

MKM

RECORD OF MEETING

DATE: 7-17-06_____ JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil _____

ATTENDANCE :

Don Schofield_____ Tim Goering

Joe Fritts_____ Ben Martinez

Tony Shurter _____ Johnny Ethridge

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file _____

MAIN SUBJECT OF MEETING: Progress Meeting #5 _____

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Approximately 6550 cyds of soil has been excavated, screened and stockpiled as of the meeting time. A total of 8750 cyds will be stockpiled by COB this Thursday and this task will be complete.
2) The soil stabilization solution (MgCl) tank has been placed, bermed and filled with solution.
3) Action by Don: have the screen relocated to the soil staging area at MWL. The existing soil stockpile will be screened for use in the berm around the staging area.
4) Action by Don and Ben: mark the corners of the soil staging area on the south of MWL.
5) Action by Don: check with facilities concerning the maintenance of the haul road while soil movement of the soil is undereway.
6) Action by Don: order radiological posting signs for the MWL area.
7) Action by Tony: collect soil samples around the MWL buffer zone for baseline data on any radiological contaminants.
8) Next weeks schedule will include the screening of the soil staging area berm material, clearing of the staging area, and identification and marking of the area. The hauling of the subgrade material from the borrow pit to the staging area will begin the first week of August.
9) AMEC collected screened soil samples for gradation testing.
10) There have been no safety issues.

11) Dick Fate conducted an audit last week of the safety tailgate meeting and the project work environment. The report will be filed.

12) It was determined that the CMIP referenced quarterly progress reports prepared by Sandia for NMED are not required until the work on the MWL cover begins.

13) Action by Joe: notify the biologists to perform a review of the MWL area for potential iimportant bird habitat areas.

14) Tony delivered the site copies of the approved RWPs. The permits are effective when the existing MWL fence in removed (aprox Sep 6th). Training on the RWPs will be conducted before that date.

15) Next meeting will be Monday, July 24 at 1:30 pm at the CWL building.

JULY 17 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Scho, Joe, Tim, Anthony, Ben, Kelly

AGENDA

PROGRESS AT SITE	Ben
SAFETY	Anthony
QA	Kelly

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

RECORD OF MEETING

DATE: 7-24-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil and Corey Woods

ATTENDANCE :

Don Schofield Dick Fate

Joe Fritts Ben Martinez

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #6

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Approximately 8600 cyds of soil has been excavated, screened, stockpiled and is ready to be transported to the MWL staging area.
2) Action completed by Joe: a biologist will review the MWL area for potential important bird nesting areas this week.
3) Action completed by Don: the screen was relocated to the soil staging area at MWL and the existing soil stockpile is being screened for use in the berm around the staging area.
4) Action completed by Don and Ben: the corners of the MWL area and the soil staging area have been located and marked.
5) Action completed by Don: Sandia facilities agreed that we would maintain the haul road while soil movement is undereway.
6) Action completed by Don: radiological posting signs for the MWL area will be ordered this week.
7) Action completed by Tony Shurter: some soil samples were collected last week and the remaining ones will be this week for baseline data on any radiological contaminants around the MWL buffer zone.
8) The three dump trucks arrive this week for the hauling of the subgrade material from the borrow pit to the staging area.
9) Action by Don: to check on the safety requirements for a truck driver working only in non-rad areas.

10) There have been no safety issues.

11) The excavation permit has been approved.

12) The attorneys for DOE, Sandia, and NMED have decided that the Citizens Action lawsuit against NMED does not affect the decision to construct the final cover on the MWL.

13) The Construction Team will begin preparatory work for removing the existing MWL security fence. Action by Don: review the CMI for the method of removing the fence posts and leaving the footers.

14) Next meeting will be Monday, July 31 at 1:30 pm at the CWL building.

JULY 24 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Scho, Joe, ~~Anthony,~~ Ben, Kelly, Correy, Tony, Dick

AGENDA

PROGRESS AT SITE	Ben
SAFETY	Anthony
PERMIT STATUS	Joe
QA	Kelly

ADDITIONS TO AGENDA

Dick Fate - Cover

NEXT MEETING

ACTION ITEMS

RECORD OF MEETING

DATE: 7-31-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil

ATTENDANCE :

Don Schofield Dick Fate Tim Goering

Joe Fritts Anthony Martinez

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file _____

MAIN SUBJECT OF MEETING: Progress Meeting #7

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Started hauling soil from the borrow area to the MWL staging area.
2) Fuel tank was installed and bermed and the staff was trained in its use.
3) A biologist reviewed the area around the MWL footprint and cleared the area for potential important bird nesting areas.
4) The soil staging area at MWL was cleared, the existing soil stockpile was screened, and 500 cyds of the soil was used to construct berms on three sides of the staging area. Approx 960 cyds of soil remains.
5) The Construction Team and Don will move temporary trailers to the MWL area for worker meeting and break space.
6) The radiological posting signs for the MWL area were ordered.
7) The remaining soil samples were collected for baseline data on any radiological contaminants around the MWL buffer zone. Data should be available late this week.
8) Action by Don: to acquire DOE "No Tresspassing" signs for the fence.
9) There have been no safety issues.
10) The Security Plan has been approved. The projects participants need to abide by several requirements when the existing fence is removed.
11) The existing MWL security fence will be removed by pulling the posts from the ground and cutting the metal from the concrete footers above ground.
12) Next meeting will be Monday, August 7 at 1:30 pm at the CWL building.

RECORD OF MEETING

DATE: 8-7-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE :

Dick Fate Tim Goering Joe Fritts Anthony Martinez

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #8

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Hauled 1592 cyds of soil from the borrow area to the MWL staging area last week.
2) Fuel tank now filled and ready to use.
3) BMPs were inspected after significant rain and everything was in good shape.
4) Action by Don: DOE "No Tresspassing" signs will be relocated from the existing fence, when it is removed, to the new fence.
5) Safety meetings have increased attention to foot and vehicle traffic along the haul route.
6) Staff from NMED will visit the site on August 8th for a progress review.
7) Next meeting will be Monday, August 14 at 1:30 pm at the CWL building.

AUGUST 7 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Anthony, Kelly, Correy, ~~Tony~~, Dick, Tim

AGENDA

PROGRESS AT SITE	Anthony
SAFETY	Anthony
NMED VISIT	Tim

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

RECORD OF MEETING

DATE: 8-14-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE :

Ben Martinez Tim Goering Joe Fritts Anthony Martinez

Don Schofield

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #9

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Hauled approx. 3400 cyds of soil in first two weeks from the borrow area to the MWL staging area.
2) Rains for past two weeks have effected the schedule. Several SWPPP inspections have been required and the BMPs have worked well.
3) A MWL site trailer has been found and work at the site will begin with electrical, clearing and pad construction for the trailer, storage units, and parking.
4) There have been no safety concerns.
5) Staff from NMED visited the site on August 8th for a status/information review and left with a positive impression of the ongoing work, the site appearance, and the bio-barrier rock.
6) Next meeting will be Monday, August 21 at 1:30 pm at the CWL building.

AUGUST 14 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Anthony, Kelly, Correy, Tony, Tim

AGENDA

PROGRESS AT SITE Ben

SAFETY Anthony

NMED VISIT RESULTS Tim/Joe

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

MKM

RECORD OF MEETING

DATE: 8-22-06____ JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Corey Woods_____

ATTENDANCE :

Ben Martinez Joe Fritts Anthony Martinez

Don Schofield

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file _____

MAIN SUBJECT OF MEETING: Progress Meeting #10 _____

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Hauling screened soil to the MWL has been put on hold due to continuing rains that have flooded the stockpile area and haul roads. Personnel have been repairing roads around the site and along the haul route.
2) Several SWPPP inspections have been required. Overall, BMPs have held well; however, the berm around the stockpile area has been breached twice. Repairs to the berm have been completed.
3) Setup of the MWL site trailer has been put on hold due to the high cost electrical hookup. Work will continue on moving storage units and establishing a parking area.
4) There have been no safety concerns.
5) Next meeting will be Thursday, August 31 at 11:00 am at the CWL building.

AUGUST 22 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Anthony, Kelly, Correy, Tim

AGENDA

PROGRESS AT SITE Ben

SAFETY Anthony

SWPPP INSPECTIONS Joe

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

RECORD OF MEETING

DATE: 8-31-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE :

Ben Martinez Joe Fritts Anthony Martinez

Don Schofield Brian Foskett

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #11

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Hauled approx. 7300 cyds of soil as of August 30th from the borrow area to the MWL staging area and are close to the original schedule even with the rain delays.
2) The electrical costs for the site trailer were reduced, therefore, the trailer will be installed and will not need a generator.
3) A list of site work was discussed for next weeks activities.
4) There have been no safety concerns.
5) Brian Foskett will be the site RCT when Tony Shurter is unavailable.
6) A numbering system and log of each fence post will be utilized when they are removed and surveyed for rad contamination.
7) The next meeting will be a training session for all site staff and include the RWP, Security Plan, site layout, logistics, HASP, access, and other required details. The meeting will be Monday, September 11 at 10:00 am at the CWL building.

AUGUST 31 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Anthony, Kelly, Correy, ~~Tim~~ Brian F.

AGENDA

PROGRESS AT SITE Ben

TAKIN DOWN THE FENCE All

SAFETY Anthony

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

8/31

DOCUMENT EXISTING LANDMARKS - Helfstock completed

TRAILER PAD - Gravel will be placed around trailer for walkways after delivery

PERSONEL EXIT/ENTRANCE

TRAILER, CONNEX - Trailer to arrive Tuesday, connexes on site

DECON PAD

RELOCATE WATER TOWER - Facilities to complete next week

ROLLOFFS

P/U INSTALL WATER HOSE - P/U'd, needs to be installed

INSTALL TPOSTS/ROPE - T-posts installed, rope not

RAD/NO TRESPASSING SIGNS - signs arrived, not put up

PERIMETER ROAD - completed, needs some work (grading/compaction)

NOTIFY SECURITY - Tim will notify (Planned week of 9/11) Fence removal

BIO SURVEY - To be completed next week.

Geophysical survey - Contract not yet in place, planned for late September

RECORD OF MEETING

DATE: 9-26-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE : See attached attendance list

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Training to prepare for MWL fence removal and site clear and grub; Meeting #12

ITEMS DISCUSSED: The staff currently working on the MWL subgrade project was in attendance for the training. New staff will be trained as required. Items reviewed and discussed include:

1) Sandia ER reorganization: New Division number 6791. Line Manager is David R. Miller and the Program Manager is Paul Freshour. The Division has new ES&H and Security Managers.
2) Security Plan: Implementation of the Plan begins immediately when work starts to remove the existing MWL site fence. Tim Goering reviewed the Plan using the attached key elements list. A copy of the Plan is available in the MWL site office.
3) Health and Safety Plan: Anthony Martinez reviewed the attached Task Hazard Analysis for the fence removal operation. The HASP and the THA are available in the MWL site office.
4) Radiological Work Plans: Tony Shurter presented the two RWPs; one is required if a rad situation is encountered; the second RWP is for the currently scheduled eight project tasks. The RWP describes the PPE requirements, release procedures for fence or other material, percautions for existing surface penetration limits, daily signature of RWP required, and incidental workers require an escort.
5) Waste Management Plan: Craig Wood highlighted the following items; PPE is deposited in marked drums and tested for Rad contamination before disposal, water for decon needs to be collected and tested before disposal, any fuel spills need to be reported, and batteries for disposal are hazardous and are disposed in marked containers.
6) Corrective Measures Implementation Plan: The November 2005 Plan is the Work Plan for the project. Appendix A contains the construction specifications and should be reviewed by the staff. Appendix B is the Construction Quality Assurance Plan which was updated with the May

2006 version (bound separately). Two testing and surveying procedures were stressed for the existing surface: AMEC should not penetrate the surface when using the nuclear gage for soil density measurements; the surveyors will pre-mark the stakes for six inches and not drive the stakes into the surface any further than that mark.

7) The fence removal should begin on October 2nd.

Attachments:

Agenda

Attendance list

Key elements of the Security Plan

Task Hazard Analysis for fence removal

MWL TAKE DOWN THE FENCE MEETING

September 26, 2006
0900
ITEMS TO COVER

SECURITY PLAN	Tim
HASP	Anthony
RWP	Tony
WASTE MANAGEMENT PLAN	Joe/Craig
CMI PLAN/OVERVIEW	Scho

Site Entry Log

Training Session

Date 9/26/06 (Tuesday)

Organization	Name	Signature	Purpose of Visit	In	Out
103281	Tony Shuster		RCT	0900	
103281	BRIAN FOSKETT		RCT	0900	
MKM	Corey Woods		Training	0900	
MKM	Kelly Peil		Training	0900	
SHAW 6791	BEN MARTINEZ	Ben Martinez	TRAINING	0900	
SHAW 6791	STEWART PIKE		TRAINING	0900	
SHAW 6791	ANTHONY MARTINEZ		TRAINING	0900	
SHAW 6791	DOUG GROUNDS		TRAINING	0900	
10333	CRAIG WOOD	Craig Wood	Training	0900	
6791	Stacy Griffith		" "	0910	
6791	DON SCHOFIELD	Don Schofield	TRAINING	0900	
6791	Joe Fritz		Training	0900	
6791	Tim Golden		Training	0900	

Key Elements of the MWL Security Plan for Subgrade Preparation and Cover Construction Activities

1. Random Protective Force (Security) Patrols

2. MWL team must have continuous access to SNL Protective Force via cell phones, radios, or other communication devices during the duration of the field project. If security issues arise, notify Protective Force immediately.

3. DOE SSO requires that during all phases of construction, SNL protective force (PF), SNL physical security and DOE SSO Safeguards and Security must be notified prior to construction activities at the landfill.

4. All keys must be removed from the heavy equipment at the end of the work day, and either secured or removed from site.

5. If NMED has not approved the MWL Cover by April 30, 2007, SNL is required to immediately construct a 44" high barbed wire fence and access control gate around the landfill perimeter.

6. A Q-Cleared Individual will be required to be onsite at all times during operational hours when uncleared workers are working within the landfill boundaries.

7. Security Clearances not required for workers, as no classified materials will be encountered.

8. DOE standard badges must be worn at all times unless prohibited because of PPE.

9. Signage
   - DOE signs prohibiting trespassing will be posted around the perimeter.
   - Radiological postings around the perimeter to alert personnel to the presence of radiological hazards.

10. Security Incidents
    - Must comply with the reporting requirements for Incidents of Security Concern as outlined in CPR 400.3.7
    - Report incidents using the Security Incident Management Program (SIMP) incident reporting pager **(540-2382)**

11. The MWL Point of Contact (POC) will maintain a signed copy of the Security Plan and have it readily available during field operations on site.
    MWL Security POC – Scho
    Alternate POC – Ben

12. The original signed plan shall be retained by Physical Security (4213). If necessary, an annual review of the Security Plan will be conducted by Physical Security (4213).

Task Hazard Analysis — Mixed Waste Landfill fence removal operation.

Description of Activity — (1) Remove barbwire, t-posts, chain link fence, fence posts, and any other hardware required to dismantle the MWL fence. (2) Remove concrete from fence posts and place concrete in a separate roll off to be released by an RCT if needed. (3) Label/ number fence posts and hardware to be released by the RCT in accordance with the RWP in order to have a systematic approach to what has been swiped and what hasn't. (4) Place fencing material and hardware that has been cleared by an RCT into the metal only roll offs on the south end of the site boundary for recycle. (5) Once the fence has been removed the crew can begin grubbing the top layer of the MWL. (The crew may be required to use a chop saw or similar method to remove the concrete from the fence posts.)

Equipment Required:

- Heavy Equipment – forklift, front loader, road grader, skid steer
- Vehicles – pick-up trucks, trailers.
- Hand Tools – shovels, wrenches, hammers, screw drivers, chop saw
- Safety Equipment- Traffic control equipment, two-way radios, orange safety vests, face shield, fire extinguishers, eye wash station, Level D PPE (see section 4.0 in the HASP).

Level of Protection: Level D PPE (see Section 4.0 for detailed discussion of PPE).

Potential Hazard	Hazard Rating*	Control
Chemical •Fuel	Low	There are no chemical hazards anticipated. Fuel for heavy equipment is stored on site. Fire extinguishers are available in the fuel storage areas and the crew will be briefed on the location of fuel, fire extinguisher location and proper procedures at the daily safety briefings.
Physical • Heat stress • Sunburn	Medium	Workers will be aware and briefed through tailgate safety meeting on heat stress and sunburn hazards. Adequate break and rest areas will be provided. Sunscreen will be provided. Frequent

• Noise • Heavy Equipment • Lifting Injury • Pinching/crushing injury • Slips, trips, falls • Fire • Electrical hazards • Direct skin contact with the soil in the MWL boundary		water/hydration breaks will be required. Pace of work will be consistent with PPE requirements and site conditions. Operators will wear hearing protection when they are around any power tools or heavy equipment. Only qualified operators will operate heavy equipment. Equipment will be inspected daily and seat belts will be worn at all times. No one is allowed to walk or work under a suspended load of any kind. Hard hats will be worn for any overhead work. Orange safety vests will be worn at all times when personal is around heavy equipment. Proper lifting techniques will be taught and reinforced through daily tailgate meetings. Work areas will be inspected daily and slip-trip-fall hazards will be eliminated where possible. Safe work practices will be established and followed when fueling equipment and when conducting any general site maintenance. Any new tasks will be discussed at the daily tailgate briefings before performing any work. Water will be used to help control airborne dust. Eating, drinking and smoking will be administratively controlled throughout the operation and conducted only in designated areas. Personal hygiene and an adequate break schedule will be followed to prevent worker fatigue. Crew will wear the proper PPE and be required to follow all guidelines outlined in the RWP. RAD II will be required for all site workers.
Radiological	Low	Potential for tritium below ground level. All work will be conducted in accordance with the RWP. RAD Worker II is required for all working personnel.
Explosive	N/A	There are no explosive hazards anticipated.
Biological • Snakes • Rodents • Insects	Low	Noise and the fence removal operation will not be conducive to snakes, rodents or insects. Work areas will be kept clean and places of refuge for biological hazards eliminated where possible. Worker awareness will be maintained through tailgate safety briefings.

*Based on Probability and Severity

Potential Offsite Impacts

1. Increased Noise- no off site impact anticipated. Personnel will be required to wear hearing protection in and around heavy equipment and power tools.
2. Increased Traffic- most vehicle and heavy equipment traffic related to the MWL fence removal operation will be limited to the typical transportation routes used for the work. If necessary, local traffic will be re-directed.
3. Utility outages- no off-site impact anticipated.
4. Dust- suppress dust with water as necessary. Use magnesium chloride/water mixture as appropriate to maintain soil stockpiles and local road surfaces. Fence removal and topsoil grubbing operations will be terminated if dust suppression techniques are not adequate to prevent offsite dust releases due to wind that adversely impacts on-site or off-site personnel.
5. Fire- Task Leader, SSO, or designee will communicate with local facility Points of Contact and initiate emergency response plan if necessary.

RECORD OF MEETING

DATE: 10-2-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Pell & Corey Woods

ATTENDANCE :

Ben Martinez	Joe Fritts	Anthony Martinez	Tim Goering
Don Schofield	Brian Foskett	Tony Shurter	Stacy Griffith

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez
Project file

MAIN SUBJECT OF MEETING: Progress Meeting #13

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Tony Shurter surveyed the MWL non-classified fence on Friday and cleared it for disposal. The fencing material was removed from the posts Monday morning and loaded into the disposal containers.
2) The plan for the remainder of the week was to remove the fence material from the posts in the middle of the site; remove the posts; survey posts for clearance; start clear/grub of non-classified area. A screen and chipper will be located at the site to separate the grubbbed material from the soil and rocks. The scredded brush will be stored for future reuse in covered containers.
3) Action by Tony: Soil samples from the site will be collected for laboratory analysis at Sandia.
4) At least one concrete slab exists within the classified area. After the fence is removed the slab(s) will be removed to view the potential settling under the slab. The concrete will be broken and disposed in the pit under the slab.
5) There have been no safety concerns. The PPE requirements will be in effect when the fence post work begins.
6) Action by Stacy: The monitoring wells around the MWL will have a video crew scheduled for the week of Oct 16th. Stacy will coordinate the effort..
7) Action by Tony and Tim: Because of the evidence of very low concentrations of cesium 137 in biota samples at the MWL, a plant will be excavated and separated for analysis to develop a data base of rad uptake.

8) The metal from the middle fence and the classified area fence will be separated for disposal relative to the DOE metal moritorium rules.

9) A sample of the stock piled borrow material for the sub-grade will be collected for procter analysis. A sample of the existing surface soil will be collected and surveyed by Tony before release to AMEC for a procter analysis.

10) The next meeting will be Monday, October 9 at 1:00 pm at the MWL building.

OCTOBER 2, 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Anthony, Kelly, Corey, Tim, Tony, Stacy

AGENDA

PROGRESS AT SITE Ben

SAFETY Anthony

ADDITIONS TO AGENDA

Video of wells
Cs-137

NEXT MEETING

ACTION ITEMS

MKM

RECORD OF MEETING

DATE: 10-10-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE :

Ben Martinez	Joe Fritts	Anthony Martinez	Don Lopez
Don Schofield	Harry Buchner	Tony Shurter	Paula Schuh

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #14

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) The unclassified area of the MWL has all fence removed; the posts are on the ground waiting the rad survey results for release. The area has been cleared of vegetation. The piles of vegetation will be screened to remove rocks and schredded before storing in a container for future use as mulch.
2) The removal of the classified area fence will begin this week. A manlift will be used to reach the top strands of barbed wire. The wire will be rad surveyed before release for disposal.
3) Soil samples from the site were collected for laboratory analysis at Sandia and the results should be available this week. The rad data to date has been at background or below.
4) There have been no safety concerns.
5) The very low concentrations of cesium 137 in previous biota samples at the MWL are severals orders of magnitude below a health risk, therefore no further samples will be taken.
6) A sample of the stock piled borrow material for the sub-grade and a sample of the existing surface soil was collected and surveyed for release to AMEC for a procter analysis.
7) A decision on the concrete slab disposition within the classified area will be made later in the week.
8) The next meeting will be Thursday, October 19 at 11:00 am at the CWL building.

OCTOBER 10, 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Anthony, Kelly, Corey, Bryan, Tony, Don, Paula, Harry

AGENDA

PROGRESS AT SITE Fence removal Grubbing Shredding	Ben
STATE AUDIT	Scho
RAD PRO ISSUES	Tony
SOIL SAMPLING	Corey
SAFETY	Anthony

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

SECTION 02110

CLEARING AND GRUBBING

PART 1 GENERAL

1.1 SCOPE OF WORK

1.1.1 Work Included

The Contractor shall furnish all materials, labor, tools, and equipment, and shall perform clearing and grubbing during construction activities in accordance with this specification and as shown on the design drawings.

1.1.2 Related Work Specified Elsewhere

1) Temporary Diversion and Control of Water during Construction shall be in accordance with Section 01563 of these specifications.

2) Trenching, Backfilling, and Compaction shall be in accordance with Section 02221 of these specifications.

3) Reclamation Seeding and Mulching shall be in accordance with Section 02930 of these specifications.

1.1.3 Work to be performed by the Operator and/or the CQA Engineer:

1) Review and approve submittals as required for this specification.

2) Designate items that require salvage, storage, reuse, and/or relocation.

3) Perform final inspection and confirm acceptance of clearing and grubbing.

4) In addition to inspection by the Contractor, the Operator and/or the CQA Engineer may inspect work for compliance with the requirements of this specification.

1.2 SUBMITTALS

1.2.1 Procedures, Certifications, and Records

The Contractor shall submit test results in accordance with the requirements of this specification and the MWL CQA Plan to the Operator and/or the CQA Engineer as soon as this information is available so that the Operator and/or the CQA Engineer can

review work for compliance with the requirements of this specification and make CQA decisions in real-time.

PART 2 PRODUCTS

2.1 EQUIPMENT AND MATERIAL REQUIREMENTS

2.1.1 All equipment and tools used by the Contractor to perform the work shall be subject to inspection by the Operator before the work is started and shall be maintained in satisfactory working condition by the Contractor at all times.

2.1.2 The Contractor's equipment shall have the capability to perform the indicated clearing and grubbing specified herein.

2.1.3 The Contractor shall ensure that all equipment used for clearing and grubbing work is fitted with appropriate safety devices that comply with all applicable Federal laws and the MWL Health and Safety Plan, and that will adequately protect equipment operators and minimize exposure of site workers and others.

2.2 ITEMS SALVAGED FOR REUSE, STORAGE, OR RELOCATION

The Operator will designate items that require reuse, storage, or relocation.

PART 3 EXECUTION

3.1 GENERAL

3.1.1 Site Inspection

The Contractor shall inspect the site to determine the nature, location, size, and extent of vegetative material, debris, and obstructions to be removed or preserved, as specified herein.

3.1.2 Traffic

The Contractor shall conduct clearing and grubbing operations to ensure minimum interference with roads, walks, and adjacent facilities. The Contractor shall not close or obstruct roads, walks, or adjacent operational facilities without written permission from the Operator.

3.1.3 Protection of Existing Structures and Facilities

The Contractor shall provide protection necessary to prevent damage to the existing structures and facilities which are to remain in place. The Contractor shall restore or replace damaged property to original condition, or to the satisfaction of the Operator.

Items damaged in removal shall be repaired and refinished, or replaced by the Contractor with new matching items as required by the Operator.

3.1.4 Salvageable Items

Items damaged in removal shall be repaired, refinished, or replaced by the Contractor with new matching items as required by the Operator. The Contractor shall save and protect from construction damage all vegetative materials (shrubs, grass, and other vegetation) beyond the limits of the required clearing and grubbing. The Contractor shall restore or replace damaged vegetative materials to the conditions as required by the Operator, in accordance with Section 02930 of these specifications.

3.1.5 Protection of Monuments and Other Permanent Surface Features

The Contractor shall locate and mark existing monuments, monitoring wells, stanchions, and markers before construction operations commence and shall protect such items during construction. The Contractor shall restore or replace damaged items to original condition as required by the Operator.

3.2 CLEARING AND GRUBBING

3.2.1 Clearing and Grubbing

The Contractor shall clear the site of shrubs, vegetation, rocks and debris as required within the limits of the landfill cover, laydown and stockpile areas south of the MWL. Roots exceeding 1 inch in dimension, as well as rocks and other debris exceeding 2 inches in dimension in the top 6 inches of the existing site grade shall be removed by hand or mechanical means. Removal methods shall minimize the disturbance of soils below 6 inches in depth. Clearing and grubbing shall conform to the Radiological Work Permit (RWP).

3.2.2 Reclamation Seeding and Mulching

The Contractor shall seed and mulch disturbed areas in accordance with Section 02930 of these specifications.

3.3 DISPOSAL OF WASTE AND DEBRIS MATERIALS

3.3.1 Organic Material

Organic materials, including grass, shrubs, stumps, roots, and other organic debris removed due to clearing activities, shall be transported by the Contractor to a stockpile/disposal site designated by the Operator. The stockpile/disposal site shall be located within ¼ mile of the project area. Organic material shall be stockpiled or disposed of as directed by the Operator.

3.3.2 Disposal

The Contractor shall remove all materials not designated for relocation, reuse, or salvage. These materials shall be disposed of or stockpiled as directed by the Operator.

3.4 DAMAGED AREAS

The Contractor shall confine clearing and grubbing operations to within those areas required for cover construction or as directed by the Operator. Any areas outside the designated areas that are damaged or disturbed by the Contractor's operations shall be reclaimed by the Contractor. Reclamation shall be in accordance with Section 02930 of these specifications.

3.5 ACCEPTANCE

Clearing and grubbing not in accordance with the requirements of this specification shall be repaired and/or replaced by the Contractor at the Contractor's expense. The Contractor shall submit a description of the repair and/or replacement methods to the Operator for approval before use. Acceptance criteria for repaired and/or replaced clearing and grubbing shall be in accordance with the requirements of this specification.

END OF SECTION

MKM

RECORD OF MEETING

DATE: 10-19-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Pell & Corey Woods

ATTENDANCE :

Ben Martinez Joe Fritts Anthony Martinez Don Lopez Tim Goering

Don Schofield Bryan Foskett Paula Schuh Dick Fate

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #15

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) The total MWL fence is removed and the majority of the metal will be picked-up by Ace Recycling. A small portion of the classified area fence structure and concrete footers will be disposed as waste in a landfill.
2) The total area has been cleared of vegetation. The final piles of vegetation will be screened to remove rocks and schredded. The 20 cyd roll-off container will be full; the screened soil will be returned to the surface.
3) A classified area pit concrete cover was broken inplace, covered with soil to level, and compacted; one other pit sinkhole was filled, leveled, and compacted.
4) The activities for next week include walking the area to remove debris larger than two inches, compact the site to at least 90%, AMEC test the area for compaction results, the surveyors stake the area for subgrade lift markers, and a geophysics crew run a survey of the classified area.
5) The RCTs will survey the area to potenially clear it for the release from the RWP PPE requirements.
6) There have been no safety concerns.
7) A QA/QC audit was conducted by the QC Engineer to check performance versus the construction specifications. The work was in conformance.
8) The next meeting will be Wednesday, November 1 at 11:00 am at the MWL building.

MKM

MKM Engineers, Inc.

Safe, Quality Work Performed With Pride

- *Turnkey Environmental*
- *Unexploded Ordnance*
- *Radiological Services*

October 23, 2006

Mr. Don Schofield, Task Leader
Sandia National Laboratories
P.O. Box 5800, MS 1088
Albuquerque, NM 87185-1088

Dear Don:

This letter is the result of the internal audit conducted October 16, 2006 at the Sandia National Laboratories Mixed Waste Landfill Subgrade Project site. There are no findings or corrective action reports.

The purpose of the internal audit was to ensure that the applicable construction specifications and project quality and safety procedures and protocols were being followed. From my surveillance and assessment the experience of the staff is obvious in the performance of the site work and the reporting of the results. The entire staff is aware of the safety aspects while working under a radiological work permit and around heavy equipment. The daily morning staff briefings are key to preparing everyone for their duties and responsibilities.

The audit checklist used for the audit and the resulting observations is attached as a record of the items covered. The list included requirements from the Construction Quality Assurance Plan (CQA) and the Construction Specifications that were applicable for the stage of the project at the time of the audit. A few of the observations are mentioned in the following paragraph.

The CQA states that specific documents would be available at the site, and they are easily accessible for the staff and visitors. The field forms, logs, and reports were clear, concise, and complete. The daily maintenance of the data will be beneficial for the final report preparation. The temporary diversion and storm water control (Spec 01563) requirements have been closely monitored and the BMPs maintained even with record rainfalls. The fence removal and the clearing and grubbing (Spec 02110) were performed efficiently, safely, and in accordance with the specification. The plan for the existing surface compaction (Spec 02200) will include a modification to the specification which will enhance the documentation of the compaction by taking field measurements. The plan for the grades, lines, and levels work (Spec 02210) will assist with the proper placement of subgrade material to meet the requirements of the specification

6000 Uptown Blvd., NE, Suite 490, Albuquerque, NM 87110 Phone: (505) 881-0123 Fax (505) 881-3005
www.mkmengineers.com

Again, the staff expertise was obvious in the quality of their reporting, their concern for safety, concern for equipment, and concern for quality performance. Management should continue to encourage the staff that they are the key to a safe and quality finished product.

Sincerely,

Kelly M. Peil

Kelly M. Peil, PhD, PE
QC Engineer

Cc: Joe Fritts
Project File

Attachment: Checklist

Audit Checklist

Audit Reference Number: 01
Date of Audit: October 16, 2006

Subject: Sandia MWL Subgrade Project
Auditor: Kelly Peil

Item	Requirement & Reference	Audit Question	Compliance Yes	Compliance No	Observation/Finding	Person Contacted
1	Availability of CMIP with specifications (Nov 05) on site (CQA 1.1)	Are copies of specifications and the current version of the CMIP in site office	X		A binder at MWL contains the documents required at the site.	Ben Martinez
2	Availability of CQAP, Security Plan, and HASP on site (CQA 4.0)	Is the CQA with inspection checklists, Security Plan, HASP with THAs and signatures, MSDS, emerg contact info available at the site	X		All items listed in question are in the site office.	Ben Martinez
3	Provide continuing training to maintain job proficiency (CQA 4.0)	Evidence of daily safety and quality briefings	X		Briefing for today was prepared, reviewed and signatures for all present. The previous briefings are retained in a binder.	Joe Fritts and Anthony Martinez
4	Provide continuing training to maintain job proficiency (CQA 4.0)	Is instrumentation available for air and noise monitoring to control PPE; calibration records	X		Air monitoring not required because the physical rad sample results have been below requirements to monitor; a dust monitor and noise monitor are used with the readings retained along with the instrument calibration forms	Tony Shurter and Anthony Martinez

Audit Checklist

Audit Reference Number: 01
Date of Audit: October 16, 2006

Subject: Sandia MWL Subgrade Project
Auditor: Kelly Peil

Item	Requirement & Reference	Audit Question	Compliance Yes	Compliance No	Observation/Finding	Person Contacted
5	Continual improvement review and audit (CQA 2.3)	Evidence of past SNL personnel audits of project activities; weekly safety board inspection notes	X		Email concerning audits by Dick Fate in the file. Safety board inspection notes in Don Schofield's file	Joe Fritts and Don Schofield
6	Project plan, schedule, and resources for the work (CQA 4.0)	Is the plan and schedule up-to-date; are resources available for the work	X		Project schedule is up-to-date and posted; the schedule ties to the CMIP; the labor and equipment resources are adequate for the required work	Don Schofield
7	Applicable permits available (CQA 4.0)	Is the excavation permit current (July 24) and on site; RWP signatures daily	X		The excavation permit is effective thru Dec 06; the RWP is signed daily by those accessing the landfill	Joe Fritts
8	Site storm water control (Spec 01563)	Is the storm water diverted around the construction area; are SWPPP inspection forms complete and filed	X		The SWPPP BMP is a berm around the work site; the inspection records are complete and filed	Joe Fritts
9	Site storm water control (Spec 01563)	Inspect the BMPs for needed repairs	X		The berm was breached during the summer heavy rain events; it was repaired and is in good shape now	Joe Fritts

Audit Checklist

Audit Reference Number: 01
Date of Audit: October 16, 2006

Subject: Sandia MWL Subgrade Project
Auditor: Kelly Peil

Item	Requirement & Reference	Audit Question	Compliance Yes	Compliance No	Observation/Finding	Person Contacted
10	Clearing and grubbing (Spec 02110)	Inspect equipment storage area and safety of equipment for operators			I couldn't get on the landfill; item will be inspected by the QC inspector as part of duties	Joe Fritts
11	Clearing and grubbing (Spec 02110)	Inspect the MWL surface for rocks and debris; inspect MW-4 for protection; inspect the perimeter and organic storage area			See above; QC inspector will inspect surface and MW-4; the perimeter will be staked and cleared later; the shredded vegetation is stored in a covered metal roll-off container	Joe Fritts
12	Earthwork (Spec 02200)	Check compaction equipment to be used for the existing surface; agreement on change to spec for compaction versus field tests	X		A smooth drum, vibrating roller will be used for compaction; this spec will be modified with field density tests to determine compaction	Don Schofield
13	Earthwork (Spec 02200)	Tests results for subgrade material is in file; ensure no subgrade placement until compaction results are known	X		The surface permeability tests were projected from near-by field tests; no placement of subgrade will occur until results of surface compaction are available	Tim Goering and Ben Martinez

Audit Checklist

Audit Reference Number: 01
Date of Audit: October 16, 2006

Subject: Sandia MWL Subgrade Project
Auditor: Kelly Peil

Item	Requirement & Reference	Audit Question	Compliance Yes	Compliance No	Observation/Finding	Person Contacted
14	Grades, Lines, & Levels (Spec 02210)	Plan for survey of existing surface before subgrade is placed and between lifts	X		Survey crew will begin after compaction results are known; each lift will be surveyed; total depth of subgrade will vary from 40 inches to 2 inches	Ben Martinez
16	Removal of existing fences (CQA 5.1) and THA	Review plan to separate concrete from posts; inspect waste management (separation, labels, quantities, disposal receipts)	X		Posts were cut from the concrete powered cutters; the rad data clears the posts and concrete for disposal or recycle; the metal is separated into roll-offs for recycle and labeled as such; the metal recycler will receipt the material	Joe Fritts
17	Documentation (CQA 8.0)	Ensure logs and photos are used to document work details, quantities, nonconformances, resolutions, and comments concerning quality and safety	X		Photos are taken and stored on a CD; Ben's log is the official record of work activities and details; there have been no nonconformances noted to date	Joe Fritts

MKM

RECORD OF MEETING

DATE: 11-1-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE :

Ben Martinez Joe Fritts Anthony Martinez Don Lopez Tim Goering

Don Schofield Harry Buckner Stacy Griffith

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #16

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) The subgrade soil is being applied to the lower north and north east corner in eight inch lifts to level the site.
2) The surveyors have had difficulty locating the site with relation to the control points. The past information was not clear or verifiable. The site grid will be completed when the controls can be verified.
3) The geophysical survey of the classified area was completed.
4) Samples of the subgrade soil have been taken for proctor testing and we are awaiting the results from AMEC. The field density tests on the individual lifts have been above the specification requirements.
5) The RCTs surveyed the area and released it from the RWP PPE requirements. Everyone must fisked out of the site.
6) There have been no safety concerns.
7) Acquisition of the crushed rock for the cover soil will continue inorder to have it ready for the amoring layer or stockpiled for the final cover.
8) The next meeting will be Thrusday, November 16 at 11:00 am at the CWL building.

November 1, 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Tim, Anthony, Kelly, Corey, Don, Harry, Stacy?

AGENDA

PROGRESS AT SITE	Ben/Stewart
SURVEY STATUS	Harry
QA	Corey/Kelly
RAD PRO ISSUES	Tony/Bryan
SAFETY	Anthony
STATUS OF COVER	Scho

ADDITIONS TO AGENDA

Gravel Delivery

NEXT MEETING

ACTION ITEMS

RECORD OF MEETING

DATE: 11-16-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil & Corey Woods

ATTENDANCE :

Ben Martinez Joe Fritts Anthony Martinez Jerry Peace Tim Goering

Don Schofield Harry Buckner Stacy Griffith

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez

Project file

MAIN SUBJECT OF MEETING: Progress Meeting #17

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) The subgrade soil is placement is in lift 11 which will cover most of the footprint. It should be complete Nov 21. Lift 12 will be the final lift and should be completed the week of Dec 4.
2) The site grid stakes were marked for all lifts and were extremely helpful for the proper placement.
3) The old soil pile at the MWL was from excavation of some of the trenches. It will only be used for fill in the peremeter areas. A sample will be taken for analysis for chemical constituents.
4) Proctors and field density and moisture tests have been taken on a regular basis and the results have been within specification.
5) There have been no safety concerns.
6) There has been no news from NMED or DOE on the continuation of the project past the subgrade, therefore, the work will shift from the MWL site to the borrow area the week of Dec 11. Soil will be screened and stockpiled at the borrow area. The work will continue to the seasonal break and resume in early January. The acquisition of the crushed rock for the cover soil is on hold.
7) The next meeting will be scheduled later.

November 16, 2006 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Scho, Tim, Anthony, Kelly, Corey, Don, ~~Harry~~ stacy, Jerry Peace, Tony Shuster

AGENDA

PROGRESS AT SITE Ben

SOILS

QA Corey/Kelly

SAFETY Anthony

ADDITIONS TO AGENDA

NEXT MEETING

ACTION ITEMS

RECORD OF MEETING

DATE: 12-12-06 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Corey Woods

ATTENDANCE : Ben Martinez Joe Fritts Tim Goering
Harry Buckner Anthony Martinez

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez
Project file

MAIN SUBJECT OF MEETING: Progress Meeting #18 to discuss project work hold

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ITEMS DISCUSSED:

1) Progress – approximately ½-way through Lift 12. Currently out of screened soil. Crew is screening additional soil, could take another 1,800-2,000 cubic yards. Sandia Facilities personnel scheduled to haul additional screened soil from the borrow area to the site Wednesday and Thursday.
2) Lift 12 will cover monitor well on west side of MWL, compactor will stay correct distance away from the well during compaction.
3) AMEC is backlogged, currently taking at least 1 week to return proctor results.

MKM

RECORD OF MEETING

DATE: 02-12-07 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil

ATTENDANCE : Ben Martinez Joe Fritts Tim Goering Don Schofield
Don Lopez Paula Schuh

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez
Project file

MAIN SUBJECT OF MEETING: Progress Meeting #19 to discuss project work hold

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ITEMS DISCUSSED:

1) The MWL project is awaiting decision to proceed with total cover. Without the decision the project will be on hold at the completion of the subgrade soil placement. This meeting was to discuss activities to stabilize the site for six months.
2) One concern was protection of the subgrade layer from wind and water erosion. Both a gravel layer and straw blankets were considered and the straw blanket was selected.
3) The rilling on portions of the subgrade layer will be repaired and the blankets placed and secured.
4) A portion of the drainage swales around the MWL will be constructed to catch and direct surface water away from the site. The main areas of concern will be the NE and SE corners.
5) Weekly inspections of the site will be conducted and documented. This also includes the required SWPPP inspections.
6) A Construction Quality Assurance Report will be prepared to cover the activities through the completion of the subgrade layer.
7) Further meetings will be scheduled as needed.

RECORD OF MEETING

DATE: 02-26-07 JOB NAME: SNL MWL Subgrade Construction JOB NO: 06-22-0011

RECORDED BY: Kelly Peil and Corey Woods

ATTENDANCE : Ben Martinez Joe Fritts Tim Goering Don Schofield
Don Lopez Paula Schuh

ROUTE TO: Don Schofield, Joe Fritts, Ben Martinez, Anthony Martinez
Project file

MAIN SUBJECT OF MEETING: Progress Meeting #20

ITEMS DISCUSSED: Standard meeting agenda was used. Items discussed include:

1) Soil excavation and screening continues at the borrow area. The stock pile now contains an estimated 11,200 cuyds.
2) The Sandia procurement process is in progress to acquire approximately 300 rolls of erosion control blankets and staples for the subgrade surface protection.
3) Sandia is drafting a letter to NMED to update the status of the MWL project and the erosion protection measures to be taken while awaiting the cover decision.
4) Sandia requested two letters from QC concerning the acceptability of the straw blankets and the reasons to leave the blankets in place under the bio-barrier.
5) QC will work with Joe Fritts to prepare an inspection form to use for the biweekly inspections of the MWL site while on hold status.
6) The URS survey team completed the surface topo and the location markers for the drainage swale corners.
7) The vegetation specification may be updated to incorporate seasonal variation in seeds.
8) Further meetings will be scheduled as needed.

February 26, 2007 MWL MANAGERS MEETING AGENDA

ATTENDEES: Joe, Ben, Tim, Don, Kelly, Corey, Paula

AGENDA

PROGRESS AT SITE screening	Ben
EROSION PROTECTION MATTING	All
SITE INSPECTION CHECKLIST	Joe
SAFETY	Anthony

ADDITIONS TO AGENDA

Surveying

NEXT MEETING

ACTION ITEMS

2009 Meetings

URS

MEETING MINUTES

Sandia Mixed Waste Landfill – Corrective Measures Implementation
Job #: 24342640

Title: Kickoff Meeting
Date: 30 April, 2009
Time: 10:00 AM – 11:15 AM
Location: Sandia IPOC, Room 2156
Conducted By: Sandia Personnel

ATTENDEES:

NAME	COMPANY	PHONE	EMAIL
Paul Molina	URS Field QA	505-855-7498	Paul_Molina@urscorp.com
Harry Buckner	URS Survey QA	505-855-7574	Harry_Buckner@urscorp.com
Don Lopez	PM, CQA	505-855-7440	Don_Lopez@urscorp.com
Marshall Nay	URS QA	505-855-7485	Marshall_Nay@urscorp.com
Chris Edgman	EDI Con. PM	505-341-3578	CEdgmon@edi-nm.com
Don Schofield	SNL SDR	505-844-4088	
Mateo Aragon	SNL Contracting Officer		
Jerry Peace	SNL Senior Tech Leader		
Mike Mitchell	SNL Project Tech Lead		
Emily Wright	SNL Safety		
Dan Kwiecinski	AMEC – Senior PM Geo Tech.	505-821-1801	Dan.kwiecinski@amec.com

BIOINTRUSION BARRIER:

- "Engineering Judgment", is to be used while installing the Biointrusion Barrier. (See email from Don Schofield to Don Lopez dated 03/30/2009 attached)
- There are no provisions for a test section located in specifications.
- The Biointrusion Barrier rock was not in the original concept. It was later added to meet NMED requirements.

- ISSUE: Difficulty filling the voids between the rocks for the Biointrusion Barrier. Sandia has requested for "Engineering Judgment" to be used to determine that this has in fact been achieved. Potential solutions:

    - Place a layer of native soil between the rock and compacted sub-grade. Place the rock on top of the native soil and use a dozer to compact the rock into the native soil. A second layer of native soil is to be placed on the rock to fill the remaining voids. A dozer will then be used to compact the Biointrusion layer and fill the voids with additional native soil. After compaction, wetting the Biointrusion layer to increase the density of the native soil was discussed. Wetting the Biointrusion layer will also help by prepping for the next layer (native soil layer). A final decision to employ a wet layer has not been made.

    - A suggestion was made by Don Lopez to layout a small area (test section) of the Biointrusion Barrier prior to laying out the entire surface. From the test section, URS will be able to determine if the compaction methods in place are sufficient. This will prevent delays and rework. EDI was tasked with the responsibility of providing the test section required in order to determine if compaction methods are adequate. This suggestion was supported by all attendees.

    - A suggestion was made by Don Lopez to coordinate the use of a large diameter density test for the Biointrusion Barrier. A decision by Sandia and the team will be made at the appropriate time during construction.

VOLUME OF SOIL:

- Don Schofield is concerned the volume of soil available is insufficient to complete the entire project. Don Schofield would prefer to stay in Borrow Pit #1 to avoid delays due to SWPPP requirements.

- URS surveying QA was tasked with determining the volume of soil currently available in Borrow Pit #1. SNL would like to have the assignment completed in the next 30 days. The sooner the better.

- Borings may be performed in Borrow Pit #1 to determine how much usable soil is available before the caliche layer is reached. The caliche layer may be usable if it is blended with native soil to meet Specifications. Further investigation to be conducted.

EQUIPMENT:

- Cell phones are permitted in Tech Area III, however, they can not have picture taking capabilities. Black Berry's are permitted.

- EDI is going to be in charge of managing the photo file. A single dedicated camera will be provided to EDI by Sandia. All team members may use this camera. A scissor lift complete with safety rail for taking elevated photos will also be provided by Sandia for documentation of project progress.

- All other cameras are not permitted in Tech Area III

- Personal computers are permitted without wireless capability.

SAFETY/TRAINING:

- Training requirements are part of the mobilization process. All training requirements will be submitted to Don Lopez, URS CQA Engineer, by Mike Mitchell of SNL.

- Three (3) Sandia training courses estimated.

- Site specific training to be determined.

- Two (2) safety tailgate meetings will be conducted per day during the construction phase. One in the morning and one in the afternoon after lunch.

- A modified SNL provided project specific Health and Safety Plan is anticipated to be ready for distribution early next week.

CONSTRUCTION:

- Construction work schedule: Mon-Fri. 7:00 AM -5:00 PM

QUALITY:

- The CQA report is to be developed throughout the duration of the project. Additional time may not be provided for the CQA report at the conclusion of the project.

- Pictures and descriptions (photo log) are to be incorporated into the CQA report.

- A meeting with the QA surveyor and construction surveyor is required in the near future.

MISCELLANEOUS:

- Kickoff meeting at the site is scheduled day before construction.

- No sticker or decal is required on vehicle to get on base. Only a contractors badge is required.

NEXT MEETING: MAY 6, 2009; Bldg. 823; 10:00 AM

- This will be the readiness review. Release of Notice-To-Proceed is anticipated shortly thereafter pending a successful outcome of the readiness review.

"Schofield, Donald P"
<dpschof@sandia.gov>

03/30/2009 10:02 AM

To "'Don_Lopez@URSCorp.com'"
<Don_Lopez@URSCorp.com>

cc

Subject FW: BioIntrusion Layer Compaction

From: Peace, Jerry L
Sent: Monday, March 23, 2009 12:44 PM
To: Aragon, Mateo
Cc: Schofield, Donald P; Mitchell, Mike M
Subject: BioIntrusion Layer Compaction

Mateo,
Regarding the discussion the evaluation team had about proper filling of voids and effective compaction of the soil within the voids, SNL will need to rely on what is often referred to as "Engineering Judgment" exercised by the QA / QC engineer and the project manager. Compaction of soil within voids in a rock matrix is very difficult. Whether one deploys the rock comprising the biointrusion layer in one single or two lifts, the infilling and compaction of soil will be difficult to accomplish, difficult to measure, and difficult to prove. The QA / QC engineer will need to be present to observe the operation to determine whether the contractor fills the voids and compacts the soil adequately. This will be a judgment or opinion made in accordance with the QA / QC engineer's sound engineering reasoning and experience. Once the rock is locked into place, only dynamic compaction techniques will be effective in compacting the soil, and even then to a limited extent. Nonetheless over time, the soil within the voids will reach optimum compaction due to mechanical and hydraulic action. Jerry

END OF MEETING NOTES

URS

MEETING MINUTES

Sandia Mixed Waste Landfill – Corrective Measures Implementation
Job #: 24342640

Title: Readiness Review
Date: 06 May, 2009
Time: 10:00 AM – 12:15 PM
Location: Sandia Bldg 823,
Conducted By: Sandia Personnel

**** NOTE:** THIS MEETING WAS THE READINESS REVIEW FOR STAGING AND MOBILIZATION TO THE FIELD. THERE WILL BE AN ADDITIONAL READINESS REVIEW FOR OPERATIONS. ***

****NOTE: (9/24/09):** THE SECOND READINESS REVIEW FOR OPERATIONS OCCURRED ON 5/19/09 IN THE FIELD AS REQUIRED. URS WAS NOT PRESENT FOR THIS MEETING.

ATTENDEES:

NAME	COMPANY
Paul Molina	URS Field QA
Harry Buckner	URS Survey QA
Don Lopez	PM, CQA
Marshall Nay	URS QA
Chris Edgman	EDI Con. PM
Don Schofield	SNL SDR
Mateo Aragon	SNL Contracting Officer
Jerry Peace	SNL Senior Tech Leader
Mike Mitchell	SNL Project Tech Lead
Emily Wright	SNL Safety
Dan Kwiecinski	AMEC – Senior PM Geo Tech.

MWL ET COVER CONSTRUCTION PROJECT PRE-MOB CHECKLIST

Please see attached

- Any work done outside of the footprint (outside of fence) will require a Q-Clearance representative to be present to be able to address any issues in real time.

- There will be an Authorized Access List established to identify personnel that are approved to work on the site w/o escort. People with the authority to add people to the list are to be determined at a later date.

- Equipment calibrations will be done by AMEC.

- Two Nuclear Density measurement calibrations and a copy of the results will be provided to Sandia.

- Construction Safety and Security Plan (CSSP) is to be signed today (05/06/2009).

- Sandia has suggested pushing two Geo-Probes through the Biointrusion Barrier to test the under layer of MWL once construction is complete. This may be difficult because of the structural integrity of the Biointrusion Layer. Also, the penetrations may jeopardize the integrity of the Biointrusion Barrier. The Geo Probes are to be discussed more in the near future. Perhaps an engineered sleeve could be provided to accommodate the two Geo-Probes(Please see attached diagram of the Cover Cross Section)

- In the first meeting (Kickoff Meeting) the Spill Prevention Control and Countermeasures Plan (SPCC) was discussed. In this meeting, only the Storm Water Pollution Prevention Plan (SWPPP) was discussed. Both are probably needed for this project. As an example, the heavy construction equipment that will operate on the site will require refueling on-site during the daily work shift (7:00 AM – 5:00 PM). Thus there will be diesel, gasoline and lubricating oil dispensing equipment.

- The fuel supply mobile storage for heavy equipment is to be stored off site when construction is not in progress. The off-site storage location currently being considered is the Sandia Motor Pool.

LOW HAZARD OPERATIONS CHECKLIST

- The handout used for the Sandia "Corporate" Level readiness review was recalled due to an editorial error. It will be corrected and re-issued. The error was administrative in nature and had no impact on project progress.

- Safety Training will be covered extensively throughout the duration of the project.

MISCELLANEOUS

- Please see preliminary schedule also attached.

- Please see Conditional Notice To Proceed also attached.

END OF MEETING NOTES

URS

MEETING MINUTES

Sandia Mixed Waste Landfill – Corrective Measures Implementation
Job #: 24342640

Title: Kickoff Meeting
Date: 19 May, 2009
Time: 10:00 AM – 11:15 AM
Location: Tech Area III, Sandia Mixed Waste Landfill
Conducted By: Sandia Personnel

ATTENDEES:
URS was not present for this meeting; however, all Sandia and EDi Construction personnel were present as required by the CMIP.

Please see attached.

TOOL RR-02-T – Startup/Restart Review for Standard Industrial Hazard and Low Hazard Operations Checklist

Operation: SNL/NM MWL ET Cover Project Operational Readiness *(facility/activity)*	Location: TA III mixed waste landfill
Check one: New Facility ☐ New Activity ☒ EW 5/14/09 Restart of Facility/Activity ☒ ~~Not~~ restart EW Modification to Existing Facility/Activity ☐	

	Yes	No	N/A
Was the Standard Industrial Hazard Review (SR) or Low Hazard Review (LR) planned according to Chapter 3 or 4 of the Safety Basis Manual?	☒	☐	☐

A. AUTHORIZATION BASIS/WORK PLANNING*	Yes	No	N/A
1. Is a current Primary Hazard Screening (PHS) (and Hazards Analysis [HA], if necessary) complete and approved for this facility/activity?	☒	☐	☐
2. Is a current Hazards Aggregation Rollup Process (HARP) document (if necessary) complete and approved for this facility?	☐	☐	☒
3. Are workers aware of hazards and controls described in the PHS/HA?	☒	☐	☐
4. Have interfaces with other organizations been communicated and negotiated (such as nearby operations, ES&H, Facilities Org.)?	☒	☐	☐
5. Have activity-or facility-specific controls been implemented (e.g., equipment in place and working)?	☒	☐	☐
6. Have lessons learned from projects/activities/facilities with similar hazards been evaluated?	☒	☐	☐
B. TRAINING*	**Yes**	**No**	**N/A**
1. Have workers (authorized users, Members of the Workforce, contractors, subcontractors) completed required training?	☒	☐	☐
C. TECHNICAL WORK DOCUMENTS (TWDs)*	**Yes**	**No**	**N/A**
1. Have TWDs been developed, and have workers read and signed them as authorized users?	☒	☐	☐
2. Are TWDs available to workers (preferably at the work site)?	☒	☐	☐

3. If more than one TWD is to be used, has the set of TWDs been reviewed for adequacy and consistency?	☐	☐	☒
4. Are controls implemented (e.g., administrative, engineering, personal protective equipment [PPE])?	☒	☐	☐
D. WORK ENVIRONMENT *	**Yes**	**No**	**N/A**
1. Are adequate signs in place and legible?	☒	☐	☐
2. Are practices to handle waste management issues in place?	☒	☐	☐
3. Are workers aware of hazards and controls associated with adjacent operations?	☒	☒	☐
E. EQUIPMENT AND MAINTENANCE *	**Yes**	**No**	**N/A**
1. For startup of a new operation/facility, is the construction and equipment in accordance with design criteria?	☒	☐	☐
2. Has maintenance and calibration of line-owned equipment performed?	☒	☐	☐
3. Are required safety monitoring devices installed and operational?	☐	☐	☒

F. EMERGENCY PREPAREDNESS *	**Yes**	**No**	**N/A**
1. Are emergency plans/procedures in place?	☒	☐	☐
2. Are the local emergency plans/procedures coordinated with the corporate Emergency Plan?	☒	☐	☐
3. Is emergency equipment in place?	☒	☐	☐
4. Have emergency response personnel been notified of operations that may present unusual hazards or a special need for response?	☒	☐	☐
5. Have personnel been trained in emergency planning?	☒	☐	☐
G. ADDITIONAL CRITERIA FOR RESTARTING OPERATIONS	**Yes**	**No**	**N/A**
1. Have actions been taken to address problems that caused or contributed to the need for a restart?	☐	☐	☒

☒ Check here if additional readiness criteria are attached.

List the subject areas of the additional criteria (such as forklifts, electrical):
Heavy equipment

CHRISTOPHER M. TIMM	Christopher M. Timm	AMEC	5/19/09
CHRIS EDGMON	[illegible]	EDi	5/19/09
Kristy Kimmerle	[illegible]	Northrop Grumman	5/19/09
Kenneth Hale	Kenneth Hale	AMEC	5/19/09

Persons who participated in this readiness review:

Name [illegible]	**Org.** 6765	**Name** [illegible]	**Org.** 4133
Name [illegible]	**Org.** 6765	**Name**	**Org.**

Verification of Readiness:

☐ This operation has successfully passed the review

☐ This operation has **NOT** passed the review at this time

Reviewer	**Org.**	**Date**
[illegible]	6790	5/19/09
ES&H Coordinator (for Low Hazard ONLY)	**Org.**	**Date**
David R. [illegible]	6765	5/19/09.
Approving Manager	**Org.**	**Date**

Questions on this tool? Contact Subject Matter Expert: Caren Wenner

MWL ET COVER CONSTRUCTION PROJECT
MOBILIZATION CHECKLIST FOR OPERATIONAL READINESS
MAY 19, 2009

TASK	STATUS	CSSP CROSS-REFERENCE & NOTES
Follow On Items from May 6 RR Meeting	Complete	See attached list with status information
Site Access List on site	Complete	Per MWL Security Plan
Personnel Badging	Ongoing	Per RFQ 27881, all site personnel currently badged. More will phase in over time.
Site Preparation		
Office Trailers and Storage Units	Complete	Per Section 5.2
Site Utilities Marked – Dig Permit Signed	Complete	Per Section 5.2 and May 6 Mting. Photos taken of utility markings in field.
Equipment on site and inspected (MWL and Borrow Pit)	Complete	Per Section 5.2. Craig Hauber completed 5/14/
Permits, CMIP, and CSSP on site	Complete	Per Section 5.2.1 - see list of plans & permits below
Site Boundary Rope & Signs	Complete	Per Section 5.2 and 5.3, Warning/No Trespassing & Rad signs. Finish 5/19.
Removal of Barbed Wire Fence & Notification to Security	Complete	Per Section 5.3 and Security Plan. Security notified 5/18, fence down by 5/20.
SWPPP BMPs	Complete	Per Section 5.2 and includes perimeter silt fencing and drive off pad
Fuel and Maintenance Vehicle Placarding, Signage, and Staging Area	Complete	Per Section 11.10 – per inspection by Craig Hauber on 5/11.
Site Access Control - Visitor Log, Sign In, Safety Briefing, and Escort Protocol	Complete	Per Section 6.3, sign posted at site entrance "Visitors Must Sign In at Office Trailer"
Extension of MW4 Surface Casing	In Progress	Currently scheduled for May 27
3-Foot Diameter Fence around MW4	In Progress	Per Section 5.6.1 – will be completed after MW4 casing extended
Initial Traffic Control Plan – Measures & Map	Complete	Per Section 5.5, map will be posted and haul routes/work areas defined
Site Control Plan & Communications Established	Complete	Two Way Radios operational & on site, cell phone #s distributed to site workers per Chapter 9 and Sections 5.5.1 and 9.3
Preliminary Photo Documentation and Land Survey	In Progress	Prelim "before start" photos complete, land survey ongoing.
Training, Emergency Equipment & Procedures		
Training completed and verified with documentation on site – AHAs for initial tasks reviewed with site workers	Complete	Per Chapters 6, 7, and 8 - includes Medical Monitoring (Chapter 8) and all site personnel reading and signing the CSSP
PPE & Associated Training	Complete	Per Chapter 7
Pre-Emergency Planning with TA 3 and SNL/NM Emergency Operations	Complete	Per May 6 Readiness Review and Sections 5.5.1 and 10.2
Emergency Procedures, Contact List, Route Map and Directions to Medical Facilities Posted in Office Trailer & Communicated to Site Workers	Complete	Per Chapter 10, Sections 10.6 & 10.11 – post Figure 10.1 and Tables 10.1, 10.3, and 10.4 in Office Trailer

MWL ET COVER CONSTRUCTION PROJECT
MOBILIZATION CHECKLIST FOR OPERATIONAL READINESS
MAY 19, 2009

TASK	STATUS	CSSP CROSS-REFERENCE & NOTES
Fire Extinguisher, Emergency Contact List, Route Map and Directions to Medical Facilities in all site vehicles	Complete	Table 10.1 is the Emergency Contact List, Tables 10.3 & 10.4 provide directions to Lovelace Urgent Care & Hospital, and Figure 10.1 is map to Lovelace Medical facilities.
Evacuation Route and Assembly Point Map Posted in Office Trailer	Complete	Per Section 10.8
Emergency Equipment and Supplies	Complete	Per Sections 7.6, 10.9, 10.14, and Table 10.2
Fire Extinguishers	Complete	Per Section 10.9.2
Water supply, toilet facilities, and hand wash station	Complete	Per Section 11.16
Notifications		
Radiation Protection notification for Start of Subgrade Layer work	Complete	Per Section 4.7 Heavy equipment to be used on the Subgrade Layer will be surveyed prior to and after work
Radiation Protection notification when neutron probe will be brought on and removed from the site	Complete	Per Section 4.7 RCT will survey neutron probes at their discretion
Field Work Schedule Update to NMED & DOE	Complete	General Project Requirement
Permits & Plans Maintained On Site		
Contract Specific Safety Plan (CSSP)	On Site	
MWL CMIP	On Site	
MWL Site Security Plan	On Site	
EDi Corporate Environmental HASP	On Site	Revision 10
NEPA	On Site	SNA09-0150
BIO-SURVEY	On Site	May 8.
EXCAVATION PERMIT	On Site	#0902-085
SWPPP	On Site	Permit # NMR150000
FUGITIVE DUST CONTROL PERMIT	On Site	#10-683-4160 through -4162
MWL SURFACE H2O DISCHARGE	On Site	4/27/09 #09-16
PHS	On Site	3/17/09-SNL09A00039-001
HOT WORK PERMIT	On Site	Needed for MW4 Extension work
SNL/NM APPROVAL PAPERWORK FOR EDI TEAM TWO-WAY RADIOS	On Site	

MWL ET COVER CONSTRUCTION PROJECT
MAY 6, 2009 READINESS REVIEW MEETING
FOLLOW-UP ITEMS

1. Don Schofield (SDR) will issue a Conditional Notice to Proceed to the EDI Team for mobilization tasks as defined in the Contract Request for Quotation (RFQ) and Contract Specific Safety Plan (CSSP) based upon the results of the May 6, 2009 Readiness Review.
   Completed May 7, 2009

2. Operational readiness (i.e., readiness to proceed with ET Cover Field Work) will be verified through a follow-on Readiness Review that will document completion of these follow-up items (listed in this document) and implementation/completion of mobilization tasks per the project RFQ and CSSP.
   Mike Mitchell will develop the mobilization task/activity checklist and coordinate the follow-on Readiness Review ***Completed May 14, 2009***
   - Upon completion of this follow-on meeting, Emily Wright will update Corporate Readiness Review documentation and Don Schofield will issue the final NTP
     To be completed after May 19 meeting

3. David Miller will contact Jeff Cherry and Sheldon Tieszen to make them aware of the MWL ET Cover Construction work and schedule. David will discuss TA 3 Emergency Response coordination and follow up with the MWL Project Team. Any actions the Project Team will need to take will be defined, completed, and documented.
   Completed May 11, 2009, with subsequent and ongoing follow-up with Randey Colgrove

4. The Project Team will coordinate with Sandia's Emergency Operations to notify them of the MWL ET Cover Construction Project activities, schedule, and location.
   Completed May 19, 2009 with site visit from SNL ICs
5. A Site Access List will be compiled per the MWL Security Plan and maintained on site. Project personnel with "pen and ink change authority" will be identified.
   Completed May15, 2009
6. Neutron Probe calibration records will be requested from AMEC and maintained on site in the project files.
   Completed May 11, 2009
7. Security will be notified when the Fuel and Maintenance Vehicle is mobilized to the site and informed that it will be stored during non-working hours at Building 9925 in the fenced equipment storage yard.
   Completed May 11, 2009
8. The required Bio-Survey will be completed on May 8, 2009.
   Completed May 8, 2009
9. Electronic copies of the CSSP signature pages will be provided to Steve Farmer, Chris Edgmon, Vicki Maranville, and Emily Wright.
   Completed May 7, 2009
10. Electronic copies of the Readiness Review Meeting sign-up sheet will be provided to Chris Edgmon, Vicki Maranville, Emily Wright, Mateo Aragon, and Don Lopez.
    Completed May 7, 2009
11. The Corporate Readiness Review Form documenting the May 6, 2009 meeting will be revised per Fran Nimick's suggestions, finalized, and distribute to David Miller, Don Schofield, Emily Wright, Mateo Aragon, and Chris Edgmon.
    Completed May 7, 2009
12. Provide MWL ET Cover Construction Quality Assurance Plan (Appendix B of the MWL CMIP) to Fran Nimick, who will forward the document of a required Corporate Quality Assurance review as required by the Corporate Work Controls Process.
    Completed May 7, 2009
13. Obtain appropriate signatures on the SNL/NM Excavation Permit.
    Completed May 11, 2009

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **APPROVAL OF EXISTING SUBGRADE**
Date: 22 May, 2009
Quality Resolution #: 001
Layer: Existing Subgrade
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade Surface

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Jerome Sanchez	ASCI
Don Lopez	URS
Marshall Nay	URS
Chris Edgman	EDI
Don Schofield	SNL SDR
Kenneth Hale	AMEC
Mike Mitchell	SNL Project Tech Lead

FIELD DENSITY AND MOISTURE TEST (CONSTRUCTION)

- Field density test were taken at thirteen different locations by AMEC representative Miguel Chavez. The Existing Subgrade Layer surface was divided into thirteen grids. A density/moisture test was performed at random locations within each of the thirteen grids. Survey data was collected on all testing locations.

- All thirteen moisture/density tests met the MWL specification requirements and were approved by Don Lopez, CQA Engineer.

FIELD DENSITY AND MOISTURE TEST (CQA)

- Six CQA tests were taken by AMEC for URS. The AMEC representative for the CQA was Robert Carr. A firewall is setup between AMEC representatives Robert Carr and Miguel Chavez to prevent any conflict of interest. Robert Carr was instructed to perform his density/moisture tests within an approximate 3-foot radius of every other QC test performed by Miguel Chavez. Density test locations and elevations were collected and plotted by the EDi surveyor.

- All six CQA moisture and density tests met the MWL specifications requirements and were approved by Don Lopez.

- Don Lopez has approved the MWL Existing Surface. Construction of the Biointrusion Layer may now begin.

- The Existing Subgrade constructed in 2006 has been cleared of vegetation and remnant erosion matting, compacted, and tested in accordance with the CMIP. The Existing Subgrade is approved for construction of the Biointrusion Layer.

- Quality control survey indicates some parts of the Existing Sugbrade surface do not meet the 2.0% east-to-west design slope. The slope will be adjusted during construction of the overlaying layers.

- Side slopes are steeper than 6:1 around the north end of the MWL. 6:1 side slopes will be established during construction of the Native Soil and Top Soil Layers.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **BIOINTRUSION CONSTRUCTION FIELD TESTS AND THICKNESS VERIFICATION**
Quality Resolution #: 002
Date: 26 May, 2009
Layer: Biointrusion Layer
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Harry Buckner	URS
Don Lopez	URS
Marshall Nay	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Christopher Timm	AMEC

BIOINTRUSION CONSTRUCTION FIELD TESTS

I.

1. ***Biointrusion Test Area I (as discussed in CSSP)***

Please see CSSP (page 37) for procedure I description.

The test area consisted of two truckloads of dry, screened loose soil distributed over an approximate 20 x 20-feet area. Using a builder's level, the thickness of the test loose soil layer was determined to be 6-to-8-inch as specified in the CSSP. The soil was initially spread using a motor grader, but EDi later switched to a dozer in an attempt to reduce the soil compaction.

The Biointrusion rock was then placed onto the 6-to-8-inch loose soil layer. The Biointrusion rock was spread to an approximate thickness of 1.0-foot or slightly less. A dozer then compacted the rock in an attempt to push the rock down into the soil layer. After several passes with the dozer, Don Lopez (URS CQA) was not convinced that the

Biointrusion rock was being pressed down through the loose soil layer to the existing Subgrade Layer. This raised concerns of the possibility of future settling due to the layer of sand between the Subgrade Layer and the Biointrusion Layer. It was determined this procedure was not adequate to meet Specification Section 02115 located in the CMIP.

II.

1. ***Biointrusion Test Area II***

After it was determined that the procedure described above in Test Area I was ineffective, a second test area was created using the tracks of the dozer to scarify the existing Subgrade Surface. It was determined the tracks of the dozer created a texture, which was ideal for the Biointrusion Rock placement. The scarified surface had enough loose soil to fill some of the voids in the rock, as well as create a grooved pattern, which made it easy for the rock to fall into place and interlock. The rock was compacted with the dozer a minimum of four times. Loose, screened soil was then placed over the rock layer and worked into the voids by spreading with the dozer. This method proved to be very effective. (See below for updated Biointrusion installation procedure).

2. ***The Following is the Updated Biointrusion Layer Installation Procedure:***

The Biointrusion layer will be constructed in compliance with the CMIP, Specification Section 02115. The following is the procedure recommended by Don Lopez PE (URS CQA Engineer) for the Biointrusion Layer:

The rock used for the Biointrusion Layer will continue to be the rock acquired by SNL. The rock is located at the former Bulk Waste Staging Area in TA 3.

The EDi Team will scarify the Existing Subgrade Surface using the tracks of a dozer. A minimum of four passes with the dozer tracks is required across the existing Subgrade Surface. Once the Subgrade Surface has been prepared, the Biointrusion Rock may be spread across the scarified surface. The rock layer will then be compacted with a minimum of four passes by the dozer to ensure compaction and interlocking of the rock. Compaction shall be performed until rocks are firmly locked into place. The entire Biointrusion Rock Layer Surface must be completed, surveyed, and approved before any further construction may take place.

Once the rock layer is compacted in place and approved, additional dry loose soil will be placed over the surface. A dozer will then spread the loose soil across the rock surface and work the loose soil into the voids. The soil will then be compacted with a minimum of four passes with the vibratory roller. After this is completed and approved, water will be applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content.

MISCELLANEOUS

- There was a discussion about extending the Biointrusion Barrier past the toe of the existing Subgrade Layer. It was determined that it is not necessary to extend the Biointrusion Barrier past the toe.

- The current slope is approximately 1.8% from East to West in lieu of the 2.0% as specified. The slope will be adjusted to the specified 2.0% during the course of construction. It will be corrected during the Native Soil Layer as apposed to the Biointrusion Barrier due to material availability and ease of construction.

- The method of constructing the Biointrusion described in the CSSP (Page 37) was determined to be insufficient by Don Lopez PE URS CQA Engineer and will not be used for this project.
- The Biointrusion rock previously purchased and stockpiled in the Former Bulk Waste Staging Area TA-3 is approved for use on the MWL cover.

- No soil may be placed in the Biointrusion voids prior to approval of Biointrusion Layer thickness

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: ***QC SURVEY AND QA VERIFICATION SURVEY COORDINATION***
Quality Resolution #: 003
Date: 01 June, 2009
Layer: Biointrusion
Location: Tech Area III; Sandia Mixed Waste Landfill; Existing Subgrade Layer

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Harry Buckner	URS
Don Lopez	URS
Marshall Nay	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Christopher Timm	AMEC
Jerome Sanchez	ASCI

QC/QA SURVEY COORDINATION

- Jerome (EDi QC survey rep.) was not sure how URS was going to perform the QA check. Jerome was instructed to use the 50-foot grid created for the Existing Subgrade. Jerome is to take elevations of the Biointrusion Barrier Layer at the exact locations he took elevations on the Existing Subgrade.

- Harry Buckner will do his QA survey on the exact same locations using the 50-foot grid system. Harry Buckner will do the CQA survey check on Friday (06/05/09) or Monday (06/08/09) depending on the status of the Biointrusion Layer. Harry will use the method described above to check the thickness of the Biointrusion Rock Barrier.

- The 50-foot grid system created will be used throughout the duration of the project to confirm the thickness and slopes of the cover.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **BIOINTRUSION ROCK VOLUME AND THICKNESS**
Date: 04 June, 2009
Quality Resolution #: 004
Layer: Biointrusion
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Don Lopez	URS
Marshall Nay and Harry Buckner	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Christopher Timm	AMEC
Jerome Sanchez	ASCI

BIOINTRUSION ROCK VOLUME SHORTAGE

- There is not going to be enough rock in the Former Bulk Waste Staging Area, TA III, to complete the Biointrusion layer.

- The original rock was purchased at the San Lazarus Gulch in the San Lazarus Gulch in the San Pedro Mountains (San Pedro rock). Ben Martinez (Sandia) contacted San Pedro Rock and was informed that there is more of the same rock available; however, it has more fines in it then the original rock. Don Lopez requested a sample of the proposed rock to be collected and taken to AMEC for a sieve analysis to determine if the proposed rock will meet the Contract Specifications.

- Don Lopez will make his decision to approve/disapprove the additional Biointrusion rock based on visual inspection/Engineering Judgment.

BIOINTRUSION THICKNESS

- Harry Buckner (URS) will begin the QA survey on Friday (06/05/09). Harry will begin his survey on the south end of the MWL and proceed north. Harry

will convert the survey data collected into a usable format on Saturday (06/06/09) to determine the Biointrusion Layer thickness. URS intends to provide EDi with approval/disapproval of at least the south portion of the Biointrusion Layer Monday morning. Any survey not completed on Friday will be collected on Monday.

- There was a discussion over the "actual thickness" of the Biointrusion Layer compared to the "computed thickness". The computed Biointrusion Layer thickness is determined by comparing the elevation of the Existing Subgrade to the elevation of the Biointrusion Layer. However, the rock is being placed onto a scarified surface, not the surveyed Existing Subgrade, which allows the rock to push down into the Existing Subgrade approximately 1-to-2 inches. This causes the actual thickness to be greater then what the computed thickness derived from survey data is showing. Don Lopez has decided to accept a computed Biointrusion Layer thickness of 11-inches to compensate for the above.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **QA VERIFICATION SURVEY & APPROVAL FOR SOIL PLACEMENT ON THE BIOINTRUSION LAYER SURFACE**
Date: 05 June, 2009
Quality Resolution #: 005
Layer: Biointrusion Layer
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Harry Buckner	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Christopher Timm	AMEC
Jerome Sanchez	ASCI

QA VERIFICATION SURVEY

- Harry Buckner (URS) and Paul Molina (URS) conducted the QA survey on the south end of the MWL. The survey data collected will be converted into a usable format to determine the Biointrusion Layer thickness. URS intends to provide EDi with approval/disapproval of at least the south end of the Biointrusion Layer. Additional QA Survey will be conducted on Monday (6/8/09).

- Four Points on the southwest slope did not pass the 1-foot minimum thickness requirement (See results attached). EDi will need to place more rock on this section. URS will then recheck the survey at these four spots.

LOOSE SOIL PLACEMENT APPROVAL

- The south portion of the Biointrusion Layer is approved with the exception of four grid point locations on the west slope which are less than the 1.0' minimum thickness requirement. The south portion is approved for the placement of soil into the voids except for the west slope grid points which must be corrected, resurveyed, and approved.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **QA VERIFICATION SURVEY & APPROVAL FOR SOIL PLACEMENT ON THE BIOINTRUSION LAYER SURFACE**
Date: 09 June, 2009
Quality Resolution #: 006
Layer: Biointrusion Layer
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Harry Buckner	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Jerome Sanchez	ASCI

QA VERIFICATION SURVEY & LOOSE SOIL PLACEMENT APPROVAL

- The northwest portion of the Biointrusion Layer is approved with the exception of two locations on the north slope which were too thick. The northwest portion is approved for the placement of soil into the voids except for the north slope, which must be corrected, resurveyed, and approved at the two locations.

- The four locations on the west slope of the Biointrusion Layer at the south end that required additional rock has been corrected, resurveyed, and are now approved. The west slope was approved for the placement of soil into the voids on 6/09/09.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **BIOINTRUSION LAYER EAST-TO-WEST SURFACE DESIGN SLOPE**
Date: 10 June, 2009
Quality Resolution #: 007
Layer: Biointrusion Layer
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Jerome Sanchez	ASCI

THIN SOIL LAYER

- The Biointrusion Layer (without the soil in the voids) may be a difficult layer to use as a new datum due to irregularities in the rock. Also, the rock is being pushed flat when the soil is placed and spread with a dozer into the voids and then compacted with a vibrating, smooth drum roller. Because of rock being pushed flat under the soil, we would not know the exact elevation of the rock after the sand has been placed and compacted. A better datum may be to use the Biointrusion Layer after the voids have been filled with loose soil and compacted with the vibrating, smooth drum roller. The loose soil makes a thin soil layer above the rock, which may be a better surface to create a starting datum for the Native Soil Layer.

BIOINTRUSION SIDE AND 6:1 SLOPE CORRECTIONS

- It was decided that to make the corrections for the 2.0% surface slope and 6:1 side slopes during the Native Soil Layer because of construction constraints due to the Biointrusion rock. It will be very difficult to adjust the Biointrusion rock surface to meet the specifications. As of now, the surface slopes are approximately at an average of 1.8%. Correcting the slope with the first couple of Native Soil Lifts will give us a better idea of how much material we are going to be short. It will also be a much easier material to adjust to the specification requirements.

BIOINTRUSION SURVEY

- Most of the Biointrusion Layer thickness was within the specified thickness. There were a couple of points on the orange corner post that were high. These points are going to be corrected for the final QA survey on Friday.

MISCELLANEOUS

- We are expecting information from Jerry Peace regarding the Biointrusion Rock. This information is to be incorporated into the final report.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **QA VERIFICATION SURVEY & APPROVAL FOR SOIL PLACEMENT ON THE BIOINTRUSION SURFACE**
Date: 15 June, 2009
Quality Resolution #: 008
Layer: Biointrusion Layer
Location: Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay and Harry Buckner	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Jerome Sanchez	ASCI

QA VERIFICATION SURVEY & LOOSE SOIL PLACEMENT APPROVAL

- The northeast portion of the MWL Biointrusion Layer is approved for the placement of soil into the voids.

- The two locations on the north slope of the Biointrusion Layer that were too thick have been corrected, resurveyed, and were approved. The north slope is now approved for the placement of soil into the voids.

- The entire Biointrusion Layer is now approved. Approval includes thickness, side slopes, and surface slope. Side slopes are steeper than 6:1 but will be adjusted during construction of the Native Soil Layer. The east-to-west surface slope is less than 2.0% in some areas consistent with the Existing Subgrade and will also be adjusted during the construction of the Native Soil Layer.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **BIOINTRUSION AND THIN SOIL LAYER THICKNESS, CONSTRUCTION OF NATIVE SOIL LAYER, ESTABLISHING A NEW DATUM FOR THE 2.0% EAST-TO-WEST SURFACE DESIGN SLOPE, ESTABLISHING THE 6:1 SIDE SLOPES, AND K-SAT TESTING**
Date: 16 June, 2009
Quality Resolution #: 009
Layer: Thin Soil layer and Native Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield and Ben Martinez	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Jerome Sanchez and Vladimir Jirik	ASCI

THIN SOIL LAYER (NEW DATUM) AND EDi SURVEY

- Vladimir Jirik (Subcontractor Survey for EDi) attended today's meeting to discuss potential solutions for construction of the Native Soil Layer. There is currently an approximate 3-inch or less (nominal) compacted thin soil layer from the loose soil that was worked into the Biointrusion voids. The thin soil layer creates a better surface to build the Native Soil Layer on due to the irregularities of the Biointrusion Rock. Vladimir Jirik is going to verify the nominal 3-inch thickness via survey CADD software. This thin soil layer will be the new construction datum. Vladimir has also been asked to create a topographic survey of the current existing surface (thin soil layer). This topographic survey will be based on the same 50-foot grid previously used on the Existing Subgrade and Biointrusion Layer. The topographic survey will show the current elevations as well as the slope across the MWL surface. There will also be section cuts to show the difference in the current existing slope and a projected 2.0% slope to meet the

contract specifications. Based off of this data, an approach will be determined to continue the construction of the Native Soil Layer.

NATIVE SOIL LAYER CONSTRUCTION

- Vladimir Jirik made a suggestion to bring the Native Soil up as a flat surface rather than correct the 2.0% slope on the final lift. This has already been discussed and is not the preferred method due to foreseeing soil shortages. It is also believed it is better to start correcting for the 2.0% slope as soon as possible due to deviations in elevation in the Subgrade, which have continued through the Biointrusion Layer. Vladimir also suggested reverting back to the contract design for the remainder of the project. This is not ideal to use because the contract design does not fit exactly with what the existing conditions are. A final decision will be made based off of the survey data expected tomorrow.

- As of now, URS is not going to do a QA survey on the MWL until the 2-1/2-foot Native Soil Layer is complete. URS will do QA density/moisture tests every 6-inch lift as specified in the CMIP.

- It appears that we are not going to be able to correct the slope to 2.0% on the first lift of Native Soil due to the thickness requirements in the CMIP (8-inch loose, 6-inch compacted). The 2.0% slope will probably need to be made up incrementally with multiple lifts. To be discussed more when additional survey information is received tomorrow (06/17/09).

- EDi will begin adjusting the slopes of the MWL to 6:1 as specified on the north, east, and west slopes during the Native Soil Layer. The lifts will be placed in 8-inch loose, 6-inch compacted lifts as specified. Density/Moisture testing will be conducted after the completion of two 6-inch lifts. The Density/Moisture tests will be performed by driving the stake down and testing at 6-inches. The stake will then be driven an additional 6-inches (12-inch total) to test the first 6-inch Native Soil Lift. A random location will be chosen on each side (north, east, west) to be tested (3 locations; 6 test) per 12-inch lift. URS will perform random QA density/moisture tests to verify the results obtained by EDi. This procedure of adding the 6:1 slope is significantly adding to the size of the MWL.

SOIL VOLUME SHORTAGES

- The actual size of the MWL is greater then the 2.6-acre originally anticipated. The larger cover footprint due to the thicker Biointrusion Layer and resulting side slopes is anticipated to result in a shortage of screened soil fill. The actual size of the MWL as of now is approximately 3.05 acres. Additional soil can be extracted from the Borrow Area, however, the exact amount is not known. Additional testing may need to be conducted in the Borrow Area to determine the depth of the Calichie layer.

BIOINTRUSION LAYER THICKNESS

- Marshall Nay calculated an average on the thickness of the Biointrusion Rock Layer. The nominal thickness is approximately1.29-feet, which is very close to the 1.25-foot maximum specified in the CMIP.

K-sat TESTING

- Specification section 02200 requires a hydraulic conductivity testing on each Native Soil Layer lift (8-inch loose, 6-inch compacted). No ASTM Standard was specifically called out in the Specifications and there are a couple of test to choose from:
    - The first test, ASTM D-5084, is a flexible wall hydraulic conductivity test. This test requires an "undisturbed" compacted sample to be taken in the field. The sample is then taken back to the lab to determine the hydraulic properties.
    - The second test, ASTM-5856, is a rigid wall hydraulic conductivity test. This test requires a sample to be taken from the field and returned to the lab. The sample is then compacted and tested at the lab. This test will take 3-5 days and is the most appropriate method based upon the CMIP and a team evaluation of the K-Sat testing logistics and alternatives.

- During the pre-bid there was discussion concerning the potential for delay in schedule due to the hydraulic conductivity testing. The bidding contractors concern was they could control the moisture content and the density in the soil, however, because they are required to use the soil pre-determined by Sandia, they would not have control over the outcome of the hydraulic conductivity test. As a solution, Sandia agreed to not delay the project due to hydraulic conductivity testing.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **QC SURVEY OF THIN SOIL LAYER OVERLAYING THE BIOINTRUSION LAYER AND 2.0% SURFACE DESIGN SLOPE CORRECTION**
Date: 17 June, 2009
Quality Resolution #: 010
Layer: Thin Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Jerome Sanchez and Marcus Cordova	ASCI

THIN SOIL LAYER APPROVAL

- A meeting was held with Sandia, EDi, and URS to discuss the construction of the Native Soil Layer. The topographic survey depicting the current existing conditions was provided by Vladimir Jirik (EDi surveyor). The Topographic map shows existing elevations, the thickness of the thin soil layer covering the Biointrusion Layer, section cuts of existing slopes, and the projected 2.0% slope.

- After reviewing the topographic survey, it was determined the thin soil layer filling the Biointrusion voids was a nominal 3.0" thickness. It was determined that this was an acceptable thickness.

- The 3.0-inch nominal thickness thin soil layer is approved and is now the new construction datum.

2.0% SURFACE DESIGN SLOPE CORRECTION

- After reviewing the survey, it was determined imperfections in the Biointrusion Layer that had been inherited by the low areas in the Existing Subgrade Layer were still present. Grid Blocks 7, 8, and 11 have low areas that require additional

Native Soil material in order to achieve the 2.0% slope required across the MWL from east to west. Because of the maximum 8-inch loose, 6-inch compacted soil constraint in the CMIP, the difference in thickness will need to be constructed in two individual "wedge lifts". Each of the wedge lifts thickness will be within the specified requirements and will receive moisture/density testing as required. Once the slope is corrected using the wedge lifts, the additional lifts (Lifts 3 through 8) will be placed in uniform 6-inch compacted lifts across the entire surface to achieve the 30.0-inch minimum requirement.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **APPROVAL OF WEDGE LIFTS 1 & 2 AND NATIVE SOIL LIFTS #3 AND #4 (POLISHING LIFTS)**
Date: 22 June, 2009
Quality Resolution #: 011
Layer: Native Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Marcus Cordova	ASCI

APPROVAL OF WEDGE LIFTS 1 & 2

- Wedge Lifts 1 and 2 were constructed, tapered, spatially limited lifts to achieve the 2.0% east-to-west design slope. They were constructed and tested in accordance with the CMIP. The slope of the surface still has a couple of areas that do not meet the 2.0% design slope requirement. The 2.0% design slope requirement will be achieved with Native Soil Polishing Lifts 3 and 4.

- Wedge Lifts 1 and 2 are approved based upon CQA Engineer review of construction team QC survey data (topographic map and profiles).

CONSTRUCTION OF NATIVE SOIL "POLISHING LIFTS" 3 & 4

- Chris Edgman (EDi) received an updated topographic map with section cuts of the MWL, which includes the installation of the Native Soil Wedge Lifts 1 and 2. The maps and section cuts were reviewed to discuss how construction of the Native Soil Layer should continue:

- After reviewing the new topographic map it was determined there are still slopes that do not meet the 2.0% requirement. The Native Soil Layer was brought up into

the specified tolerance, however, after reviewing the section cuts there are still some areas that are below the 2.0% grade line that will need correction. EDi proposed correcting these low areas during the third lift of Native Soil. The third lift will fill the low areas with approx 3-to-6-inches of soil while placing only a thin layer of soil, if any, on the areas with higher elevations. This will create a flat surface at approximately 2.0% across the entire MWL. Because soil will only be placed in the low areas, it is not sufficient to perform Density/Moisture tests on all 13 grids. Only the areas that receive enough soil (approximately 4-inch minimum) will be tested. The areas that do not receive enough soil to test during the third lift will be tested during the fourth lift.

- After the third lift is tested and approved, the fourth lift will begin. The fourth lift will also be a thin lift (less then 6-inches) to prevent the areas that received a small amount of soil in the third lift, but not enough soil to test, from exceeding the 6-inch maximum thickness specification constraint. The fourth lift will also be used to "fine-tune" the 2.0% slope. After the fourth lift, the Native Soil remaining lifts (5 through 8) will be constructed and tested in consistent 6-inch lifts at the 2.0% slope. EDi will provide Marshall Nay with a copy of the Topographic Survey Data after the fourth lift (See Appendix A).

PROCTORS

- Discussion on identifying which proctor is to be used for different locations on the MWL occurred. There is currently a range of proctor maximum densities and optimum moisture content from 112.2-to-119.1 pcf and 10.3-to-14.4% respectively. Marshall Nay (URS) calculated the average of all of the current proctors. Marshall received an average maximum density and optimum moisture content of 116.0 pcf and 12.3% respectively. Jon Schermerhorn (AMEC) conducted field proctors as the two wedge lifts were being placed and received a maximum density and optimum moisture content of 115.7 pcf and 12.6 respectively. Both Marshall and Jon acquired similar results, which supported the Density/Moisture tests results.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **REVIEW OF SIEVE RESULTS FOR AVAILABLE 3/8-INCH CRUSHED GRAVEL TO ADMIX WITH TOPSOIL FILL MATERIAL**
Date: 25 June, 2009
Quality Resolution #: 012
Layer: Topsoil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Marcus Cordova	ASCI

3/8-INCH CRUSHED GRAVEL

- Edgewood Aggregate may not be able to provide enough crushed gravel to meet the current schedule. Edgewood Aggregate is providing the 3/8-inch crushed gravel previously approved for the Topsoil Layer. EDi is resubmitting the Crushed Gravel from Fisher as an alternative to the crushed gravel previously approved by Edgewood Aggregate (See Submittals #1 and #8). EDi is proposing to use crushed gravel from both Edgewood aggregate and Fisher. A new sample of the Fisher aggregate was provided yesterday and contains similar physical properties as the previously approved Edgewood aggregate.

- EDi plans to mix the 3/8-inch crushed gravel available by Edgewood Aggregate with the 3/8-inch crushed gravel from Fisher.

- Approximately 2,300-tons of crushed gravel will be needed.

- No available aggregate met specifications for % passing through the #4 sieve. An aggregate was selected and approved using engineering judgment. Marshall Nay (URS) has approved the Fisher 3/8-inch crushed gravel today in lieu of Don Lopez.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **QC SURVEY RESULTS FOR POLISHING LIFTS 3 AND 4**
Date: 30 June, 2009
Quality Resolution #: 013
Layer: Native Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Marcus Cordova	ASCI

APPROVAL OF POLISHING LIFTS 3 AND 4

- Polishing Lifts 3 and 4 were constructed across the cover surface but with variable thickness to complete the adjustment required to establish the 2.0% east-to-west surface design slope. They were constructed and tested in accordance with the CMIP. Polishing Lifts 3 and 4 are approved.

- Polishing Lifts 3 and 4 are approved based upon review of Construction Team QC survey data (topographic map and profiles).

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **LIFT #5 LOW AREA**
Date: 01 July, 2009
Quality Resolution #: 014
Layer: Native Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Marcus Cordova	ASCI

CORRECTION OF LIFT #5

- A location on the corner of Grid Bock 7 was located which requires a fill of 0.90-feet to achieve the proper elevation. 0.45-feet of Native Soil was placed yesterday (06/30/09) at this location. This location will receive Density/Moisture testing today. An additional 0.45-foot of Native Soil will then be placed to achieve the 0.90-feet required. The second lift of 0.45-feet will be tested with the remainder of Native Soil Lift #5 as required in the CMIP.

- The first 0.45-feet layer placed yesterday was tested for moisture and density, but failed. The area was reworked, recompacted, and retested. The Moisture/Density test was then successful. The second 0.45-feet layer was then placed (to account for the 0.9-feet thickness). EDi performed a Moisture/Density test in this location which also passed.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **SOIL FILL MATERIAL SHORFALL – QA REVIEW OF EDi SOIL VOLUME ESTIMATES FOR ADDITIONAL MATERIAL NEEDED**
Date: 14 July, 2009
Quality Resolution #: 015
Layer: Native & Topsoil Layers
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield and Ben Martinez	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Marcus Cordova	ASCI

SOIL FILL MATERIAL SHORFALL – QA REVIEW OF EDi SOIL VOLUME ESTIMATES FOR ADDITIONAL MATERIAL NEEDED

- Due to the MWL surface area being larger than initially anticipated, additional Native Soil and Topsoil is required. Sandia has requested EDi provide a proposal for the additional volumes/cost to complete the MWL. Sandia has also requested URS provide a third party analysis of the volumes/cost to complete the MWL. The volumes/cost provided by URS shall be used to verify the proposal provided by EDi to Sandia.

- EDi provided Sandia with a proposal of 9,615-CY of additional Native Soil and 1,590-CY of additional Topsoil for the completion of the MWL. URS provided an independent review of the additional soil volumes required using two methods (free-body diagram and construction history data). Both methods were close to the results obtained by EDi. URS informed Sandia that EDi's estimate for additional volume calculations are accurate

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **NATIVE SOIL LAYER QA AND QC VERIFICATION SURVEYS**
Date: 30 July, 2009
Quality Resolution #: 016
Layer: Native Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield and Ben Martinez	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Jerome Sanchez	ASCI

NATIVE SOIL LAYER QA AND QC VERIFICATION SURVEY

- The Native Soil Layer was constructed and tested in accordance with the CMIP with the exception of 9 locations which were below the 30-inch thickness requirement. The Native Soil Layer is approved for the placement of the Topsoil Layer with the exception of the 9 low locations. The 9 locations must be corrected, resurveyed, and approved prior to the placement of the Topsoil Layer.

- The 9 locations requiring additional soil were identified through review of both the QC and QA survey results, and likely represent high spots in the underlying Biointrusion Layer.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **NATIVE SOIL LAYER FINAL QA AND QC VERIFICATION SURVEYS**
Date: 04 August, 2009
Quality Resolution #: 017
Layer: Native Soil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay and Harry Buckner	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC

APPROVAL OF NATIVE SOIL LAYER

- The 9 locations previously identified as low areas have been corrected, resurveyed, and are approved. The Native Soil Layer was constructed and tested in accordance with the CMIP and is approved for the placement of the Topsoil Layer.

- Native Soil Layer thickness, 2.0% east-to-west surface design slope, and 6:1 side slopes are approved based upon the QA verification survey and review of the Construction Team QC survey data (topographic map and profiles).

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **TOPSOIL LAYER QA AND QC VERIFICATION SURVEYS**
Date: 12 August, 2009
Quality Resolution #: 018
Layer: Topsoil Layer
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay and Harry Buckner	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC
Marcus Cordova	ASCI

TOPSOIL LAYER QA AND QC VERIFICATION SURVEYS

- The Topsoil Layer was constructed in accordance with the CMIP. Thickness, 2.0% east-to-west surface design slope, and 6:1 side slopes verified and meet specifications. The Topsoil layer is approved.

- Topsoil Layer thickness, 2.0% east-to-west surface design slope, and 6:1 side slopes are approved based upon the QA verification survey and review of the Construction Team QC survey data (topographic map and profiles).

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **SEED AND MULCH MATERIAL INSPECTIONS AND ELIMINATION OF STARTER FERTILIZER**
Date: 19 August, 2009
Quality Resolution #: 019
Layer: Seed and Mulch
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
John Davidson	North Wind Inc.
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC

SEED AND MULCH APPROVAL

- Native Grass Seed was delivered and stored in the conex to keep dry. Seed and Mulch was approved by Don Lopez today.

- Elimination of fertilizer was approved today.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **INCREASED SEEDING RATE AND APPLICATION METHOD**
Date: 25 August, 2009
Quality Resolution #: 020
Layer: Seed, Fertilizer, and Mulch
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Harry Buckner and Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC

INCREASED SEEDING RATE AND APPLICATION METHOD APPROVAL

- CMIP modification for reclamation seeding and mulching is approved.
- Hand broadcasting used in addition to drill seeding to minimize compaction of the Topsoil Layer by minimizing the number of passes required by the tractor pulling the drill seeder. Additional passes would have been necessary to accommodate the increase of seeding rate.
- Fertilizer not used based upon recommendation from Sandia Staff Biologist. Fertilizer used late in the growing season can make plants more susceptible to frost damage.

END OF MEETING NOTES

URS

QUALITY RESOLUTION MEETING MINUTES

Sandia Mixed Waste Landfill
Job #: 24342640

Title: **INSPECTION AND APPROVAL OF THE SEEDING AND MULCH**
Date: 02 September, 2009
Quality Resolution #: 021
Layer: Seed, Fertilizer, and Mulch
Location: Tech Area III, Sandia Mixed Waste Landfill

ATTENDEES:

NAME	COMPANY
Paul Molina	URS
Marshall Nay	URS
Don Lopez	URS
Chris Edgman	EDI
Don Schofield	SNL/4133
Mike Mitchell	SNL/GRAM
Kenneth Hale	AMEC
Jon Schermerhorn	AMEC

INSPECTION AND APPROVAL OF THE SEEDING AND MULCH

- The placement of seed and mulch is approved based on visual inspection.

END OF MEETING NOTES

ATTACHMENT 2

CQA Submittals and Approvals

2009 QA Submittal Cover Pages

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL CONSTRUCTION COVER PROJECT Date 6-2-2009
Contract # PO# 90361.TT
Submittal # 001
New ☒ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) DON LOPEZ - URS CORPORATION
Submitted by (name/company) CHRIS EDSMON - EDI

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	3/8" CRUSHED GRAVEL	THE TOPSOIL LAYER SHALL BE ADMIXED WITH 3/8", CRUSHED GRAVEL 25 PERCENT BY VOLUME BEFORE PLACING & GRADING	☒	☐	☐	
		SECTION 02200-4 2.1.2 FILL #4	☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	

Date June 2, 2009 Name/Title Donald T. Lopez PE Signature [signature]
URS NM CQA Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

A TOTAL OF THREE (3) SAMPLES WERE COLLECTED FROM THREE DIFFERENT VENDORS. PLEASE FIND ATTACHED THE SIEVE ANALYSIS PERFORMED BY AMEC FOR EACH OF THE THREE VENDORS.

#1 - DUKE CITY AGGREGATE
#2 - FISHER INDUSTRIES (SEE NOTE BELOW)
#3 - EDGEWOOD AGGREGATE

NOTE - EDI HAS ONLY RECEIVED THE INITIAL RESULTS, EDI WILL PROVIDE the COMPLETE PACKAGE ONCE RECEIVED FROM AMEC.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-10-09
Contract # PO# 903627
Submittal # 002
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Field Density Gridline #5	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Field Density Gridline #9	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Field Density Gridline #12	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Field Density Gridline #11	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Field Density Gridline #8	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06	Field Density Gridline #3	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
07	Field Density Gridline #2	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
08	Field Density Gridline #7	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
09	Field Density Gridline #6	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
10	Field Density Gridline #1	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
11	Field Density Gridline #4	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
12	Field Density Gridline #10	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
13	Field Density Gridline #13	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	

Date June 10, 09 Name/Title Donald T. Lopez PE Signature
URS NM C&A Engr.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Thirteen samples were collected from the 2.6 acre landfill. Please see attached map for grid layout.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-11-09
Contract # PO# 903627
Submittal # 003
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material # 4	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material # 5	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material # 6	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	Native Fill Material # 7	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05	Native Fill Material # 9	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date June 12, 09 Name/Title Donald T. Capes PE Signature Donald T. Capes
URS NM CQA
Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

5 samples (Items 1 to 5) were collected from the native soil borrow pile.

Please see attached map for sample locations.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-16-09
Contract # PO# 903627
Submittal # 004
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material # 1	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
02	Native Fill Material # 2	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
03	Native Fill Material # 3	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 16 June 09 Name/Title Marshall Nay PE URS for Don Lopez, CQA Engr Signature Marshall W. Nay

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

3 samples (Items 1 to 3) were collected from the native soil borrow pile.

Please see attached map for sample locations.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-17-09
Contract # PO# 903627
Submittal # 005
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Top Soil # 1	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
02	Top Soil # 2	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
03	Top Soil # 3	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
04	Top Soil # 4	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
05	Top Soil # 5	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
06	Top Soil # 6	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 18 June 09 Name/Title M. Nay, URS for Don Lopez - CQA Signature Marshall Nay

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Top Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

6 samples (Items 1 to 6) were collected from the native soil borrow pile.

Please see attached map for sample locations.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-17-09
Contract # PO# 903627
Submittal # 006
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material # 9	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
02	Native Fill Material # 10	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
03	Native Fill Material # 11	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☐	☐	☑	M
04	Native Fill Material # 12	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
05	Native Fill Material # 13	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	M
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 18 June 09 Name/Title Marshall W. Nay Signature Marshall Nay
for Don Lopez CQA Engineer

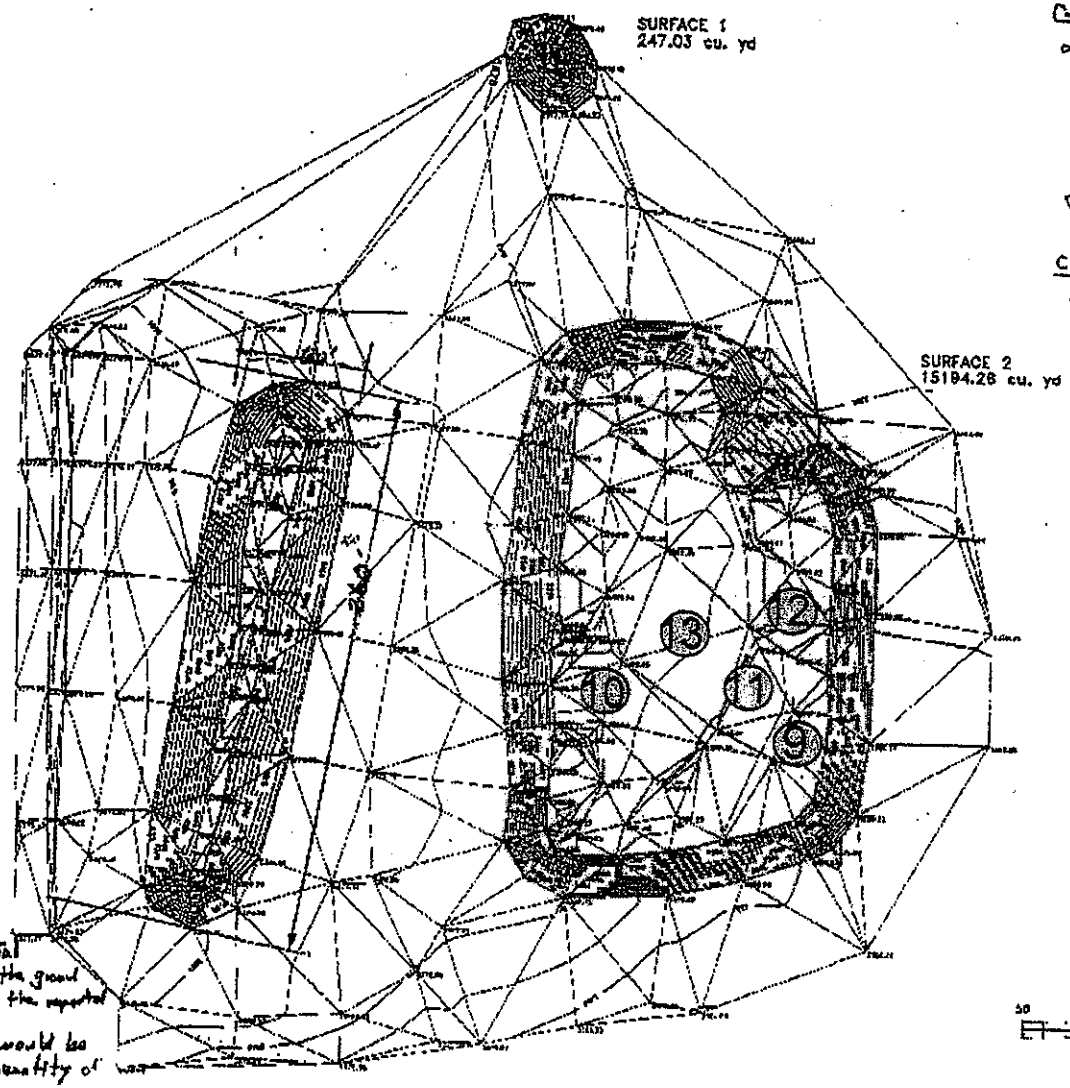
MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

5 samples (Items 1 to 5) were collected from the native soil borrow pile.

Please see attached map for sample locations.



Approximate Methods - Surface 3

Goal is to check order of magnitude of production numbers.

Cross Section Area:

$2[(10)(10)(2.5)] + (12)(10) = 360$ SF

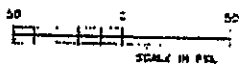
240 + 120

Length $260 \cdot (.98) = 255$; 91,800 cf

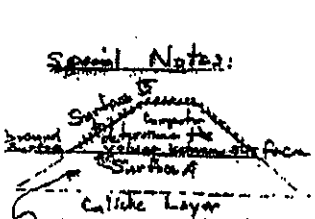
and rounding factor

Divide by $27 \frac{cf}{cy} = 3400$ CY

- The Stinding Volume using Approx Methods is about 3400 CY. If I reduced my End Rounding Factor to 0.97, the results are: ~~3360~~ CY.
- The computer, using Micro Soft INROADS software reports 3360 CY.
- The results are very close.



Special Notes:



1. There is additional potential usable fill material below the ground surface before you reach the reported Caliche Layer.
2. Special Soil borings would be required to define the quantity of material [illegible]

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-22-09
Contract # PO# 903627
Submittal # 007
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Survey Data	Survey Data of fill depths needed for wedge lift to make 2% slope across cover.	☑	☐	☐	M
02		Last Item	☐	☐	☐	
03			☐	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 23 June Name/Title Marshall Nay, URS for Don Lopez, PE, Project CQA Signature Marshall Nay

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires the cover to have a 2% East to West. EDi plans to do a "wedge lift" on the East side of the landfill cover to meet the 2% requirement. The survey data shows the fill depths needed to meet the 2 % grade. See attached for site layout.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 6-24-09
Contract # PO# 903627
Submittal # 008
New ☐ Resubmittal ☑
If resubmittal, prev. submittal # 001

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	3/8" Crush Gravel	Crushed Gravel for top soil lift. Section 02200-4 2.1.2 Fill # 4	☑	☐	☐	M
02			☐	☐	☐	
03			☐	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 25 June 09 Name/Title Marshall Nay, URS For Don Lopez, PE, CQA Engineer Signature Marshall Nay

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires the top soil material contain 3/8" crushed gravel, 25 % by volume. In previous submittal, Edgewood Aggregates was approved. Edgewood Aggregates may not be able to produce enough gravel to meet the current schedule. As a potential alternate to the Edgewood Aggregate, EDi would like to use Fisher Industries if needed to maintain the current schedule. The Fisher aggregate is being resubmitted for approval.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-2-09
Contract # PO# 903627
Submittal # 009
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material # 14	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material # 15	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material # 16	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	Native Fill Material # 17	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05	Native Fill Material # 18	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 6, 09 Name/Title Gerald T. Lee PE
CQA Engineer
URS NM
Signature Gerald T. Lee

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

5 samples (Items 1 to 5) were collected from the native soil borrow pile.

Please see attached map for sample locations.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-02-09
Contract # PO# 903627
Submittal # 010
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Field Density North Slope Lift 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Field Density North Slope Lift 1	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Field Density East Slope Lift 2	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Field Density East Slope Lift 1	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Field Density West Slope Lift 2	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06	Field Density West Slope Lift 1	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
07	Field Density East Slope Lift 4	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
08	Field Density East Slope Lift 3	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
09	Field Density West Slope Lift 4	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
10	Field Density West Slope Lift 3	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
11	Field Density North Slope Lift 4	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
12	Field Density North Slope Lift 3	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
13	Field Density North Slope Lift 6	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
14	Field Density North Slope Lift 5	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
15	Field Density Dog Leg Lift 2	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
16	Field Density Dog Leg Lift 1	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
17	Field Density West Slope Lift 6	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
18	Field Density West Slope Lift 5	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
19	Field Density East Slope Lift 6	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
20	Field Density East Slope Lift 5	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
21	Field Density North Slope Lift 8	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
22	Field Density North Slope Lift 7	Sub Grade Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
23			☐	☐	☐	
24			☐	☐	☐	
25			☐	☐	☐	
26			☐	☐	☐	

Date July 6, 09 Name/Title DONALD T. LOPEZ PE Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the native soil at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP does not mention testing the slopes, however it was agreed that the North, East, and West slopes would be tested at a single random spot on every lift. This submittal is for the 6 lifts on the west and east slopes and the 8 on the north slope.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-2-09
Contract # PO# 903627
Submittal # 011
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Field Density Grid Block #7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Field Density Grid Block #8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Field Density Grid Block #11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 6, 2009 Name/Title DONALD T. LOPEZ PE Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Compaction tests were performed in the three grid blocks needed for the wedge lift to make the 2 % slope. The wedge lift was not discussed in the CMIP but it is considered a native soil lift and hence. tested.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-2-09
Contract # PO# 903627
Submittal # 012
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Field Density Grid Block #11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Field Density Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Field Density Grid Block #8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 6, 2009 Name/Title DONALD T. LOPEZ PE Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Compaction tests were performed in the three grid blocks needed for the second wedge lift to make the 2 % slope. The wedge lift was not discussed in the CMIP but it is considered a native soil lift and hence. tested.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-2-09
Contract # PO# 903627
Submittal # 013
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Field Density Grid Block # 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Field Density Grid Block # 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Field Density Grid Block # 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Field Density Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 6, 2009 Name/Title DONALD T. LOPEZ Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Compaction tests were performed in the four grid blocks needed for the lift 3. Lift 3 is only a 3 inch lift. There were some low areas that needed to be lifted up. In these areas the lift was thick enough to be tested. The four grid blocks are the locations with deeper fill amounts.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-10-09
Contract # PO# 903627
Submittal # 014 OK
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 3 Grid Block # 11 SE	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 3 Grid Block # 11 NE	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Lift 4 Grid Block # 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Lift 4 Grid Block # 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Lift 4 Grid Block # 3	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06	Lift 4 Grid Block # 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
07	Lift 4 Grid Block # 5	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
08	Lift 4 Grid Block # 10	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
09	Lift 4 Grid Block # 9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
10	Lift 4 Grid Block # 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
11	Lift 4 Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
12	Lift 4 Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
13			☒	☐	☐	

Date July 13, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez PE
URS NM
CQA Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Compaction tests were performed in 2 locations in grid block 11 in lift 3. The tests in grid block eleven were performed in two areas that had higher fill amounts. Ten tests were performed on lift 4 in grid blocks 1 to 10. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-10-09
Contract # PO# 903627
Submittal # 015 OK
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 4 Grid Block # 13	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
02	Lift 4 Grid Block # 12	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
03	Lift 4 Grid Block # 11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 13, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez PE
URS NM
CQA Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Density and moisture tests were performed in grid blocks 11, 12, and 13 in lift 4. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-10-09
Contract # PO# 903627
Submittal # 016
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 5 Grid Block # 13	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 5 Grid Block # 12	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Lift 5 Grid Block # 11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Lift 5Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☒	☐	Retest
05	Lift 5 Grid Block # 7, Re-test East Edge Sh	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 14, 09 Name/Title Donald T. Lopez PE Signature
URS NM
CQA Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Density and moisture tests were performed in grid blocks 11, 12, 13, and 7 in lift 5. Grid block 7 needed to be tested twice due to a low area that would need more than six inches. The first test in grid block 7 failed on moisture. The area was watered and re-compacted. The re-test in grid block 7 passed. Grid block 7 will be tested a second time when grid blocks 6 and 8 are tested during the full lift. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-10-09
Contract # PO# 903627
Submittal # 017
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material Berm 1	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material Berm 2	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material Berm 3	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 13, 09 Name/Title Donald T. Lopez PE
URS NM
CQA Engineer
Signature Donald T. Lopez

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1. 3 samples (Items 1 to 5) were collected from the 1400 cubic yards of SWPPP berm material hauled from the MWL to the borrow area.

OK

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-10-09
Contract # PO# 903627
Submittal # 018
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 5 Grid Block # 10	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 5 Grid Block # 9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Lift 5 Grid Block # 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Lift 5 Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Lift 5 Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 14, 09 Name/Title Donald T. Cyprus PE Signature Donald T. Cyprus
URS NM
CQA Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Density and moisture tests were performed in grid blocks 6, 7, 8, 9, 10 in lift 5. All of the tests passed. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-16-09
Contract # PO# 903627
Submittal # 019
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 5 Grid Block # 5 Re-test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
02	Lift 5 Grid Block # 4 Re-test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
03	Lift 5 Grid Block # 3 Re-test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
04	Lift 5 Grid Block # 2 Re-test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
05	Lift 5 Grid Block # 1 Re-test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 17, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
URS NM
CQA Engineer

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Density and moisture tests were performed in grid blocks 1, 2, 3, 4, and 5 in lift 5. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture. In the first test, 3 of the 5 grid blocks failed. The entire grid was ripped, watered, and reworked. The results of the failed tests are included and the results of the re-tests are included for approval.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

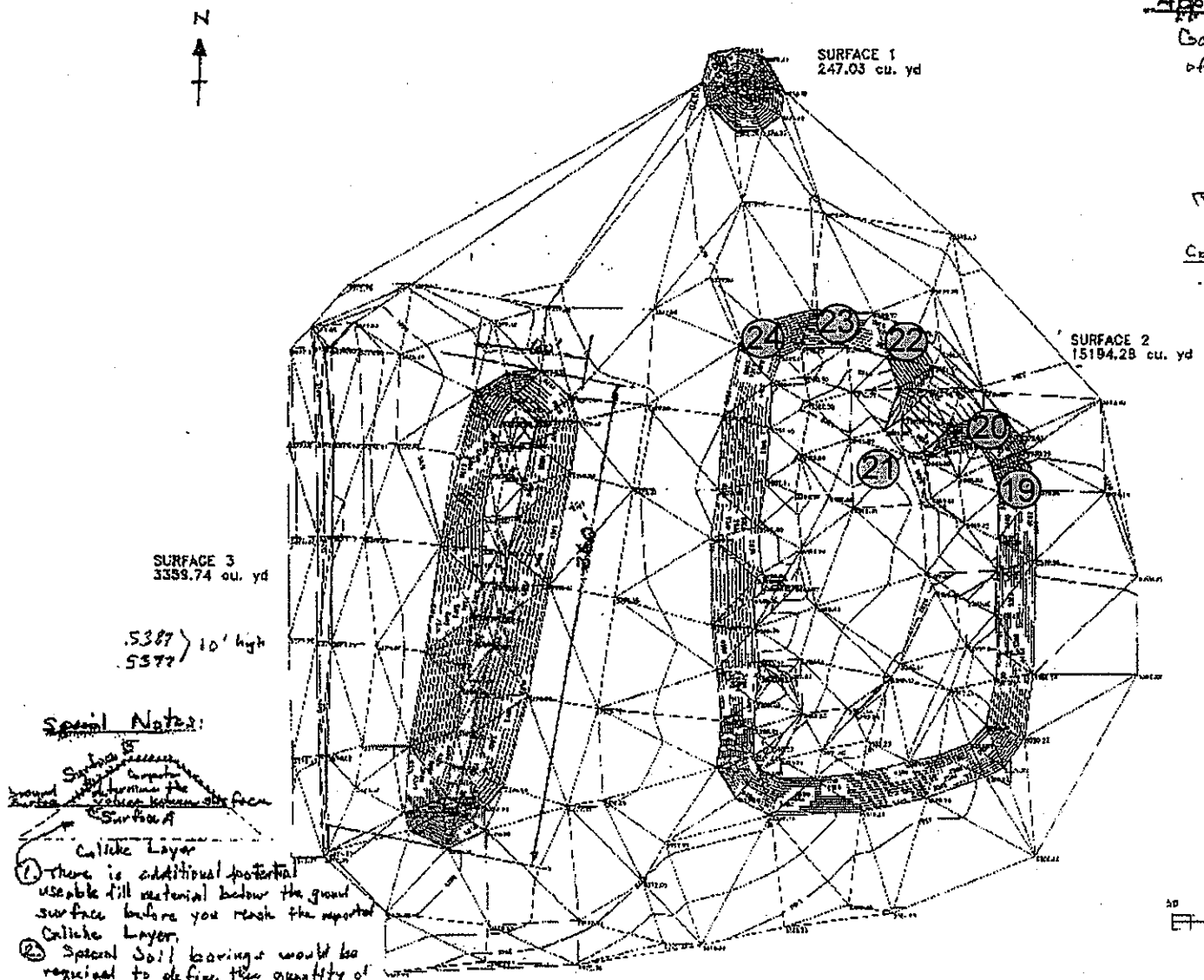
Date 7-20-09
Contract # PO# 903627
Submittal # 020
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

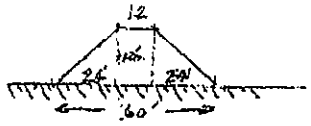
Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material # 19	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material # 20	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material # 21	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	Native Fill Material # 22	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05	Native Fill Material # 23	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
06	Native Fill Material # 24	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 20, 2009 Name/Title Donald T. Lopez PE Signature
URS NM
CQA Engineer



Approximate Methods - Surface 3

Goal is to check order of magnitude of production numbers.



Cross Section Area:

$2[(12)(10)\frac{1}{2}(24)] + (12)(10) = 360$ SF

240 + 120

End rounding factor

Length: 260' (.98) = 255' .91, 88 as for

Divide by $27 \frac{ft^3}{CY} = 3400$ CY

- The Stiding Volume using Approx Methods is about 3400 CY. If I reduced my End Rounding Factor to 0.97: the results are: 3363 CY.
- The computer, using Micro Soft INROADS software reports 3360 CY.
- The results are very close.

Submittal 20

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

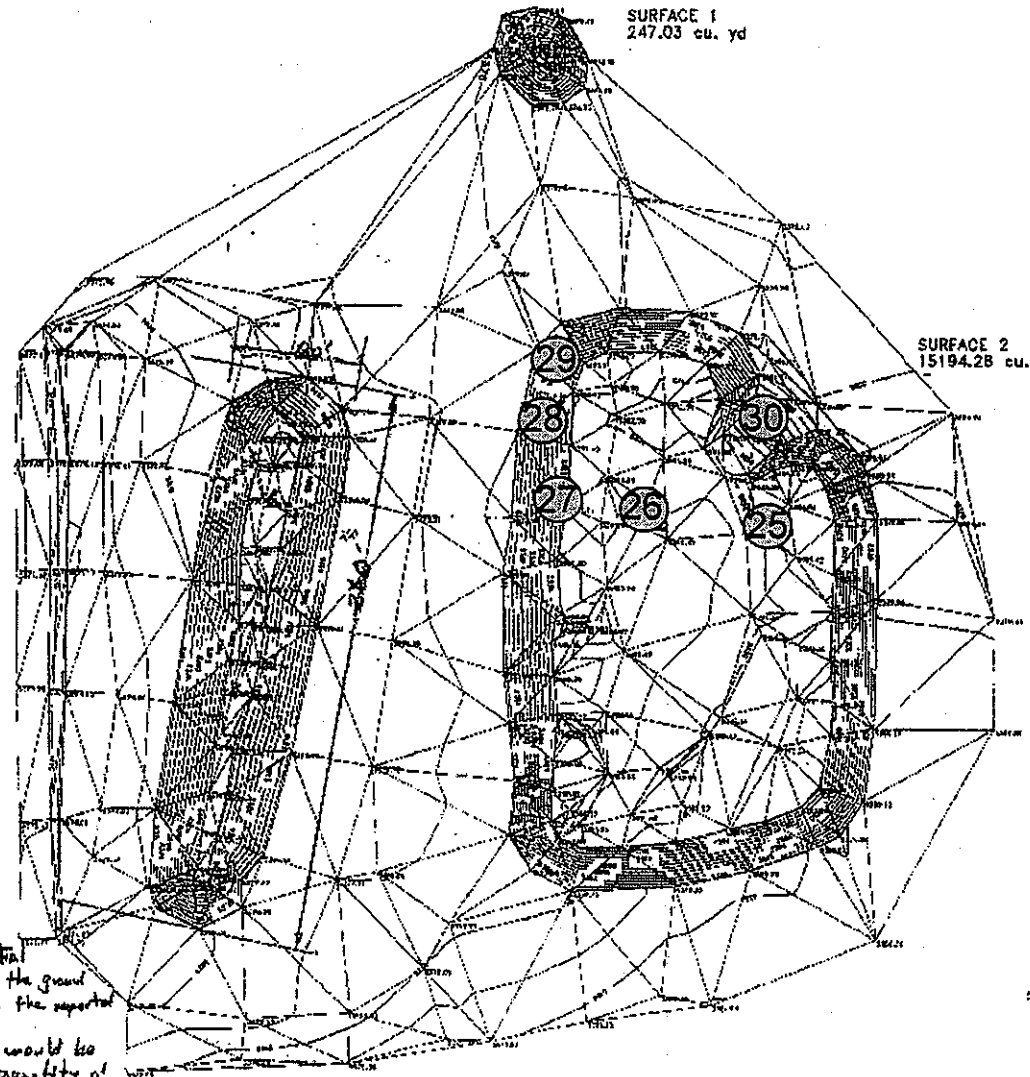
Date 7-20-09
Contract # PO# 903627
Submittal # 021
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material # 25	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material # 26	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material # 27	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	Native Fill Material # 28	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05	Native Fill Material # 29	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
06	Native Fill Material # 30	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date July 20, 2009 Name/Title Donald T. Lopez PE Signature
URS NM
CQA Engineer



Approximate Methods - Surface 3

Goal is to check order of magnitude of production numbers.

Cross Section Area:

$2[(12)(12)(.5)] + (12)(12) = 360$ SF

240 + 120

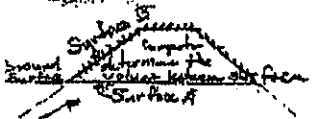
End rounding factor

Length: 260'(.98) = 255' .91, 800 LF

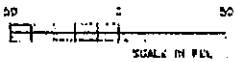
Divide by $27 \frac{ft}{cy} = 3400$ CY

- The Stinding Volume using Approx Methods is about 3400 CY. If I reduced my End Rounding Factor to 0.97, the results are: 3363 CY.
- The computer, using Micro Soft INROADS software reports 3360 CY.
- The results are very close.

Special Notes:



1. There is additional potential useable fill material below the ground surface before you reach the reported Caliche Layer.
2. Special Soil borings would be required to define the quantity of material [illegible]



Submittal 21

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

6 samples (Items 1 to 6) were collected from the native soil borrow pile.

Please see attached map for sample locations.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-22-09
Contract # PO# 903627
Submittal # 022
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material Berm 4	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material Berm 5	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	SNL MWL 071009-7 ~~Top Soil Material 7~~ SRJ	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	SNL MWL 071009-8 ~~Top Soil Material 8~~ SRJ	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05	SNL MWL 071009-9 ~~Top Soil Material 9~~	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 07/23/09 Name/Title Donald T. Lopez PE, CQA Engineer, URS NM Signature Donald T. Lopez

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

2 samples (Items 1 and 2) were collected from the excavated and screened material on the west side of the borrow area and from the north side of the borrow area. The samples were taken for material needed for the additional material needed to complete the native soil lifts.

3 samples (Items 3, 4, and 5) are top soil samples excavated and screened from the west edge of the borrow area. This material was added to the existing top soil pile to be blended with the $^{3}/_{8}$" gravel.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

6 samples (Items 1 to 6) were collected from the native soil borrow pile.

Please see attached map for sample locations.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-22-09
Contract # PO# 903627
Submittal # 023
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material Berm 6	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material Berm 7	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material Berm 8	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	SNL MWL 071409-10 ~~Top Soil Material 10~~	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 07/23/09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1.

3 samples (Items 1 to 3) were collected from the excavated and screened material on the north west side of the borrow area and from the north side of the borrow area. The samples were taken for material needed for the additional material needed to complete the native soil lifts.

1 sample (Items 4) is a top soil sample excavated and screened from the west edge of the borrow area. This material was added to the existing top soil pile to be blended with the $^{3}/_{8}$" gravel.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-22-09
Contract # PO# 903627
Submittal # 024
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 6 Grid Block # 13	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
02	Lift 6 Grid Block # 12	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
03	Lift 6 Grid Block # 11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 07/23/09 Name/Title Donald T. Lopez PE Signature Donald T. L
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. Density and moisture tests were performed in grid blocks 11, 12, and 13 for lift 6 The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture. All tests passed the specifications.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-22-09
Contract # PO# 903627
Submittal # 025
New ☐ Resubmittal ☑
If resubmittal, prev. submittal # 006

To (name/SNL Dept.) Don Lopez - URS Corporation
Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material 11	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	
02			☐	☐	☐	
03			☐	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 07/23/09 Name/Title Donald T. Coper PE Signature Donald T. C
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1. This sample has been submitted and approved, however it was missing screen number 40. The sample was re-tested with the # 40 screen.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-23-09
Contract # PO# 903627
Submittal # 026
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 6 Grid Block # 10	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 6 MW-4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☒	☐	Retested
03	Lift 6 Grid Block # 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Lift 6 Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Lift 6 Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06	Lift 6 Grid Block # 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
07	Lift 6 Grid Block # 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
08	Lift 6 Grid Block # 3	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
09	Lift 6 Grid Block # 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
10	Lift 6 Grid Block # 5	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
11	Lift 6 Grid Block # 9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
12		NA	☒	☐	☐	
13			☐	☐	☐	

Date 7/23/09 Name/Title Donald T. Lopez PE
CQA Engineer
URS NM
Signature Donald T. Lopez

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

11 tests were performed covering grid blocks 1 to 10 and one around the hand compacted area around MW-4. All grid block tests passed the specifications. The hand compacted area around MW-4 did not pass. The moisture was too high. The area will be re-tested on Monday July 20.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-23-09
Contract # PO# 903627
Submittal # 027
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 6 MW-4 Re-test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☒	☐	D
02			☐	☐	☐	
03			☐	☐	☐	
04			☐	☐	☐	
05						
06						
07						
08						
09						
10						
11						
12			☐	☐	☐	
13			☐	☐	☐	

Don Approval - Don L.
Recommend approval now. Have sorted out the sample taxonomy they are using. "01 is the first of a test sequence, the second 01-B is the first time to the Job site for a particular day to do a test. If they made a second trip to the site the number would be 01-2.
Their number 01-1 is the first test they did on 21 July and it was a retest of 02-1 from 17 July.

Date 07/23/09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
CQA Engr.
URS NM

approval 08/07/09

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

The density and moisture test was performed in the hand compacted area around MW-4 on Friday. The area was re-compacted and re-tested on Monday July 20. The re-test passed the moisture and density test.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-23-09
Contract # PO# 903627
Submittal # 028
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 7 Grid Block # 11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 7 Grid Block # 12	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Lift 7 Grid Block # 13	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Lift 7 Grid Block # 10	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Lift 7 Grid Block # 9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06	Lift 7 Grid Block # 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
07	Lift 7 Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
08	Lift 7 Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date 7/23/09 Name/Title Donald T. Lopez PE Signature

CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

8 density and moisture tests were performed on Lift 7 covering grid blocks 6 to 13.

All tests passed the specifications.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 7-28-09
Contract # PO# 903627
Submittal # 029
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Attch. Page

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Wedge Lift 2, Grid Block # 11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☐	☒	
02	Lift 4, Grid Block # 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☐	☒	
03	Lift 4, Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☐	☒	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date _____ Name/Title _____ Signature _____

4 Aug

~~Don~~ I concur.

I've looked at these again. They all meet the CMIP spec of less than 4.6×10^{-4} cm/sec.

However, these samples should be tested at 90% max dry density. They weren't. They were tested at 81 → 89%. I think it makes a difference. If you test at 90% you should be able to achieve 10^{-5} values.

Recommend "conditional approval" until all sample results are in and that they are tested at 90%.

Recommend "Conditional approval" See my "Note" memo. OK Don T. PE Marshall Ray

Marshall Ray

Donald T. [illegible] PE
C&A Engineer
URS NM

CONDITIONALLY APPROVED
August 6, 2009

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 1saturated hydraulic conductivity test per acre per lift stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the hydraulic conductivity be conducted according to ASTM specification for rigid wall testing, ASTM 5856. The samples shall have a maximum hydraulic conductivity of 4.6×10^{-4}. Item 1 is a sample from wedge lift 2. Items 2 and 3 are samples from lift 4. All samples have hydraulic conductivities passing the required specifications.

Recommend OK
approval

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-4-09
Contract # PO# 903627
Submittal # 030
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 7 Grid Block # 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 7 Grid Block # 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Lift 7 Grid Block # 3	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	Lift 7 Grid Block # 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05	Lift 7 Grid Block # 5	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 6, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

5 density and moisture tests were performed on Lift 7 in covering grid blocks 1 to 5.

All tests passed the specifications.

Recommend approval ck

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-4-09
Contract # PO# 903627
Submittal # 031
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift 8 Grid Block # 11	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
02	Lift 8 Grid Block # 12	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
03	Lift 8 Grid Block # 13	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☑	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 6, 09 Name/Title Donald T. Lopez PE, CQA Engineer, URS NM Signature Donald T. Lopez

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

3 density and moisture tests were performed on Lift 8 in covering grid blocks 11 to 13.

All tests passed the specifications.

A.n. David

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-4-09
Contract # PO# 903627
Submittal # 032
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials	
01	Lift 8 Grid Block # 10	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☒	☐		See note
02	Lift 8 MW # 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☒	☐		"
03	Lift 8 Grid Block # 9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		"
04	Lift 8 Grid Block # 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☒	☐		"
05	Lift 8 Grid Block # 7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
06	Lift 8 Grid Block # 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
07	Lift 8 Grid Block # 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
08	Lift 8 Grid Block # 2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
09	Lift 8 Grid Block # 3	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
10	Lift 8 Grid Block # 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
11	Lift 8 Grid Block # 5	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
12	Lift 8 Grid Block # 8 Re-Test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
13	Lift 8 Grid Block # 10 Re-Test	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		
14	Lift 8 MW # 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐		

Date August 6, 2009 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
C&A Engineer
URS NM

2e Approved August 2, 2009

Don

I concur.

Recommend approval of all <u>except</u> #1, #2 & #4. Their moisture contents fell below the minimum.

To their credit, they redid these three problem areas and then retested and all passed.

Good on them.

BB PE

M

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 5 field density tests per acre stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the minimum compaction allowed is 90% and the moisture is plus or minus 2 % of the optimal moisture.

Eleven density and moisture tests were performed on Lift 8 in covering grid blocks 1 to 10 and the hand compacted area around MW # 4. Three of the of the moistures failed the specifications, Items 01, 02, and 04. Items 12, 13 and 14 are the re-tests performed on the areas after they were watered and re-compacted.

Recommend Approval

M

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-6-09
Contract # PO# 903627
Submittal # 033
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material Berm 9	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	Native Fill Material Berm 10	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
03	Native Fill Material Berm 11	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
04	Native Fill Material Berm 12	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
05	Native Fill Material Berm 13	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
06	Native Fill Material Berm 14	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
07	Native Fill Material Berm 15	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
08	Native Fill Material Berm 16	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 7, 09 Name/Title Donald T. Lopez PE Signature [signature]
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1. 8 samples (Items 1 to 8) were collected from the excavated and screened material on the north west side of the borrow area and from the north side of the borrow area. The samples were taken for additional material needed to complete the native soil lifts.

Recommend OK for approval!

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-4-09
Contract # PO# 903627
Submittal # 034
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Native Fill Material Berm 17	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	
02	Native Fill Material Berm 18	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	
03	Native Fill Material Berm 19	Native Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☑	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 6, 09 Name/Title Donald T. Capez PE Signature

CQA Engr.
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1. One sample (Items 1) was collected from the excavated and screened material on the south west corner of the borrow area berm. Item 2 was collected from material around the former top soil pile. Item 3 was collected from the south central part of the borrow area. The samples were taken for additional material needed to complete the native soil lifts.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-4-09
Contract # PO# 903627
Submittal # 035
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Top Soil Material 11	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☐	☐	☒	
02	Top Soil Material 12	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☐	☐	☒	
03			☐	☐	☒	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Don I concur.
Recommend conditional disapproval until a time when all the data can be presented. There may have been a software error.

Carol T. [signature] PE
CQA Engineer
URS New Mexico

Date ___ ature _____

CONDITIONALLY APPROVED.
August 6, 2009

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Native Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1. Items 1 and 2 were collected from the excavated and screened material on the west side of the borrow area .The samples were taken for the additional material needed to complete the native soil lifts. This material was added to the existing top soil pile to be blended with the $^{3}/_{8}$" gravel.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-6-09
Contract # PO# 903627
Submittal # 036
New ☐ Resubmittal ☑
If resubmittal, prev. submittal # 035

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	SNL MWL 071609-11 ~~Top Soil Material 11~~	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
02	SNL MWL 071609-12 ~~Top Soil Material 12~~	Top Soil Testing of Borrow Material SECTION 02200-9 3.4.2 Fill and Borrow Area Testing	☒	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	

6 August

Don ok DL

When they orginally submitted, they attributed the specimens as "Native Soil". The specimen actually is "Top Soil" and the test results satisfy CMIP criteria. Recommend approval.

Marshall Ney

Date August 7, 09 Name/Title Donald T. Lopez PE Signature

CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the Top Soil Borrow material at a frequency of 1/500 cubic yards stated in Section 2200-9 3.4.2 and Table 3.1. Items 1 and 2 were collected from the excavated and screened material on the west side of the borrow area .The samples were taken for the additional material needed to complete the top soil lift. This material was added to the existing top soil pile to be blended with the $^{3}/_{8}$" gravel.

Approved

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-7-09
Contract # PO# 903627
Submittal # 037
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Lift ~~1-01~~ 3-01 JRS	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift ~~1-02~~ 3-02 JRS	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	Lift ~~1-03~~ 3-03 JRS	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 7, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
CQA Engineer
URS New Mexico

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 1saturated hydraulic conductivity test per acre per lift stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the hydraulic conductivity be conducted according to ASTM specification for rigid wall testing, ASTM 5856. The samples shall have a maximum hydraulic conductivity of 4.6×10^{-4}. Items 1, 2, and 3 are samples collected prior to the native soil lifts intended to cover the entire MWL cover. Items 1, 2, and 3 are hydraulic conductivity samples submitted for lift 3. All samples have hydraulic conductivities passing the required specifications.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-12-09
Contract # PO# 903627
Submittal # 038
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	~~Lift 5-01~~ EDi Lift 5 GB 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	A
02	~~Lift 5-02~~ EDi NS Lift 5 GB 4	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☒*	☐	A
03	~~Lift 5-03~~ EDi NS Lift 5 GB 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☒*	☐	A
04	~~Lift 6-01~~ EDi NS Lift 6 GB 3	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	A
05	~~Lift 6-02~~ EDi NS Lift 6 GB 6	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	A
06	~~Lift 6-03~~ EDi NS Lift 6 GB 12	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	A
07	~~Lift 7-01~~ EDi NS Lift 7 GB 1	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☒*	☐	A
08	~~Lift 7-02~~ EDi NS Lift 7 GB 5	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☐	☒*	☐	A
09	~~Lift 7-03~~ EDi NS Lift 7 GB 13	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	A
10			☐	☐	☐	
11	* Please retest at 95%		☐	☐	☐	
12	D 698	Proctor.	☐	☐	☐	
13			☐	☐	☐	

Date August 27, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
C&A Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 1saturated hydraulic conductivity test per acre per lift stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the hydraulic conductivity be conducted according to ASTM specification for rigid wall testing, ASTM 5856. The samples shall have a maximum hydraulic conductivity of 4.6×10^{-4}. Items 1-3 are from lift 5, items 4-6 are from lift 6, and items 7-9 are from lift 7. Four of the nine items are faster than 4.6×10^{-4} but are still in the 10^{-4} range.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-18-09
Contract # PO# 903627
Submittal # 039
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation
Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Wedge Lift-01- GB 8	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	Lift 4- GB 9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03			☐	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 27, 09 Name/Title Donald T. Lopez PE Signature
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 1saturated hydraulic conductivity test per acre per lift stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the hydraulic conductivity be conducted according to ASTM specification for rigid wall testing, ASTM 5856. The samples shall have a maximum hydraulic conductivity of 4.6×10^{-4}. Both items were compacted to 90 percent using a standard proctor. Item 1 is from the first wedge lift and in grid block 8. Item 2 is from Lift 4 in grid block 9. Both samples passed the required hydraulic conductivity requirements.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-18-09
Contract # PO# 903627
Submittal # 040
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	Seed Mixture	Reclamation seeding and mulching SECTION 02930-2 2.2.1 Seed Mix for Cover	☑	☐	☐	
02	Seed Mixture	Reclamation seeding and mulching SECTION 02930-2 2.2.1 Seed Mix for Cover	☑	☐	☐	
03			☐	☐	☐	
04			☐	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 19, 2009 Name/Title Donald T. Lopez
C&A Engineer
URS NM
Signature Donald T. Lopez

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires the seed mixture for the cover and reclaimed areas contain Galleta grass at 8.0 lbs/acre, Black grama at 6.0 lbs/acre, Spike dropseed at 3.0 lbs/acre, and Ring Muhly at 3.0 lbs/acre for a total of 20 lbs/acre. Sandia approved a modification to the CMIP in regards to the revegitation specifications at the request of SNL's staff biologist. The modification to the CMIP calls for an increase in the seeding rate to 80 pounds of seed mix per acre, four times the rate stated in the CMIP. Item 1 is the seed mixture from the supplier. Item 2 is from the landscaper and is a copy of the tag on the seed bag.

"Schofield, Donald P" <dpschof@sandia.gov>

"Schofield, Donald P"
<dpschof@sandia.gov>
08/05/2009 09:59 AM

To "Don_Lopez@URSCorp.com"
<Don_Lopéz@URSCorp.com>
cc "Mitchell, Mike M" <mmmitch@sandia.gov>
Subject CMIP Reveg Modification

This is the modification that John is referring to.
MW Tony

Mr. Lopez - Sandia National Laboratories (SNL) is approving a modification to the Mixed Waste Landfill (MWL) Corrective Measures Implementation Plan (CMIP) with regards to the revegitation specifications. These modifications come at the request of SNL's staff biologist, and are:

- uniform seeding rate of 80 pounds seed mix per acre (4x CMIP).
- no fertilizer added due to timing (August) of seeding.
- supplemental watering to assist seed germination and root development.

Please incorporate these modifications into URS's CQA effort. Thank you, Donald P Schofield.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-19-09
Contract # PO# 903627
Submittal # 041
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	~~NS Lift 8-1~~ EDi NS Lift 8 GB-2	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing SND	☒	☐	☐	
02	~~NS Lift 8-2~~ EDi NS Lift 8 GB-7	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing SND	☒	☐	☐	
03	~~NS Lift 8-3~~ EDi NS Lift 8 GB-9	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing SND	☒	☐	☐	

Data ok DEPE

Data looks good - compaction on all 3 > 90%
Recommend your approval.

No.	Location	% of D698 Proctor	K_{sat}
1	NS Lift 8-1	90.4	1.22 E-06
2	NS Lift 8-2	90.0	1.23 E-06
3	NS Lift 8-3	90.0	1.36 E-06

M W Kay

Date August 21, 09 Name/Title Donald T. Lopez PE Signature Donald T. Lopez
CQA Engineer
URS NM

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 1saturated hydraulic conductivity test per acre per lift stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the hydraulic conductivity be conducted according to ASTM specification for rigid wall testing, ASTM 5856. The samples shall have a maximum hydraulic conductivity of 4.6×10^{-4}. All items were compacted to 90 percent using a standard proctor All items are samples collected from lift 8 on the cover. See map for sample locations. All samples passed the required hydraulic conductivity requirements.

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM

Project Name SNL MWL Construction Cover Project

Date 8-26-09
Contract # PO# 903627
Submittal # 042
New ☑ Resubmittal ☐
If resubmittal, prev. submittal # _____

To (name/SNL Dept.) Don Lopez - URS Corporation

Submitted by (name/company) Chris Edgmon / EDi

Item #	Item	Description (type, model #, catalog #, mfg., etc.)	Approved	Dis-approved	See reverse	Initials
01	~~NS Lift 5-2~~ ED: NS Lift 5 GB-4 Retest SAD	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
02	NS Lift 5-3 ED: NS Lift 5 GB-8 Retest SAD	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
03	NS Lift 7-1 ED: NS Lift 7 GB-1 Retest SAD	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
04	NS Lift 7-2 ED: NS Lift 7 GB5 Retest SAD	Native Soil Field Testing of compacted Fill SECTION 02200-9 3.4 Testing	☒	☐	☐	
05			☐	☐	☐	
06			☐	☐	☐	
07			☐	☐	☐	
08			☐	☐	☐	
09			☐	☐	☐	
10			☐	☐	☐	
11			☐	☐	☐	
12			☐	☐	☐	
13			☐	☐	☐	

Date August 27, 09 Name/Title Donald T. Lopez PE, CQA Engineer, URS NM Signature Donald T. Lopez

MA-01
MATERIAL APPROVAL FORM
MATERIAL APPROVAL SUBMITTAL FORM (Page 2)

COMMENTS (include Item #)

The Mixed Waste Landfill Corrective Measures Implementations Plan requires testing of the subgrade material at a frequency of 1saturated hydraulic conductivity test per acre per lift stated in Section 2200-9 3.4.2 and Table 3.1. The CMIP requires that the hydraulic conductivity be conducted according to ASTM specification for rigid wall testing, ASTM 5856. The samples shall have a maximum hydraulic conductivity of 4.6×10^{-4}. All items were previously compacted to 90 percent using a standard proctor. The samples did not meet the required hydraulic conductivity values and were re-tested using 95% compaction which is more accurate to field conditions on the cover. All samples passed the required hydraulic conductivity requirements.

2009 Cover Layer Approval Forms

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 001 **DATE:** 05/22/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Existing Subgrade Approval** URS Project No. 24343640

Item No.	Layer	Description
1.	Existing Subgrade	Existing Subgrade approval for construction.

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The Existing Subgrade constructed in 2006 has been cleared of vegetation and remnant erosion matting, compacted, and tested in accordance with the CMIP. The Existing Subgrade is approved for construction of the Biointrusion Layer.
2. Quality control survey indicates some parts of the Existing Sugbrade surface do not meet the 2.0% east-to-west design slope. The slope will be adjusted during construction of the overlaying layers.
3. Side slopes are steeper than 6:1 around the north end of the MWL. 6:1 side slopes will be established during construction of the Native Soil and Top Soil Layers.

Attachments:

None

URS Corporation

Approved By: Donald T. Lopez 5/22/09
Donald T. Lopez, P.E. Date:
CQA Engineer

MIXED WASTE LANDFILL APPROVAL FORM

URS

AP #: 002 DATE: 05/26/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Biointrusion Layer** URS Project No. 24343640

Item No.	Layer	Description
1.	Biointrusion Layer	Biointrusion rock approval
2.	Biointrusion Layer	Biointrusion rock installation procedure
3	Biointrusion Layer	Biointrusion Thickness Verification Requirement

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The Biointrusion rock previously purchased and stockpiled in the Former Bulk Waste Staging Area TA-3 is approved for use on the MWL cover.
2. The revised procedure for installation of the Biointrusion Layer is approved. Please see attached for revised method.
3. No soil may be placed in the Biointrusion voids prior to approval of Biointrusion Layer thickness.

Attachments: 1. Revised Biointrusion Layer installation procedure described in 5/26/09 Daily Summary Report.

URS Corporation

Approved By: Donald T. Lopez, P.E. 5/26/09
CQA Engineer Date:

Don Lopez/Albuquerque/URSCorp
05/27/2009 09:04 AM

To dpschof@sandia.gov

cc Cedgmon@edi-nm.com, Paul Molina/Albuquerque/URSCorp@URSCorp

bcc Mandy Scarberry/Albuquerque/URSCorp@URSCorp; Marshall Nay/Albuquerque/URSCorp@URSCorp

Subject May 26, 2009 URS CQA Daily report and URS CQA approval of Test Method no. II for installation of the Mixed Waste Landfill Biointrusion Layer

Don, and Mixed Waste Landfill Team, Attached to this E-mail is the URS CQA Mixed Waste Landfill Construction Daily Report for May 26, 2009. My CQA Engineer approval of Biointrusion test area method no.II for installation of the Biointrusion layer is described in the daily report and is my direction to the Sandia Mixed Waste Landfill Team by copy of this E-mail.

Please let me know if you need any additional information. 20090526_SMWL DSR_Biointrusion Test Layer.doc

Donald T. Lopez, PE
Principal Civil/Geotechnical Engineer
Infrastructure Group Leader
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URS Albuquerque

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DAILY SUMMARY REPORT (final draft)

DATE: 5/26/09 (Tuesday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Slightly Cloudy, good conditions (58 deg)
WEATHER (PM): Slightly Cloudy, good conditions (72 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- The test section for the Biointrusion Layer was executed today. The initial test procedure discussed in the Construction Site Safety Plan (CSSP, page 37) was determined to be unsuccessful. A second method for the installation of the Biointrusion Barrier was derived and was successful (See below ***Biointrusion Test Area II*** for details).

LOCATION OF CONSTRUCTION

1. Tech Are III, Sandia Mixed Waste Landfill, Existing Subgrade.
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location)
3. Borrow Pit, (Pre-screened Soil Stockpile)

LIST OF PERSONNEL:

Please see Appendix C for sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00 – 7:30 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. The test Biointrusion procedure to be followed.

2. Description: Biointrusion Barrier Procedure Briefing
   Time: 9:45-10:15 PM
   Attendees: See attached sign in sheet.
   Issues:
   a. Discussion of responsibilities and measures that needed to be taken into consideration to have a successful Biointrusion Test.

3. Description: Afternoon Safety Briefing
   Time: 1:00-1:18 PM
   Attendees: See attached sign in sheet.
   Issues:
   a. Rock Delivery: The procedure for continuing with the delivery of rock.
   b. Safety: Proper ear protection and the truck routes needed ensure safety.
   c. Construction: The procedure for continuing the placement of Biointrusion barrier rock.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Biointrusion Test Area I (as discussed in CSSP)***
Please see CSSP (page 37) for procedure description.

The test area consisted of two truckloads of dry, screened loose soil distributed over an approximate 20'x20' area. Using a builder's level, the thickness of the test loose soil layer was determined to be 6-to-8 inches as specified in the CSSP. The soil was initially spread using a motor grader, but EDi later switched to a dozer in an attempt to reduce the soil compaction.

The Biointrusion rock was then placed onto the 6-to-8 inch loose soil layer. The Biointrusion rock was spread to an approximate thickness of 1.0-foot or slightly less. A dozer then compacted the rock in an attempt to push the rock down into the soil layer. After several passes with the dozer, Don Lopez (URS CQA) was not convinced the Biointrusion rock was being pressed down through the loose soil layer to the existing Subgrade Layer. This raised concerns of the possibility of future settling due to the layer of sand between the Subgrade Layer and the Biointrusion Layer. It was determined this procedure was not adequate to meet Specification Section 02115 located in the CMIP.

B. ISSUES/COMMENTS:

1. There was a discussion about extending the Biointrusion Barrier past the toe of the existing Subgrade Layer. It was determined that it is not necessary to extend the Biointrusion Barrier past the toe.
2. The current slope is approximately 1.8% from East to West in lieu of the 2.0% as specified. The slope will be adjusted to the specified 2.0% during the course of construction. It will be corrected during the Native Soil Layer apposed to the Biointrusion Barrier due to material availability and ease of construction.
3. The method of constructing the Biointrusion described in the CSSP (Page 37) was determined to be insufficient by Don Lopez PE URS CQA Engineer.

C. EQUIPMENT USED (See Appendix B for Equipment Description)

1. Grader
2. Dozer
3. Dump Trucks
4. Loader

D. EQUIPMENT CALIBRATION CERTIFICATES

1. NA

E. STATUS:

1. This procedure was ineffective and was canceled. A new method was derived and used as described below.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed: 24342640_06 Project Deliverables_Field Photos.

II.

A. TASK DESCRIPTION: ***Biointrusion Test Area II***

After it was determined the procedure described above in Test Area I was ineffective, a second test area was created using the tracks of the Dozer to scarify the existing Subgrade Surface. It was determined the tracks of the dozer created a texture, which was ideal for the Biointrusion Rock placement. The scarified surface had enough loose soil to fill some of the voids in the rock, as well as create a grooved pattern, which made it easy for the rock to fall into place and interlock. The rock was compacted with the dozer a minimum of four times. Loose, screened soil was then placed over the rock layer and worked into the voids using a vibratory roller. This method proved to be very effective. (See below for updated Biointrusion installation procedure)

The Following is the Updated Biointrusion Layer Installation Procedure:

The Biointrusion layer will be constructed in compliance with the CMIP, Specification Section 02115. The following is the procedure recommended by Don Lopez PE (URS CQA Engineer) for the Biointrusion Layer:

The rock used for the Biointrusion Layer will continue to be the rock acquired by SNL. The rock is located at the former Bulk Waste Staging Area in TA 3.

The EDI Team will scarify the Existing Subgrade Surface using the tracks of a dozer. A minimum of 4 passes with the dozer tracks is required across the existing Subgrade Surface. Once the Subgrade Surface has been prepared, the Biointrusion Rock may be spread across the scarified surface. The rock layer will then be compacted with a minimum of 4 passes by the dozer to ensure compaction and interlocking of the rock. Compaction shall be performed until rocks are firmly locked into place. The entire Biointrusion Rock Layer Surface must be completed, surveyed, and approved before any further construction may take place.

Once the rock layer is compacted in place and approved, additional dry loose soil will be placed over the surface. A dozer will then spread the loose soil across the rock surface and a vibrating, smooth drum roller will be used to work the loose soil into the voids. A minimum of 4 passes with the vibratory roller is required. After this is completed and approved, water will be applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent).

END

B. ISSUES/COMMENTS

1. After the Test Method II was determined to be affective, it was applied for the remainder of the day to the South side of the MWL. Approximately 300-CY of the Biointrusion layer was installed.
2. Water was not applied to the Biointrusion Layer to fill voids today.
3. No survey was performed today. The survey team should be out tomorrow for as-built conditions and elevation confirmations for the Biointrusion Layer.
4. Crushed rock used for the Biointrusion Layer did meet specifications by method of visual inspection.
5. No heavy equipment was operated around the monitoring wells.

C. EQUPMENT USED (See Appendix B for Equipment Description):
1. Dozer
2. Dump Trucks
3. Vibrator, Smooth Drum Roller

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. NA

F. STATUS:
1. Approximately 300 CY of the Biointrusion Layer was installed today (20 Truck Loads @ approx 15 CY/truck). See dwg_05/26/09_Construction_01.
2. Approximately 90 CY of the Loose, dry soil for the voids was installed in test pad (6 truck loads @ approx 15 CY/truck). This was only for the test pad and will not be continued until the Biointrusion Rock Layer is completed and approved.
3. Water was not applied to the Biointrusion Layer today.

G. PICTURES
1. Pictures of this procedure were collected and filed: 24342640_06 Project Deliverables_Field Photos.

INSPECTION CHECKLISTS REQUIRED
1. 1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 05/27/09)
1. Continue installation of the Biointrusion Barrier.
2. Raise Well

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 003 DATE: 06/05/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Biointrusion Rock Thickness (South)** URS Project No. 24343640

Item No.	Layer	Description
1.	Biointrusion Layer	South Biointrusion Layer Thickness

☐ Approved, conforms to CMIP ☒ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The south portion of the Biointrusion Layer is approved with the exception of four grid point locations on the west slope which are less than the 1.0' minimum thickness requirement. The south portion is approved for the placement of soil into the voids except for the west slope grid points which must be corrected, resurveyed, and approved.

Attachments:

1. South portion Biointrusion QA survey locations.

URS Corporation

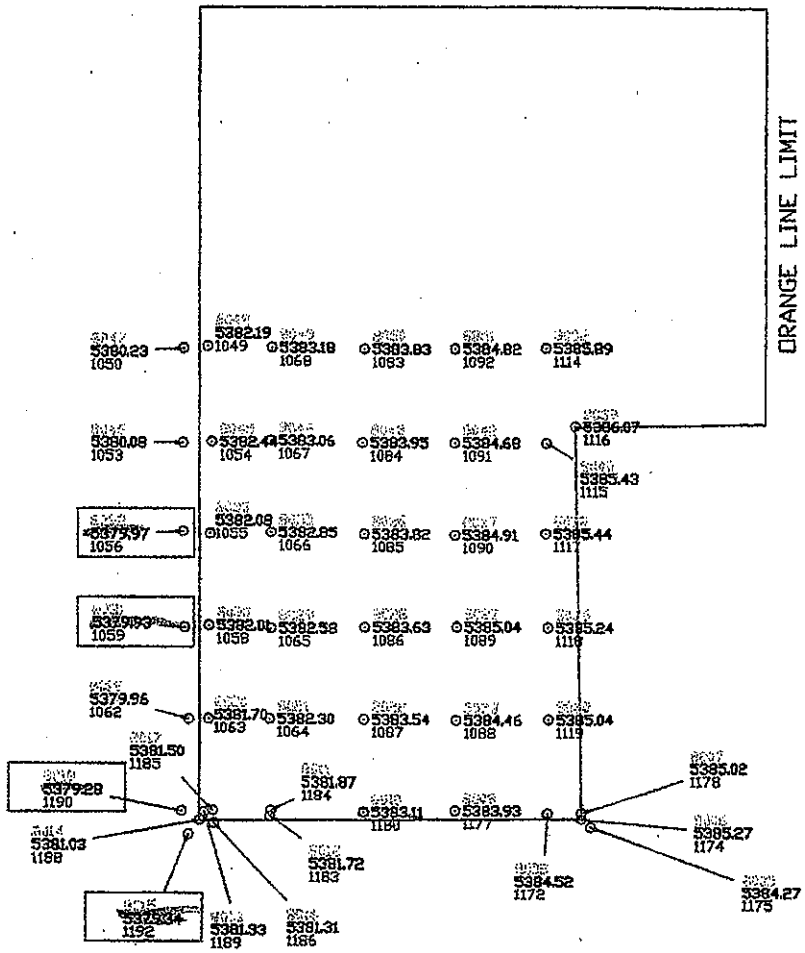
Approved By: Donald T. Lopez, P.E. 06/05/09
CQA Engineer Date:

MWL BIOINTRUSION LAYER | URS PROJECT 24342640 | 6/6/2009

COMPARISON OF "EXIST SFC FROM ABQ SURVEY" TO "MWL South Bio Int Layer Shots 6-5-2009"

ASCI SUBGRADE SHOTS					URS BIOINTRUSION LAYER QA SHOTS (6-5-2009)					DELTAS	(MIN ΔELEV VALUE = 11" = 0.92 FT)			
POINT	NORTH	EAST	ELEV	DESC	POINT	NORTH	EAST	ELEV	DESC	ΔPOINT	ΔNORTH	ΔEAST	ΔDIST	ΔELEV
1049	1452939	411599.7	5381.12	4-NG	8048	1452939	411599.4	5382.195	1049	0	-0.11	0.23	0.25	-1.07
1050	1452938	411586.2	5378.91	4-NG	8047	1452938	411586.6	5380.229	1050	0	0.46	-0.39	0.60	-1.32
1053	1452887	411586.8	5379.01	4-NG	8046	1452887	411586.3	5380.082	1053	0	-0.03	0.56	0.56	-1.07
1054	1452888	411601.6	5381.2	4-NG	8045	1452888	411601.9	5382.44	1054	0	-0.07	-0.27	0.28	-1.24
1055	1452839	411601.2	5380.98	4-NG	8033	1452839	411601	5382.083	1055	0	0.06	0.14	0.15	-1.10
1056	1452840	411586.5	5379.53	4-NG	8032	1452840	411586.6	5379.966	1056	0	0.04	-0.14	0.15	[illegible]
1058	1452789	411600.8	5380.64	4-NG	8030	1452789	411600.5	5382.009	1058	0	-0.25	0.30	0.39	-1.37
1059	1452788	411587.3	5379.3	4-NG	8031	1452788	411587.3	5379.934	1059	0	0.03	-0.05	0.05	[illegible]
1062	1452739	411589.1	5378.93	4-NG	8019	1452739	411589.5	5379.957	1062	0	-0.05	-0.39	0.39	-1.03
1063	1452739	411600.2	5380.35	4-NG	8020	1452739	411600.3	5381.704	1063	0	-0.12	-0.07	0.13	-1.35
1064	1452739	411633	5381.28	4-NG	8021	1452739	411633.1	5382.3	1064	0	-0.17	-0.13	0.22	-1.02
1065	1452788	411633.6	5381.27	4-NG	8029	1452788	411633.8	5382.576	1065	0	-0.06	-0.18	0.19	-1.31
1066	1452839	411633.7	5381.78	4-NG	8035	1452839	411633.9	5382.846	1066	0	-0.11	-0.10	0.15	-1.07
1067	1452889	411633.6	5381.76	4-NG	8044	1452889	411633.6	5383.064	1067	0	0.13	0.00	0.13	-1.30
1068	1452939	411633.8	5381.86	4-NG	8049	1452939	411634.1	5383.179	1068	0	0.08	-0.30	0.31	-1.33
1083	1452938	411684.3	5382.71	4-NG	8050	1452938	411684.3	5383.827	1083	0	0.10	0.08	0.13	-1.12
1084	1452888	411683.4	5382.76	4-NG	8043	1452888	411683.3	5383.946	1084	0	-0.02	0.13	0.13	-1.19
1085	1452838	411684.1	5382.73	4-NG	8036	1452839	411684.2	5383.821	1085	0	-0.15	-0.13	0.20	-1.09
1086	1452788	411684.4	5382.4	4-NG	8028	1452789	411684.6	5383.626	1086	0	-0.18	-0.24	0.30	-1.23
1087	1452739	411684.3	5382	4-NG	8022	1452739	411684.2	5383.537	1087	0	-0.23	0.05	0.24	-1.54
1088	1452739	411734.3	5382.97	4-NG	8023	1452739	411734.3	5384.459	1088	0	-0.01	-0.05	0.05	-1.49
1089	1452789	411734.3	5383.14	4-NG	8027	1452789	411734.5	5385.041	1089	0	0.13	-0.20	0.24	-1.90
1090	1452838	411733.3	5383.53	4-NG	8037	1452838	411733.4	5384.909	1090	0	-0.14	-0.10	0.17	-1.38
1091	1452888	411733.4	5383.58	4-NG	8042	1452888	411733.4	5384.68	1091	0	0.16	0.09	0.19	-1.10
1092	1452938	411733.1	5383.55	4-NG	8051	1452938	411733.4	5384.821	1092	0	0.02	-0.31	0.31	-1.27
1114	1452939	411783	5384.75	4-NG	8052	1452939	411782.7	5385.888	1114	0	0.26	0.29	0.38	-1.14
1115	1452888	411783.4	5384.28	4-NG	8040	1452888	411783.1	5385.43	1115	0	0.16	0.25	0.30	-1.15
1116	1452897	411798.6	5384.56	ORANGE	8039	1452897	411798.7	5386.069	1116	0	-0.31	-0.16	0.35	-1.51
1117	1452839	411782.7	5384.19	4-NG	8038	1452839	411782.8	5385.441	1117	0	-0.16	-0.07	0.17	-1.25
1118	1452789	411783.8	5383.98	4-NG	8026	1452789	411784	5385.237	1118	0	0.21	-0.14	0.25	-1.26
1119	1452739	411784.4	5383.87	4-NG	8024	1452739	411784.4	5385.041	1119	0	-0.03	-0.01	0.03	-1.17
1172	1452688	411784.2	5383.51	4-NG	8008	1452688	411784.2	5384.519	1172	0	0.14	0.03	0.14	-1.01
1174	1452685	411802.5	5383.5	ORANGE	8006	1452685	411802.6	5385.269	1174	0	0.15	-0.19	0.24	-1.77
1175	1452681	411807.5	5383.13	4-NG	8005	1452681	411807.6	5384.265	1175	0	-0.13	-0.13	0.18	-1.14
1177	1452690	411733.9	5382.56	4-NG	8009	1452690	411734	5383.932	1177	0	-0.01	-0.12	0.12	-1.37
1178	1452689	411802.7	5383.65	4-NG	8007	1452689	411802.6	5385.02	1178	0	0.10	0.08	0.13	-1.37
1180	1452689	411684.7	5381.4	4-NG	8010	1452689	411684.3	5383.114	1180	0	0.20	0.38	0.42	-1.71
1183	1452686	411633.5	5380.58	4-NG	8012	1452687	411633.6	5381.723	1183	0	-0.01	-0.18	0.18	-1.14
1184	1452689	411634.3	5380.56	4-NG	8011	1452690	411634.2	5381.872	1184	0	-0.22	0.10	0.24	-1.31
1185	1452690	411602.9	5380.03	4-NG	8017	1452690	411602.9	5381.497	1185	0	0.04	0.00	0.04	-1.47
1186	1452682	411603.2	5379.95	4-NG	8016	1452683	411603.4	5381.305	1186	0	-0.43	-0.22	0.48	-1.36
1188	1452684	411595.5	5379.48	ORANGE	8014	1452684	411595.8	5381.033	1188	0	-0.13	-0.35	0.38	-1.55
1189	1452689	411597.7	5379.82	4-NG	8013	1452689	411598.3	5381.331	1189	0	0.68	-0.54	0.86	-1.51
1190	1452689	411586.2	5378.58	4-NG	8018	1452689	411586.1	5379.276	1190	0	-0.31	0.07	0.31	[illegible]
1192	1452677	411590.1	5378.59	4-NG	8015	1452677	411589.9	5379.34	1192	0	0.16	0.24	0.28	[illegible]

MWL BIOINTRUSTION LAYER
QA SHOTS 6-5-2009



MIXED WASTE LANDFILL APPROVAL FORM

URS

AP #: 004 **DATE:** 06/08/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Additional Biointrusion Rock** **URS Project No.** 24343640

Item No.	Layer	Description
1.	Biointrusion Layer	Additional rock needed to complete construction of the Biointrusion Layer.

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. After a visual inspection of the first delivered load and confirmation from the supplier that this rock is from the same stockpiles as the 2005 rock purchased by Sandia, the additional rock for the Biointrusion Layer is approved.

Attachments:

None

URS Corporation

Approved By: Donald T. Lopez 06/08/09

Donald T. Lopez, P.E. Date:
CQA Engineer

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 005 **DATE:** 06/09/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Biointrusion Rock Thickness (Northwest)** **URS Project No.** 24343640

Item No.	Layer	Description
1.	Biointrusion Layer	Northwest Biointrusion Layer Thickness
2.	Biointrusion Layer	South Biointrusion Layer Thickness Correction (four locations)

☐ Approved, conforms to CMIP ☒ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The northwest portion of the Biointrusion Layer is approved with the exception of two locations on the north slope which were too thick. The northwest portion is approved for the placement of soil into the voids except for the north slope, which must be corrected, resurveyed, and approved at the two locations.
2. The four locations on the west slope of the Biointrusion Layer at the south end that required additional rock have been corrected, resurveyed, and are now approved. The west slope was approved for the placement of soil into the voids on 6/09/09.

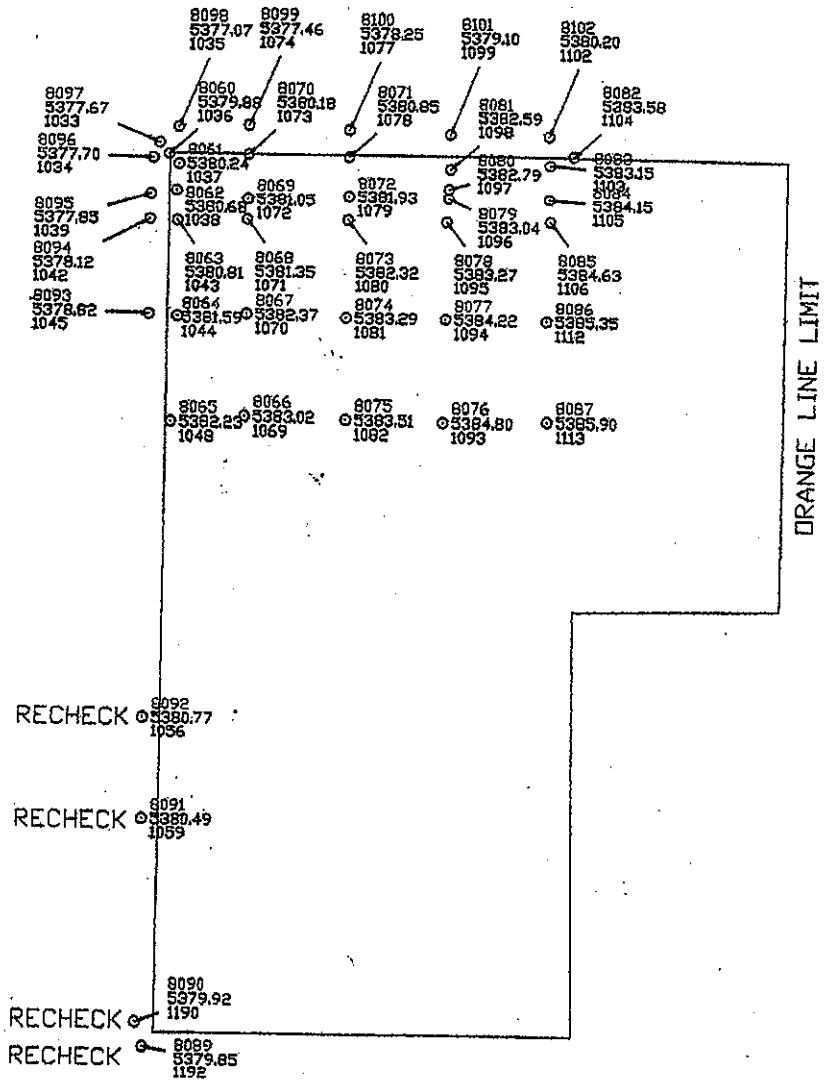
Attachments:

1. Northwest Biointrusion QA survey locations with four west slope location corrections.

URS Corporation

Approved By: Donald T. Lopez 06/09/09
Donald T. Lopez, P.E. Date:
CQA Engineer

MWL BIOI. TRUSTION LAYER
QA SHOTS 6-8-2009



WL BIOINTRUSION LAYER | URS PROJECT 24342640 | 6/8/2009

COMPARISON OF "EXIST SFC FROM ABQ SURVEY" TO "MWL South Bio Int Layer Shots 6-8-2009"

ASCI SUBGRADE SHOTS					URS BIOINTRUSION LAYER QA SHOTS (6-8-2009)					DELTAS (MIN ΔELEV VALUE = 11" = 0.92 FT)				
POINT	NORTH	EAST	ELEV	DESC	POINT	NORTH	EAST	ELEV	DESC	ΔPOINT	ΔNORTH	ΔEAST	ΔDIST	ΔELEV
1033	1453125.877	411589.695	5375.93	4-NG	8097	1453125.96	411589.649	5377.67	1033	0	-0.08	0.05	0.09	-1.74
1034	1453118.152	411586.2652	5376.15	4-NG	8096	1453118.18	411586.573	5377.7	1034	0	-0.02	-0.31	0.31	-1.55
1035	1453133.576	411598.6233	5376.01	4-NG	8098	1453134	411598.77	5377.068	1035	0	-0.42	-0.15	0.44	-1.06
1036	1453120.655	411594.5462	5377.47	ORANGE	8060	1453120.31	411594.343	5379.877	1036	0	0.34	0.20	0.40	-2.41
1037	1453116.253	411599.3789	5378.75	4-NG	8061	1453115.27	411599.316	5380.239	1037	0	-0.01	0.06	0.06	-1.49
1038	1453101.434	411598.4945	5379.18	4-NG	8062	1453101.84	411598.369	5380.684	1038	0	-0.41	0.13	0.42	-1.50
1039	1453100.301	411585.8953	5376.49	4-NG	8095	1453099.77	411585.664	5377.854	1039	0	0.53	0.23	0.58	-1.36
1042	1453087.052	411585.7231	5376.67	4-NG	8094	1453086.81	411585.413	5378.12	1042	0	0.24	0.31	0.39	-1.45
1043	1453086.652	411599.5111	5379.49	4-NG	8063	1453086.39	411598.955	5380.808	1043	0	0.26	0.56	0.61	-1.32
1044	1453037.789	411599.7667	5380.16	4-NG	8064	1453037.81	411599.883	5381.587	1044	0	-0.02	-0.12	0.12	-1.43
1045	1453038.654	411585.7589	5377.65	4-NG	8093	1453038.67	411585.805	5378.816	1045	0	-0.01	-0.05	0.05	-1.17
1048	1452985.805	411597.2513	5380.74	4-NG	8065	1452985.99	411597.474	5382.235	1048	0	-0.08	-0.22	0.24	-1.49
1069	1452989.02	411633.8955	5381.65	4-NG	8066	1452989.19	411633.832	5383.02	1069	0	-0.17	0.06	0.19	-1.37
1070	1453039.615	411634.2786	5380.88	4-NG	8067	1453039.37	411634.024	5382.371	1070	0	0.24	0.25	0.35	-1.49
1071	1453087.525	411633.2208	5380.15	4-NG	8068	1453087.51	411633.52	5381.346	1071	0	0.02	-0.30	0.30	-1.20
1072	1453098.407	411633.2068	5379.89	4-NG	8069	1453098.09	411633.595	5381.047	1072	0	0.32	-0.39	0.50	-1.16
1073	1453121.203	411633.1296	5378.82	4-NG	8070	1453120.91	411633.551	5380.183	1073	0	0.29	-0.42	0.51	-1.36
1074	1453135.631	411633.0617	5376.2	4-NG	8099	1453135.47	411633.506	5377.462	1074	0	0.16	-0.44	0.47	-1.26
1077	1453133.88	411683.207	5377.09	4-NG	8100	1453133.95	411683.296	5378.248	1077	0	-0.07	-0.09	0.11	-1.16
1078	1453119.978	411683.4251	5379.31	4-NG	8071	1453120.17	411683.395	5380.847	1078	0	-0.19	0.03	0.20	-1.54
1079	1453100.037	411683.65	5380.53	4-NG	8072	1453100.08	411683.655	5381.926	1079	0	-0.04	-0.01	0.04	-1.40
1080	1453087.998	411683.5577	5380.94	4-NG	8073	1453088.03	411683.424	5382.32	1080	0	-0.03	0.13	0.14	-1.38
1081	1453038.445	411683.4116	5382.03	4-NG	8074	1453038.25	411683.461	5383.287	1081	0	0.20	-0.05	0.21	-1.26
1082	1452988.346	411684.2255	5382.47	4-NG	8075	1452988.31	411684.105	5383.514	1082	0	0.04	0.12	0.13	-1.04
1093	1452987.9	411732.4728	5383.43	4-NG	8076	1452987.81	411732.657	5384.798	1093	0	0.09	-0.18	0.21	-1.37
1094	1453038.326	411733.0576	5382.97	4-NG	8077	1453038.35	411733.048	5384.216	1094	0	-0.03	0.01	0.03	-1.25
1095	1453088.196	411732.5428	5381.97	4-NG	8078	1453087.95	411732.624	5383.265	1095	0	0.25	-0.08	0.26	-1.30
1096	1453099.821	411733.3841	5381.79	4-NG	8079	1453099.97	411733.446	5383.036	1096	0	-0.15	-0.06	0.16	-1.25
1097	1453104.646	411733.6868	5381.6	4-NG	8080	1453104.71	411733.51	5382.791	1097	0	-0.07	0.18	0.19	-1.19
1098	1453115.013	411733.8539	5380.84	4-NG	8081	1453114.95	411734.082	5382.585	1098	0	0.06	-0.23	0.24	-1.74
1099	1453132.795	411733.4958	5377.69	4-NG	8101	1453132.67	411733.614	5379.1	1099	0	0.13	-0.12	0.17	-1.41
1102	1453132.772	411782.9083	5378.68	4-NG	8102	1453132.37	411782.772	5380.2	1102	0	0.40	0.14	0.42	-1.52
1103	1453117.638	411784.1682	5381.61	4-NG	8083	1453117.63	411783.726	5383.151	1103	0	0.01	0.44	0.44	-1.54
1104	1453121.962	411795.0732	5380.99	ORANGE	8082	1453122.42	411795.3	5383.577	1104	0	-0.46	-0.23	0.51	-2.59
1105	1453100.319	411783.3915	5382.73	4-NG	8084	1453100.18	411783.505	5384.152	1105	0	0.14	-0.11	0.18	-1.42
1106	1453088.965	411783.8353	5383.08	4-NG	8085	1453088.85	411784.211	5384.628	1106	0	0.12	-0.38	0.39	-1.55
1112	1453038.061	411783.604	5384.18	4-NG	8086	1453038.1	411783.411	5385.35	1112	0	-0.04	0.09	0.10	-1.17
1113	1452988.713	411784.3371	5384.8	4-NG	8087	1452988.91	411784.492	5385.904	1113	0	-0.19	-0.15	0.25	-1.10

RECHECKS OF 6-5-2009 BIOINTRUSION LAYER QA SHOTS WITH INSUFFICIENT FILL, AFTER REWORK BY EDI

1192	1452676.76	411590.118	5378.59	4-NG	8089	1452676.67	411590.124	5379.854	1192	0	0.09	-0.01	0.09	-1.26
1190	1452688.844	411586.1958	5378.58	4-NG	8090	1452688.81	411586.207	5379.922	1190	0	0.04	-0.01	0.04	-1.34
1059	1452788.213	411587.2638	5379.3	4-NG	8091	1452788.46	411587.369	5380.494	1059	0	-0.24	-0.11	0.26	-1.19
1056	1452839.667	411586.4579	5379.53	4-NG	8092	1452839.86	411586.695	5380.771	1056	0	-0.19	-0.24	0.31	-1.24

MIXED WASTE LANDFILL APPROVAL FORM

URS

AP #: 006 DATE: 06/15/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Biointrusion Rock Thickness (Northeast)** URS Project No. 24343640

Item No.	Layer	Description
1.	Biointrusion Layer	Northeast Biointrusion Layer Thickness
2.	Biointrusion Layer	Northwest Biointrusion Layer Thickness Correction (two locations)

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The northeast portion of the MWL Biointrusion Layer is approved for the placement of soil into the voids.
2. The two locations on the north slope of the Biointrusion Layer that were too thick have been corrected, resurveyed, and were approved. The north slope is now approved for the placement of soil into the voids.
3. The entire Biointrusion Layer is now approved. Approval includes thickness, side slopes, and surface slope. Side slopes are steeper than 6:1 but will be adjusted during construction of the Native Soil Layer. The east-to-west surface slope is less than 2.0% in some areas consistent with the Existing Subgrade and, will also be adjuste during the construction of the Native Soil Layer.

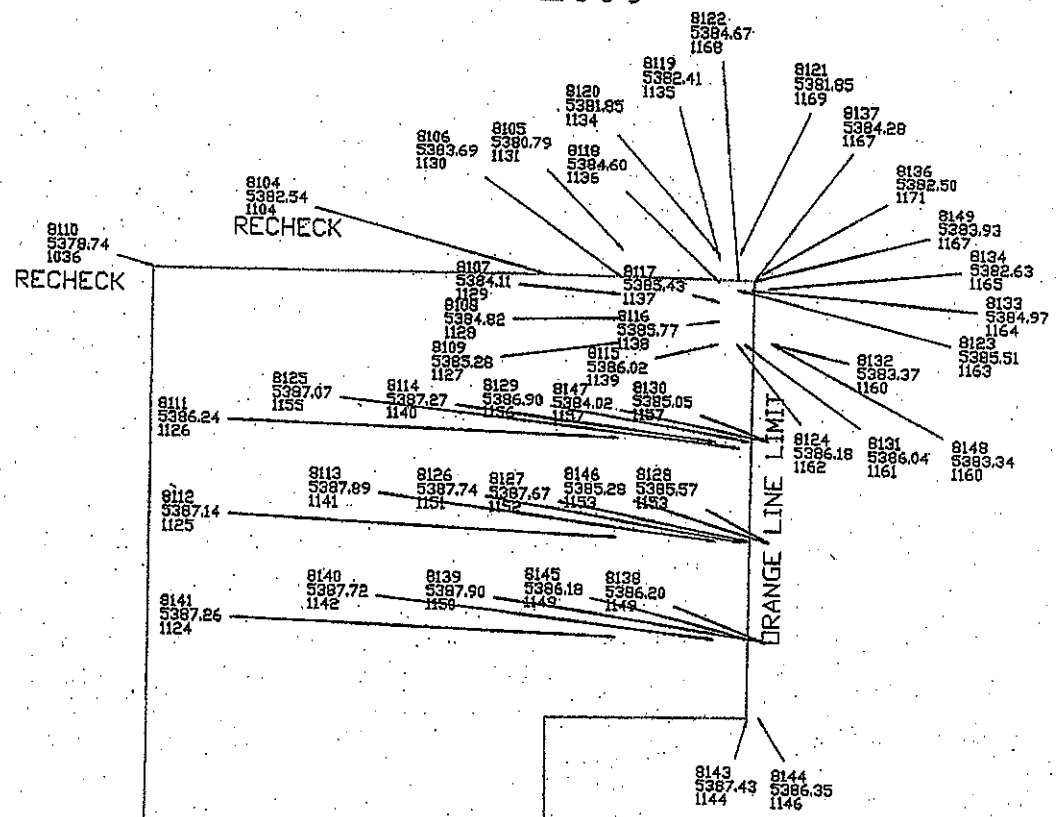
Attachments:

1. Northeast Biointrusion QA survey locations with two north slope location corrections.
2. QC survey results for the thickness of the Biointrusion Layer.

URS Corporation

Approved By: Donald T. Lopez 06/15/09
Donald T. Lopez, P.E. Date:
CQA Engineer

MWL BIOINTRUSTION LAYER
QA SHOTS 6-12-2009



MW" "O...USION LAYER URS PROJECT 24342640 6/12"

COM...ARISON OF "EXIST SFC FROM ABQ SURVEY" TO "MWL South Bio Int Layer Shots 6-12-2009"

ASCI SUBGRADE SHOTS					URS BIOINTRUSION LAYER QA SHOTS (6-12-2009)					DELTAS	(MIN ΔELEV VALUE = 11" = 0.92 FT)			
POINT	NORTH	EAST	ELEV	DESC	POINT	NORTH	EAST	ELEV	DESC	ΔPOINT	ΔNORTH	ΔEAST	ΔDIST	ΔELEV
1124	1452939.026	411833.6637	5385.9	4-NG	8141	1452939.29	411833.337	5387.26	1124	0	-0.28	0.33	0.42	-1.36
1125	1452989.189	411833.5512	5385.76	4-NG	8112	1452989.29	411833.412	5387.14	1125	0	-0.10	0.14	0.17	-1.38
1126	1453039.314	411833.19	5385.06	4-NG	8111	1453039.29	411833.297	5386.242	1126	0	0.02	-0.11	0.11	-1.18
1127	1453088.317	411833.2798	5383.83	4-NG	8109	1453088.11	411832.972	5385.278	1127	0	0.21	0.31	0.37	-1.45
1128	1453100.391	411833.4304	5383.46	4-NG	8108	1453100.32	411833.806	5384.822	1128	0	0.07	-0.38	0.38	-1.36
1129	1453113.132	411833.1039	5383.01	4-NG	8107	1453112.67	411832.849	5384.11	1129	0	0.46	0.25	0.53	-1.10
1130	1453121.358	411833.5607	5382.4	4-NG	8106	1453121.32	411833.981	5383.686	1130	0	0.03	-0.42	0.42	-1.29
1131	1453135.895	411833.7511	5379.67	4-NG	8105	1453135.77	411834.088	5380.79	1131	0	0.13	-0.34	0.36	-1.12
1134	1453134.579	411883.1349	5380.53	4-NG	8120	1453134.65	411882.965	5381.848	1134	0	-0.07	0.17	0.18	-1.32
1135	1453131.752	411883.3185	5380.77	4-NG	8119	1453131.86	411883.669	5382.411	1135	0	-0.10	-0.35	0.37	-1.64
1136	1453120.302	411883.4675	5383.5	4-NG	8118	1453120.16	411883.477	5384.601	1136	0	0.15	-0.01	0.15	-1.10
1137	1453109.785	411883.2126	5384.35	4-NG	8117	1453109.69	411883.563	5385.428	1137	0	0.09	-0.35	0.36	-1.08
1138	1453100.145	411883.358	5384.55	4-NG	8116	1453099.95	411883.533	5385.771	1138	0	0.20	-0.17	0.26	-1.22
1139	1453088.832	411883.1046	5384.83	4-NG	8115	1453088.53	411883.269	5386.021	1139	0	0.30	-0.16	0.34	-1.19
1140	1453038.207	411882.9216	5386.02	4-NG	8114	1453038.27	411883.099	5387.269	1140	0	-0.06	-0.18	0.19	-1.25
1141	1452988.635	411883.9412	5386.37	4-NG	8113	1452988.55	411883.744	5387.892	1141	0	0.08	0.20	0.21	-1.52
1142	1452939.171	411883.3497	5386.36	4-NG	8140	1452939.21	411883.519	5387.722	1142	0	-0.04	-0.17	0.17	-1.36
1144	1452898.76	411901.3566	5386.36	ORANGE	8143	1452898.3	411901.713	5387.427	1144	0	0.46	-0.36	0.58	-1.07
1146	1452898.468	411907.7035	5385.1	4-NG	8144	1452898.73	411907.422	5386.355	1146	0	-0.26	0.28	0.38	-1.25
1149	1452938.006	411911.2063	5384.87	4-NG	8145	1452937.71	411911.062	5386.175	1149	0	0.30	0.14	0.33	-1.31
1150	1452939.585	411901.9983	5386.6	4-NG	8139	1452939.47	411902.196	5387.895	1150	0	0.11	-0.20	0.23	-1.30
1151	1452988.397	411896.6222	5386.54	4-NG	8126	1452988.12	411896.796	5387.736	1151	0	0.28	-0.17	0.33	-1.20
1152	1452988.604	411901.0696	5386.21	4-NG	8127	1452988.66	411901.319	5387.666	1152	0	0.15	-0.25	0.29	-1.46
1153	1452988.43	411910.8432	5383.92	4-NG	8146	1452988.25	411911.071	5385.278	1153	0	0.18	-0.23	0.29	-1.36
1155	1453035.605	411894.8683	5386.01	4-NG	8125	1453035.65	411894.915	5387.075	1155	0	-0.04	-0.05	0.06	-1.06
1156	1453039.173	411899.5522	5385.61	4-NG	8129	1453038.89	411899.714	5386.899	1156	0	0.28	-0.16	0.33	-1.29
1157	1453039.75	411909.6592	5382.69	4-NG	8147	1453039.17	411909.98	5384.024	1157	0	0.58	-0.32	0.66	-1.33
1160	1453089.313	411910.4099	5381.93	4-NG	8148	1453089.25	411910.813	5383.337	1160	0	0.07	-0.40	0.41	-1.41
1161	1453088.85	411896.9209	5384.82	4-NG	8131	1453088.7	411897.058	5386.042	1161	0	-0.05	-0.14	0.14	-1.22
1162	1453088.945	411892.8175	5384.87	4-NG	8124	1453088.71	411893.062	5386.183	1162	0	0.24	-0.24	0.34	-1.31
1163	1453116.124	411893.3831	5384.35	4-NG	8123	1453116.21	411893.188	5385.506	1163	0	-0.09	0.20	0.21	-1.16
1164	1453116.194	411899.8777	5383.64	4-NG	8133	1453116.08	411900.122	5384.969	1164	0	0.11	-0.24	0.27	-1.33
1165	1453117.016	411908.6893	5381.45	4-NG	8134	1453117	411908.606	5382.625	1165	0	0.02	0.08	0.09	-1.18
1167	1453121.172	411901.2358	5382.58	ORANGE	8149	1453120.93	411901.136	5383.93	1167	0	0.24	0.10	0.26	-1.35
1168	1453121.079	411893.3291	5383.56	4-NG	8122	1453120.99	411893.339	5384.673	1168	0	0.09	-0.01	0.09	-1.11
1169	1453134.471	411894.1187	5380.78	4-NG	8121	1453134.41	411893.91	5381.849	1169	0	0.06	0.21	0.22	-1.07
1171	1453124.658	411905.1898	5381.2	4-NG	8136	1453124.61	411905.369	5382.499	1171	0	0.05	-0.18	0.19	-1.30

RECHECKS OF 6-8-2009 BIOINTRUSION LAYER QA SHOTS WITH OVER-FILL, AFTER REWORK BY EDI

1036	1453120.655	411594.5462	5377.47	ORANGE	8110	1453121.17	411594.534	5378.739	1036	0	-0.51	0.01	0.51	-1.27
1104	1453121.962	411795.0732	5380.99	ORANGE	8104	1453122.29	411795.186	5382.636	1104	0	-0.33	-0.11	0.35	-1.55

BIOINTRUSION LAYER			
Construction QC Survey Results			
Grid #	Pt. #	Elev.	Δ Total
A1	1747	5380.75	1.26
A2	1755	5381.28	1.13
A3	1758	5382.26	1.32
A4	1761	5383.18	1.21
A5	1770	5384.54	1.46
A6	1806	5385.11	1.28
A7	1820	5386.03	1.20
B1	1777	5381.49	1.33
B2	1754	5382.13	1.25
B3	1759	5383.32	1.29
B4	1760	5384.17	1.20
B5	1769	5385.46	1.28
B6	1805	5386.18	1.12
B7	1821	5387.19	1.17
C1	1778	5382.24	1.50
C2	1746	5382.86	1.21
C3	1711	5383.75	1.28
C4	1712	5384.70	1.27
C5	1713	5385.88	1.08
C6	1835	5386.97	1.21
C7	1834	5387.66	1.29
D1	1719	5382.38	1.26
D2	1710	5383.13	1.28
D3	1709	5383.83	1.12
D4	1708	5384.80	1.25
D5	1707	5385.78	1.03
D6	1847	5387.17	1.27
D7	1837	5387.64	1.28
E1	1717	5382.43	1.23
E2	1702	5383.05	1.29
E3	1703	5383.98	1.21
E4	1704	5384.69	1.11
E5	1705	5385.45	1.17
E5.1	1706	5385.79	1.23

Grid #	Pt. #	Elev.	Δ Total
E6	1846.00	5386.17	1.41
E7	1845.00	5386.91	1.84
F1	1716.00	5382.09	1.11
F2	1701.00	5382.85	1.07
F3	1700.00	5383.8	1.07
F4	1699.00	5384.81	1.28
F5	1698.00	5385.41	1.22
G1	1715.00	5381.97	1.33
G2	1692.00	5382.51	1.24
G3	1749.00	5383.72	1.32
G4	1748.00	5384.4	1.26
G5	1695.00	5385.21	1.23
H1	1714.00	5381.73	1.38
H2	1691.00	5382.33	1.05
H3	1768.00	5383.44	1.44
H4	1766.00	5384.42	1.45
H5	1688.00	5384.94	1.07
I1	1750.00	5381.09	1.27
I2	1751.00	5381.87	1.31
I3	1683.00	5382.73	1.33
I4	1767.00	5383.89	1.33
I5	1685.00	5384.58	1.07
		Average =	**1.25**

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 007 **DATE: 06/17/09**

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **3.0-inch Thin Soil Layer** URS Project No. 24343640

Item No.	Layer	Description
1.	Thin Soil Layer	3.0-inch nominal thickness Thin Soil Layer.

☒ Approved ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks: 1. The 3.0-inch nominal thickness Thin Soil Layer is approved.

Attachments: 1. Thin soil layer thickness verification.

URS Corporation

Approved By: Donald T. Lopez 06/17/09
Donald T. Lopez, P.E. / Marshall Nay PHA, PE Date:
CQA Engineer

THIN SOIL LAYER			
Construction QC Survey Results			
Grid #	Elev.	Pt.#	Δ Total (ft)
A1	5380.94	1905	0.19
A2	5381.54	1904	0.26
A3	5382.43	1903	0.17
A4	5383.46	1923	0.28
A5	5384.78	1929	0.24
A6	5385.40	1940	0.29
A7	5386.35	1955	0.32
B1	5381.74	1900	0.25
B2	5382.39	1921	0.26
B3	5383.51	1901	0.19
B4	5384.47	1902	0.30
B5	5385.61	1928	0.15
B6	5386.39	1939	0.21
B7	5387.26	1950	0.07
C1	5382.38	1898	0.14
C2	5383.15	1920	0.29
C3	5384.05	1897	0.30
C4	5384.94	1896	0.24
C5	5386.01	1895	0.13
C6	5387.26	1938	0.29
C7	5387.96	1949	0.30
D1	5382.59	1889	0.21
D2	5383.35	1892	0.22
D3	5384.07	1891	0.24
D4	5385.08	1893	0.28
D5	5386.01	1894	0.23
D6	5387.35	1931	0.18
D7	5387.94	1953	0.30
E1	5382.71	1882	0.28
E2	5383.20	1886	0.15
E3	5384.24	1883	0.26
E4	5384.97	1884	0.28
E5	5385.75	1885	0.30
E5.1	5386.09	1933	0.30

Grid #	Elev.	Pt.#	Δ Total (ft)
F1	5382.34	1887	0.25
F2	5383.11	1880	0.26
F3	5384.09	1879	0.29
F4	5384.89	1878	0.08
F5	5385.67	1877	0.26
G1	5382.25	1868	0.28
G2	5382.75	1871	0.24
G3	5383.92	1872	0.20
G4	5384.99	1873	0.59
G5	5385.54	1874	0.33
H1	5382.02	1866	0.29
H2	5382.62	1869	0.29
H3	5383.74	1864	0.30
H4	5384.68	1865	0.26
H5	5385.28	1863	0.34
I1	5381.34	1853	0.25
I2	5382.07	1855	0.20
I3	5382.99	1857	0.26
I4	5384.14	1861	0.25
I5	5384.78	1859	0.20
		Average =	**0.25**

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 008 DATE: 06/22/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Wedge Lifts 1 & 2 Approval** URS Project No. 24343640

Item No.	Layer	Description
1.	Native Soil Layer	Wedge Lifts 1 and 2 approval

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. Wedge Lifts 1 and 2 were constructed, tapered, spatially limited lifts to achieve the 2.0% east-to-west design slope. They were constructed and tested in accordance with the CMIP. The slope of the surface still has a couple of areas that do not meet the 2.0% design slope requirement. The 2.0% design slope requirement will be achieved with Native Soil Polishing Lifts 3 and 4.
2. Wedge Lifts 1 and 2 are approved based upon CQA Engineer review of construction team QC survey data (topographic map and profiles).

Attachments:

None

URS Corporation

Approved By: Donald T. Lopez 06/22/09
Donald T. Lopez, P.E. / Marshall Nan, PHD, PE Date:
CQA Engineer

MIXED WASTE LANDFILL APPROVAL FORM

URS

AP #: 009 DATE: 06/30/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Wedge Lifts 3 & 4 Approval** URS Project No. 24343640

Item No.	Layer	Description
1.	Native Soil Layer	Polishing Lifts 3 and 4 approval

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. Polishing Lifts 3 and 4 were constructed across the cover surface but with variable thickness to complete the adjustment required to establish the 2.0% east-to-west surface design slope. They were constructed and tested in accordance with the CMIP. Polishing Lifts 3 and 4 are approved.
2. Polishing Lifts 3 and 4 are approved based upon review of Construction Team QC survey data (topographic map and profiles).

Attachments:

None

URS Corporation

Approved By: Donald T. Lopez 06/30/09

Donald T. Lopez, P.E. Date:
CQA Engineer

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 010 DATE: 7/30/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Native Soil Layer Approval** URS Project No. 24343640

Item No.	Layer	Description
1.	Native Soil Layer	Native Soil Layer approval

☐ Approved, conforms to CMIP ☒ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The Native Soil Layer was constructed and tested in accordance with the CMIP with the exception of 9 locations which were below the 30-inch thickness requirement. The Native Soil Layer is approved for the placement of the Topsoil Layer with the exception of the 9 low locations. The 9 locations must be corrected, resurveyed, and approved prior to the placement of the Topsoil Layer.
2. The 9 locations requiring additional soil were identified through review of both the QC and QA survey results, and likely represents high spots in the underlying Biointrusion Layer.

Attachments: 1. None

URS Corporation

Approved By: Donald T. Lopez 07/30/09
Donald T. Lopez, P.E. Date:
CQA Engineer

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 011 **DATE: 8/04/09**

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Native Soil Corrections Approval** URS Project No. 24343640

Item No.	Layer	Description
1.	Native Soil Layer	Native Soil Layer Corrections (9 locations), 2.0% east-to-west surface design slope and 6:1 side slopes.

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The 9 locations previously identified as low areas have been corrected, resurveyed, and are approved. The Native Soil Layer was constructed and tested in accordance with the CMIP and is approved for the placement of the Topsoil Layer.
2. Native Soil Layer thickness, 2.0% east-to-west surface design slope, and 6:1 side slopes are approved based upon the QA verification survey and review of the Construction Team QC survey data (topographic map and profiles).

Attachments:

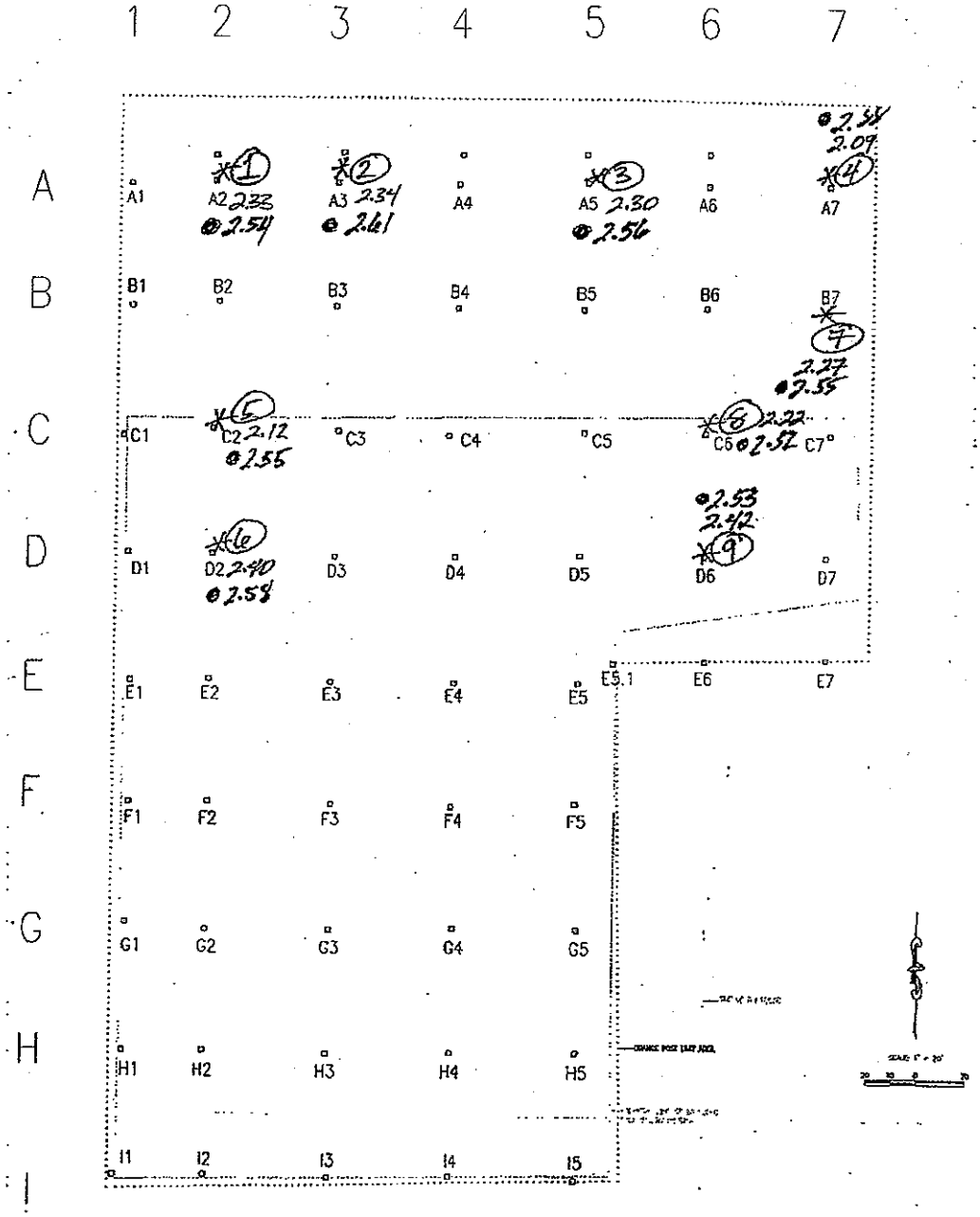
1. Map showing 9 locations and thickness pre/post adjustment.
2. QC survey results for the thickness of the Native Soil Layer.

URS Corporation

Approved By: Donald T. Lopez 08/12/09
Donald T. Lopez, P.E. Date:
CQA Engineer

SPREAD SHEET DIAGRAM

● = Post Adjustment
✱ = Pre-Adjustment



Prod. & Survey By:
ALBUQUERQUE SURVEYING CO. INC., 2110 Menaul Blvd. N.E., Albuquerque, New Mexico 87107 Ph. (505) 884-2703

NATIVE SOIL LAYER			
Construction QC Survey Results			
Grid #	Pt. #	Elev.	Δ Total
A1	5311	5383.51	2.76
A2	5310	5384.04	2.76
A3	5307	5384.93	2.67
A4	5306	5385.99	2.81
A5	5290	5387.28	2.74
A6	5289	5387.93	2.82
A7	5347	5388.54	2.51
B1	5312	5384.36	2.87
B2	5309	5384.87	2.74
B3	5300	5385.98	2.66
B4	5305	5386.99	2.82
B5	5291	5388.09	2.63
B6	5292	5388.92	2.74
B7	5346	5389.37	2.18
C1	5313	5384.87	2.63
C2	5340	5385.59	2.73
C3	5315	5386.61	2.86
C4	5304	5387.52	2.82
C5	5294	5388.59	2.71
C6	5345	5389.57	2.60
C7	5293	5390.48	2.82
D1	5314	5385.09	2.71
D2	5341	5385.77	2.64
D3	5316	5386.80	2.97
D4	5303	5387.77	2.97
D5	5295	5388.73	2.95
D6	5296	5389.74	2.57
D7	5297	5390.77	3.13
E1	5319	5385.22	2.79
E2	5318	5385.86	2.81
E3	5317	5386.84	2.86
E4	5302	5387.85	3.16
E5	5301	5388.85	3.40
E5.1	5300	5389.12	3.33
E6	5299	5389.83	3.66
E7	5298	5390.89	3.98

Grid #	Pt. #	Elev.	Δ Total
F1	5320	5384.87	2.78
F2	5321	5385.49	2.64
F3	5322	5386.57	2.77
F4	5323	5387.48	2.67
F5	5324	5388.46	3.05
G1	5329	5384.75	2.78
G2	5328	5385.34	2.83
G3	5327	5386.42	2.70
G4	5326	5387.44	3.04
G5	5325	5388.41	3.20
H1	5330	5384.43	2.70
H2	5331	5385.17	2.84
H3	5332	5386.19	2.75
H4	5333	5387.20	2.78
H5	5334	5388.19	3.25
I1	5339	5383.82	2.73
I2	5338	5384.53	2.66
I3	5337	5385.70	2.97
I4	5336	5386.59	2.70
I5	5335	5387.60	3.02
		Average =	**2.85**

MIXED WASTE LANDFILL APPROVAL FORM

URS

AP #: 012 **DATE:** 8/12/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Topsoil Layer Approval** URS Project No. 24343640

Item No.	Layer	Description
1.	Topsoil Layer	Approval of Topsoil Layer

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The Topsoil Layer was constructed in accordance with the CMIP. Thickness, 2.0% east-to-west surface design slope, and 6:1 side slopes verified and meet specifications. The Topsoil layer is approved.
2. Topsoil Layer thickness, 2.0% east-to-west surface design slope, and 6:1 side slopes are approved based upon the QA verification survey and review of the Construction Team QC survey data (topographic map and profiles).

Attachments:

1. QC survey results for the thickness of the Topsoil Layer.

URS Corporation

Approved By: Donald T. Lopez 08/12/09
Donald T. Lopez, P.E. Date:
CQA Engineer

TOPSOIL LAYER			
Construction QC Survey Results			
Grid #	Pt.#	Elev.	Δ Total (Ft)
A1	5256	5384.52	1.01
A2	5262	5385.03	0.99
A3	5264	5385.99	1.06
A4	5267	5387.02	1.03
A5	5274	5388.33	1.05
A6	5279	5388.89	0.96
A7	5281	5389.58	1.04
B1	5276	5385.40	1.04
B2	5261	5385.90	1.03
B3	5265	5387.00	1.02
B4	5266	5388.01	1.02
B5	5273	5389.08	0.99
B6	5278	5389.87	0.95
B7	5282	5390.50	1.13
C1	5277	5385.88	1.01
C2	5255	5386.56	0.97
C3	5247	5387.60	0.99
C4	5248	5388.55	1.03
C5	5249	5389.59	1.00
C6	5284	5390.65	1.08
C7	5283	5391.59	1.11
D1	5254	5386.07	0.98
D2	5246	5386.78	1.01
D3	5245	5387.78	0.98
D4	5244	5388.78	1.01
D5	5243	5389.77	1.04
D6	5288	5390.78	1.04
D7	5285	5391.79	1.02
E1	5253	5386.21	0.99
E2	5238	5386.84	0.98
E3	5239	5387.84	1.00
E4	5240	5388.83	0.98
E5	5241	5389.82	0.97
E5.1	5242	5390.06	0.94

Grid #	Pt.#	Elev.	Δ Total
F1	5252	5385.88	1.01
F2	5237	5386.52	1.03
F3	5236	5387.61	1.04
F4	5235	5388.63	1.15
F5	5234	5389.49	1.03
G1	5251	5385.77	1.02
G2	5232	5386.42	1.08
G3	5258	5387.49	1.07
G4	5257	5388.45	1.01
G5	5233	5389.39	0.98
H1	5250	5385.52	1.09
H2	5231	5386.19	1.02
H3	5272	5387.24	1.05
H4	5270	5388.27	1.07
H5	5230	5389.27	1.08
I1	5259	5384.83	1.01
I2	5260	5385.55	1.02
I3	5228	5386.64	0.94
I4	5271	5387.66	1.07
I5	5229	5388.60	1.00
		Average =	1.02

MIXED WASTE LANDFILL APPROVAL FORM

URS

AP #: 013 **DATE:** 8/25/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **Seeding, Fertilizer and Mulching Modification** URS Project No. 24343640

Item No.	Layer	Description
1.	Seeding	CMIP Reclamation Seeding and Mulching Modification
2.	Fertilizer	Elimination of fertilizer
3.	Mulch	Mulch Approved

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. CMIP modification for reclamation seeding and mulching is approved.
2. Hand broadcasting used in addition to drill seeding to minimize compaction of the Topsoil Layer by minimizing the number of passes required by the tractor pulling the drill seeder. Additional passes would have been necessary to accommodate the increase of seeding rate.
3. Fertilizer not used based upon recommendation from Sandia Staff Biologist. Fertilizer used late in the growing season can make plants more susceptible to frost damage.

Attachments:

1. Email from Don Schofield requesting modification for increased seeding rate and elimination of fertilizer.

URS Corporation

Approved By: Donald T. Lopez 8/25/09
Donald T. Lopez, P.E. Date:
CQA Engineer

Don Lopez/Albuquerque/URSCorp
08/05/2009 04:45 PM

To "Schofield, Donald P" <dpschof@sandia.gov>
cc "Mitchell, Mike M" <mmmitch@sandia.gov>, Marshall Nay/Albuquerque/URSCorp@URSCorp, Paul Molina/Albuquerque/URSCorp@URSCorp, Jack
bcc
Subject Re: CMIP Reveg Modification

Don, Thanks for this mod. We will incorporate this modification in to our CQA effort and the report.

DONALD T. LOPEZ, PE
PRINCIPAL CIVIL/GEOTECHNICAL ENGINEER
INFRASTRUCTURE GROUP LEADER
6501 AMERICAS PARKWAY NE, SUITE 900
ALBUQUERQUE, NEW MEXICO 87110
PH. 505.855.7500 FX. 505.855.7555
CL. 505.301.5965
URS ALBUQUERQUE

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"Schofield, Donald P" <dpschof@sandia.gov>

"Schofield, Donald P" <dpschof@sandia.gov>
08/05/2009 09:59 AM

To "Don_Lopez@URSCorp.com" <Don_Lopez@URSCorp.com>
cc "Mitchell, Mike M" <mmmitch@sandia.gov>
Subject CMIP Reveg Modification

Mr. Lopez - Sandia National Laboratories (SNL) is approving a modification to the Mixed Waste Landfill (MWL) Corrective Measures Implementation Plan (CMIP) with regards to the revegitation specifications. These modifications come at the request of SNL's staff biologist, and are:

- uniform seeding rate of 80 pounds seed mix per acre (4x CMIP).
- no fertilizer added due to timing (August) of seeding.
- supplemental watering to assist seed germination and root development.

Please incorporate these modifications into URS's CQA effort. Thank you, Donald P Schofield.

MIXED WASTE LANDFILL APPROVAL FORM **URS**

AP #: 014 DATE: 9/02/09

Attention: **Don Schofield**
Sandia National Laboratories
P.O. Box 5800 MS 1125
Albuquerque, NM
87185

URS Corporation
6501 Americas Parkway NE, Ste 900
Albuquerque, NM 87110-6367
(505) 855-7500

Subject: **CMIP Re-Vegetation Modification** URS Project No. 24343640

Item No.	Layer	Description
1.	Topsoil Layer placement of seed and mulch	Placement of seed and mulch approved

☒ Approved, conforms to CMIP ☐ Conditionally Approved ☐ Declined, does not conform to CMIP

Remarks:

1. The placement of seed and mulch is approved based on visual inspection.

Attachments: 1. None.

URS Corporation

Approved By: Donald T. Lopez 9/02/09
Donald T. Lopez, P.E. Date:
CQA Engineer

ATTACHMENT 3

Daily Quality Control Reports

2006 Daily Quality Control Reports

2006 Daily Quality Control Reports

October 2006

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/2/2006	001

WEATHER	Clear, cool	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	Weekly Meeting / CQA
Kelly Peil	CQA Engineer	MKM	Weekly Meeting

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Collected initial proctor for subgrade material and proctor for existing surface

SUMMARY OF MEETINGS HELD & ATTENDEES

Weekly Managers' Meeting, attendees included Tim Goering, Joe Fritts, Kelly Peil, Anthony Martinez, Stacy Griffin, Ben Martinez, Corey Woods, Tony Shurter, Brian Fockett, and Don Schofield. See Agenda and Record of Meeting.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: TI-04

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/2/06	Kelly M Peil	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	2-Oct-06	001

Crew began removing fence around un-classified area. Removal of small fence complete except for east-west fence in the middle of the un-classified area. Rad personnel performed frisking/swiping of fence material.

Two Proctor samples collected:

MWL-ES-001 Collected from existing surface, approximately 30' Northwest of monitor well MWL-4

MWL-SG-001 Collected from west end of subgrade stockpile

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~GWL~~ CQA	10/3/2006	002

WEATHER Clear, cool

TEMPERATURE Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/3/06	Kelly M Rul	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	3-Oct-06	002

No QA personnel on site. Crew pulled t-posts from fence around unclassified area. Rad personnel continued frisking/swiping fence material

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/4/2006	003

WEATHER Clear, cool

TEMPERATURE Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR — 10/4/06 DATE

QC ENGINEER — 16 Nov 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	4-Oct-06	003

No QA personnel on site. Crew attended Rad-II training in the morning, in the afternoon began removal of vegetation in the unclassified area.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/5/2006	004

WEATHER	Clear, cool	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/5/06	Kelly M Rul	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	5-Oct-06	004

No QA personnel on site. Crew completed removal of vegetation in unclassified area. Appx. 50 cubic yards of vegetation was placed directly into shredder. Appx. 300 cubic yards of dirt and vegetation mixture was screened, vegetation shredded.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/9/2006	005

WEATHER	Heavy rains	TEMPERATURE	Low 40s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/9/06	Kelly M [signature]	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	9-Oct-06	005

No field activities on this date due to rain and muddy conditions.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	10/10/2006	006

WEATHER	Rain in a.m., clearing in p.m.	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	Meeting
Kelly Peil	CQA Engineer	MKM	Meeting

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

Weekly Managers' Meeting, attendees included Anthony Martinez, Paula Schuh, Don Lopez, Kelly Peil, Joe Fritts, Corey Woods, Harry Buckner, Don Schofield, Tony Shurter, Brian Hunt. See Agenda and Record of Meeting.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/10/06	Kelly M Peil	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	10-Oct-06	006

Managers' Meeting held. No field activities on this date due to rain and muddy conditions.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/11/2006	007

WEATHER	Clear, Cool	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	10/11/06 DATE	QC ENGINEER	16 Nov 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	11-Oct-06	007

No CQA personnel on site. Crew began removal of fence around classified area. Completed removing fence and pulling fenceposts. Began grubbing and shredding classified area material. Completed vegetation removal.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/12/2006	008

WEATHER	Clear, Cool	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/12/06	Kelly M Reid	16Nov06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	12-Oct-06	008

No CQA personnel on site. Crew cut posts from concrete. Continued shredding and began screening grubbed material from classified area.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/16/2006	009

WEATHER: Clear, Cool

TEMPERATURE: Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE

(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Kelly Peil	CQA Engineer	MKM	Site Audit

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No

(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR — DATE 10/16/06

QC ENGINEER — DATE 16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	16-Oct-06	009

Kelly Peil on site to conduct 3rd-party audit of field activities, permits, etc. Crew continued screening and shredding operations.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	10/17/2006	010

WEATHER	Clear, Warm	TEMPERATURE	Low 40s High 70s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/17/06	Kelly M Rud	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	17-Oct-06	010

No CQA personnel on site. Crew continued screening and shredding operations.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/18/2006	011

WEATHER	Clear, Warm	TEMPERATURE	Low 40s High 70s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/18/06	Kelly M Reed	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	18-Oct-06	011

No CQA personnel on site. Crew completed screening and shredding operations (Total of 300 cubic yards screened). Filled in two voids and broke up concrete pad in southeast corner of classified area.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/19/2006	012

WEATHER	Mostly cloudy, cool	TEMPERATURE	Low 40s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	Meeting
Kelly Peil	CQA Engineer	MKM	Meeting

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

Weekly Managers' Meeting. Attendees included Dick Fate, Joe Fritts, Don Schofield, Tim Goering, Ben Martinez, Kelly Peil, Corey Woods, Don Lopez, Paula Schuh, Anthony Martinez, Brian Fockett. See Agenda and Record of Meeting.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR 10/19/06 DATE

QC ENGINEER Kelly M Peil 16 Nov 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	19-Oct-06	012

Managers' Meeting held. Crew broke up concrete on classified area fenceposts, completed shredding operations.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~GWL~~ MWL CQA	10/23/2006	013

WEATHER Clear, Cool

TEMPERATURE Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR — 10/23/06 DATE

QC ENGINEER — 16 Nov 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	23-Oct-06	013

No CQA personnel on site. Crew screened grub pile from classified for second time, to 2" minus, completed screening and shredding.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/24/2006	014

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/24/06	Kelly M Reed	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	24-Oct-06	014

Site existing surface and perimeter area clearing and grubbing is complete. Rad clearance has not yet been obtained, CQA personnel do not have access to the site until this is complete. Plan to return tomorrow to perform clear and grub inspection and perform compaction testing.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/25/2006	015

WEATHER	Clear, cool	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Wes Newman	Technician	AMEC	Compaction Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on existing surface. Moisture levels low, tests not recorded.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

Moisture levels on existing surface are low, crew will add water over next two days, will retest on 10/27.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-01

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/25/06	Kelly M Rand	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	25-Oct-06	015

Arrived on site at 1230, rad clearance has been obtained. Tested several locations along perimeter and existing surface. Density was within specifications but moisture levels were low, around 8-9% compared to optimum of 13.4%. Crew will add water over next two days, will return 10/27 to perform compaction testing. Performed Existing Landfill Surface and Perimeter Clear and Grub inspection.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~GWL~~ CQA	10/26/2006	016

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

Moisture levels on existing surface are low, crew adding water, will retest on 10/27.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None.

QC INSPECTOR — 10/26/06 DATE

QC ENGINEER — Kelly M Rul — 16 Nov 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	26-Oct-06	016

No CQA personnel on site. Crew added water to existing landfill surface. URS on site performing survey activities.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/27/2006	017

WEATHER: Clear, cool

TEMPERATURE: Low 40s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Wes Newman	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on existing surface, test numbers MWL-ES1-001 through -015. Also collected additional samples for proctor analysis, sample numbers MWL-ES-002, -003, and -004.

SUMMARY OF MEETINGS HELD & ATTENDEES

Meeting held between Corey Woods and Joe Fritts regarding existing surface moisture levels. Decision was made to proceed with subgrade installation. Kelly Peil, CQA Engineer, concurred with decision.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

Moisture levels still low on existing surface after adding water for two days. Decision was made that moisture levels cannot be consistently obtained, will proceed with subgrade installation. Density measurements meet specification (90% maximum) at all locations.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: TI-01, TI-04, and TI-07

QC INSPECTOR — DATE 10/27/06

QC ENGINEER Kelly M Peil — DATE 16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	27-Oct-06	017

Returned to perform compaction testing. Moisture levels are still low after adding water for two days. Joe Fritts and Corey Woods determined that moisture levels could not be met in most areas because water had been added for two days already. Decision was made to proceed with subgrade installation. Density was over 90% at all locations. Spoke with Kelly Peil, CQA Engineer, who concurred with decision to proceed with subgrade installation. Three additional proctors were obtained from the existing surface to determine if original proctor was representative:

MWL-ES-002, Center of Classified Area

MWL-ES-003, Center of Northern Portion of Unclassified Area

MWL-ES-004, Center of Southern Portion of Unclassified Area

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	10/30/2006	018

WEATHER: Clear, warm

TEMPERATURE: Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	10/30/06	Kelly M Rul	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	30-Oct-06	018

Began placing subgrade material in low-lying areas of unclassified area. URS placed stakes for elevation reference in low-lying areas. Surveyors having problems matching design to base points, will lay out 50' grid when problem is resolved.

120 cy placed on this date (completed Lift 1).

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	10/31/2006	019

WEATHER: Clear, warm

TEMPERATURE: Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lifts 1 through 4, all tests passed (See TI-07). Also collected samples for proctor analysis from subgrade stockpile, sample numbers MWL-SG-002, -003, and -004.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, and TI-07

QC INSPECTOR — DATE 10/31/06

QC ENGINEER — DATE 16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	31-Oct-06	019

Continued placing subgrade material in low-lying areas of unclassified area. Lifts placed were relatively small (see Lift Maps). Completed Lifts 2 and 3, began Lift 4. Performed compaction tests on all lifts, all tests passed (See TI-07).

364 cy placed on this date (Lifts 2 through 4).

2006 Daily Quality Control Reports

November 2006

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	11/1/2006	020

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Kelly Peil	CQA Engineer	MKM	Meeting
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lifts 4 and 5, all tests passed (See TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

Weekly Managers' Meeting, attendees included Don Schofield, Don Lopez, Corey Woods, Ben Martinez, Joe Fritts, Tim Goering, Kelly Peil, Harry Buckner, Anthony Martinez, Stewart Pike, and Stacy Griffith. See Agenda and Record of Meeting.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/1/06	Kelly M Peil	16Nov06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	1-Nov-06	020

Continued placing subgrade material in low-lying areas of unclassified area. Completed Lifts 4 and 5 (see Lift Maps). Performed compaction tests on all lifts, all tests passed (See TI-07)

Weekly Managers' Meeting held.

498 cy placed on this date (Lifts 4 and 5).

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	11/2/2006	021

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lifts 4 and 6, all tests passed (See TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/2/06	Kelly M Rud	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	2-Nov-06	021

Continued placing subgrade material in low-lying areas of unclassified area (completed). Completed Lift 6 see Lift Map). Performed compaction tests on Lift 6 and additional area of Lift 4, all tests passed (See TI-07)

412 cy placed on this date (Lift 6)

Collected the following proctors from the 2" minus stockpile (see TI-04):

MWL-SG-005 Northwest corner

MWL-SG-006 Middle west side

MWL-SG-007 Southwest corner

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/6/2006	022

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lift 7, all tests passed (See TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/6/06	Kelly M Rul	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	6-Nov-06	022

Continued placing subgrade material. Completed Lifts 7 and 8 (see Lift Map). Performed compaction tests on Lift 7, all tests passed (See TI-07)

476 cy placed on this date (Lifts 7 and 8)

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~GWL~~ CQA	11/7/2006	023

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lifts 8 and 9, all tests passed (See TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/7/06	Kelly M Rud	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	7-Nov-06	023

Continued placing subgrade material. Began Lift 9 (see Lift Map), not yet compete. Performed compaction tests on Lifts 8 and 9, all tests passed (See TI-07)

344 cy placed on this date (Lift 9)

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~OWL~~ CQA	11/8/2006	024

WEATHER	Clear, warm	TEMPERATURE	Low 40s High 70s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction test on Lift 9, test passed (See TI-07). Collected three samples for proctor analysis from 2" minus stockpile.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, and TI-07

QC INSPECTOR 11/8/06 DATE

QC ENGINEER Kelly M Rul 16 Nov 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	8-Nov-06	024

Continued placing subgrade material. Completed Lift 9, Began Lift 10 (see Lift Map). Performed compaction test on Lift 9, test passed (See TI-07)

576 cy placed on this date (316 cy on Lift 9, 260 cy on Lift 10)

Collected the following proctors from the 2" minus stockpile:

MWL-SG-008 Northwest corner

MWL-SG-009 Middle west side

MWL-SG-010 Southwest corner

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/9/2006	025

WEATHER Clear, warm

TEMPERATURE Low 40s High 70s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing/Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lifts 9 and 10, all tests passed (See TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/9/06	Kelly M Rul	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	9-Nov-06	025

Continued placing subgrade material, Lift 10 (see Lift Map). Performed compaction testing on Lifts 9 and 10, all tests passed (See TI-07)

496 cy placed on this date (Lift 10)

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/13/2006	026

WEATHER: Overcast, Cool

TEMPERATURE: Low 40s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/13/06	Kelly M Pul	16 Nov 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	13-Nov-06	026

Continued placing subgrade material, Lift 10 (see Lift Map).

580 cy placed on this date (Lift 10)

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~GWL~~ CQA	11/14/2006	027

WEATHER	Overcast, cool, high winds	TEMPERATURE	Low 40s High 60s
WEATHER EFFECTS	Field activities shut down at 1330 due to high winds		

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Kelly Peil	CQA Engineer	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction testing/sample collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on Lift 10, all tests passed (see TI-07). Collected three samples for proctor analysis.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, and TI-07

[signature]	11/14/06	Kelly M Peil	7 Dec 06
QC INSPECTOR	DATE	QC ENGINEER	DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	14-Nov-06	027

Continued placing subgrade material, completed Lift 10 (see Lift Map). Performed compaction testing on L 10, all tests passed (See TI-07).

280 cy placed on this date, completed Lift 10 (1,616 cy total for Lift 10).

Collected the following samples for proctor analysis:

MWL-SG-011 East end of Southern stockpile

MWL-SG-012 West end of Southern stockpile

MWL-SG-013 South-central area of 2" subgrade stockpile

The Southern stockpile is comprised of material that was on site at the MWL prior to site operations; the material was screened to 2" minus for potential use as subgrade.

Subgrade fill activities were shut down at 1330 due to high winds.

MKM

MKM Engineers, Inc. **DAILY QUALITY CONTROL REPORT**

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/15/2006	028

WEATHER: Overcast, cool

TEMPERATURE: Low 30s High 50s

WEATHER EFFECTS:

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on Lift 11, all tests passed (see TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None

DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/15/06	Kelly M Ford	7 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	15-Nov-06	028

Continued placing subgrade material, began Lift 11 (see Lift Map). Performed compaction testing on Lift 1 all tests passed (See TI-07).

520 cy placed on this date (Lift 11).

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/16/2006	29

WEATHER: Overcast, cool

TEMPERATURE: Low 30s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Kelly Peil	CQA Engineer	MKM	CQA/Meeting
Miguel Chavez	Technician	AMEC	Compaction testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on Lift 11, all tests passed (see TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

Managers' Meeting, attendees included Kelly Peil, Don Schofield, Joe Fritts, Jerry Peace, Tim Goering, Stacy Griffith, Corey Woods, Ben Martinez, Anthony Martinez, Tony Shurter, and Harry Buckner. See Agenda and Meeting Notes.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, and TI-07

QC INSPECTOR — 11/16/06 DATE — QC ENGINEER — 7 Dec 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	16-Nov-06	029

Continued placing subgrade material, Lift 11 (see Lift Map). Performed compaction testing on Lift 11, all te passed (See TI-07).

464 cy placed on this date (Lift 11).

Collected two additional proctor samples:

MWL-SG-014 - Northwest corner of stockpile

MWL-SG-015 - Southwest corner of stockpile

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/20/2006	030

WEATHER	Clear, Warm	TEMPERATURE	Low 30s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on Lift 11, all tests passed (see TI-07). Collected three proctor samples, MWL-SG-016, -017, and -018.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/20/06	[signature]	7 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	20-Nov-06	030

Continued placing subgrade material, Lift 11 (see Lift Map). Performed compaction testing on Lift 11, all te passed (See TI-07).

624 cy placed on this date (Lift 11).

Collected three additional proctor samples:

MWL-SG-016 - Southwest corner of stockpile

MWL-SG-017 - Middle west side of stockpile

MWL-SG-018 - Northwest corner of stockpile

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/21/2006	031

WEATHER	Clear, Warm	TEMPERATURE	Low 30s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on Lift 11, all tests passed (see TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/21/06	Kelly M Pond	7 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	21-Nov-06	031

Continued placing subgrade material, Lift 11 (see Lift Map). Performed compaction testing on Lift 11, all te
passed (See TI-07).

856 cy placed on this date (Lift 11).

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/22/2006	032

WEATHER: Clear, Warm

TEMPERATURE: Low 30s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed final compaction test on Lift 11, test passed (see TI-07).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, and TI-07

QC INSPECTOR — 11/22/06 DATE

QC ENGINEER — 7 Dec 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	22-Nov-06	032

Continued placing subgrade material, completed Lift 11 (see Lift Map). Performed final compaction test on Lift 11, test passed (See TI-07).

56 cy placed on this date (Lift 11).

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~GWL~~ CQA	11/27/2006	033

WEATHER	Overcast, breezy	TEMPERATURE	Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Collected three samples for proctor analysis from 2" screened stockpile at CAMU Borrow Area, MWL-SG-019, -020, and -021.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: TI-04

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/27/06	Kelly M Ford	7 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	27-Nov-06	033

No site activities. Collected three samples for proctor analysis from 2" minus stockpile at CAMU

Borrow Area:

MWL-SG-019 - North end of stockpile

MWL-SG-020 - West side of stockpile

MWL-SG-021 - East side of stockpile

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/28/2006	034

WEATHER Overcast, breezy

TEMPERATURE Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR — 11/28/06 DATE

QC ENGINEER — 7Dec06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	28-Nov-06	034

Began placing subgrade on final lift (Lift 12).

284 cy placed on this date.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/29/2006	035

WEATHER: Overcast, intermittent snow

TEMPERATURE: Low 10s High 30s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	11/29/06	Kelly M Pul	7 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	29-Nov-06	035

Continued placing subgrade (Lift 12).

648 cy placed on this date.

Existing 2" minus subgrade pile exhausted. Crew will work the next few days hauling soil from the existing stockpile at the CAMU Borrow Area and excavating/screening additional soil needed to complete the final subgrade lift.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	11/30/2006	036

WEATHER	Overcast, cold	TEMPERATURE	Low 10s High 30s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction tests on Lift 12, all tests passed. See TI-07.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: TI-02, TI-07

QC INSPECTOR	11/30/06 DATE	QC ENGINEER	7 Dec 06 DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	30-Nov-06	036

Crew working on hauling soil from borrow area and excavating/screening additional soils for subgrade.

Performed compaction testing on Lift 12, all tests passed. See Form TI-07.

2006 Daily Quality Control Reports

December 2006

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWE~~ CQA	12/4/2006	037

WEATHER: Clear, Cool

TEMPERATURE: Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02

12/4/06
QC INSPECTOR DATE

Kelly M Pond 27 Dec 06
QC ENGINEER DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	4-Dec-06	037

Crew continued excavating/screening additional soils for subgrade and hauling from borrow area to MWL.

Re-started installing subgrade. Installed 160 cy on lift 12.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~OWL~~ MWL CQA	12/5/2006	038

WEATHER Clear, Cool

TEMPERATURE Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing, Lift 12, all tests passed. Collected one additional proctor from newly screened material (MWL-SG-022).

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-04, TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/5/06	Kelly M Pond	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	5-Dec-06	038

Crew continued excavating/screening additional soils for subgrade and hauling from borrow area to MWL.

Continued installing subgrade, 340 cy installed on lift 12.

Collected additional proctor from newly screened material:

MWL-SG-022 - Collected from northeast corner of stockpile at MWL

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	12/6/2006	039

WEATHER	Clear, Cool	TEMPERATURE	Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No

(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/6/06	Kelly M Pond	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	6-Dec-06	039

Crew completed excavating/screening additional soils for subgrade and hauling from borrow area to MWL.

A total of approximately 2,000 cy of additional subgrade material was excavated/screened and hauled.

Continued installing Lift 12, 460 cy.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	12/7/2006	040

WEATHER	Clear, Cool	TEMPERATURE	Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

Performed compaction testing on Lift 12, all tests passed, see form TI-07.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-07

[signature]	12/7/06	Kelly M Seil	27 Dec 06
QC INSPECTOR	DATE	QC ENGINEER	DATE

MKM Engineers, Inc. **DAILY REPORT CONTINUATION SHEET**

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	7-Dec-06	040

Continued installing Lift 12, 492 cy.

Performed compaction tests on Lift 12, all tests passed, see Form TI-07.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~GWL~~ MWL CQA	12/11/2006	041

WEATHER Clear, Cool

TEMPERATURE Low 20s High 50s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No

(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/11/06	Kelly M Rice	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	11-Dec-06	041

Continued installing Lift 12, 220 cy.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~GWL~~ MWL CQA	12/12/2006	042

WEATHER	Clear, Warm	TEMPERATURE	Low 20s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

AMEC on site to conduct compaction testing, but proctor results have not been completed, so no tests performed.
Collected two additional samples for proctor analysis (MWL-SG-023 and -024).

SUMMARY OF MEETINGS HELD & ATTENDEES

Managers' Meeting held. Attendees included Joe Fritts, Tim Goering, Corey Woods, Harry Buckner, Ben Martinez, Anthony Martinez. See Agenda and Record of Meeting.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: TI-04

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/12/06	Kelly M Pond	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	12-Dec-06	042

Crew began excavating/screening additional subgrade material.

Two samples collected from newly screened material for proctor analysis:

MWL-SG-023 - North side of stockpile at borrow site

MWL-SG-024 - South side of stockpile at borrow site

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~OWL~~ MWL CQA	12/13/2006	043

WEATHER	Clear, Warm	TEMPERATURE	Low 20s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

AMEC on site to conduct compaction testing, Lift 12, all tests passed. See Form TI-07.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: TI-02, TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/13/06	Kelly M Rul	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	13-Dec-06	043

Crew continued excavating/screening additional subgrade material.

AMEC on site to conduct compaction testing, Lift 12, all test passed. See Form TI-07.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~GWL~~ MWL CQA	12/14/2006	044

WEATHER: Clear, Warm

TEMPERATURE: Low 20s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Sample Collection

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No

(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

AMEC collected two additional samples for proctor analysis from newly screened material, MWL-SG-025 and -026.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: CI-02, TI-04

QC INSPECTOR — DATE 12/14/06

QC ENGINEER — DATE 27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	14-Dec-06	044

Restarted installation of subgrade. Installed 440 cy Lift 12 (280 cy Proctor 022 and 160 cy Proctor 023).

AMEC on site to collect two additional samples for proctor analysis:

MWL-SG-025 - Collected from south side of MWL stockpile

MWL-SG-026 - North side of site stockpile

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	12/15/2006	045

WEATHER	Clear, Warm	TEMPERATURE	Low 20s High 60s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Miguel Chavez	Technician	AMEC	Compaction Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

AMEC on site to conduct compaction testing, all tests passed, see Form TI-07.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/15/06	Kelly M Rul	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	15-Dec-06	045

Installed 512 cy Lift 12 (340 cy Proctor 023 and 172 cy Proctor 024).

AMEC on site to conduct compaction testing, all tests passed, see Form TI-07.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	12/18/2006	046

WEATHER	Overcast, cold, windy	TEMPERATURE	Low 10s High 40s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA
Robert Carr	Technician	AMEC	Compaction Testing

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

AMEC on site to conduct compaction testing, all tests passed, see Form TI-07.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02, TI-02, TI-07

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/18/06	Kelly M Reid	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	18-Dec-06	046

Installed 788 cy, completed Lift 12 (328 cy Proctor 024, 460 cy Proctor 025).

AMEC on site to conduct compaction testing, all tests passed, see Form TI-07.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	Sandia ~~CWL~~ MWL CQA	12/19/2006	047

WEATHER	Cold, windy, intermittent snow	TEMPERATURE	Low 10s High 30s

WEATHER EFFECTS

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY
Corey Woods	CQA Inspector	MKM	CQA

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: CI-02

QC INSPECTOR	DATE	QC ENGINEER	DATE
[signature]	12/19/06	Kelly M Pul	27 Dec 06

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	19-Dec-06	047

Completed final grade work on subgrade.

MKM

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~CWL~~ CQA	12/20/2006	048

WEATHER	Snow	TEMPERATURE	Low 10s High 30s

WEATHER EFFECTS No personnel on site due to snow.

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No
(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.
DAILY INSPECTION CHECKLISTS: None

[signature]	12/20/06	Kelly M Pond	27 Dec 06
QC INSPECTOR	DATE	QC ENGINEER	DATE

MKM Engineers, Inc.

DAILY REPORT CONTINUATION SHEET

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	20-Dec-06	048

No personnel on site on this date due to snow.

MKM Engineers, Inc.

DAILY QUALITY CONTROL REPORT

CONTRACT NO.	PROJECT TITLE / LOCATION	DATE	REPORT NO.
	MWL Sandia ~~GWL~~ CQA	12/21/2006	049

WEATHER: Cold, muddy conditions

TEMPERATURE: Low 10s High 30s

WEATHER EFFECTS: Final grading operations not conducted due to snow and muddy conditions

PERSONNEL ON-SITE
(If space provided below is inadequate, use additional sheets)

NAME	POSITION	EMPLOYER	ACTIVITY

WAS A JOB SAFETY MEETING HELD THIS DATE? ☒ Yes ☐ No

WERE THERE ANY LOST-TIME ACCIDENTS THIS DATE? ☐ Yes ☒ No

(if yes, attach meeting copy of completed OSHA / accident report)

DESCRIPTION OF TESTING PERFORMED

None.

SUMMARY OF MEETINGS HELD & ATTENDEES

None.

LOCATION AND DESCRIPTION OF DEFICIENCIES *(Materials, Equipment, Safety, and/or Workmanship / Action taken or to be taken)*

None.

MATERIAL or EQUIPMENT RECEIVED or RELEASED:

None.

CALIBRATIONS: None.

DAILY INSPECTION CHECKLISTS: None

QC INSPECTOR — DATE 12/21/06

QC ENGINEER — DATE 27 Dec 06

MKM Engineers, Inc. **DAILY REPORT CONTINUATION SHEET**

CONTRACT NO.	TITLE AND LOCATION	DATE	REPORT NO.
	Sandia MWL CQA Albuquerque, NM	21-Dec-06	049

Crew attempted final grading operations on subgrade, but material too wet. Site operations shut down at 1100. No CQA personnel on site on this date.

The Sandia holiday shut-down begins tomorrow, crew will not return to the site until Jan. 3, 2007.

2009 Daily Quality Control Reports

2009 MWL Daily Summary Report Data Location Table:

Throughout construction in 2009 of the MWL ET Cover, Daily Quality Control Reports were prepared by URS CQA personnel as specified in the CMIP CQA Plan (Appendix B, SNL/NM November 2005). The Daily QC Reports included information such as text describing construction activities and daily tasks, meeting summaries, equipment used, personnel on site, inspection checklists/forms, sketches of placed material, field and laboratory testing activities, verification survey activities, etc. All of the information listed above was included in one comprehensive Daily QC Report volume, compiled throughout the duration of the project. At the conclusion of the MWL ET Cover Construction Project, the daily reports were reviewed and finalized in preparation for inclusion as an Attachment within the MWL Alternative Cover CQA Report.

All references to attached information, drawings (i.e. dwg_xx/xx/09_Construction_0x), Appendices, and photos within 2009 Daily QC Reports included in Attachment 3 are no longer valid. Please refer to the cross-reference list provided below for the location of this information in the MWL Alternative Cover CQA Report.

Description:	CQA Report Location:
2009 Daily QC Summary Reports (text describing construction procedures and daily tasks)	Attachment 3
Summary of 2009 ET Cover construction activities and schedule	Table 1
Daily sign-in sheet and visitors log	Not Included[1]
Survey verification grid points and field testing grid blocks	Figure 18
Daily Tailgate Meeting Forms	Not Included[1]
Quality Resolution Meetings and Cover Layer Approval Forms	Table 3
2009 Saturated Hydraulic Conductivity test results	Table 8 and Attachment 7
2009 Standard Proctor, Gradation, and Classification test results	Tables 5-7 and Attachment 7
List of heavy equipment used the MWL ET Cover construction	Table 13
Approximate surface area of material placed	2009 Photographic Log in tabbed section at end of report, Volume 1
Locations of QC and CQA density and moisture tests	Figures 21-29
Location of grubbed material after it was removed from the MWL Subgrade surface.	Not Included[1]
Receiving, construction, and testing inspection forms	Attachments 4-6
QC survey data provided by EDi	Table 12 and 2009 Alternative Cover As-Built Drawings Figure No. 1 - 4 in tabbed section at end of report, Volume 1.
QA verification surveys performed by URS	Quality Assurance Verification Survey Plates 1 – 3 in tabbed section at end of report, Volume 1
Daily photos of construction activities	2009 Photo Log in tabbed section at end of report, Volume 1
Summary report for the extension of monitoring well MWL-MW4	Attachment 8

1. Information maintained in the SNL/NM ES&H and Security Records Center.

2009 Daily Quality Control Reports

May 2009

DAILY SUMMARY REPORT

DATE: 20 May 2009 (Wednesday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Partly cloudy.
WEATHER (PM): Partly cloudy, heavy clouds are rolling in from East Mountains.
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Notice to proceed has been issued and the initial construction has begun early. EDi has updated the schedule accordingly. EDi began removal of the fence surrounding the landfill. Clear and grubbing has started on the slopes of the Existing Subgrade surface.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade.
2. Perimeter surrounding Mixed Waste Landfill Cover.

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00-7:30 AM
Attendees: See attached sign in sheet.
Issues:
-Safety: Snakes, footing, and equipment awareness.
-Tasks: Remove fence and begin clearing and grubbing MWL.

2. Description: Afternoon Safety Briefing
Time: 7:00-7:30 AM
Attendees: See attached sign in sheet.
Issues:
-Safety: Snakes, footing, and equipment awareness.
-Tasks: Clearing and grubbing MWL.

DAILY TASK

I.
A. TASK DESCRIPTION: ***MWL Perimeter Fence Removal***
Remove the perimeter fence surrounding the Mixed Waste Landfill. The removed fence post placed north of the MWL (See dwg_5/20/09_Construction_01).

B. ISSUES/COMMENTS:
1. None

C. EQUIPMENT USED:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Task was completed. The fence was completely removed and placed on north side of MWL.

F. PICTURES OBTAINED:

1. No pictures were collected of this procedure.

II.

A. TASK DESCRIPTION: ***Clear and Grub MWL***

Clear and grubbing of the mixed waste landfill has begun. The items to be removed on the MWL surface, as well as the side slopes of the landfill, appear to be small vegetative material, erosion controlling matting, and small rocks (less than 2"). There is no vegetation that exceeds a height of 6". Most vegetation appears to be dead and does not appear to have any roots exceeding ½-inch.

A loader was used to clear and grub the site. The bucket of the loader was dragged across the surface while the loader moved in reverse. The loader began the removal of vegetative material, erosion controlling matting, and small rocks on the West slope. The loader continued the procedure around the entire perimeter slope of the MWL (See dwg_5/20/09_Construction_01). Due to the dead, dry nature of the vegetation, the method is very effective. The items removed have been stockpiled on the southwest side of the MWL (See dwg_5/20/09_Construction_01).

B. ISSUES/COMMENTS

1. No penetrations to the MWL 6.0-inch or greater occurred.

C. EQUIPMENT USED (See Appendix B for equipment description/details)

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Clear and grubbing of the MWL perimeter slopes has been completed (See dwg_5/20/09_Construction_01). Clear and grubbing of the MWL surface will be continued on 05/21/2009.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***MWL Survey***

The survey team for EDi was present to collect existing survey data. See [redacted] for existing survey data collected by the EDi survey team.

B. ISSUES/COMMENTS:

1. The EDi survey team was instructed to do a topographic survey of the current, existing conditions of the Existing Subgrade Layer. The EDi survey team will create topographic surveys of each layer (i.e. Existing Subgrade, Biointrusion, Native Soil, etc.). The topographic survey information collected by the EDi survey team will be compared to the QA survey collected by URS. Approval of each finished layer is required before the next layer may begin.
2. EDi's survey team was initially confused because they did not have an electronic copy of the existing conditions survey, which is located in the Mixed Waste Landfill Corrective Measures Implementation Plan (CMIP). EDi's survey team was advised not to use the Existing Subgrade information in the contract drawings. Also, we are not concerned with what the existing conditions were when the drawings were created, but the current existing conditions.
3. URS provided survey control information to the EDi survey team. The control matched information collected by the EDi survey team.

C. EQUIPMENT USED:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The Existing Subgrade Surface Survey has been collected (See Appendix A). The survey control provided by URS matched EDi's survey team as a QA check.

F. PICTURES OBTAINED:

No pictures were collected of this procedure.

INSPECTION CHECKLISTS REQUIRED

1. Construction Inspection Form CI-01, Existing Landfill Surface and Perimeter Clear and Grub Field Form.

PROPOSED NEXT DAY ACTIVITIES (date: 05/21/2009):

1. Finish clear and grubbing Existing Subgrade.
2. Place fence around metering wells surrounding MWL perimeter.
3. Compact Existing Subgrade.

DAILY SUMMARY REPORT

DATE: 21 May 2009 (Thursday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Cloudy, potential for rain.
WEATHER (PM): Cloudy, light rain during afternoon.
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- EDi continued the process of clearing and grubbing and began compaction of the Existing Subgrade Surface. Fences were placed around the wells on the west perimeter of the MWL.

LOCATION OF CONSTRUCTION

1. Tech Area III (Site 13), Mixed Waste Landfill, Existing Subgrade.

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00-7:25 AM
Attendees: See attached sign in sheet.

Issues:

a. Daily activities: (see below)

b. Safety: Today's safety included a discussion on being aware of the heavy machinery in use and the three items required to operate heavy equipment (backup siren, seatbelt, and fire hydrant).

2. Description: Afternoon Safety Briefing
Time: 12:30-12:40
Attendees: See attached sign in sheet.

Issues:

a. Afternoon activities (see below)

b. Safety: Afternoon safety covered slips trips and falls.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Clear and Grub MWL***

Clear and grubbing of the MWL continued (See task description on the Daily Summary Report dated 05/20/2009 for existing site conditions). Yesterday the side slopes of the MWL were cleared. Today the top surface will be cleared.

A loader was used to clear and grub the site. The bucket of the loader was dragged across the Existing Surface while the loader moved in reverse. The loader began the removal of vegetative material, erosion control matting, and small rocks on the west side of the MWL. The loader continued the procedure across the entire top cover of the Existing Subgrade. Due to the dead, dry nature of the vegetation, the method was very affective. The items removed have been stockpiled on the southeast side of the MWL (see dwg_05/21/09_01).

B. ISSUES/COMMENTS:

1. No penetrations 6.0" or deeper occurred.
2. After clearing and grubbing, a visual inspection was performed by Paul Molina to determine if vegetative material, erosion control matting, and rocks larger then 2" had been removed. It was determined by inspection the materials listed above had indeed been removed
3. Heavy equipment used to clear and grub the MWL did not come within the distance specified in the Corrective Measures Implementation Plan to Monitoring Well M-4.

C. EQUIPMENT USED (See Appendix B for equipment description)

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The clearing and grubbing of the site has been completed.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***<u>Compaction of Existing Subgrade</u>***

The compaction of the Existing Subgrade began today. A vibrating, smooth drum roller was used for the compaction process. The roller began in the southwest corner and made its first pass across the entire Existing Surface moving from south to north and vice versa. A second pass was made across the Existing Subgrade surface starting in the northeast corner and made the pass form east to west. Compaction was performed across the entire surface as well as the side slopes of the MWL. During the process, the Existing Subgrade surface was sprayed with water to aid in the compaction process. (See dwg_05/21/09_Construction_02).

B. ISSUES/COMMENTS

1. The Subgrade appeared very dense during and after compaction. Density testing will be performed to confirm.
2. The vibrating, smooth drum roller was used to compact the existing Subgrade Layer. Caution was used around monitoring well MW-4 as specified. EDi did not bring heavy equipment within bollard area, which protects the monitoring well.
3. The MWL received rain during the compaction process.
4. It was determined that it was best to turn off the vibration device on the roller for the following reasons:
   -The Existing Subgrade Layer is rock hard and the roller was bouncing uncontrollably.
   - Because the Subgrade Surface was already hard, there was concern the vibration would crack the surface below.

C. EQUPMENT USED (See Appendix B for Equipment Description)
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Two passes of compaction with the vibrating, smooth drum roller were completed (see dwg_05/21_Construction_02). The surface is now ready for the density tests, which is scheduled for tomorrow (05/22/09).

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. CI-01 Construction Inspection Form, Existing Landfill Surface and Perimeter Clear and Grub Field Form.

PROPOSED NEXT DAY ACTIVITIES (date: 05/22/09)
1. Density testing of compacted Existing Subgrade.

DAILY SUMMARY REPORT

DATE: 5/22/2009 (Friday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Cloudy
WEATHER (PM): NA
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Field density test were performed using the Nuclear Method, ASTM D2922, D3017, and D2950. AMEC performed thirteen tests for EDi. An additional six test were performed by AMEC for URS CQA.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade Surface.

LIST OF PERSONNEL:
Please see Appendix C for sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:30 AM
Attendees: See attached sign in sheet.
Issues:
a. Safety: Stay at least six feet back from density test units

DAILY TASK

I.

A. TASK DESCRIPTION: ***Field Density and Moisture Test (Construction)***
Field density test were taken at thirteen different locations. The Existing Subgrade surface was divided into thirteen grids (see attached grid). A density/moisture test was performed at random locations within each of the thirteen grids. Survey data was collected on all testing locations.

B. ISSUES/COMMENTS:
1. All thirteen moisture and density tests met the MWL specification requirements and were approved by Don Lopez, CQA Engineer.

C. EQUIPMENT USED:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. All thirteen moisture and density tests met the MWL specifications requirements and were approved by Don Lopez.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II. A. TASK DESCRIPTION: ***Field Density Test (CQA)***

Six CQA tests were taken by AMEC for URS. The AMEC representative for the CQA was Robert Carr. A firewall is setup between AMEC representatives Robert Carr and Miguel Chavez to prevent any conflict of interest. Robert Carr was instructed to perform his field moisture/density within an approximate 3-foot radius of every other QC test performed by Miguel Chavez. Density test locations and elevations were collected and plotted by the EDi surveyor.

B. ISSUES/COMMENTS

1. All six CQA moisture and density tests met the MWL specifications requirements and were approved by Don Lopez.
2. QC survey indicates some parts of the 2.0% east-to-west slope and 6:1 side slopes do not meet the design. It was decide to adjust the 6:1 side slopes as well as the 2.0% east-to-west design slope during the construction of overlaying layers.
3. Don Lopez has approved the MWL Existing Surface. Construction of the Biointrusion Layer may now begin.

C. EQUIPMENT USED

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Density tests have been completed and approved by Don Lopez.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED (See attached)

1. TI-02; Subgrade Fill Field Test Form

PROPOSED NEXT DAY ACTIVITIES (date: 05/26/2009)

1. Begin Test Biointrusion Barrier.

DAILY SUMMARY REPORT

DATE: 5/26/09 (Tuesday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Slightly Cloudy, good conditions (58 deg)
WEATHER (PM): Slightly Cloudy, good conditions (72 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- The test section for the Biointrusion Layer was executed today. The initial test procedure discussed in the Construction Site Safety Plan (CSSP, page 37) was determined to be unsuccessful. A second method for the installation of the Biointrusion Barrier was derived and was successful (See below ***Biointrusion Test Area II*** for details).

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade.
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location).
3. Borrow Pit, (Pre-screened Soil Stockpile).

LIST OF PERSONNEL:

Please see Appendix C for sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00 – 7:30 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. The test Biointrusion procedure to be followed.

2. Description: Biointrusion Barrier Procedure Briefing
   Time: 9:45-10:15 PM
   Attendees: See attached sign in sheet.
   Issues:
   a. Discussion of responsibilities and measures that needed to be taken into consideration to have a successful Biointrusion Test.

3. Description: Afternoon Safety Briefing
   Time: 1:00-1:18 PM
   Attendees: See attached sign in sheet.
   Issues:
   a. Rock Delivery: The procedure for continuing with the delivery of rock.
   b. Safety: Proper ear protection and the truck routes needed ensure safety.
   c. Construction: The procedure for continuing the placement of Biointrusion barrier rock.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Biointrusion Test Area I (as discussed in CSSP)***
Please see CSSP (page 37) for procedure description.

The test area consisted of two truckloads of dry, screened loose soil distributed over an approximate 20 x 20-feet area. Using a builder's level, the thickness of the test loose soil layer was determined to be 6-to-8-inch as specified in the CSSP. The soil was initially spread using a motor grader, but EDi later switched to a dozer in an attempt to reduce the soil compaction.

The Biointrusion rock was then placed onto the 6-to-8-inch loose soil layer. The Biointrusion rock was spread to an approximate thickness of 1.0-foot or slightly less. A dozer then compacted the rock in an attempt to push the rock down into the soil layer. After several passes with the dozer, Don Lopez (URS CQA) was not convinced that the Biointrusion rock was being pressed down through the loose soil layer to the existing Subgrade Layer. This raised concerns of the possibility of future settling due to the layer of sand between the Subgrade Layer and the Biointrusion Layer. It was determined this procedure was not adequate to meet Specification Section 02115 located in the CMIP.

B. ISSUES/COMMENTS:

1. There was a discussion about extending the Biointrusion Barrier past the toe of the existing Subgrade Layer. It was determined that it is not necessary to extend the Biointrusion Barrier past the toe.
2. The current slope is approximately 1.8% from East to West in lieu of the 2.0% as specified. The slope will be adjusted to the specified 2.0% during the course of construction. It will be corrected during the Native Soil Layer as apposed to the Biointrusion Barrier due to material availability and ease of construction.
3. The method of constructing the Biointrusion described in the CSSP (Page 37) was determined to be insufficient by Don Lopez PE URS CQA Engineer.

C. EQUIPMENT USED (See Appendix B for Equipment Description)

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. This procedure was ineffective and was canceled. A new method was derived and used as described below.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Biointrusion Test Area II***

After it was determined that the procedure described above in Test Area I was ineffective, a second test area was created using the tracks of the dozer to scarify the existing Subgrade Surface. It was determined the tracks of the dozer created a texture, which was ideal for the Biointrusion Rock placement. The scarified surface had enough loose soil to fill some of the voids in the rock, as well as create a grooved pattern, which made it easy for the rock to fall into place and interlock. The rock was compacted with the dozer a minimum of four times. Loose, screened soil was then placed over the rock layer and worked into the voids by spreading with the dozer. This method proved to be very effective. (See below for updated Biointrusion installation procedure).

The Following is the Updated Biointrusion Layer Installation Procedure:

The Biointrusion layer will be constructed in compliance with the CMIP, Specification Section 02115. The following is the procedure recommended by Don Lopez PE (URS CQA Engineer) for the Biointrusion Layer:

The rock used for the Biointrusion Layer will continue to be the rock acquired by SNL. The rock is located at the former Bulk Waste Staging Area in TA 3.

The EDI Team will scarify the Existing Subgrade Surface using the tracks of a dozer. A minimum of four passes with the dozer tracks is required across the existing Subgrade Surface. Once the Subgrade Surface has been prepared, the Biointrusion Rock may be spread across the scarified surface. The rock layer will then be compacted with a minimum of four passes by the dozer to ensure compaction and interlocking of the rock. Compaction shall be performed until rocks are firmly locked into place. The entire Biointrusion Rock Layer Surface must be completed, surveyed, and approved before any further construction may take place.

Once the rock layer is compacted in place and approved, additional dry loose soil will be placed over the surface. A dozer will then spread the loose soil across the rock surface and work the loose soil into the voids. The soil will then be compacted with a minimum of four passes with the vibratory roller. After this is completed and approved, water will be applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content.

END

B. ISSUES/COMMENTS

1. After the Test Method II was determined to be affective, it was applied for the remainder of the day to the South side of the MWL. Approximately 300-CY of the Biointrusion layer was installed.
2. Water was not applied to the Biointrusion Layer to fill voids today.

3. No survey was performed today. The survey team should be out tomorrow for as-built conditions and elevation confirmations for the Biointrusion Layer.
4. Crushed rock used for the Biointrusion Layer did meet specifications by method of visual inspection.
5. No heavy equipment was operated around the monitoring wells.

C. EQUPMENT USED (See Appendix B for Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. Approximately 300 CY of the Biointrusion Layer was installed today (20 Truck Loads @ approx 15 CY/truck). See dwg_05/26/09_Construction_01.
2. Approximately 90 CY of the loose, dry soil for the voids was installed in test pad (6 truck loads @ approx 15 CY/truck). This was only for the test pad and will not be continued until the Biointrusion Rock Layer is completed and approved.
3. Water was not applied to the Biointrusion Layer today.

G. PICTURES
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 05/27/09)
1. Continue installation of the Biointrusion Barrier.
2. Raise Well

I DAILY SUMMARY REPORT

DATE: 5/27/09 (Wednesday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Clear Sky (54 deg.)
WEATHER (PM): Partly Cloudy (71 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of the Biointrusion Layer continued today.

- The Monitoring Well MW-4 Extension procedure occurred today.

LOCATION OF CONSTRUCTION

1. Tech Area 3, Sandia Mixed Waste Landfill, Existing Subgrade Layer
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location)

LIST OF PERSONNEL:
Please see Appendix C for sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
   Time: 7:00 – 7:25 AM
   Attendees: See attached sign in sheet.
   Issues:
   CONSTRUCTION:
   a. The haul road from the borrow pit is going to need some regular maintenance. The road is starting to fall apart.
   b. EDi needs to keep a count on the number of rock and sand loads hauled from the Borrow Site to the MWL.
   c. Procedure: Continue Biointrusion Rock Barrier construction.

   SAFETY:
   a. Be sure to stay upwind of the rock pours due to the dust.
   b. Be sure to have the proper ear and eye protection.
   c. Weekly safety inspections are going to be conducted for the duration of the project.

2. Description: Afternoon Safety Briefing
   Time: 12:37 – 12:47 PM
   Attendees: See attached sign in sheet.
   Issues: Same as morning session

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***

The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See drwg_05/26/09_Construction_01 for illustration of installed Biointrusion Layer.

EDi provided spot survey today to verify the 1.0-foot minimum thickness. The survey followed the dozer and verified thickness of the layer placed. Some areas were 1.0-foot as specified; however, some were below the 1.0-foot or above the 1.25-foot requirement. A final survey will need to be conducted once the Biointrusion Layer is installed to confirm the 1.0-foot thickness as specified.

B. ISSUES/COMMENTS:

1. A defined method to test the thickness of the Biointrusion layer has not been established. A surveyor was checking the thickness as the rock was installed; however, the method did not ensure the entire surface met specification thicknesses before the soil was to be placed to fill the voids. Paul Molina spoke with Don Schofield, Mike Mitchell, and Chris Edgman regarding the situation. It was agreed there needs to be survey data verifying the specification thickness requirements before the soil to fill the voids was placed. The method decided upon is to place the entire Biointrusion Layer before proceeding with the placement of the soil to fill the voids. A survey of the entire surface will then be conducted, checked, and approved. This will ensure the 1.0-foot depth as specified (see Biointrsuion Installation Procedure in Revised Daily Report 05/22/09).

C. EQUIPMENT USED:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 900 CY of the Biointrusion Layer was installed today (60 Truck Loads @ approx 15 CY/truck). See dwg_05/27/09_Construction_01.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Monitoring Well MW-4 Extension***

The extension of the MW-4 Extension Well began about 10:30 AM. A team used on a regular basis for maintenance of the Sandia Monitoring Wells was brought in to conduct the procedure. Submittal and procedure outline have been provided by Mike Saunders (see attached).

B. ISSUES/COMMENTS

1. No concrete pad was located around Monitoring Well MW-4. The pad was previously buried during the Subgrade Installation. A new pad will be poured around the well once the final layer is completed.
2. The bollards were cut in place. This was to prevent pulling up the concrete anchors, which are buried under the Subgrade Layer.

C. EQUPMENT USED
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. The Monitoring Well extension was completed.

G. PICTURES
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Biointrusion Inspection Form (see attached)

PROPOSED NEXT DAY ACTIVITIES (date: 05/28/09)
1. Continue with Biointrusion Layer

DAILY SUMMARY REPORT

DATE: 05/28/09 (Thursday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:50 AM, Clear sky (58 deg.)
WEATHER (PM): 1:50 PM, Cloudy, received rain and 10-mile lightning warning. Crew was brought back to trailer or asked to stay in equipment if it had an enclosed cab.
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- The ribbon cutting occurred today directly after the morning Tailgate Meeting
- Construction of the Biointrusion Layer continued.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Subgrade Layer.
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location)

LIST OF PERSONNEL:

Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00-8:30 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. Construction Procedure: The same procedure as yesterday regarding the installation of the Biointrusion Layer is to be followed. It is important for EDi to keep count of the number of loads of rock and sand brought from the borrow site to the Mixed Waste Landfill.
   b. QA Issues: Soil samples of the borrow area material plan to be taken today.
   c. Safety: Hearing protection needs to be worn around heavy equipment on site.
   d. Heavy Equipment Refueling: The Sandia Mixed Waste Landfill does not have a designated area for refueling onsite. Instead, a fuel truck will go to the heavy equipment to refuel when needed. This is acceptable onsite as long as the refueling does not take place on the Mixed Waste Landfill Cover. Spill prevention measures need to be taken while refueling onsite equipment.

INCIDENT REPORT:

Chris Timm lost consciousness this morning during the Tailgate Meeting (approximately 7:15 AM). Chris fell from a standing position onto his front side without warning. Chris was unconscious and did not move for approximately 10 seconds. 911 was dialed and Emergency Responders were contacted as specified in the CSSP. Members of EDI drove to the front gate to direct the Emergency Responders to the Mixed Waste Landfill. Chris regained consciousness and was talking. He did appear to understand what had happened and where he was.

RIBBON CUTTING
After the AM Tailgate Meeting a ribbon cutting was performed. The procedure ended at 8:30. Pictures were taken of the event.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Biointrusion Layer Construction***
The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See dwg_05/27/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:
1. Temporary bollards were set around MW-4, which had been extended yesterday.

C. EQUIPMENT USED:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 630 CY of the Biointrusion Layer was installed today (42 Truck Loads @ approx 15 CY/truck). See dwg_05/27/09_Construction_01.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 05/28/09)
1. Continue with Biointrusion Construction

DAILY SUMMARY REPORT

DATE: 5/29/09 (Friday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 11:30 (73 deg)
WEATHER (PM): 3:34 (80 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of the Biointrusion Layer continued today.
- Marshall Nay (URS CQA) arrived at the MWL and collected data to classify the Biointrusion rock.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade Surface.
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location).

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
   Time: 7:00 – 7:25 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. Procedure: Continuation of the Biointrusion Layer.
   b. Safety: Do not refuel on landfill.
   c. Safety: The minimum distance away from equipment without hearing protection is 30-feet.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See dwg_05/29/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:
1. Equipment did not come within specified distance to Monitoring Well MW-4.
2. Joe Estrada from the DOE made a site visit to observe construction. Joe appeared to be pleased with the procedure as well as the progress.

C. EQUIPMENT USED:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 810 CY of the Biointrusion Layer was installed today (54 Truck Loads @ approx 15 CY/truck). See dwg_05/29/09_Construction_01.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***QA Biointrusion Rock Classification***

Marshall Nay (URS CQA) arrived on site and collected 25 random samples of the Biointrusion rock. Measurements and weights of the 25 samples were recorded. two rock samples were collected and taken offsite with Marshall for additional density testing.

B. ISSUES/COMMENTS

1. Marshall Nay and Paul Molina collected data. Marshall Nay will perform the analysis and create the report.

C. EQUPMENT USED

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. The samples have been collected. Marshall Nay will conduct the test and formulate the report at later date.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

2. A checklist is not required for the rock classification test conducted by Marshall Nay.

PROPOSED NEXT DAY ACTIVITIES (date: 06/01/09)

1. Continuation of Biointrusion Layer.

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DAILY SUMMARY REPORT

DATE: 06/01/09 (Monday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:00 AM (60 deg) Clear sky
WEATHER (PM): 4:04 PM (79 deg) Clear sky, wind
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of the Biointrusion Layer continued today.
- Don Lopez, Marshall Nay and Harry Buckner arrived onsite to discuss the QA Survey and the topsoil gravel admixture.
- The roads need to be re-graded as specified in the Storm Water Pollution Prevention Plan.

LOCATION OF CONSTRUCTION

1. Tech Area III; Sandia Mixed Waste Landfill; Existing Subgrade Layer
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location)

LIST OF PERSONNEL:

Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00-7:25 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. Construction: The roads may need to be worked on. The criteria are ½-inch of rain or 14-days.
   b. Continuation of Biointrusion Layer on West end of Existing Subgrade.
   c. Safety: Heavy equipment operators and drivers should not talk on phones while operating heavy equipment.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***

The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/01/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. Equipment did not come within specified distance of Monitoring Well MW-4.

C. EQUIPMENT USED (See Appendix B for Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 840 CY of the Biointrusion Layer was installed today (56 Truck Loads @ approx 15 CY/truck). See dwg_06/01/09_Construction_01.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Construction/QA Survey Coordination***

Harry Buckner (URS) and Jerome Sanchez (EDi) discussed procedures to coordinate the construction and QA survey.

B. ISSUES/COMMENTS

1. Jerome (EDi survey rep.) was not sure how URS was going to perform the QA check. Jerome was instructed to use the 50-foot grid created for the Existing Subgrade. Jerome is to take elevations of the Biointrusion Barrier Layer at the exact locations he took elevations on the Existing Subgrade. Harry Buckner will do his QA on the exact same locations using the 50-foot grid.

C. EQUIPMENT USED

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Harry Buckner will do the CQA survey check on Friday (06/05/09) or Monday (06/08/09) depending on the status of the Biointrusion Layer. Harry will use the method described above to check the thickness of the Biointrusion Rock Barrier.

F. PICTURES OBTAINED

1. Pictures of this procedure will be collected and filed.

III.

A. TASK DESCRIPTION: ***3/8-inch Crushed Gravel***

EDi has submitted the 3/8-inch crushed gravel to be combined with the topsoil.

B. ISSUES/COMMENTS

1. The following are the main functions of the ¾ -inch gravel. These will be taken into consideration and will be the criteria used for determination of the ¾-inch rock substitution:

a. Erosion control.
b. Permeability in the soil matrix, which will allow the water to penetrate for plant growth.
c. Aerate the soil for the plant root structure.

C. EQUPMENT USED
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. Chris Edgmon will prepare a submittal of the three rock samples he was able to obtain. URS will make a determination of the rock to be used based off of this submittal. (See attached for rock substitution submittal)

G. PICTURES OBTAINED
1. Pictures of the ¾-inch rock substitution samples are included in the Rock Substitution Submittal. These pictures are also filed.

IV.

A. TASK DESCRIPTION: ***Re-Grade Dirt Roads***

The dirt road surrounding the Mixed Waste Landfill was re-graded as specified in the MWL Storm Water Pollution Prevention Plan (SWPPP). The SWPPP requires the road to be re-graded every 17-days or if the site receives ½-inch of rain.

B. ISSUES/COMMENTS
1. Road graded as specified in the SWPPP.

C. EQUPMENT USED (See Appendix B For Equipment Description)
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. Road has been re-graded as required.

G. PICTURES OBTAINED
1. No pictures taken.

INSPECTION CHECKLISTS REQUIRED
1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 05/02/2009)
1. Continue with installation of Biointrusion Layer.

DAILY SUMMARY REPORT

DATE: 06/02/2009 (Tuesday)
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:52 (70 deg.); Partly cloudy
WEATHER (PM): 4:00 (79 deg); Partly cloudy; lightning warning stopped construction at 4:00 PM today.
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of the Biointrusion Layer continued today.

LOCATION OF CONSTRUCTION

1. Tech Area III; Sandia Mixed Waste Landfill; Existing Subgrade
2. Former Bulk Waste Staging Area, TA 3, (Biointrusion Rock Location)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00 AM
   Attendees: See attached sign-in sheet.
   Issues:
   a. Safety: Truck route established for the day
   b. Procedure: Continuation of the rock layer

2. Description: Afternoon Safety Briefing
   Time: 12:40-12:50 PM
   Attendees: See attached sign in sheet.
   Issues:
   a. Safety: Truck route will stay the same as this morning.
   b. Continuation of the rock layer

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today on the west slope. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/02/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 780 CY of the Biointrusion Layer was installed today (52 Truck Loads @ approx 15 CY/truck). See dwg_06/02/09_Construction_01.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/02/09)

1. Continue with construction of Biointrusion Layer

DAILY SUMMARY REPORT

DATE: 06/03/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:06 AM; Clear sky (57 deg.)
WEATHER (PM): 1:38 PM; Clear sky, clouds in the distance, (75 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of Biointrusion layer continued on west and northwest side.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Former Bulk Waste Staging Area, TA-III, (Biointrusion Rock Location)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:06 AM – 7:18 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. Procedure: Continuation of Biointrusion Laydown. Be sure to use caution around Monitoring Well MW-4.
   b. Safety: Be aware of heat stress. Drink water throughout the day.

2. Description: Afternoon Safety Briefing
   Time: 12:30 PM- 12:45 PM
   Attendees: See attached sign in sheet.
   Issues:
   a. Same as morning tailgate meeting.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today on the west slope. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/03/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1035 CY of the Biointrusion Layer was installed today (69 Truck Loads @ approx 15 CY/truck). See dwg_06/02/09_Construction_01.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/04/09)

1. Continue the construction of the Biointrusion Barrier.

DAILY SUMMARY REPORT

DATE: 06/04/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:02 AM; Clear sky (60 deg.)
WEATHER (PM): 2:10 PM; Partly cloudy, (79 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of Biointrusion layer continued on north side.
- A meeting was held regarding the QA survey procedure and the Biointrusion Rock.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Former Bulk Waste Staging Area, TA III, (Biointrusion Rock Location)

LIST OF PERSONNEL:

Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00 AM – 7:26 AM
   Attendees: See attached sign in sheet.
   Issues:
   a. Procedure: Continuation of Biointrusion Laydown. Be sure to use caution around Monitoring Well MW-4.
   b. Safety: Emergency Contact 911, Non-Emergency 311.

2. Description: Afternoon Safety Briefing
   Time: 12:30 PM- 12:45
   Attendees: See attached sign in sheet.
   Issues:
   a. Same as morning tailgate meeting.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***

The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/04/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. Rock was placed around the Monitoring well MW-4. Heavy equipment was not used for compaction within the specified radius of the Monitoring Well MW-4.

2. It was determined that there is not enough rock in the Former Bulk Waste Staging Area, TA III, to complete the Biointrusion Barrier Layer.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The last of the rock located in the Former Bulk Waste Staging Area, TA 3, will be used by tomorrow. Additional rock is being tested for compliance and will be purchased if acceptable. Approximately 1020 CY of the Biointrusion Layer was installed today (68 Truck Loads @ approx 15 CY/truck). See dwg_06/04/09_Construction_01.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***QA Survey/Biointrusion Rock Meeting (1:00 –1:45 pm)***

A meeting was held between Sandia, EDi, and this afternoon to discuss the following:

1. There is not going to be enough rock in the Former Bulk Waste Staging Area, TA III, to complete the Biointrusion layer. The original rock was purchased at the San Lazarus Gulch in the San Pedro Mountains (San Pedro rock). Ben Martinez (Sandia) contacted San Pedro Rock and was informed that there is more of the same rock available; however, it has more fines in it then the original rock. Don Lopez has requested a sample of the proposed rock for his inspection. Don Lopez will make his decision to approve/disapprove the additional Biointrusion rock based on visual inspection/Engineering Judgment.

2. Harry Buckner (URS) will begin the QA survey on Friday (06/05/09). Harry will begin his survey on the south end of the MWL and proceed north. Harry will convert the survey data collected into a usable format on Saturday (06/06/09) to determine the Biointrusion Layer thickness. URS intends to provide EDi with approval/disapproval of at least the south portion of the Biointrusion Layer Monday morning. Any survey not completed on Friday will be collected on Monday.

3. There was a discussion over the "actual thickness" of the Biointrusion Layer compared to the "computed thickness". The computed Biointrusion Layer thickness is determined by comparing the elevation of the Existing Subgrade to the elevation of the Biointrusion Layer. However, the rock is being placed onto a scarified surface, not the surveyed Existing Subgrade, which allows the rock to

push down into the Existing Subgrade approximately 1-to-2 inches. This causes the actual thickness to be greater then what the computed thickness derived from survey data is showing. Don Lopez has decided to accept a computed Biointrusion Layer thickness of 11-inches to compensate for the above.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/05/09)

1. Continue the construction of the Biointrusion Barrier.
2. QA Survey

DAILY SUMMARY REPORT

DATE: 06/05/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:20 am (64 deg); partly cloudy
WEATHER (PM): 1:00 pm (76 deg); partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continued construction of Biointrusion Layer
- Field CQA Survey of South side of MWL (URS)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Former Bulk Waste Staging Area, TA III, (Biointrusion Rock Location)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/05/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. The last of the rock in the Former Bulk Staging Area was used today. Additional rock is going to need to be purchased to finish the Biointrusion Layer. The original rock was purchased at San Pedro Rock. There is more of the same rock available, however, Don Lopez will need to approve the rock before it is used. EDi hopes to start shipment of the rock the following Monday (06/08/09).

2. Don Schofield has decided to allow EDi to order more rock from San Pedro Rock at risk. The rock available at San Pedro Rock is the exact same rock and is from the same stockpile.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. All available rock in Bulk Staging Area was used today. Approximately 435 CY of the Biointrusion Layer was installed today (29 Truck Loads @ approx 15 CY/truck). See dwg_06/05/09_Construction_01.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***CQA Survey of Biointrusion Thickness***

Harry Buckner (URS) and Paul Molina (URS) conducted the QA survey on the south end of the MWL. The survey data collected will be converted into a usable format to determine the Biointrusion Layer thickness (See results attached). URS intends to provide EDi with approval/disapproval of at least the south end of the Biointrusion Layer. Additional QA Survey will be conducted on Monday (6/8/09).

B. ISSUES/COMMENTS
1. Four Points on the southwest slope did not pass the 1-foot minimum thickness requirement (See results attached). EDi will need to place more rock on this section. URS will then recheck the survey at these four spots. All other areas on the south portion of the Biointrusion layer are approved.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. See attached for QA Survey Results

G. PICTURES OBTAINED
1. Pictures of this procedure were not collected

INSPECTION CHECKLISTS REQUIRED
1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/08/09)
1. Continue with Biointrusion Layer if rock is delivered.
2. Begin placing the loose sand and working into voids of Biointrusion Layer in approved sections.
3. Continue QA Survey on north end of MWL

DAILY SUMMARY REPORT

DATE: 06/08/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10(67 deg); partly cloudy
WEATHER (PM): 2:00 (78 deg); partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continued construction of Biointrusion Layer on northeast side.
- Field CQA Survey of northwest side of MWL (URS).
- Begin placement of loose soil into Biointrusion Layer voids in approved areas.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade.
2. Former Bulk Waste Staging Area, TA III, (Biointrusion Rock Location).

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/08/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. Additional rock was purchased from San Pedro Rock to finish the Biointrusion Layer. Don Lopez approved the rock after a visual inspection. Don Lopez also checked with San Pedro Rock to confirm the rock purchased was from the same stockpile as the original.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Rock was shipped from San Pedro Rock and placed directly on the Existing Subgrade. Approximately 479 CY of the Biointrusion Layer was installed today. 313.94 tons of rock was delivered on site.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***CQA Survey of Biointrusion Thickness***

Harry Buckner (URS) and Paul Molina (URS) conducted the QA survey on the Northwest end of the MWL. The survey data collected will be converted into a usable format on Tuesday morning (06/09/09) to determine the Biointrusion Layer thickness (see results attached). URS intends to provide EDi with approval/disapproval of the Northwest portion of the Biointrusion Layer Tuesday morning (06/09/09). The final QA Survey will be performed when the Biointrusion Layer is completed on the Northeast end.

B. ISSUES/COMMENTS

1. Two Points on the Northwest end did not pass the 1-foot minimum thickness requirement. EDi will need to place more rock on this section. URS will then recheck the survey at these two points.

2. EDi corrected the four points that did not pass the 1-foot minimum thickness requirement (see results attached). URS has rechecked these points and will give approval tomorrow (6/09/09).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. See attached for QA Survey Results

F. PICTURES OBTAINED

1. Pictures of this procedure were not collected

III

A. TASK DESCRIPTION: ***Placement Of Loose Soil In Biointrusion Voids***

The south portion of the MWL has been approved for the placement of loose soil into the Biointrusion Voids (with the exception of 4 low areas). See the Daily Report dated 05/26/09 for the method of installation and compaction of the loose soil into the voids.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 612 CY of loose soil was placed and worked into the Biointrusion voids today (with the exception of 4 low areas) (34 Truck Loads @ approx 18 CY/truck). See dwg_06/08/09_Construction_02.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/09/09)

1. Continue with Biointrusion Layer with delivered rock.
2. Continue placing the loose sand and working into voids of Biointrusion Layer in approved sections.

DAILY SUMMARY REPORT

DATE: 06/09/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:08; Partly cloudy (56 deg)
WEATHER (PM): 4:06; Partly cloudy (71 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continued construction of Biointrusion Layer on northeast nide
- Place loose soil into Biointrusion Voids of approved area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Former Bulk Waste Staging Area, TA III, (Biointrusion Rock Location)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/09/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. Additional rock was purchased from San Pedro Rock to finish the Biointrusion Layer. Don Lopez approved the rock after a visual inspection.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Rock was shipped from San Pedro Rock and placed directly on the Existing Subgrade. Approximately 307 CY of the Biointrusion Layer was installed today 429.57 tons of rock was delivered on site.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Placement Of Loose Soil Into Biointrusion Voids***
The Northwest portion of the MWL has been approved for the placement of loose soil into the Biointrusion Voids (with the exception of 2 locations) . See the Daily Report dated 05/26/09 for the method of installation and compaction of the loose soil into the voids.

B. ISSUES/COMMENTS
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. Approximately 864 CY of loose soil was placed and worked into the Biointrusion voids today (48 Truck Loads @ approx 18 CY/truck). See dwg_06/08/09_Construction_02.

G. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***CQA Survey of Biointrusion Thickness***
Approval of Northwest and resurveyed areas.

B. ISSUES/COMMENTS

1. EDi corrected the four points that did not pass the 1-foot minimum thickness requirement (see results attached). URS has rechecked these points and they are now approved.
2. Northwest Biointrusion Layer approved with the exception of 2 locations on North Slope.

C. EQUPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:
1. See attached for QA Survey Results

G. PICTURES OBTAINED
1. Pictures of this procedure were not collected

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/10/09)

1. Continue with Biointrusion Layer with delivered rock.
2. Continue placing the loose sand and working into voids of Biointrusion Layer in approved sections.

DAILY SUMMARY REPORT

DATE: 06/10/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): Heavy Rain
WEATHER (PM): NA
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- No construction was performed today due to weather conditions.
- A meeting was held with URS, Sandia, and EDi for coordination of the Biointrusion survey and the Final Report.

LOCATION OF CONSTRUCTION

1. NA

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
   Time: 7:00 AM
   Attendees: See attached sign in sheet.
   Issues: No construction today

DAILY TASK

I.
A. TASK DESCRIPTION: ***Meeting***
A meeting was held to discuss the continuation of construction for the Biointrusion Layer and to coordinate the Final Report.

B. ISSUES/COMMENTS:

- The Biointrusion Layer (without the soil in the voids) may be a difficult layer to use as a new datum due to irregularities in the rock. Also, the rock is being pushed flat when the soil is placed and spread with a dozer into the voids and then compacted with a vibrating, smooth drum roller. Because of rock being pushed flat under the soil, we would not know the exact elevation of the rock after the sand has been placed and compacted. A better datum may be to use the Biointrusion Layer after the voids have been filled with loose soil and compacted with the vibrating, smooth drum roller. The loose soil makes a thin soil layer above the rock, which may be a better surface to create a starting datum for the Native Soil Layer.

1. It was decided that to make the corrections for the 2.0% surface slope and 6:1 side slopes during the Native Soil Layer because of construction constraints due to the

Biointrusion rock. It will be very difficult to adjust the Biointrusion rock surface to meet the specifications. As of now, the surface slopes are approximately at an average of 1.8%. Correcting the slope with the first couple of Native Soil Lifts will give us a better idea of how much material we are going to be short on the native soil layer. It will also be a much easier material to adjust to the specification requirements.

2. Most of the Biointrusion Layer thickness was within the specified thickness. There were a couple of points on the orange corner post that were high. These points are going to be corrected for the final QA survey on Friday.

3. We are expecting information from Jerry Peace regarding the Biointrusion Rock. This information is to be incorporated into the final report. (Jerry Peace information attached)

4. Mike Mitchell reviewed the Final Report Outline provided by Marshall Nay. Mike approved the outline and requested that the outline be updated throughout the duration of the project.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Meeting complete

F. PICTURES OBTAINED:
1. NA

INSPECTION CHECKLISTS REQUIRED
None required

PROPOSED NEXT DAY ACTIVITIES (date: 06/11/09)
1. Continue with Biointrusion Layer rock construction
2. Continue placing loose sand and compacting into Biointrusion rock voids in approved areas.

DAILY SUMMARY REPORT

DATE: 06/11/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:00; Partly cloudy (56 deg)
WEATHER (PM): 4:06 PM; Partly cloudy (71 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continued construction of Biointrusion Layer on northeast side
- Place Loose soil into Biointrusion Voids of approved area.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade.
2. Former Bulk Waste Staging Area, TA III, (Biointrusion Rock Location).

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today on the northeast surface and slope. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/11/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. Additional rock was purchased from San Pedro Rock to finish the Biointrusion Layer.
2. The final Biointrusion rock should be installed by 12:00 PM tomorrow (06/12/09). Harry Buckner (URS) will be out at that time to finish his QA survey.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Rock was shipped from San Pedro Rock and placed directly on the Existing Subgrade. Approximately 558 CY of the Biointrusion Layer was installed today 781.88 tons of rock was delivered on site.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Placement Of Loose Soil In Biointrusion Voids***

The northwest portion of the MWL has been approved for the placement of loose soil into the Biointrusion Voids. See the Daily Report dated 05/26/09 for the method of installation and compaction of the loose soil into the voids.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 1044 CY of loose soil was placed and worked into the Biointrusion voids today (58 Truck Loads @ approx 18 CY/truck). See dwg_06/08/09_Construction_02.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/12/09)

1. Continue with Biointrusion Layer with delivered rock.
2. Continue placing the loose sand and working into voids of Biointrusion Layer in approved sections.
3. Survey QA on Final section.

DAILY SUMMARY REPORT

DATE: 06/12/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; Partly Cloudy (57 deg)
WEATHER (PM): 3:50 PM; Partly Cloudy (76 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Biointrusion Layer
- Field CQA Survey of Northeast side of MWL (URS)
- Place Loose soil into Biointrusion Voids of approved area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Former Bulk Waste Staging Area, TA III, (Biointrusion Rock Location)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:03 am
Attendees: See attached sign in sheet.
Procedure:
- Please see general description above
Safety:
-Be sure to use proper eye protection
-New people need to be informed to drive patterns and other safety precautions.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Installation of Biointrusion Layer***
The installation of the Biointrusion Layer continued today on the northeast surface and slopes. See the Daily Report dated 05/26/09 for the revised method of installation for the Biointrusion Layer. See attached dwg_06/12/09_Construction_01 for illustration of installed Biointrusion Layer.

B. ISSUES/COMMENTS:

1. The final area to have the Biointrusion Rock Installed was completed today at 12:00 PM.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The construction of the Biointrusion Rock Layer (not including loose sand to fill voids) was completed today. Rock was shipped from San Pedro Rock and placed directly on the Existing Subgrade. Approximately 197 CY of the Biointrusion Layer was installed today. 275.88 tons of rock was delivered on site.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***CQA Survey of Biointrusion Thickness***

Harry Buckner (URS) and Paul Molina (URS) conducted the QA survey on the Northeast portion of the MWL. The survey data collected will be converted into a usable format on Monday (06/15/09) and reviewed to determine the Biointrusion Layer thickness (see results attached). URS intends to provide EDi with approval/disapproval of the Biointrusion Layer Monday morning (06/15/09).

B. ISSUES/COMMENTS

1. The two locations that did not meet the minimum thickness requirement on the previous QA survey (See survey Data 06/08/09) were corrected.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. See attached for QA Survey Results

III.

A. TASK DESCRIPTION: ***Placement Of Loose Soil In Biointrusion Voids***

The northwest end of the MWL has been approved for the placement of loose soil into the Biointrusion Voids. See the Daily Report dated 05/26/09 for the method of installation and compaction of the loose soil into the voids.

B. ISSUES/COMMENTS

1. None

C. EQUPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 165 CY of loose soil was placed and worked into the Biointrusion voids today (11 Truck Loads @ approx 18 CY/truck). See dwg_06/08/09_Construction_02.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/15/09)

1. Continue placing the loose sand and working into the voids of the Biointrusion Rock layer in approved sections.

DAILY SUMMARY REPORT

DATE: 06/15/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; Partly cloudy (57 deg)
WEATHER (PM): 3:50; Partly cloudy (76 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Place loose soil into Biointrusion Voids of approved area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pits, TA-3

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I

A. TASK DESCRIPTION: ***CQA of Biointrusion Rock Thickness***
The Biointrusion northeast and northwest corrections (2 locations) are approved. The entire Biointrusion Layer (rock) is now approved.

II

A. TASK DESCRIPTION: ***Placement Of Loose Soil In Biointrusion Voids***
The northeast surface and slopes of the MWL has been approved for the placement of loose soil into the Biointrusion Voids. See the Daily Report dated 05/26/09 for the method of installation and compaction of the loose soil into the voids. The two grid point locations on the north slope have been corrected, resurveyed, and are approved.

B. ISSUES/COMMENTS
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 522 CY of loose soil was placed and worked into the Biointrusion voids today (29 Truck Loads @ approx 18 CY/truck). See dwg_06/15/09_Construction_01.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/16/09)

1. Continue placing the loose soil and working into voids of Biointrusion Layer in approved sections.
2. Meeting regarding the procedure for the Native Soil Lifts 10:00 AM.

DAILY SUMMARY REPORT

DATE: 06/16/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:00; Clear sky (58 deg)
WEATHER (PM): 3:00; Clear sky (86 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continued placing loose soil into Biointrusion Voids and compacting with roller.
- A meeting was held with URS, Sandia, and EDi for coordination of the Biointrusion survey and construction of the Native Soil Layer.
- Began placement of 6:1 slope around MWL where required for lifts #1 and #2.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Borrow Pits

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Issues: None

DAILY TASK

I.

A. TASK DESCRIPTION: ***Placement Of Loose Soil In Biointrusion Voids***
The Northeast surface and slopes of the MWL has been approved for the placement of loose soil into the Biointrusion Voids. See the Daily Report dated 05/26/09 for the method of installation and compaction of the loose soil into the voids.

B. ISSUES/COMMENTS
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 108 CY of loose soil was placed and worked into the Biointrusion voids today (34 Truck Loads @ approx 18 CY/truck). See dwg_06/16/09_Construction_01.

2. Biointrusion Layer Completed and surveyed by EDi.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Meeting***

A meeting was held to discuss the new datum on the Biointrusion Layer and the construction of the Native Soil Layer.

B. ISSUES/COMMENTS:

1. Vladimir Jirik (Subcontractor Survey for EDi) attended today's meeting to discuss potential solutions for construction of the Native Soil Layer. There is currently an approximate 3-inch or less (nominal) compacted soil layer from the loose soil that was worked into the Biointrusion Rock voids. The thin soil layer creates a better surface to build the Native Soil Layer on due to the irregularities of the Biointrusion Rock. Vladimir Jirik is going to verify the nominal 3-inch thickness via survey CADD software. This thin soil layer will be the new construction datum. Vladimir has also been asked to create a topographic survey of the current existing surface (thin soil layer). This topographic survey will be based on the same 50-foot grid previously used on the Existing Subgrade and Biointrusion Rock Layer. The topographic survey will show the current elevations as well as the slope across the MWL surface. There will also be section cuts to show the difference in the current existing slope and a projected 2.0% slope to meet the contract specifications. Based off of this data, an approach will be determined to continue the construction of the Native Soil Layer.

2. Vladimir Jirik made a suggestion to bring the Native Soil up as a flat surface rather than correct the 2.0% slope on the final lift. This has already been discussed and is not the preferred method due to foreseeing soil shortages. It is also believed it is better to start correcting for the 2.0% slope as soon as possible due to some deviations in elevation existing in the Subgrade, which have continued through the Biointrusion Layer. Vladimir also suggested reverting back to the contract design for the remainder of the project. This is not ideal to use because the contract design does not fit exactly with what the existing conditions are. A final decision will be made based off of the survey data expected tomorrow.

3. The actual size of the MWL is greater then the 2.6-acre originally anticipated. The larger cover footprint due to the thicker Biointrusion Layer and resulting side slopes is anticipated to result in a shortage of screened soil fill. The actual size of the MWL as of now is about 3.05 acres Additional soil can be extracted from the

Borrow Area, however, the exact amount is not known. Additional testing may need to be conducted in the Borrow Area to determine the depth of the Calichie layer.

4. Marshall Nay did an average on the thickness of the Biointrusion Rock Layer. The nominal thickness is approximately 1.29-feet, which is very close to the 1.25-foot maximum specified in the CMIP.

5. As of now, URS is not going to do a QA survey on the MWL until the 2-1/2-foot Native Soil Layer is complete. URS will do QA density/moisture test every 6-inch lift as specified in the CMIP.

6. It appears that we are not going to be able to correct the slope to 2.0% on the first lift of Native Soil due to the thickness requirements in the CMIP (8-inch loose, 6-inch compacted). The 2.0% slope will probably need to be made up incrementally with multiple lifts. To be discussed more when additional survey information is received tomorrow (06/17/09).

7. Specification section 02200 requires a hydraulic conductivity testing on each Native Soil Layer lift (8-inch loose, 6-inch compacted). No ASTM Standard was specifically called out in the Specifications and there are a couple of test to choose from:
    a. The first test, ASTM D-5084, is a flexible wall hydraulic conductivity test. This test requires an "undisturbed" compacted sample to be taken in the field. The sample is then taken back to the lab to determine the hydraulic properties.
    b. The second test, ASTM-5856, is a rigid wall hydraulic conductivity test. This test requires a sample to be taken from the field and returned to the lab. The sample is then compacted and tested at the lab. This test will take 3-5 days and is the most appropriate method based upon the CMIP and a team evaluation of the K-Sat testing logistics and alternatives.

8. During the pre-bid there was discussion concerning the potential for delay in schedule due to the hydraulic conductivity testing. The bidding contractors concern was they could control the moisture content and the density in the soil, however, because they are required to use the soil pre-determined by Sandia, they would not have control over the outcome of the hydraulic conductivity test. As a solution, Sandia agreed to not delay the project due to hydraulic conductivity testing.

9. EDi will begin adjusting the slopes of the MWL to 6:1 as specified on the north, east, and west slopes during the Native Soil Layer. The lifts will be placed in 8-inch loose, 6-inch compacted lifts as specified. Density/Moisture testing will be conducted after the completion of two 6-inch lifts. The Density/Moisture tests will be performed by driving the stake down and testing at 6-inches. The stake will then be driven an additional 6-inches (12-inch total) to test the first 6-inch

Native Soil Lift. A random location will be chosen on each side to be tested (3 locations; 6 test) per 12-inch lift. URS will perform random QA Density/Moisture tests to verify the results obtained by EDi. This procedure of adding the 6:1 slope is significantly adding to the size of the MWL.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Meeting to be continued tomorrow when additional survey information is obtained.

F. PICTURES OBTAINED:
1. NA

III.

A. TASK DESCRIPTION: ***Begin Construction of 6:1 Slope around MWL Perimeter***
Construction of the 6:1 Slope on the North, East, and West slopes began today (Lifts #1 and #2).

B. ISSUES/COMMENTS
1. The slope will be constructed in 12-inch compacted increments because it is not part of the actual cover. Testing will be performed every 12-inches both at a depth of 12-inches and 6-inches.

2. The east and west slope will require about 6 lifts to reach the 6:1 slope requirement. The north slope will require 8 lifts to reach the 6:1 slope.

3. The actual size of the footprint will be between 3.0-to-4.0-acres in size in lieu of 2.6-acres as specified in the CMIP. A final survey will be conducted around the perimeter toe of the MWL to determine the actual size once complete.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 504 CY of loose soil was placed and compacted for the 6:1 side slope lifts #1 and #2. See dwg_06/16/09_Construction_02.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Biointrusion Layer Inspection Form
2. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 06/17/09)

1. A meeting will be conducted on how to proceed with the construction of the Native Soil Layer based on the survey data.
2. Continue placing the 6:1 slope around MWL where required.
3. Density Testing on 6:1 slope as required.

DAILY SUMMARY REPORT

DATE: 06/17/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:00; Clear Sky (58 deg)
WEATHER (PM): 3:00; Clear Sky (86 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- The slope continued to be adjusted to a 6:1 slope around MWL where required
- Density/Moisture testing on 6:1 Slope Lift #1, #2, #3 and #4 (EDi).
- Meeting Regarding Native Soil construction

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Borrow Pits

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Meeting***
A meeting was held to discuss the beginning the Native Soil Layer construction.

B. ISSUES/COMMENTS:

- A meeting was held with Sandia, EDi, and URS to discuss the construction of the Native Soil Layer. The topographic survey depicting the current existing conditions was provided by Vladimir Jirik (EDi surveyor). The Topographic map shows existing elevations, the thickness of the thin soil layer covering the Biointrusion Layer, section cuts of existing slopes, and the projected 2.0% slope.

1. After reviewing the topographic survey, it was determined the thin soil layer filling the Biointrusion voids was a nominal 3.0" thickness. It was determined that this was an acceptable thickness. The thin soil layer is now approved.

2. After reviewing the survey, it was determined imperfections in the Biointrusion Layer that had been inherited by the low areas in the Existing Subgrade Layer were still present. Grid Blocks #7, #8, and #11 have low areas that require additional Native Soil material in order to achieve the 2.0% slope required across the MWL from east to west. Because of the maximum 8-inch loose, 6-inch compacted soil constraint in the CMIP, the difference in thickness will need to be constructed in two individual "wedge lifts". Each of the wedge lifts thickness will be within the specified requirements and will receive Moisture/Density testing as required. Once the slope is corrected using the wedge lifts, the additional lifts

(Lifts 3 through 8) will be placed in uniform 6-inch compacted lifts across the entire surface to achieve the 30.0-inch minimum requirement.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Meeting completed

F. PICTURES OBTAINED:
1. NA

II.

A. TASK DESCRIPTION: ***Continue Construction and Testing of 6:1***

Construction of the 6:1 Slope on the North, East, and West slopes continued today. Lifts #1 and #2 were continued and completed today. Lifts #3 and #4 began and were completed today. Density/Moisture tests were conducted for Slope Lifts #1, #2, #3 and #4.

B. ISSUES/COMMENTS
1. None

C. EQUPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 792 CY of loose soil was placed and compacted for the 6:1 side slope lifts #1, #2, #3, and #4. See dwg_06/17/09_Construction_01.

2. Density/Moisture testing was conducted by EDi for Slope Lifts # 1, #2, #3 and #4. All test results were in accordance with the Specifications.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

Native Soil Inspection Sheet
Density/Moisture Tests Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 06/18/09)

1. Continue construction and testing of 6:1 slope surrounding the MWL.

DAILY SUMMARY REPORT

DATE: 06/18/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:09; Clear Sky (76 deg)
WEATHER (PM): 2:00; Clear Sky (deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- The slope continued to be adjusted to a 6:1 slope around MWL where required.
- Density/Moisture testing on 6:1 slopes; slope lifts #5, and #6 Side (EDi).
- Begin Construction of Lift #7 and #8 on North Slope only.
- Grade stakes were placed for the construction of the Native Soil "wedge lifts".

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pits, TA-III

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Issues: None

DAILY TASK

I.
A. TASK DESCRIPTION: ***Continue Construction and Testing of 6:1***
Construction of the 6:1 Slope on the North, East, and West slopes continued today. Lifts #5 and #6 were continued and completed today. Lifts #7 and #8 began today. Density/Moisture tests were conducted for Slope Lifts #5 and #6.

B. ISSUES/COMMENTS
1. Slope lifts #7 and #8 will only occur on the North face of the MWL. The East and west slopes were brought to a 6:1 slope in six lifts.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1170 CY of loose soil was placed and compacted for the 6:1 side slope lifts #5 and #6. See dwg_06/17/09_Construction_01.

2. Density/Moisture testing was conducted by EDi for Slope Lifts # 5 and #6. All test results were in accordance with the Specifications.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Sheet

1. Moisture/Density Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 06/19/09)

1. Continue the construction and testing of the 6:1 slope on the north face of the MWL.

2. Construct Native Soil Wedge Lifts #1 and #2.

DAILY SUMMARY REPORT

DATE: 06/19/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:00; Clear sky (77deg)
WEATHER (PM): 2:10; Clear sky (deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Complete and test 6:1 slope on north side of MWL
- Finish construction of 1st Native Soil lift, Wedge Lift #1
- Construct 2nd Native Soil lift, Wedge Lift #1
- Density/Moisture tests on 1st and 2nd Wedge Lifts
- QA Density/Moisture tests on north, east, and west 6:1 slopes (URS)
- QA Density/Moisture tests on north 6:1 slope (EDi)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Borrow Pits

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

DAILY TASK

I.

A. TASK DESCRIPTION: ***Construction and Testing of 1st Native Soil Lift, Wedge Lift #1***
EDi completed the construction on Wedge Lift #1 (Native Soil Lift 1). Density/Moisture testing by EDi occurred in grid blocks #7, #8, and #11. Density/Moisture testing by URS occurred in grid blocks #8 and #11.

B. ISSUES/COMMENTS:
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Density/Moisture tests conducted for EDi and URS were in compliance with specifications (See Appendix C-06/19/09)

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Construction and Testing of 2nd Native Soil Lift, Wedge Lift #2***

EDi began and completed the construction of Wedge Lift #2 (Native Soil Lift #2). Density/Moisture testing by EDi occurred on grid blocks, #8, and #11. Density/Moisture testing by URS occurred in grid block #11.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Density/Moisture test conducted for EDi and URS were in compliance with specifications (See Appendix C-06/19/09)

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***QA Density/Moisture Tests on 6:1 Side Slopes***

The construction of the final lifts on the north slope of the MWL (lift #7 and #8) were completed and tested today. QA testing was also conducted on the final lifts (lift #5 and #6) on the east and west slopes of the MWL.

B. ISSUES/COMMENTS

1. The results of the QA (URS) Moisture/Density test conducted on the 6-inch 6:1 North slope (lift 8) appears erroneous. The results were not consistent with tests performed prior or with results obtained by EDi in the same location (See Appendix C-URS-6/19/09).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Density/Moisture Tests on east and west slopes are in accordance with the Specifications for both EDi and URS.

2. Density/Moisture Tests on the north slope appear to have a gross error for URS. The results obtained do not appear reasonable based on the results obtained by EDi and prior tests conducted by URS on similar soil material. URS will retest the north slope on 06/22/09.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Sheet
2. Density/Moisture Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 06/22/09)

1. Retest density and moisture content on north Slope of MWL

DAILY SUMMARY REPORT

DATE: 06/22/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:38; (72 deg); Partly Cloudy
WEATHER (PM): NA
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Soil from the berm surrounding the MWL was taken to the borrow area to be screened and mixed with the Native Soil.
- A meeting was conducted to review the MWL now that the Wedge Lifts (#1 and #2) have been completed.
- 6-inch Density/Moisture CQA (URS) retesting of the 6:1 north slope, Lift 8.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pits, TA-3

LIST OF PERSONNEL:

Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00 am
   Attendees: See attached sign in sheet.

Procedure:

- Remove soil berm surrounding the MWL and take to borrow area to be screened and mixed with Native Soil.

DAILY TASK

I.

A. TASK DESCRIPTION: ***CQA (URS) Retesting of 6:1 North Slope***

The results from the density test conducted on the 6-inch 6:1 north slope (Lift #8) on 6/19/09 appear erroneous. The results were not consistent with tests performed prior on the moisture and density results (See Appendix C-URS-6/19/09). Paul Molina (URS) decided to redo the QA 6-inch Density/Moisture test on the 6:1 north Slope.

B. ISSUES/COMMENTS:

1. Robert Carr arrived onsite at 10:00 am. Robert was instructed by Paul Molina (URS) to perform three 6-inch tests across the 6:1 north slope (See attached for tests locations). One test was taken per grid block (#5, #10, and #13) across the north slope to confirm the moisture and density. One of the tests conducted was in the same area of the erroneous test performed on 6/19/09. The three tests met

the Specifications, which confirmed our suspicion that the test performed on 6/19/09 was a faulty reading.

2. Chris Williams (Sandia) allowed Robert Carr to come onsite without checking Roberts Troxler machine. Chris was in a meeting, which did not allow him to come to the MWL. Chris checked Robert's testing equipment last on 06/19/09.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The North 6:1 slope is in compliance with the Specification requirements.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Meeting (URS, EDi, Sandia)***

Chris Edgman (EDi) received an updated topographic map with section cuts of the MWL, which includes the installation of the two wedge lifts (See Appendix A). The maps and section cuts were reviewed to discuss how construction of the Native Soil Layer should continue.

B. ISSUES/COMMENTS
1. Chris Edgman wanted to know if URS wanted EDi to perform their Density/Moisture tests in the exact same location for each lift. Marshall Nay and Paul Molina (URS) decided it was best not to have the Density/Moisture tests performed in the same location, but to have them randomly selected within the 13 grids previously established (one test per grid).

2. Discussion on identifying which proctor is to be used for different locations on the MWL occurred. There is currently a range of proctor maximum densities and optimum moisture content from 112.2-to-119.1 pcf and 10.3-to-14.4% respectively. Marshall Nay (URS) calculated the average of all of the current proctors. Marshall received an average maximum density and optimum moisture content of 116.0 pcf and 12.3% respectively. Jon Schermerhorn (AMEC) conducted field proctors as the two wedge lifts were being placed and received a maximum density and optimum moisture content of 115.7 pcf and 12.6 respectively. Both Marshall and Jon acquired similar results, which supported the Density/Moisture tests results.

3. After reviewing the new topographic map it was determined there are still slopes that do not meet the 2.0% requirement. The Native Soil Layer was brought up into

the specified tolerance range, however, after reviewing the section cuts there are still some areas that are below the 2.0% grade line that will need correction. EDi proposed correcting these low areas during the third lift of Native Soil. The third lift will fill the low areas with approx 3-to-6-inches of soil while placing only a thin layer of soil, if any, on the areas with higher elevations. This will create a flat surface at approximately 2.0% across the entire MWL. Because soil will only be placed in the low areas, it is not sufficient to perform Density/Moisture tests on all 13 grids. Only the areas that receive enough soil (approximately 4-inch minimum) will be tested. The areas that do not receive enough soil to test during the third lift will be tested during the fourth lift.

4. After the third lift is tested and approved, the fourth lift will begin. The fourth lift will also be a thin lift (less then 6-inches) to prevent the areas that received a small amount of soil in the third lift, but not enough soil to test, from exceeding the 6-inch maximum thickness specification constraint. The fourth lift will also be used to "fine-tune" the 2.0% slope. After the fourth lift, the Native Soil remaining lifts (5 through 8) will be constructed and tested in consistent 6-inch lifts at the 2.0% slope. EDi will provide Marshall Nay with a copy of the Topographic Survey Data after the fourth lift (See Appendix A).

C. EQUIPMENT USED (See Appendix B For Equipment Description):
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
   1. Meeting concluded

F. PICTURES OBTAINED
   1. NA

INSPECTION CHECKLISTS REQUIRED
1. Density/Moisture Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 06/23/09)
1. Begin third lift of Native Soil Layer
2. Test third lift of Native Soil Layer

DAILY SUMMARY REPORT

DATE: 06/23/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:38, (72 deg); Partly Cloudy
WEATHER (PM): 1:21; (72 deg); Cloudy, 10 mi. lightning warning @ 1:15 pm
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Placement of the Native Soil Lift #3. Density/Moisture testing were conducted for the Native Soil, lift 3.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Borrow Pits

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- Place Native Soil Lift #3 onto the MWL.
-Test Native Soil Lift #3
Safety:
-Keep interior of trucks clean to prevent slip/falls

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, 3rd Lift***
The 3rd lift of the Native Soil Layer began today.

B. ISSUES/COMMENTS:
1. After reviewing the new topographic map it was determined there are still slopes that do not meet the 2.0% requirement. EDi proposed correcting these low areas during the third lift of Native Soil. The third lift will fill the low areas with approx 3-to-6-inches of soil while placing only a thin layer of soil, if any, on the areas with higher elevations. This will create a flat surface at approximately 2.0% across the entire MWL.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary
D. EQUIPMENT CALIBRATION CERTIFICATES

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1206 CY of Native Soil was placed and compacted on the west side of the MWL in grid blocks #1, #2, #3, and #4. See dwg_06/23/09_Construction_01.

F. PICTURES OBTAINED:

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Density/Moisture Testing, 3rd Lift***

Moisture/Density test on the Native Soil 3rd lift.

B. ISSUES/COMMENTS

1. Because soil will only be placed in the low areas, it is not sufficient to perform density/moisture tests on all 13 grids on the 3rd lift. Only the areas that receive enough soil (approximately 4-inch) will be tested (See Appendix C-6/23/09). The areas that do not receive enough soil to test during the third lift will be tested during the fourth lift. Caution will be taken not to exceed the 6-inch thickness specification constraint during the 4th lift on areas not tested during the 3rd lift.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. One QA Density/Moisture test was performed in grid block #2. EDi performed Density/Moisture test in grid blocks #1 and #2 (See Appendix C).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Sheet
2. Moisture/Density Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 6/24/09)

1. Finish constructing and testing Native Soil Lift #3.
2. Begin construction of Native Soil Lift #4.

DAILY SUMMARY REPORT

DATE: 06/24/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 9:21; (72 deg); Partly Cloudy
WEATHER (PM): 3:30; (87 deg); Partly Cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Completion of Native Soil lift #3. Density/Moisture testing were conducted for the Native Soil, Lift #3.
- Begin Native Soil Lift #4
- Meeting

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Borrow Pits

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- Place and test Native Soil Lift #3 onto the MWL.
-Begin Native Soil Lift #4.
Safety:
-Speed limits around Tech Area III have been reduced to 30 MPH.
- Review of water truck safety.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, 3rd Lift***
Continue construction and testing of the Native Soil Layer 3rd lift.

ISSUES/COMMENTS:

1. After reviewing the new topographic map it was determined there are still slopes that do not meet the 2.0% requirement. EDi proposed correcting these low areas during the third lift of Native Soil. The third lift will fill the low areas with approx 3-to-6-inches of soil while placing only a thin layer of soil, if any, on the areas with higher elevations. This will create a flat surface at approximately 2.0% across the entire MWL.

2. URS tested grid block #8. EDi tested grid blocks # 6, and #8.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 500 CY of Native Soil was placed and compacted on the East side of the MWL. See dwg_06/24/09_Construction_01.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Native Soil, 4th Lift***

Begin construction of the Native Soil Layer 4th lift. Construction from west to east.

ISSUES/COMMENTS:
1. The areas that did not receive enough soil to test during the 3rd lift. These areas will be tested during the 4th lift. Caution will be taken not to exceed the 6-inch thickness specification constraint during the 4th lift on areas not tested during the 3rd lift. The locations of the tested areas will be surveyed. The 4th lift was not tested for density and moisture today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 616 CY of Native Soil was placed and compacted on the west side of the MW. See dwg_06/24/09_Construction_01. The soil was only placed; it will need to be compacted tomorrow.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Meeting (9:00 am) Sandia, EDi, URS***

See Issues/Comments for meeting description.

B. ISSUES/COMMENTS:

1. Edgewood Aggregate may not be able to provide enough crushed gravel to meet the current schedule. Edgewood Aggregate is providing the 3/8" crushed gravel previously approved for the Topsoil Layer. EDi is resubmitting the Crushed Gravel from Fisher as an alternative to the crushed gravel previously approved by Edgewood Aggregate (See Appendix G, Submittals #1 and #8). EDi may use crushed gravel from both Edgewood aggregate and Fisher. A new sample of the Fisher aggregate was provided today and appears very similar to the previously approved Edgewood aggregate.

2. Approximately 2000 tons of 3/8" crushed gravel was estimated. Due to the MWL being greater than 2.6-acres specified in the CMIP, additional 3/8" crushed gravel will be needed.

3. Due to the MWL being greater than 2.6-acres specified in the CMIP, additional soil will need to be excavated out of the borrow area. The decision was made not to do any borings in the borrow area to determine the depth of the caliche layer because the caliche layer can be mixed to meet the specification requirements. We will only want to use the caliche soil mix in the Native Soil Layer because of the high level of alkalines found in caliche. Alkalines are not ideal for the Topsoil Layer because they will hinder the growth of surface vegetation.

4. It was determined the 6:1 slope on the west face of the MWL is going to cover the bottom portion of the west Monitoring Wells. Additional discussion will occur on how to prevent the Monitoring Wells from being covered after we determine what the Monitoring Well Inspection requirements are.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
Meeting concluded

F. PICTURES OBTAINED:
1. Native Soil Inspection Sheet
2. Moisture/Density Tests Sheet

INSPECTION CHECKLISTS REQUIRED

PROPOSED NEXT DAY ACTIVITIES (date: 6/25/09)
1. Continue constructing and testing Native Soil Lift 4.

DAILY SUMMARY REPORT

DATE: 06/25/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:33; (71 deg); Partly cloudy
WEATHER (PM): 12:45; (82 deg); Cloudy, lightning warnings.
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue the construction of Native Soil Layer lift 4

LOCATION OF CONSTRUCTION:

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:03
Attendees: See attached sign in sheet.
Procedure:
- Will do SWPPP requirements due to ½-inch of rain received yesterday
- EDi and URS will conduct testing on the 4th Native Soil Lift

Safety:
- Equipment operators need to use stairs to exit equipment to prevent injury.
- Be sure to have proper MSDS for hazardous materials.

2. Description: Afternoon Safety Briefing
Time:
Attendees: See attached sign in sheet.
Issues:

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil Layer, 4th Lift***
Continue the construction of the Native Soil Layer, Lift #4. Construction will occur from west to east.

B. ISSUES/COMMENTS:
1. Native Soil Layer, Lift #4 was not completed today because of weather delays.

2. Native Soil Lift #4 cannot be placed in grid block 11 until Native Soil Lift #3 is tested in grid block 11.

3. No Density/Moisture testing occurred today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 1170 CY of Native Soil was placed and compacted for Lift #4. See dwg_06/25/09_Construction_01.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***3/8-Inch Topsoil Crushed Gravel***

Edgewood Aggregate may not be able to provide enough crushed gravel to meet the current schedule. Edgewood Aggregate is providing the 3/8-inch crushed gravel previously approved for the Topsoil Layer. EDi is resubmitting the Crushed Gravel from Fisher as an alternative to the crushed gravel previously approved by Edgewood Aggregate (See Appendix G, Submittals #1 and #8). EDi is proposing to use crushed gravel from both Edgewood aggregate and Fisher. A new sample of the Fisher aggregate was provided yesterday and contains similar physical properties as the previously approved Edgewood aggregate.

B. ISSUES/COMMENTS:
1. EDi plans to mix the 3/8-inch crushed gravel available by Edgewood Aggregate with the 3/8-inch crushed gravel from Fisher.
2. Approximately 2,300-tons of crushed gravel will be needed.
3. No available aggregate met specifications for % passing through the #4 sieve. An aggregate was selected and approved using engineering judgment. Marshall Nay (URS) has approved the Fisher 3/8-inch crushed gravel today in lieu of Don Lopez.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Marshall Nay (URS) has approved the Fisher 3/8-inch crushed gravel today.

F. PICTURES OBTAINED

1. NA

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 06/26/09)

1. Test Grid Block 11, Native Soil Lift #3.
2. Test Grid Blocks 1-10, Native Soil Lift #4
3. Complete Native Soil Lift #4

DAILY SUMMARY REPORT

DATE: 06/26/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:41; (67 deg); Clear Sky
WEATHER (PM): 3:00; (78 deg); Cloudy, 10 Mile Lightning Warning
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue the construction of Native Soil Lift #4
- Density/Moisture tests, Native Soil Lift #3, Grid Block 11
- Density/Moisture tests, Native Soil Lift #4, Grid Blocks 1-10
- NMED tour of MWL at 2:00 pm
- Begin EDi survey of Native Soil Lift #3 and #4.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00-7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-NMED tour will be conducted at 2:00pm today
-Density/Moisture tests will be conducted today
-EDi plans to start shipping the 3/8-inch crushed gravel to borrow pit next week
Safety:
-Be sure to wear proper eye protection.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil Lift #4 and Testing of Native Soil Lift #3***
Native Soil Layer, Lift #4 was continued today. Native Soil Layer, Lift #4 was not completed due to a lightning. Construction continued from east to west.

B. ISSUES/COMMENTS:

1. Density/Moisture testing was conducted for Native Soil Layer, Lift #3 in Grid Block 11 prior to installing Native Soil Lift #4 in Grid Block 11.

2. URS conducted Density/Moisture testing for Lift #3 in Grid Block 11.

3. Density/Moisture testing was conducted for Native Soil Layer, Lift #4 in Grid Blocks 1-10 by EDi. The final testing of the 4th Native Soil Lift will be performed on 06/29/09. URS conducted testing in Grid Blocks 1, 3, 5, 9, and 7.

4. EDi began survey of Native Soil Lifts #3 and #4 today. Survey will continue 6/29/09.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 432 CY of Native Soil was placed and compacted for Lift #4. See dwg_06/26/09_Construction_01. Moisture/Density Tests will be conducted on 06/29/09. Survey data collected today will also be reviewed on 06/30/09.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Native Soil Inspection Sheet
2. Density/Moisture Sheet

ADDITIONAL NOTES:
1. Mike Mitchell provided URS with a copy of the Topsoil Layer compaction data for the Chem. Waste Landfill. The information discusses the difference in compaction of the Topsoil Layer using a dozer and loader (See attached). This information may be used to resolve compaction issues on the Mixed Waste Landfill Topsoil Layer.

PROPOSED NEXT DAY ACTIVITIES (date: 06/29/04)
1. Perform survey of Native Soil Lifts #3 and #4.
2. Final Construction of Native Soil, Lift #4.
3. Final Moisture/Density Tests on Native Soil, Lift #4.

DAILY SUMMARY REPORT

DATE: 06/29/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:34; (61 deg), Clear Sky
WEATHER (PM): NA
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Complete the construction, testing and survey of Native Soil, Lift #4
- Begin shipment of 3/8-inch crushed gravel
- Hand compaction of Native Soil, Lift #4 around Monitoring Well, M-4
- EDi survey of Native Soil Lifts #3 and #4 continued today.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:03 AM
Attendees: See attached sign in sheet.
Procedure:
-Complete construction, survey, and testing of NS Lift #4.
-Begin shipment of 3/8-inch crushed gravel for topsoil.
Safety:
-Be sure to use proper eye protection.
-New people need to be informed to drive patterns and other safety precautions.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #4***
The construction, testing and survey of Native Soil Lift #4 continued today.

B. ISSUES/COMMENTS:

1. EDi conducted a survey of the MWL after Native Soil Lift #4 was completed. The survey data will be converted into a topographic map to be reviewed prior to starting Native Soil Lift #5.

2. Density/Moisture testing was conducted on the remaining grid blocks for the Native Soil Lift, #4. URS provided QA testing on Grid Blocks #11 and #13. EDi conducted testing on Grid Blocks # 11, #12, and #13.

3. Native Soil, Lift #4 was compacted around the Monitoring Well (M-4) using hand compaction methods as specified.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The construction, testing, and survey of Native Soil Lift #4 were completed today. A topographic map of the survey will be Constructed and verified before Native Soil Lift #5 may begin.

2. Hand compaction around the Monitoring Well (M-4) was completed today.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***3/8-Inch Crushed Gravel Shipment***

The 3/8-inch crushed gravel for topsoil shipment began today.

B. ISSUES/COMMENTS
1. 3/8-inch crushed gravel is being stored at the Borrow Pit.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. 18 loads (Approximately 450-tons) of 3/8-inch crushed gravel was shipped and stored at the Sandia Borrow Pit.

F. PICTURES OBTAINED
1. No pictures of this procedure were collected today.

INSPECTION CHECKLISTS REQUIRED
1. Density/Moisture Tests Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 06/30/09)
1. Review topographic map of Native Soil Lift #4.
2. Begin Construction of Native Soil Lift #5 if topographic survey is approved.

3. Continue shipment of 3/8-inch crushed gravel for Topsoil Layer.

DAILY SUMMARY REPORT

DATE: 06/30/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:24 (75 deg); Partly cloudy
WEATHER (PM): 3:00 (86 deg); 10 Mile lightning warning
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Review topographic map of Native Soil Lift #4 for approval
- Minor corrections to Native Soil Lift #4
- Begin construction of Native Soil Lift #5
- Continue shipment of 3/8-inch crushed gravel for the Topsoil Layer.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:02 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
-The Site Safety Plan is being edited to allow the site safety officer to allow the continuation of work even if clearance has not been given by Sandia Officials.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topographic Map For Native Soil Lift #4***
The topographic map of Native Soil Lift #4 was reviewed to ensure the lift was in compliance with the CMIP.

B. ISSUES/COMMENTS:

1. The topographic survey is very close to the anticipated slopes and thickness required in the CMIP.

2. Section Cut #6 of the topographic survey has approximately 1.0-inch of soil over the ideal 2.0% slope line. This section has been tested and has met all Moisture/Density requirements. This section will be placed in a 5.0-inch lift for

Native Soil Lift #5 to comply with the 6.0-inch maximum of compacted soil constraint.

3. Section Cut #7 of the topographic survey has a small area that is approximately 1.0-to-2.0-inch below the ideal 2.0% slope line. This area will be reworked, recompacted, and resurveyed before Native Soil Lift #5 will begin. The topographic survey will be updated accordingly.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Section Cut #7 has been reworked, recompacted, and resurveyed. Native Soil Lift #4 has been approved. Native Soil Lift #5 may now begin.

F. PICTURES OBTAINED:
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #5***

Begin construction of Native Soil Lift #5. Construction will proceed from east to west.

B. ISSUES/COMMENTS
1. No Density/Moisture testing was conducted today

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 756 CY of Native Soil was placed and compacted for Lift #5. See dwg_06/30/09_Construction_01. Moisture/Density Tests will be conducted on 07/01/09.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***3/8-Inch Crushed Gravel Shipment***

The 3/8-inch crushed gravel for topsoil shipment continued today.

B. ISSUES/COMMENTS

1. 3/8-inch crushed gravel is being stored at the Borrow Pit.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
   2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
   1. 25 loads (Approximately 625-tons) of 3/8-inch crushed gravel was shipped and stored at the Sandia Borrow Pit.

F. PICTURES OBTAINED
   1. No pictures of this procedure were collected today.

INSPECTION CHECKLISTS REQUIRED

PROPOSED NEXT DAY ACTIVITIES (date: 07/01/09)
1. Continue the construction of Native Soil Lift #5
2. Density/Moisture tests on completed portions of Native Soil Lift #5
3. Continue shipping the 3/8-inch crushed gravel to the Sandia Borrow Pit.

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DAILY SUMMARY REPORT

DATE: 07/01/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:15; (67 deg); Partly cloudy
WEATHER (PM): 2:33; (88 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #5.
- Density/Moisture tests of Native Soil Lift # 5 in completed areas.
- Continue shipment of 3/8-inch crushed gravel for the Topsoil Layer.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:02 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
- Be aware of traffic on turns that are not 90 deg.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction of Native Soil Lift #5. Construction will continue from east to west. Density/Moisture testing on Native Soil Lift #5 will begin today.

B. ISSUES/COMMENTS

1. Density/Moisture testing was conducted today. URS tested grid block 12. EDi tested grid blocks 11, 12, and 13.

2. A location on the corner of Grid Bock 7 (See Attached) was found which requires a fill of 0.90-feet to achieve the proper elevation. 0.45-feet of Native Soil was placed yesterday (06/30/09) at this location. This location will receive Density/Moisture testing today. An additional 0.45-feet of Native Soil will then be placed to achieve the 0.90-feet required. The second lift of 0.45-feet will be tested with the remainder of Native Soil Lift #5 as required in the CMIP.

3. The first 0.45-feet layer placed yesterday was tested for moisture/density, but failed. The area was reworked, recompacted, and retested. The moisture/density test was then successful. The second 0.45-feet layer was then placed (to account for the 0.9-feet thickness). EDi performed a moisture/density test in this location which also passed.

4. The grader had a small leak which caused a small delay in the construction of Native Soil Lift #5.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 792 CY of Native Soil was placed and compacted for Lift #5. See dwg_07/01/09_Construction_01. Moisture/Density tests were conducted today for Native Soil Lift #5.

2. The 0.9-feet low area was corrected and tested in two 0.45-feet lifts in compliance with the CMIP.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***<u>3/8-Inch Crushed Gravel Shipment</u>***

The 3/8-inch crushed gravel for topsoil shipment continued today.

B. ISSUES/COMMENTS
1. 3/8-inch crushed gravel is being stored at the Borrow Pit.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. 25 loads (628-tons) of 3/8-inch crushed gravel was shipped and stored at the Sandia Borrow Pit.

F. PICTURES OBTAINED
1. No pictures of this procedure were collected today.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 07/02/09)

1. Continue the construction of Native Soil Lift #5
2. Density/Moisture tests on completed portions of Native Soil Lift #5

DAILY SUMMARY REPORT

DATE: 07/02/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 9:38; (74 deg); Partly cloudy
WEATHER (PM): NA
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #5.
- Density/Moisture tests of Native Soil Lift # 5 in completed areas.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:02 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
- Be aware of traffic on turns that are not 90 deg.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction of Native Soil Lift #5. Construction will continue from east to west. Density/Moisture testing on Native Soil Lift #5 will continue today.

B. ISSUES/COMMENTS
1. Density/Moisture testing was conducted today. URS tested grid blocks # 6, 8, and 10. EDi tested grid blocks 6, 7, 8, 9, and 10.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 630 CY (35 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #5. See dwg_07/02/09_Construction_01. Moisture/Density tests were conducted today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 07/06/09)

1. Continue the construction of Native Soil Lift #5
2. Density/Moisture tests on completed portions of Native Soil Lift #5

DAILY SUMMARY REPORT

DATE: 07/06/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:20; (66 deg); Clear sky
WEATHER (PM): 2:34; (86 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #5
- Calibration of Pug Mill

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:02 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)
Safety:
- Be aware of traffic on turns that are not 90 deg.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction of Native Soil Lift #5. Construction will continue from east to west.

B. ISSUES/COMMENTS
1. No density/moisture testing today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 756 CY (42 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #5. See dwg_07/06/09_Construction_01. Moisture/Density Tests will be conducted on 07/07/09.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Calibration of Pug Mill***

Pioneer Industries has completed the setup of the Pug Mill and has begun calibration.

B. ISSUES/COMMENTS

1. Gravel and soil are being weighed using the Pug Mill. The gravel and soil are then taken to a Sandia scale located off site. The Pug Mill is then adjusted to match the Sandia scale as to get accurate soil-to-rock ratios required in CMIP.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Calibration will continue tomorrow (07/07/09).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Forms.

PROPOSED NEXT DAY ACTIVITIES (date: 07/07/09)

1. Continue the construction of Native Soil Lift #5
2. Density/Moisture tests on completed portions of Native Soil Lift #5

DAILY SUMMARY REPORT

DATE: 07/07/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:11; (65 deg); Clear sky
WEATHER (PM): 4:30; (91 deg) Clear sky
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction and testing of Native Soil Lift #5
- Calibration of Pug Mill/ Production of Topsoil with 3/8-inch gravel
- Begin excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
- Weekly inspection today
- Wear proper PPE
- Use ladder's properly
- Be aware of traffic at Borrow area due to higher activity

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction and testing of Native Soil Lift #5. Construction will continue from east to west. See Drawing 07/07/09.

B. ISSUES/COMMENTS
1. Density/Moisture tests were conducted at 3:00 PM today within grids 1, 2, 3, 4, and 5 by EDi. Numerous moisture tests were below the requirement (Required Density: 117 pcf, Required Moisture: 12.0 +/- 2.0%). It was determined grids 1 through 5 are to be scarified and reworked. URS postponed QA testing due to EDi test failures. URS will conduct QA test on 7/09/09.

2. Grids 1, 2, 3, 4, and 5 were scarified using the rippers on the grader. Some additional water was added.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 756 CY (42 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #5. See dwg_07/07/09_Construction_01. Moisture/Density Tests were conducted today. Retest to be conducted on 07/09/09.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Calibration of Pug Mill/3-8-Inch Gravel and Topsoil Mix***

Pioneer Industries has completed the setup of the pug mill and has begun the calibration. The calibration will be completed today and the production of 3/8-inch crushed gravel/Topsoil Mix will begin.

B. ISSUES/COMMENTS
1. Gravel and topsoil are being weighed using the Pug Mill. The gravel and topsoil are then taken to a calibrated Sandia scale located off of the jobsite. Once the topsoil and gravel are weighed using the Sandia scale, the Pug Mill is adjusted to match the Sandia scale +/- 1.0%. Once the Pug Mill is calibrated, topsoil and 3/8-inch crushed gravel will be added. The Pug Mill will combine the gravel and topsoil to produce the topsoil/gravel mixture as specified in the CMIP. The Topsoil Specifications require a 25%, by volume admixture of 3/8-inch crushed gravel to the topsoil. By knowing the weight of the crushed gravel and topsoil and adding to the Pug Mill accordingly, this has been accomplished.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The Calibration was completed today

2. Approximately 100 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil***

Additional topsoil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. The west portion of the Sandia Borrow Pit (TA-3) is being excavated for additional Top/Native Soil for the MWL .

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 125 CY of topsoil was excavated and screened today. Additional Top/Native Soil will continue to be excavated out of the Borrow Pit (TA-3) tomorrow.

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form
2. Moisture/Density Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 07/08/09)

1. Continue the construction of Native Soil Lift #5
2. Continue reworking grids 1, 2, 3, 4, and 5.
3. Continue the excavation for additional Top/Native Soil out of the West portion of Borrow Pit (TA-3)
4. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/08/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 9:26; (79 deg); Clear sky
WEATHER (PM): 4:00; (92 deg); Clear sky
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #5
- Production of Topsoil with 3/8-inch gravel
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area
- NMED arrived onsite at 9:30 AM

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)
Safety:
-Use caution at borrow site due to numerous vehicles being operated.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction of Native Soil Lift #5. Construction will continue from east to west.

B. ISSUES/COMMENTS

1. Grids 1, 2, 3, 4, and 5 were reworked today. The reworked grids will be tested tomorrow (07/09/09).

2. EDi had equipment problems today. The excavator has a broken track, the grader has a flat tire, and one of the screens has a filter that is not working. EDi is working to fix the equipment quickly.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 720 CY (40 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #5. See dwg_07/08/09_Construction_01

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil mix continued today.

B. ISSUES/COMMENTS
1. The Topsoil Specifications require a 25%, by volume admixture of 3/8-inch crushed gravel to the topsoil. By knowing the weight of the crushed gravel and topsoil and adding to the Pug Mill accordingly, this has been accomplished this.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 780 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil***

Additional soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. The west portion of the Sandia Borrow Pit (TA-3) is being excavated for additional Top/Native Soil for the MWL. The additional volume of material excavated will be recorded once determined at a later date.

2. Large rocks were noticed in the Native Soil stockpile. When the screen was inspected, a hole was found which was allowing a couple of larger rocks to slip

through. The screen was shut down and will be replaced or fixed tomorrow. The large rocks that were found were removed from the Native Soil.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
   2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
   1. Additional Top/Native Soil will continue to be excavated out of the Borrow Pit (TA-3) tomorrow. Total volume will be determined at a later date.

F. PICTURES OBTAINED
   Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
Native Soil Inspection Form

IV.
A. TASK DESCRIPTION: **NMED SITE TOUR**
NMED arrived onsite at 9:30 am. Don Schofield escorted them around the MWL and took them up into the scissor lift.

PROPOSED NEXT DAY ACTIVITIES (date: 07/09/09)
1. Continue the construction and testing of Native Soil Lift #5
2. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/09/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:09; (70 deg); Clear sky
WEATHER (PM): 3:00; (91 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction and testing of Native Soil Lift #5
- Production of Topsoil with 3/8-inch gravel
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)
Safety:
- Keep hydrated due to hot temperatures
- Pull over vehicle when using cell phone
- Be sure to use seat belt

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction and testing of Native Soil Lift #5. Construction will continue from east to west.

B. ISSUES/COMMENTS
1. Grids #1, #2, #3, #4, and #5 were reworked yesterday. Construction of the remaining areas in these grids was completed today.

2. Density/Moisture tests were retaken today within grids #1, #2, #3, #4, and #5 by EDi. URS performed QA Density/Moisture tests in grids #2 and #4.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 522 CY (29 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #5. See dwg_07/09/09_Construction_01

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/topsoil mix continued today.

B. ISSUES/COMMENTS
1. Continued production of the 3/8-inch crushed gravel/topsoil mixture.

C. EQUPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 625 CY of the 3/8-inch crushed gravel/topsoil mixture was produced today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil***

Additional soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. The stationary screen was shutdown this morning to replace the broken screen which allowed a couple of larger rocks to slip through. The broken screen was replaced and excavation and screening continued.

2. The northwest portion of the Sandia Borrow Pit (TA-3) is being excavated for additional Top/Native Soil for the MWL. The additional volume of material excavated will be recorded once determined at a later date.

C. EQUPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Additional Top/Native Soil will continue to be excavated out of the Borrow Pit (TA-3) tomorrow. Total volume will be determined at a later date.

F. PICTURES OBTAINED
Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Native Soil Inspection Form
2. Moisture/Density Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 07/10/09)
1. Complete the construction of Native Soil Lift #5
2. Continue the excavation for additional Top/Native Soil out of the West portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill
4. Begin construction of Native Soil Lift #6
5. Survey of Native Soil Lift #5

DAILY SUMMARY REPORT

DATE: 07/10/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:09; (70 deg); Clear sky
WEATHER (PM): 3:00; (91 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Complete the construction of Native Soil Lift #5
- Production of topsoil with 3/8-inch gravel
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area
- Begin construction of Native Soil Lift #6

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)
Safety:
- Keep hydrated due to hot temperatures
- Pull over vehicle when using cell phone
- Be sure to use seat belt

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #5***
Continue construction and survey of Native Soil Lift #5.

B. ISSUES/COMMENTS
1. The west slope was completed for Native Soil Lift #5.

2. QC survey of Lift # 5 was performed and completed today by EDi.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 108 CY (6 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #5. See dwg_07/10/09_Construction_01

2. Construction of Native Soil Lift #5 was completed today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #6***

Construction of Native Soil Lift # 6 began today. Construction will continue from east to west across MWL surface.

B. ISSUES/COMMENTS

1. Construction has begun for Lift #6. Native Soil was only placed today. The Native Soil placed will receive water and compaction on Monday (07/13/09).
2. No moisture/density testing occurred today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 648 CY (36 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed for Lift #6. See dwg_07/10/09_Construction_01. Native soil for this lift will be compacted on Monday (7/13/09)

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/topsoil mix continued today.

B. ISSUES/COMMENTS

1. The production of 3/8-inch crushed gravel/Topsoil mix continued today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 600 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

VI.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil***

Additional soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. The west portion of the Sandia Borrow Pit (TA-3) is being excavated for additional Top/Native Soil for the MWL. The additional volume of material excavated will be recorded once determined at a later date.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 650 CY of soil was excavated and screened for topsoil.
2. Approximately 558 CY of soil was excavated and screened for native soil.

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Native Soil Inspection Form
2. Moisture/Density Test Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 07/13/09)
1. Continue the construction of Native Soil Lift #6
2. Continue the excavation for additional Top/Native Soil out of the West portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/13/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 9:26; (79 deg); Clear sky
WEATHER (PM): 3:58; (96 deg); Clear sky
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #6
- Production of Topsoil with 3/8-inch gravel
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
- Temp may get to 98 deg. Be sure to drink fluids.
- The evacuation location is the Golf Course
- There is a new muster point located at the borrow area by rain gauge

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #6***
Continue construction of Native Soil Lift #6. Construction will continue from east to west.

B. ISSUES/COMMENTS
1. Construction continued from east to west today for Native Soil Lift #6. Grids #11 and #12 were completed today. EDi began construction on Grids #6, #7, #8, and #9.

2. Soil placed on Friday (07/10/09) was moisture conditioned and compacted today in grid blocks #11, #12, and #13.

3. No moisture/density testing today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 738 CY (41 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #6. See dwg_07/13/09_Construction_01

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil mix continued today.

B. ISSUES/COMMENTS
1. The production of 3/8-inch crushed gravel/Topsoil mix continued today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 600 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil***

Additional soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. The west portion of the Sandia Borrow Pit (TA-3) is being excavated for additional Top/Native Soil for the MWL. The additional volume of material excavated will be recorded once determined at a later date.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
   2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
   1. Approximately 600 CY of soil was excavated for Topsoil.
   2. Approximately 687 CY of soil was excavated for Native soil.

F. PICTURES OBTAINED
   Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/14/09)
1. Continue the construction and testing of Native Soil Lift #6
2. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/topsoil mixture in Pug Mill
4. Meeting with URS, EDi, and Sandia to discuss Native Soil and Topsoil volume shortages.

DAILY SUMMARY REPORT

DATE: 07/14/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:13: (74 deg); Clear sky
WEATHER (PM): 3:17: (88 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction and testing of Native Soil Lift #6
- Production of Topsoil with 3/8-inch gravel
- Delivery of additional 3/8-inch crushed gravel to Borrow Area
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area
- Volume calculation meeting
- Audit by Sandia and SSO was conducted today

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:

- Use caution around Pug Mill due to dust.
- Weekly Safety Inspection today.
- Consume plenty of fluids due to hot weather.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #6***
Continue construction and density/moisture testing of Native Soil Lift #6. Construction will continue from east to west.

B. ISSUES/COMMENTS
1. Construction continued from east to west today for Native Soil Lift #6.

2. EDi conducted Density/Moisture testing in grids #11, #12, and #13. URS conducted testing in grids #11 and #13.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 1170CY (65 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #6. See dwg_07/14/09_Construction_01

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil mix continued today.

B. ISSUES/COMMENTS
1. The production of 3/8-inch crushed gravel/Topsoil mix continued today.

2. More 3/8-inch crushed gravel was delivered to the borrow area by Fisher.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 800 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.
2. Approximately 420-tons of 3/8-inch crushed gravel was delivered by fisher.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil***

Additional soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. Additional soil is being excavated and screened at the Sandia Borrow Pit.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
   2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
   1. Approximately 100 CY of soil was excavated and screened for Topsoil.
   2. Approximately 582 CY of soil was excavated and screened for Native Soil.

F. PICTURES OBTAINED
   Pictures of this procedure were collected and filed.

IV.

A. TASK DESCRIPTION: ***Volume Calculation Meeting***
   A meeting was held with Sandia, EDi, and URS to discuss additional volume calculations for the Native and Topsoil Layers.

B. ISSUES/COMMENTS
   1. Due to the MWL surface area being larger than initially anticipated, additional Native Soil and Topsoil is required. Sandia has requested EDi provide a proposal for the additional volumes/cost to complete the MWL. Sandia has also requested URS provide a third party analysis of the volumes/cost to complete the MWL. The volumes/cost provided by URS shall be used to verify the proposal provided by EDi to Sandia.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
   2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
   1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
   1. EDi provided Sandia with a proposal of 9,615-CY of additional Native Soil and 1,590-CY of additional Topsoil for the completion of the MWL. URS provided an independent review of the additional soil volumes required using two methods (free-body diagram and construction history data). Both methods were close to the results obtained by EDi. URS informed Sandia that EDi's estimate for additional volume calculations are accurate (See attached for calculations/results).

F. PICTURES OBTAINED
   1. NA

INSPECTION CHECKLISTS REQUIRED
   1. Native Soil Inspection Form

2. Moisture/Density Testing Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/15/09)

1. Continue the construction of Native Soil Lift #6
2. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
3. Fix screen for 3/8-inch/Topsoil mixture

DAILY SUMMARY REPORT

DATE: 07/15/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:15; (79 deg); Clear Sky
WEATHER (PM): 1:45; (93 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #6
- Continue production of 3/8-inch/Topsoil Mixture
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:04 – 7:20 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
- Temp may get to 98 deg. Be sure to drink fluids.
- The evacuation location is the Golf Course.
- There is a new muster point located at the borrow area by rain gauge.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #6***
Continue construction of Native Soil Lift #6. Construction will continue from east to west.

B. ISSUES/COMMENTS
1. Construction continued from east to west today for Native Soil Lift #6.

2. Much of the compaction was not done today due to the grader and loader requiring repairs. The belly dumps of Native Soil continued without the compaction process. The soil will receive moisture and compaction tomorrow.

3. No moisture/density testing was conducted today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 954 CY of Native Soil was placed and compacted for Lift #6. See dwg_07/15/09_Construction_01

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil Mix continued today.

B. ISSUES/COMMENTS
1. The production of 3/8-inch crushed gravel/Topsoil Mix continued today.
2. The Pug Mill was shut down for about two hours today for routine maintenance.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 650 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 558 CY of soil was excavated and screened today for Native Soil.

F. PICTURES OBTAINED
Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/16\/09)
1. Continue the construction of Native Soil Lift #6
2. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill
4. Meeting with URS, EDi, and Sandia to discuss Native Soil and Topsoil volume shortages.

DAILY SUMMARY REPORT

DATE: 07/16/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:00; (79 deg); Clear sky
WEATHER (PM): 2:29; (93 deg); cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #6
- Begin construction of Native Soil Lift #7
- Continue production of 3/8-inch/Topsoil Mixture
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

Safety:
- Be sure to check if eye protection is UV certified.

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #6***
Continue construction of Native Soil Lift #6. Construction will continue from east to west.

B. ISSUES/COMMENTS
1. Construction continued on west portion of MWL.
2. EDi conducted survey on Native Soil Lift #6 today.
3. No density/moisture testing today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 700 CY of Native Soil was placed and compacted for Lift #6. See dwg_07/16/09_Construction_01

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #7***

Native Soil Lift #7 began construction today on the east slope.

B. ISSUES/COMMENTS

1. Native Soil Lift #7 began construction today. Construction will continue from east to west.
2. No density/moisture test were conducted today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 164 CY of Native Soil was placed and compacted for Lift #7. See dwg_07/16/09_Construction_02

III.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil Mix continued today.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 900 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

IV.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1000 CY of soil was excavated and screened for Native Soil
2. Approximately 500 CY of soil was excavated and screened for Topsoil.

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/17/09)

1. Moisture/Density Tests on remaining portions of Native Soil Lift #6
2. Continue construction of Native Soil Lift #7
3. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
4. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/17/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:00; (79 deg); Clear sky
WEATHER (PM): 2:29; (93 deg); Cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #7
- Density/Moisture Testing of Native Soil Lift #6
- Continue production of 3/8-inch/Topsoil Mixture
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area
- Meeting with URS, Sandia, and EDi

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #6 Density and Moisture Testing Only***
Density/Moisture Testing of Native Soil Lift #6.

B. ISSUES/COMMENTS
1. The density/moisture test conducted by EDi around MW-4 did not pass. The area is to be reworked and retested on Monday (7/20/09).

2. URS tested grid blocks #2, #4, #6, #8, and #9. EDi tested grid blocks 1-10.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. MW-4 to be retested reworked and retested on Monday (7/20/09)

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #7***

The construction of Native Soil Lift #7 continued today.

B. ISSUES/COMMENTS

1. Construction will continue from east to west.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 828 CY (46 Belly Dumps @ Approx 18 CY per truck) of Native Soil was placed and compacted for Lift #7. See dwg_07/17/09_Construction_01

III.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil Mix continued today.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 800 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

IV.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3)

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Additional Top/Native soil were excavated out of the Borrow Pit (TA-3).

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

V.

A. TASK DESCRIPTION: ***Meeting (Material Volume Calculations)***

A meeting was held with Sandia, EDi, and URS to discuss the material volume shortages of the MWL.

B. ISSUES/COMMENTS

1. Mike Mitchell and Paul Molina realized the contract drawings in the CMIP are not correct. The drawings in the MWL show an area of 2.6 acres however, due to the footprint growing the estimated volumes in the CMIP may be incorrect.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Meeting concluded

F. PICTURES OBTAINED

No pictures of this task were obtained.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form
2. Density/Moisture Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/20/09)

1. Continue construction of Native Soil Lift #7
2. Retest Moisture/Density around Monitoring Well MW-4
3. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
4. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/20/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:00; (79 deg); Clear sky
WEATHER (PM): 2:29; (93 deg); Cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #7
- Density/Moisture Testing of Native Soil Lift #6 around MW-4 (EDi)
- Continue production of 3/8-inch/Topsoil Mixture
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #6***
Density/Moisture Testing of Native Soil Lift #6.

B. ISSUES/COMMENTS
1. The Density/Moisture test around MW-4 did not pass on 7/17/09 due to low density and high moisture. The area around MW-4 was reworked using hand compaction methods and retested by EDi which met specifications.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The Density/Moisture retest around MW-4 passed.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #7***

The construction of Native Soil Lift #7 continued today.

B. ISSUES/COMMENTS

1. Construction will continue from east to west.

2. Additional Belly Dump Trucks were brought in to increase the rate of construction for Native Soil Lifts #7 and #8.

C. EQUIPMENT USED:

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 1630 CY of Native Soil was placed and compacted for Lift #7. See dwg_07/20/09_Construction_01

III.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil Mix continued today.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1000 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

IV.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional top/native soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. Additional top/native soil is being excavated and screened at the Sandia Borrow Pit (TA-3)

C. EQUIPMENT USED (See Appendix B For Equipment Description):

3. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Additional Top/Native soil is being excavated and screened at the Sandia Borrow Pit (TA-3)

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form
2. Density/Moisture Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/21/09)

1. Continue construction and Density/Moisture testing of Native Soil Lift #7
2. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/21/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 10:10; (79 deg); Clear sky
WEATHER (PM): 4:28; (87 deg); Cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #7
- Density/Moisture Testing of Native Soil Lift #7
- Begin construction of Native Soil Lift #8
- Continue production of 3/8-inch/Topsoil Mixture/Delivery of additional 3/8-inch crushed gravel
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:18 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #7 (Construction and Testing)***
The construction and testing of Native Soil Lift #7 continued today.

B. ISSUES/COMMENTS
1. Construction will continue from east to west.

2. Density/moisture testing occurred today. URS conducted testing in grid blocks #11, #13, #9, and #7. Edi conducted testing in grid blocks #6-13.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1306 CY of Native Soil was placed and compacted for Lift #7. See dwg_07/21/09_Construction_01

2. Native Soil Lift #7 construction was completed today. Remaining density/moisture tests will be conducted tomorrow (07/22/09) in grid blocks 1-5.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #8 (Construction)***

The construction of Native Soil Lift #8 began today.

B. ISSUES/COMMENTS

1. Construction of Native Soil Lift #8 will be from east to west.

2. Native Soil for Lift #8 was only placed today. Compaction will occur tomorrow.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 300 CY of Native Soil was placed and compacted for Lift #8. See dwg_07/21/09_Construction_01.

III.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/topsoil Mix continued today.

B. ISSUES/COMMENTS

1. Additional 3/8-inch crushed gravel was delivered to Borrow Area today around 9:00 AM.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately400 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

2. Approximately 201-tons of 3/8-inch crushed gravel were delivered to the Borrow Area today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

IV.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Additional Top/Native Soil will continue to be excavated out of the Borrow Pit (TA-3) tomorrow.

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form
2. Density/Moisture Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/22/09)

1. Density/Moisture Test on Native Soil Lift #7
2. Continue construction of Native Soil Lift #8
3. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
4. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/22/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (71 deg); Clear sky, muddy conditions due to rain previous night (07/21/09).
WEATHER (PM): 4:02; (87 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Density/Moisture Testing of Native Soil Lift #7
- Continue construction of Native Soil Lift #8 (Compaction Only, No Trucks)
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area
- 3/8-inch crushed gravel shipment was delivered

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:18 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)
Safety:
-Be aware of slips, trips, and falls

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #7 (Testing)***
The Density/Moisture testing of Native Soil Lift #7 continued today.

B. ISSUES/COMMENTS
1. URS conducted tests in grid blocks 1, 3, and 5. EDi conducted tests in grid blocks 1-5. All test were passing.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Final Density/Moisture test for Native Soil Lift #7 were completed today. All test were passing.

II.

A. TASK DESCRIPTION: ***Native Soil, Lift #8 (Construction)***

The construction of Native Soil Lift #8 continued today.

B. ISSUES/COMMENTS

1. Construction of Native Soil Lift #8 will occur from east to west.

2. The Native Soil for Lift #8 was only compacted today. The belly dump trucks were not able to place additional Native Soil on MWL due to muddy conditions from precipitation received the previous night (07/21/09).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The Native Soil for Lift #8 was only compacted today. The belly dump trucks were not able to place additional Native Soil on MWL due to muddy conditions from precipitation received the previous night (07/21/09). Construction will continue tomorrow (7/23/09)

III.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel and Topsoil Mix did not occur today due to muddy conditions. Additional 3/8-inch gravel was delivered to Borrow Area.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Additional 3/8-inch crushed gravel was delivered to Borrow Area today. Approximately 142 tons (6-loads) was delivered.

F. PICTURES OBTAINED
1. NA

IV.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Top/Native soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. The Additional Top/Native soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The Additional Top/Native soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Density/Moisture Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/23/09)
1. Continue construction of Native Soil Lift #8
2. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
3. Continue 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/23/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:39 am (69 deg); Clear sky
WEATHER (PM):
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Native Soil Lift #8
- Continue production of 3/8-inch/Topsoil Mixture
- Continue excavation of additional Top/Native Soil out of TA-3 Borrow Area

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8***
Continue construction of Native Soil Lift #8.

B. ISSUES/COMMENTS
1. Construction continued from east to west on MWL for Native Soil Lift #8.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 1458 CY of Native Soil was placed and compacted for Lift #8. See dwg_07/23/09_Construction_01

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil Mix continued today.

B. ISSUES/COMMENTS

1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

F. STATUS:

1. Approximately 300 CY of the 3/8-inch crushed gravel/Topsoil mixture was produced today.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/24/09)

1. Moisture/Density Tests on completed portions of Native Soil Lift #8
2. Continue construction of Native Soil Lift #8
3. Continue the excavation for additional Top/Native Soil out of the west portion of Borrow Pit (TA-3)
4. Complete 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

DAILY SUMMARY REPORT

DATE: 07/24/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:28; (68 deg); Clear sky
WEATHER (PM): 4:07; (95 deg); Clear sky
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Moisture/Density Tests on completed portions of Native Soil Lift #8 (EDi)
- Continue construction of Native Soil Lift #8
- Continue the excavation for additional Top/Native Soil out of the West portion of Borrow Pit (TA-3)
- Complete 3/8-inch crushed gravel/Topsoil mixture in Pug Mill

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8***
Continue construction of Native Soil Lift #8.

B. ISSUES/COMMENTS
1. Construction continued from east to west on MWL for Native Soil Lift #8.
2. EDi conducted moisture/density tests on grid blocks 11, 12, and 13. All test were passing.
3. URS did not conduct any moisture/density tests today.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1410 CY of Native Soil was placed and compacted for Lift #8. See dwg_07/23/09_Construction_01

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***

The production of 3/8-inch crushed gravel/Topsoil Mix was completed today.

B. ISSUES/COMMENTS

1. Pioneer completed the production of 3/8-inch crushed gravel/topsoil mixture.
2. Pioneer has begun demobilization of the Pug Mill.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Pioneer completed the production of 3/8-inch crushed gravel/topsoil mixture.
2. Pioneer has begun demobilization of the Pug Mill.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Topsoil/Native Soil***

Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

2. Topsoil will no longer be excavated due to the Pug Mill operation being complete.
3. The south portion of the Borrow Area has begun excavation and screening for additional Native Soil material.

F. PICTURES OBTAINED

Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/27/09)

1. Continue construction of Native Soil Lift #8.
2. URS QA survey

DAILY SUMMARY REPORT

DATE: 07/27/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:15; (67 deg); Clear sky
WEATHER (PM): 1:00; (89deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Construction of Native Soil Lift #8
- URS QA survey
- Excavation and screening of Native Soil
- Pug Mill demobilization

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8***
Continue construction of Native Soil Lift # 8

B. ISSUES/COMMENTS
1. Construction continued from East to West on MWL for Native Soil Lift #8.
2. Harry Buckner (URS) began QA survey of Native Soil Layer.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 962 CY of Native Soil was placed and compacted for Lift #8. See dwg_07/27/09_Construction_01
2. URS will continue QA survey tomorrow (7/28/09).

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***
Demobilization of Pug Mill.

B. ISSUES/COMMENTS
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The Pug Mill continued demobilization.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Excavation of Additional Native Soil***
Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

B. ISSUES/COMMENTS
1. Additional Native Soil is being excavated and screened at the Sandia Borrow Pit (TA-3).

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The excavation for both Top and Native Soil was completed today.
2. EDi has begun cleaning and leveling the Borrow Area

F. PICTURES OBTAINED
Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Native Soil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/28/09)

1. Moisture/Density Tests on completed portions of Native Soil Lift #8
2. QA/QC survey verification
3. Demobilization of Pug Mill

DAILY SUMMARY REPORT

DATE: 07/28/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:15 am (67 deg); Clear Sky
WEATHER (PM): 1:10 pm (93 deg); Partly Cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- URS QA Survey
- Construction and testing of Native Soil Lift #8
- Meeting to discuss additional volume requirements
- Borrow Area cleanup

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8***
Continue construction and testing of Native Soil Lift #8.

B. ISSUES/COMMENTS

1. EDi continued to water and compact soil into place from east to west.

2. URS conducted moisture/density tests on grid blocks #2, #4, #6, #8, #10, and #12. All QA tests were passing.

3. EDi conducted moisture/density tests on grid blocks #1-10 (#11, #12, and #13 had already been tested). Grid blocks #1-7 and #9 passed. Grid blocks #8, #10, and around MW-4 failed due to low moisture. All grid blocks were reworked, re-compacted, and retested. All three passed the second round of tests conducted by EDi.

4. QA survey was continued by URS

5. QC survey was conducted by EDi.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Construction and testing of Native Soil Lift #8 is now complete. QA/QC survey will determine if any corrections are needed. If not, the Topsoil Layer may begin.

2. URS and EDi will continue the QA and QC survey tomorrow.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***
Demobilization of the Pug Mill continued today.

B. ISSUES/COMMENTS
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Demobilization of the Pug Mill continued today.

F. PICTURES OBTAINED
1. No picture were taken.

III.

A. TASK DESCRIPTION: ***Borrow Area Cleanup***
EDi continued the cleanup and leveling of the borrow area.

INSPECTION CHECKLISTS REQUIRED
1. Native Soil Inspection Forms

2. Moisture/Density Form

PROPOSED NEXT DAY ACTIVITIES (date: 07/29/09)

1. QA survey meeting.

DAILY SUMMARY REPORT

DATE: 07/29/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:15; (67 deg); Clear sky
WEATHER (PM): 1:00; (92 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- QA/QC survey
- Meeting with Sandia and EDi to discuss final report and topsoil changes.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8***
Construction has been completed, QA and QC survey continued today.

B. ISSUES/COMMENTS
1. QA survey was continued by URS

2. QC survey was conducted by EDi.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. QA survey was completed by URS

2. QC survey was completed by EDi.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Pug Mill/3-8-Inch Gravel and Topsoil Mix***
Demobilization of Pug Mill.

B. ISSUES/COMMENTS
1. None

C. EQUIPMENT USED (See Appendix B For Equipment Description):
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The Pug Mill continued demobilization.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Borrow Area Cleanup***
EDi continued the cleanup and leveling of the borrow area.

INSPECTION CHECKLISTS REQUIRED
1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 07/27/09)
1. Review of Native Soil QA/QC results.

DAILY SUMMARY REPORT

DATE: 07/30/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:15; (67 deg); Clear sky
WEATHER (PM): 1:00; (92 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- URS presented QA survey of the Native Soil to Sandia and EDi.
- No Construction Today

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8 Meeting***
Review of Native Soil QA/QC survey. .

B. ISSUES/COMMENTS
1. The QA/QC was reviewed today to determine if thickness and slopes were in accordance with the CMIP.

2. EDi had survey crew (ASCI) with equipment to address any concerns we may have with the review.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. After reviewing both the QA (URS) and the QC (EDi) topographic surveys, it was determined the results obtained were very similar. Between the two surveys, nine locations were located that needed to be raised in order to be in compliance with the CMIP. These nine areas were only 1-to4-inches below the required thickness. EDi rechecked these nine areas with survey equipment and confirmed they required 1-to-4-inches of additional soil. These areas are to be filled with soil and resurveyed before construction of the Topsoil Layer may begin at these points. The Native Soil Layer is approved with the exception of the nine locations that require correction.

F. PICTURES OBTAINED

1. NA.

INSPECTION CHECKLISTS REQUIRED

1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 07/31/09)

1. Adjust areas of concern.
2. EDi resurvey areas of concern.

DAILY SUMMARY REPORT

DATE: 07/31/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:15; (67 deg); Clear sky
WEATHER (PM): 1:00; (87 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Final Corrections to Native Soil Lift #8
- EDi Survey

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Native Soil, Lift #8***
Corrections to Native Soil Lift #8 were made to be in compliance with CMIP requirements.

B. ISSUES/COMMENTS
1. EDi performed corrections to the nine areas and 6:1 side slopes identified in the EDi and URS topographic surveys.

2. EDi performed their final survey on the corrected areas.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Soil was removed from areas with extra material on 6:1 side slopes and placed on the nine areas with thickness below 2.5-feet. The material was then compacted, and resurveyed. URS will confirm new thickness of the Native Soil at these locations on Monday (06/03/09).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 08/03/09)

1. URS survey of nine low areas.

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DAILY SUMMARY REPORT

DATE: 08/03/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:20; (69 deg); Clear sky
WEATHER (PM): 1:06; (88 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Begin Construction of Topsoil
- URS QA Survey (Final 9 Locations)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
Construction began on the Topsoil Layer

B. ISSUES/COMMENTS

1. URS conducted the quality assurance final survey on the remaining nine locations as well as the 6:1 side slopes. EDi will need these areas approved before they continue construction in these areas.

2. EDi began construction of the Topsoil Layer on the areas previously approved by URS. EDi placed the topsoil using belly dumps and then spread the material using the grader. Care is taken not to over compact the topsoil layer.

3. EDi is not allowed to place topsoil around the nine locations awaiting approval from Don Lopez. Approval is expected tomorrow (8/4/09).

C. EQUIPMENT USED (See Appendix B For Equipment Description):

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 2132 CY of Topsoil was placed. See dwg_08/03/09_Construction_01

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/04/09)

1. Continue construction of Topsoil
2. Approval of remaining nine locations.

DAILY SUMMARY REPORT

DATE: 08/04/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:49; (69 deg); Clear sky
WEATHER (PM): 1:45; (91 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Topsoil Layer
- URS Approval of final Native Soil Areas and Slopes

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The construction of the Topsoil layer continued today.

B. ISSUES/COMMENTTS
1. Construction of Topsoil Continued today from east to west

2. Don Lopez (URS) approved the remaining nine areas as well as the 6:1 slopes for topsoil construction. EDi may now place topsoil at these locations.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Approximately 1950 CY of Topsoil was placed. See dwg_08/04/09_Construction_01

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Inspection Form

PROPOSED NEXT DAY ACTIVITIES (date: 08/05/09)

1. Continue construction of the Topsoil Layer
2. Begin placement of the Soil Vapor Monitoring Wells.

DAILY SUMMARY REPORT

DATE: 08/05/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:30; (69 deg); Clear sky
WEATHER (PM): 2:18; (94 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Topsoil Layer
- Begin Placement of Soil Vapor Monitoring Wells

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The construction of the Topsoil layer continued today.

B. ISSUES/COMMENTTS
1. Construction of Topsoil Continued today from east to west

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 2028 CY of Topsoil was placed. See dwg_08/06/09_Construction_01

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Install Soil Vapor Monitoring Wells***

Construction of the Soil Vapor Monitoring wells began today.

B. ISSUES/COMMENTS

1. The first geo-probe was bored to a depth of approximately 42.0-44.0-feet. The Geo-probe reached the caliche layer at a depth of approximately 37.0-40.0-feet. The caliche layer appeared to be a more difficult layer to penetrate then the Biointrusion Layer. The Biointrusion Layer was passed through with ease.

C. EQUIPMENT USED:

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The first of the two probes was pushed down to approximately 43.0-feet. The additional well materials required for completion will arrive onsite tomorrow (08/06/09).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/06/09)

1. Continue the placement of the Soil Vapor Monitoring Wells.

2. Continue the construction of the Topsoil Layer. EDi is going to begin their CQ Survey.

DAILY SUMMARY REPORT

DATE: 08/06/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:31; (69 deg); Clear sky
WEATHER (PM): 1:54; (94 deg); Heavy rain @ 2:30 pm
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Topsoil Layer
- Continue installation of Soil Vapor Monitoring Wells

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The construction of the Topsoil layer continued today.

B. ISSUES/COMMENTTS
1. Construction of Topsoil Continued today from east to west

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 2106 CY of Topsoil was placed. See dwg_08/06/09_Construction_01.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Instal Soil Vapor Monitoring Wells***

Construction of the Soil Vapor Monitoring Wells continued today.

B. ISSUES/COMMENTS

1. The installation of the first Soil Vapor Monitoring Well was completed today.

2. The installation of the second Soil Vapor Monitoring Well began today.

3. The first attempt at placing the second Soil Vapor Monitoring Well was unsuccessful due to "soil lock" in the casing. The casing was driven about 42.0-feet in depth and the polyethylene tubing and screen were placed to the desired depth. When the soil began to be placed down the casing it locked up causing a failure in the installation.

4. The second attempt of installing the second Soil Vapor Monitoring Well has begun. The casing has been driven down into the MWL about 42.0-feet. The installation will be completed tomorrow (08/07/09). The initial hole for the second attempt will be filled with Bentonite tomorrow.

C. EQUPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The installation of the second Soil Vapor Monitoring Wells will be completed tomorrow (8/7/09).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Inspection Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 08/07/09)

1. Continue the construction of the Topsoil Layer.
2. Complete soil vapor monitoring wells.

DAILY SUMMARY REPORT

DATE: 08/07/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:31; (69 deg); Clear sky
WEATHER (PM): 4:27; (92 deg); Heavy rain @ 2:30 pm
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Topsoil Layer
- Complete installation of Soil Vapor Monitoring Wells

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade
2. Sandia Borrow Pit (TA-3)

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The construction of the Topsoil layer continued today.

B. ISSUES/COMMENTTS

1. Construction of Topsoil Continued today from east to west. The topsoil placement was completed. The QA survey will be conducted on Monday (8/10/09).

2. The remaining soil in the Borrow Area was used before the Topsoil Layer on the west slope was completed. However, the Topsoil Layer has been placed at approximately a 1.4-foot thickness (1.0-foot thickness requirement) which allows for some of the already placed surface to be used to complete the West Slope.

3. EDi conducted survey of the completed areas on Topsoil Layer. Corrections are being made to high and low areas.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. Approximately 962 CY of Topsoil was placed. See dwg_08/07/09_Construction_01.

2. The Topsoil Layer placement is complete. The final QA survey (URS) will be conducted on Monday (08/10/09).

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Instal Soil Vapor Monitoring Wells***
Construction of the Soil Vapor Monitoring Wells was completed today.

B. ISSUES/COMMENTS
1. The installation of the second Soil Vapor Monitoring Well was completed today.

2. The hole created by the geo-probe for the initial failed attempt of the second Soil Vapor Monitoring Well was filled with Bentonite.

C. EQUIPMENT USED:
2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The installation of the second Soil Vapor Monitoring Well was completed today.
2. Mike Saunders and WDC demobilized today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Topsoil Inspection Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 08/10/09)
1. Continue the construction of the Topsoil Layer.
2. Continue adjustment of the Topsoil Layer

3. EDi to conduct blue topping for surevey on Topsoil Layer.

DAILY SUMMARY REPORT

DATE: 08/10/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:20; (72 deg); Clear sky
WEATHER (PM): 11:47; (81 deg); Clear sky
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Topsoil Layer
- Blue top of Topsoil layer (EDi)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:21 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The adjustment of the Topsoil layer continued today.

B. ISSUES/COMMENTTS

1. The Topsoil layer continued to be adjusted. Soil is being moved from thick areas to west slope.

2. The topsoil layer was blue topped by the EDi survey team to ensure accurate thickness and slopes. The Topsoil Layer was adjusted in preparation for the QA survey tomorrow (08/11/09) by URS.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. Final corrections and the QA survey (URS) will be conducted on Tuesday (08/11/09).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 08/11/09)

1. Continue the adjustment of the Topsoil Layer.
2. QA survey (URS) to Topsoil Layer

DAILY SUMMARY REPORT

DATE: 08/11/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:40; (72 deg); Clear sky
WEATHER (PM): 4:05; (94 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue adjustment of Topsoil Layer
- Complete Topsoil blue topping (EDi)
- URS QA Survey

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:19 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The adjustment of the Topsoil layer continued today.

B. ISSUES/COMMENTTS

1. EDi completed adjustment to the Topsoil Layer and the blue topping of the Topsoil Layer.

2. URS was onsite to begin QA survey.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. EDi has completed the construction and blue topping of the Topsoil Layer. EDi will complete their survey tomorrow (8/12/09).

2. URS completed the QA survey of the Topsoil Layer.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

MEETING

Marshall Nay and Paul Molina met with Mike Mitchell to discuss/coordinate the quarterly report. Mike presented Paul and Marshall with tasks to complete the quarterly report.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Inspection Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 08/12/09)

1. Begin construction of sprinkler system.
2. EDi to complete survey.

DAILY SUMMARY REPORT

DATE: 08/12/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:42; (72 deg); Clear sky
WEATHER (PM): 2:05; (86 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- QA approval of Topsoil Layer (URS)
- Begin construction of Sprinkler System (Rain For Rent)
- Install casing, bollards, and concrete pads for soil vapor monitoring wells.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:19 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Topsoil Construction***
The construction of the Topsoil layer continued today.

B. ISSUES/COMMENTTS

1. Don Lopez approved the QA survey for the Topsoil Layer.

2. ASCI conducted final QC survey of the Topsoil Layer.

3. EDi scarified the Topsoil Layer to stimulate plant growth. The rippers on the back of the grater were used to scarify the surface per the CMIP.

C. EQUIPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The Topsoil Layer was scarified to break up large dirt clouds and loosen the soil to stimulate seeding germination and plant growth.

2. QC (EDi) survey was completed today.

3. QA approval of Topsoil Layer today.

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Soil Vapor and MW-4 Monitoring Wells***

The installation of the concrete pads, casing, and bollards began today for the Soil Vapor Monitoring Wells.

B. ISSUES/COMMENTTS

1. The installation of the concrete pads, casing, and bollards began today for the Soil Vapor Monitoring Wells.

2. Hand tools were used to dig down to the Native Soil Surface for the installation of the casing. The casing was dug and placed down 3.0-feet below topsoil surface.

3. 5.0-foot bollards are being placed around the wells. The bollards will be placed at a depth of 2.0-feet below the Topsoil surface. This will leave 3.0-feet of bollard above the Topsoil surface.

4. 3x3-foot pads will be installed around the Soil Vapor Monitoring Well. 4x4-foot pads will be installed around Monitoring Well M-4.

C. EQUIPMENT USED (See Appendix B For Equipment Description):

2. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:

1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:

1. The installation will be continued tomorrow (08/13/09).

F. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

III.

A. TASK DESCRIPTION: ***Sprinkler System***

The construction of the Sprinkler System/Irrigation System began today.

B. ISSUES/COMMENTTS

1. Sandia has approved the modification for temporary water and seeding to the CMIP. The following is the modification:
    a. Uniform seeding rate of 80-pounds of seed mix per acre (4x CMIP)
    b. No fertilizer is to be added due to the timing (August) of seeding.
    c. Supplemental watering to assist seed germination and root development.

C. STATUS:

1. Irrigation pipe, sprinkler system, and materials were delivered to the site today. The installation of the sprinkler system will begin tomorrow (8/13/09).

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Inspection Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 08/13/09)

1. Complete the construction of the concrete pads, bollards, and casing for the Soil Vapor Monitoring Wells.
2. Installation of sprinkler system.

DAILY SUMMARY REPORT

DATE: 08/13/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 8:30; (75 deg); Cloudy
WEATHER (PM): 3:31; (88 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction of Sprinkler System
- Install casing, bollards, and concrete pads for soil vapor monitoring wells.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:19 AM
Attendees: See attached sign in sheet.
Procedure:
-(See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Soil Vapor and MW-4 Monitoring Wells***
The installation of the concrete pads, casing, and bollards continued today for the Soil Vapor Monitoring Wells.

B. ISSUES/COMMENTTS

1. The installation of the concrete pads, casing, and bollards continued today for the Soil Vapor Monitoring Wells and MW-4.

2. Hand tools were used to dig down to the Native Soil Surface for the installation of the casing. The casing was dug and placed down 3.0-feet below topsoil surface.

3. 5.0-foot bollards are being placed around the wells. The bollards will be placed at a depth of 2.0-feet below the Topsoil Layer surface. This will leave 3.0-feet of bollard above the Topsoil Layer surface.

4. 3x3-foot pads will be installed around the soil vapor monitoring well. 4x4-foot pads will be installed around monitoring well M-4.

C. EQUPMENT USED (See Appendix B For Equipment Description):
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

D. EQUIPMENT CALIBRATION CERTIFICATES:
1. Refer to Table 2-1 MWL Alternative Cover Construction Equipment Summary

E. STATUS:
1. The installation was completed today.

F. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Sprinkler System***

The construction of the sprinkle/irrigation system continued today. (Rain For Rent)

B. ISSUES/COMMENTTS
1. The sprinkler/irrigation system was inspected and installed across the surface today.

C. STATUS:
1. The sprinkler/irrigation system was inspected and installed across the surface today.

D. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 08/14/09)
1. Continue installation and testing of the sprinkler/irrigation system.

DAILY SUMMARY REPORT

DATE: 08/14/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:30 am (63 deg); Partly Cloudy
WEATHER (PM): 3:00 pm (83 deg) partly Cloudy, Light rain
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Continue construction and testing of Sprinkler System

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:12 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Sprinkler System***
The construction of the Sprinkler System/Irrigation System continued today.

B. ISSUES/COMMENTTS

1. The sprinkler system installation was completed today. A total of 18 sprinkler lines were installed going from east to west across the MWL.

2. EDi adjusted the sprinkler system and tested a couple of areas. It was determined that all 18 sprinkler lines could be run at the same time if two ports of the fire hydrant were used.

3. There is concern that the sprinklers will not apply a large enough volume of water to the surface to provide 2-to-3-inches of penetration. A meeting is to be held with Jon Schermerhorn (AMEC) and Jennifer Payne (Sandia Biologist) to discuss.

C. STATUS:

1. The sprinkler system installation was completed today and Rain For Rent was able to demobilize.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Topsoil Inspection Sheet

PROPOSED NEXT DAY ACTIVITIES (date: 08/17/09)

1. Continue testing of sprinkler system.

DAILY SUMMARY REPORT

DATE: 08/17/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:05; (64 deg); Partly cloudy
WEATHER (PM): 3:47; (90 deg) Partly cloudy, light rain
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- No work performed on cover today
- Sprinkler Meeting (Sandia and EDi)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:11 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Sprinkler System***
Meeting with Sandia and EDi (URS not present).

B. ISSUES/COMMENTS:

1. Jon Schermerhorn (AMEC) had a meeting with Jennifer Payne (Sandia Biologist) to discuss watering issues. The main concern is that the sprinkler heads will not provide enough water to penetrate the Topsoil Layer a depth of approximately 3-inches. It was decided to remove the nozzles on every third sprinkler and test the lines to determine how many lines can be run with the change of volume.

C. STATUS:
1. Watering Schedule is yet to be determined.

D. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 08/18/09)

1. Continue testing of sprinkler system.

DAILY SUMMARY REPORT

DATE: 08/18/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:05; (62 deg); Partly cloudy
WEATHER (PM): 4:15; (93 deg) Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- No work performed on cover today
- Sprinkler Meeting (Sandia and EDi)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:11 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Sprinkler System***
Meeting with Sandia and EDi (URS not present).

B. ISSUES/COMMENTS:

1. Jon Schermerhorn (AMEC) had a meeting with Jennifer Payne (Sandia Biologist) to discuss watering issues. The two of them tried different watering setups to determine the best watering schedule. Jon and Jennifer decided to leave on the (5/64) nozzle.

C. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. NA

PROPOSED NEXT DAY ACTIVITIES (date: 08/19/09)

1. Seeding Contractor to deliver grass seeds and begin mobilization.

DAILY SUMMARY REPORT

DATE: 08/19/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:05; (62 deg); Partly cloudy
WEATHER (PM): 4:15; (93 deg); Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Seeding was delivered and Contractor Mobilized (Lee Landscaping)

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:11 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Seeding***
Seeding of MWL

B. ISSUES/COMMENTS:

1. Lee Landscaping arrived onsite and mobilized.
2. Native Grass Seed was delivered and stored in the conex to keep dry.
3. Lee Landscaping removed rocks from around the Mixed Waste Landfill cover to prevent damage to equipment
4. Lee Landscaping has some equipment that did not pass inspection. They are required to bring out new equipment tomorrow (8/20/09)
5. The ends of the sprinkler system were removed so Lee Landscaping would be able to maneuver their equipment without damage to the sprinkler system. The sprinkler system ends will be placed back once the seeding is completed.

C. STATUS:
1. See issues/comments

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/20/09)

1. Scarify and break up clumps for seeding.

DAILY SUMMARY REPORT

DATE: 08/20/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:06; (61 deg); Partly cloudy
WEATHER (PM): 4:02; (93 deg) Partly cloudy, light rain
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Scarify/Till Topsoil surface for seeding.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:12 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Seeding***
Seeding of MWL

B. ISSUES/COMMENTS:

1. Lee Landscape tilled the Topsoil Surface with a tractor pulled till. The tractor scarified/tilled the cover, side slopes, and surrounding area in preparation for the seeding. The tractor excavated approximately 3-inches of soil and broke up clods larger then 4-inches in dimension.

C. STATUS:
1. Lee Landscapes began scarifying/tilling the topsoil surface. This procedure will be completed tomorrow (8/21/09).

D. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/21/09)

1. Scarify and brake up clumps for seeding.

DAILY SUMMARY REPORT

DATE: 08/21/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:15; (66 deg); Partly cloudy
WEATHER (PM): 4:03 pm (91 deg) Partly cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Scarify/Till Topsoil surface for seeding.

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 – 7:12 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Seeding***
Seeding of MWL

B. ISSUES/COMMENTS:

1. Lee landscape continued scarifying the Topsoil Surface with a tractor pulled till. The tractor scarified/tilled the cover, side slopes, and surrounding area in preparation for the seeding. The tractor pulled till excavated approximately 3-inches and broke up clods larger then 4-inches in dimension.
2. On the edges of the cover, the tilling was done perpendicular to the slope direction so water will not cause rills to develop.
3. Tilling of the Topsoil Layer surface was completed today.
4. The sprinkler ends were covered with plastic bags to prevent straw from clogging the sprinkler system.
5. Lee Landscapes also had personnel walk along the sprinkler pipe and break up clods that were too close to the system for the tiller to get.

C. STATUS:

1. Lee Landscapes finished scarifying/tilling the topsoil surface.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/24/09)

1. Begin Seeding

DAILY SUMMARY REPORT

DATE: 08/24/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:15; (61 deg); Partly cloudy
WEATHER (PM): 4:03; (79 deg); Partly cloudy,
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- No construction occurred today due to heavy rain on Saturday night (8/23/09).

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:

Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:

1. Description: Morning Tailgate Meeting
   Time: 7:00 – 7:12 AM
   Attendees: See attached sign in sheet.

Procedure:
- (See general description above)

DAILY TASK

INSPECTION CHECKLISTS REQUIRED

PROPOSED NEXT DAY ACTIVITIES (date: 08/25/09)

1. Begin Seeding

DAILY SUMMARY REPORT

DATE: 08/25/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:01; (57 deg); Cloudy
WEATHER (PM): NA
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Seeding

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***
The seeding for the Mixed Waste Landfill officially started today.

B. ISSUES/COMMENTTS

1. The volume of drill (80 lb/acre, see attached) seed can not be placed because of equipment constraints. It takes approximately 5 passes with the drill seed to spread the required volume of seed, which is causing more compaction to the scarified/tilled topsoil than desired. It was decided to spread half of the volume of seed (40-lb/acre) by hand and place the other half by making 2 passes with the drill seed.

2. No fertilizer is required due to time of year seeding is occurring (August).

3. Supplemental watering sprinkler system has already been installed.

F. STATUS:

1. Seed is being placed from north to south. Lee Landscapes will continue seeding tomorrow.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/26/09)

1. Continue Seeding

DAILY SUMMARY REPORT

DATE: 08/26/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:01 am (57 deg); Cloudy
WEATHER (PM): 2:31 pm (78 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Seeding

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***
The seeding for the Mixed Waste Landfill continued today.

B. ISSUES/COMMENTTS

1. The volume of drill (80 lb/acre) seed cannot be placed because of equipment constraints. It takes approximately 5 passes with the drill seed to spread the required volume of seed, which is causing more compaction to the scarified/tilled topsoil than desired. It was decided to spread half of the volume of seed (40-lb/acre) by hand and place the other half by making 2 passes with the drill seed.

2. No fertilizer is required due to time of year seeding is occurring (August).

3. Supplemental watering sprinkler system has already been installed.

C. STATUS:

1. Seed continued being placed from north to south. Approximately 0.75-acres were covered with seed today. Lee Landscapes will continue seeding tomorrow.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/27/09)

1. Continue Seeding

DAILY SUMMARY REPORT

DATE: 08/27/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (58 deg); Cloudy
WEATHER (PM): 2:59; (75 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Seeding

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***
The seeding for the Mixed Waste Landfill continued today.

B. ISSUES/COMMENTTS

1. The volume of drill (80 lb/acre) seed cannot be placed because of equipment constraints. It takes approximately 5 passes with the drill seed to spread the required volume of seed, which is causing more compaction to the scarified/tilled topsoil then desired. It was decided to spread half of the volume of seed (40-lb/acre) by hand and place the other half by making 2 passes with the drill seed.

2. No fertilizer is required due to time of year seeding is occurring (August).

3. Supplemental watering sprinkler system has already been installed.

C. STATUS:

1. Seed continued being placed from north to south. Approximately 1.0-acres were covered with seed today. Lee Landscapes will continue seeding tomorrow.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/28/09)

1. Continue Seeding
2. Lee Landscapes will begin placing and crimping straw

DAILY SUMMARY REPORT

DATE: 08/28/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (58 deg); Cloudy
WEATHER (PM): 3:59; (89 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Placing and crimping straw

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***`
Straw began being placed and crimped into place.

B. ISSUES/COMMENTTS

1. Lee Landscapes began covering previously placed and drilled seed with straw. A blower was used to place straw over desired areas. The straw was then crimped into place.

2. The blower used to place the straw broke down at approximately 11:00 am and had to be taken offsite to be repaired.

C. STATUS:

1. Lee Landscapes will continue placing straw over placed seed on Monday.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 08/31/09)

1. Lee Landscapes will begin placing and crimping straw

DAILY SUMMARY REPORT

DATE: 08/31/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (56deg); Cloudy
WEATHER (PM): 4:02; (90 deg)
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Placing and crimping straw
- Installation of perimeter fence

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***
Straw continued being placed and crimped into place.

B. ISSUES/COMMENTTS

1. Lee Landscapes continued covering previously placed and drilled seed with straw. A blower was used to place straw over desired areas. The straw was then crimped into place.

2. Rocks were applied to the crimper to add additional weight to the crimping process.

C. STATUS:

1. Straw was placed and crimped over preplaced seed.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Installation of Fence Surrounding MWL***
ACME Began installing the MWL perimeter fence

B. ISSUES/COMMENTS
1. ACME began installing the MWL perimeter fence.

C. STATUS:
1. ACME began driving the post surrounding the MWL for fence. The corner post and gate posts for the barbed wire fence have been installed.

D. PICTURES OBTAINED
1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED
1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 09/01/09)
1. Lee Landscapes will continue placing and crimping straw

2009 Daily Quality Control Reports

September 2009

DAILY SUMMARY REPORT

DATE: 09/01/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (56deg); Cloudy
WEATHER (PM): 3:22; (85 deg); Rain, lightning warning, did not interfere with construction.
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Placing and crimping straw
- Seeding
- Installation of perimeter fence

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***
Seed and straw continued being placed and crimped into place.

B. ISSUES/COMMENTTS

1. The volume of drill (80 lb/acre) seed cannot be placed because of equipment constraints. It takes approximately 5 passes with the drill seed to spread the required volume of seed, which is causing more compaction to the scarified/tilled topsoil than desired. It was decided to spread half of the volume of seed (40-lb/acre) by hand and place the other half by making 2 passes with the drill seed.

2. No fertilizer is required due to time of year seeding is occurring (August).

3. Supplemental watering sprinkler system has already been installed.

4. Lee landscapes continued covering previously placed and drilled seed with straw. A blower was used to place straw over desired areas. The straw was then crimped into place.

C. STATUS:

1. Straw was placed and crimped over preplaced seed.
2. Seed as placed and drilled on south cover and slope of MWL

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Installation of Fence Surrounding MWL***

ACME continued installing the MWL perimeter fence

B. ISSUES/COMMENTS

1. ACME continued installing the MWL perimeter fence and barbed wire.

C. STATUS:

1. ACME installed fence post around the north, east, and south sides of the MWL. Barbed wire was placed on the post across the south and east sides.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 09/02/09)

1. Lee Landscapes will continue placing and crimping straw
2. Continue placing seed
3. Continue installation of fence.

DAILY SUMMARY REPORT

DATE: 09/02/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (56deg); Cloudy
WEATHER (PM): 3:22; (85 deg); Cloudy
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Placing and crimping straw
- Seeding
- Installation of perimeter fence
- Survey of perimeter fence

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.
A. TASK DESCRIPTION: ***Mixed Waste Landfill Seeding***
Seed and straw continued being placed and crimped into place.

B. ISSUES/COMMENTTS

1. The volume of drill (80 lb/acre) seed can not be placed because of equipment constraints. It takes approximately 5 passes with the drill seed to spread the required volume of seed, which is causing more compaction to the scarified/tilled topsoil than desired. It was decided to spread half of the volume of seed (40-lb/acre) by hand and place the other half by making 2 passes with the drill seed.

2. No fertilizer is required due to time of year seeding is occurring (August).

3. Supplemental watering sprinkler system has already been installed.

4. Lee Landscapes continued covering previously placed and drilled seed with straw. A blower was used to place straw over desired areas. The straw was then crimped into place.

C. STATUS:

1. The placement of seed and straw was completed today.
2. Lee Landscapes was able to demobilize today

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

II.

A. TASK DESCRIPTION: ***Installation of Fence Surrounding MWL/Fence Survey***

ACME continued installing the MWL perimeter fence

B. ISSUES/COMMENTS

1. ACME continued installing the MWL perimeter fence and barbed wire.
2. The gates were installed today.
3. EDi surveyed the fence post locations.

C. STATUS:

1. ACME completed the installation of the fence and was able to demobilize.
2. The survey of the fence was completed today.
3. The installation of the gates was completed today.

D. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

INSPECTION CHECKLISTS REQUIRED

1. Seeding Inspection Forms

PROPOSED NEXT DAY ACTIVITIES (date: 09/03/09)

1. Sprinkler system adjustment

DAILY SUMMARY REPORT

DATE: 09/03/09
PROJECT NAME: Sandia Mixed Waste Landfill
WEATHER (AM): 7:10; (56deg); Cloudy
WEATHER (PM): 3:22; (88 deg);
INSPECTED BY: Paul Molina (URS)

GENERAL DESCRIPTION:

- Sprinkler System
- Gate Locking ceremony

LOCATION OF CONSTRUCTION

1. Tech Area III, Sandia Mixed Waste Landfill, Existing Subgrade

LIST OF PERSONNEL:
Please see attached sign-in sheet/visitors log.

SUMMARY OF MEETINGS:
1. Description: Morning Tailgate Meeting
Time: 7:00 AM
Attendees: See attached sign in sheet.
Procedure:
- (See general description above)

DAILY TASK

I.

A. TASK DESCRIPTION: ***Sprinkler System***
The sprinkler system was restarted today.

B. ISSUES/COMMENTS
1. The sprinkler system was reconstructed and restarted today.

C. STATUS:
1. The irrigation pipes were re-connected and aligned. The bags were taken off of the sprinklers and the end pipes.

2. The irrigation pipes were flushed to remove straw and debris that may have gotten inside during the seeding and mulching process.

3. The sprinkler system was started and minor adjustments were made. The system ran for approximately two hours.

G. PICTURES OBTAINED

1. Pictures of this procedure were collected and filed.

GATE LOCKING CEREMONY

The gate locking ceremony started at approximately 3:00 pm. The site was officially locked and the project was completed at 3:30 pm.

PROPOSED NEXT DAY ACTIVITIES

1. NA

END

ATTACHMENT 4

Receiving Inspection Forms and Documentation

2005 Biointrusion Rock

PAUL PARKER CONSTRUCTION
P O BOX 459
LOS ALAMOS, NEW MEXICO 87544
PHONE: 505-662-7456 FAX 505-661-6168

November 21, 2005 INVOICE# 05-1121

TO: Sandia National Laboratories
ATT: Armani Vadiee
MS 0214
P. O. Box 5800
Albuquerque, NM 87185-0214

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PROJECT: Document NO.: 494326 PAGE 1

DATE	DESCRIPTION	TOTAL TONS	PRICE PER TON	TOTAL
10/4/THRU 11/14/05	1" to 6" Cobble Stone Rock	8114.84	$26.00	$210,985.84
			TOTAL	**$210,985.84**
		NM	STATE TAX	$13,186.61
OCT 24,2005				
	YOU MAY DEDUCT THE STATE TAX IF YOU FURNISH US WITH A NEW MEXICO NON TAXABLE CERTIFICATE.	TOTAL AMOOUNT DUE		**$224,172.45**
	OUR CRS NO.:01-736398-005			
	Non Tax Certificate # A-1504384-003			
11/26/05	RUA CK# 1226013	210,985.84		

PAUL PARKER CONSTRUCTION
P O BOX 459
LOS ALAMOS, NEW MEXICO 87544
PHONE: 505-662-7456 FAX 505-661-6168

October 24, 2005 INVOICE# 05-1021

TO: Sandia National Laboratories
ATT: Armani Vadiee
MS 0214
P. O. Box 5800
Albuquerque, NM 87185-0214

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PROJECT: Document NO.: 494326 PAGE 1

DATE	DESCRIPTION	TICKET NO	DRIVER	TOTAL TONS	PRICE PER TON	TOTAL
10/4/05	1" to 6" Cobble Stone Rock	13115	Joe	13.52	$26.00	$351.52
	1" to 6" Cobble Stone Rock	13116	Robin	21.30	$26.00	$553.80
	1" to 6" Cobble Stone Rock	13117	Paul	22.34	$26.00	$580.84
10/5/05	1" to 6" Cobble Stone Rock	13118	Justin	22.92	$26.00	$595.92
	1" to 6" Cobble Stone Rock	13119	Robin	23.52	$26.00	$611.52
	1" to 6" Cobble Stone Rock	13120	Robin	22.97	$26.00	$597.22
	1" to 6" Cobble Stone Rock	13121	Joe	13.32	$26.00	$346.32
	1" to 6" Cobble Stone Rock	13122	Joe	13.79	$26.00	$358.54
	1" to 6" Cobble Stone Rock	13123	Robin	23.14	$26.00	$601.64
	1" to 6" Cobble Stone Rock	13124	Justin	21.46	$26.00	$557.96
	1" to 6" Cobble Stone Rock	13125	Joe	13.21	$26.00	$343.46
10/6/05	1" to 6" Cobble Stone Rock	13126	Justin	21.32	$26.00	$554.32
	1" to 6" Cobble Stone Rock	13127	Robin	23.45	$26.00	$609.70
	1" to 6" Cobble Stone Rock	13128	void		$26.00	$0.00
	1" to 6" Cobble Stone Rock	13129	Joe	13.56	$26.00	$352.56
	1" to 6" Cobble Stone Rock	13130	Robin	22.34	$26.00	$580.84
	1" to 6" Cobble Stone Rock	13131	Justin	23.69	$26.00	$615.94
	1" to 6" Cobble Stone Rock	13132	Robin	23.49	$26.00	$610.74
	1" to 6" Cobble Stone Rock	13133	Justin	22.75	$26.00	$591.50
	1" to 6" Cobble Stone Rock	13134	Joe	13.91	$26.00	$361.66
	1" to 6" Cobble Stone Rock	13135	Justin	23.55	$26.00	$612.30
10/7/05	1" to 6" Cobble Stone Rock	13136	Robin	23.88	$26.00	$620.88
	1" to 6" Cobble Stone Rock	13137	Joe	14.03	$26.00	$364.78
	1" to 6" Cobble Stone Rock	13138	Justin	25.89	$26.00	$673.14
	1" to 6" Cobble Stone Rock	13139	Robin	21.65	$26.00	$562.90
	1" to 6" Cobble Stone Rock	13140	Joe	13.52	$26.00	$351.52
	1" to 6" Cobble Stone Rock	13141	Justin	22.79	$26.00	$592.54
	1" to 6" Cobble Stone Rock	13142	Robin	23.81	$26.00	$619.06
	1" to 6" Cobble Stone Rock	13143	Justin	25.06	$26.00	$651.56
	1" to 6" Cobble Stone Rock	13144	Justin	23.54	$26.00	$612.04
10/10/05	1" to 6" Cobble Stone Rock	13145	Joe	13.56	$26.00	$652.60
	1" to 6" Cobble Stone Rock	13146	Robin	25.10	$26.00	$349.70
	1" to 6" Cobble Stone Rock	13147	Joe	13.45	$26.00	$349.70
	1" to 6" Cobble Stone Rock	13148	Robin	24.23	$26.00	$629.98

	DOCUMENT #: 494326				PAGE #2	
10/11/05	1" to 6" Cobble Stone Rock	13149	Robin	24.88	$26.00	$646.88
	1" to 6" Cobble Stone Rock	13150	Joe	14.41	$26.00	$374.66
	1" to 6" Cobble Stone Rock	13151	Albert	23.68	$26.00	$615.68
	1" to 6" Cobble Stone Rock	13152	Tony	22.72	$26.00	$590.72
	1" to 6" Cobble Stone Rock	13153	Meek	14.15	$26.00	$367.90
	1" to 6" Cobble Stone Rock	13154	Robin	23.82	$26.00	$619.32
	1" to 6" Cobble Stone Rock	13155	Joe	13.21	$26.00	$343.46
	1" to 6" Cobble Stone Rock	13156	Albert	22.31	$26.00	$580.06
	1" to 6" Cobble Stone Rock	13157	Tony	24.55	$26.00	$638.30
	1" to 6" Cobble Stone Rock	13158	Robin	24.44	$26.00	$635.44
	1" to 6" Cobble Stone Rock	13159	Meek	13.25	$26.00	$344.50
	1" to 6" Cobble Stone Rock	13160	Tony	25.13	$26.00	$653.38
	1" to 6" Cobble Stone Rock	13161	Albert	23.72	$26.00	$616.72
	1" to 6" Cobble Stone Rock	13162	Joe	13.56	$26.00	$352.56
10/12/05	1" to 6" Cobble Stone Rock	13163	Robin	26.60	$26.00	$691.60
	1" to 6" Cobble Stone Rock	13164	Albert	23.58	$26.00	$613.08
	1" to 6" Cobble Stone Rock	13165	Joe	13.45	$26.00	$349.70
	1" to 6" Cobble Stone Rock	13166	Robin	23.58	$26.00	$613.08
	1" to 6" Cobble Stone Rock	13167	Joe	13.32	$26.00	$346.32
	1" to 6" Cobble Stone Rock	13168	Albert	22.49	$26.00	$584.74
	1" to 6" Cobble Stone Rock	13169	Robin	25.38	$26.00	$659.88
	1" to 6" Cobble Stone Rock	13170	Joe	13.46	$26.00	$349.96
	1" to 6" Cobble Stone Rock	13171	Albert	24.92	$26.00	$647.92
10/13/05	1" to 6" Cobble Stone Rock	13172	Tony	22.36	$26.00	$581.36
	1" to 6" Cobble Stone Rock	13173	Albert	23.17	$26.00	$602.42
	1" to 6" Cobble Stone Rock	13174	Joe	13.40	$26.00	$348.40
	1" to 6" Cobble Stone Rock	13175		24.53	$26.00	$637.78
	1" to 6" Cobble Stone Rock	13176	Albert	23.11	$26.00	$600.86
	1" to 6" Cobble Stone Rock	13177	Tony	24.12	$26.00	$627.12
	1" to 6" Cobble Stone Rock	13178	Robin	24.04	$26.00	$625.04
	1" to 6" Cobble Stone Rock	13179	Paul	22.67	$26.00	$589.42
	1" to 6" Cobble Stone Rock	13180	Albert	22.96	$26.00	$596.96
	1" to 6" Cobble Stone Rock	13181	Tony	22.46	$26.00	$583.96
10/14/05	1" to 6" Cobble Stone Rock	13182	Robin	23.25	$26.00	$604.50
	1" to 6" Cobble Stone Rock	13183	Tony	22.26	$26.00	$578.76
	1" to 6" Cobble Stone Rock	13184	Albert	22.22	$26.00	$577.72
	1" to 6" Cobble Stone Rock	13185	Robin	25.17	$26.00	$654.42
	1" to 6" Cobble Stone Rock	13186	Tony	22.93	$26.00	$596.18
	1" to 6" Cobble Stone Rock	13187	Albert	23.29	$26.00	$605.54
	1" to 6" Cobble Stone Rock	13188	Robin	24.22	$26.00	$629.72
	1" to 6" Cobble Stone Rock	13189	Tony	22.51	$26.00	$585.26
	1" to 6" Cobble Stone Rock	13190	Albert	23.56	$26.00	$612.56
10/17/05	1" to 6" Cobble Stone Rock	13191	Tony	22.15	$26.00	$575.90
	1" to 6" Cobble Stone Rock	13192	Joe	13.59	$26.00	$353.34
	1" to 6" Cobble Stone Rock	13193	Robin	25.06	$26.00	$651.56
	1" to 6" Cobble Stone Rock	13194	Matt	24.13	$26.00	$627.38
	1" to 6" Cobble Stone Rock	13195	Tony	22.31	$26.00	$580.06
	1" to 6" Cobble Stone Rock	13196	Robin	24.14	$26.00	$627.64
	1" to 6" Cobble Stone Rock	13197	Matt	21.83	$26.00	$567.58
	1" to 6" Cobble Stone Rock	13198	Joe	14.02	$26.00	$364.52
	1" to 6" Cobble Stone Rock	13199	Tony	25.20	$26.00	$655.20

	DOCUMENT #: 494326				PAGE #3	
10/18/05	1" to 6" Cobble Stone Rock	13200	Matt	22.99	$26.00	$597.74
	1" to 6" Cobble Stone Rock	13232	Robin	24.26	$26.00	$630.76
	1" to 6" Cobble Stone Rock	13233	Tony	24.10	$26.00	$626.60
	1" to 6" Cobble Stone Rock	13234	Tony	23.93	$26.00	$622.18
	1" to 6" Cobble Stone Rock	13235	Matt	22.57	$26.00	$586.82
	1" to 6" Cobble Stone Rock	13236	Robin	25.03	$26.00	$650.78
	1" to 6" Cobble Stone Rock	13237	Tony	23.56	$26.00	$612.56
	1" to 6" Cobble Stone Rock	13238	Matt	22.41	$26.00	$582.66
	1" to 6" Cobble Stone Rock	13239	Robin	23.92	$26.00	$621.92
	1" to 6" Cobble Stone Rock	13240	Tony	24.12	$26.00	$627.12
10/19/05	1" to 6" Cobble Stone Rock	13241	James	12.86	$26.00	$334.36
	1" to 6" Cobble Stone Rock	13242	Matt	22.51	$26.00	$585.26
	1" to 6" Cobble Stone Rock	13243	Robin	22.79	$26.00	$592.54
	1" to 6" Cobble Stone Rock	13244	Joe	13.99	$26.00	$363.74
	1" to 6" Cobble Stone Rock	13245	Tony	23.89	$26.00	$621.14
	1" to 6" Cobble Stone Rock	13246	J. Meek	15.30	$26.00	$397.80
	1" to 6" Cobble Stone Rock	13247	Robin	22.63	$26.00	$588.38
	1" to 6" Cobble Stone Rock	13248	Tony	22.88	$26.00	$594.88
	1" to 6" Cobble Stone Rock	13249	J. Meek	12.96	$26.00	$336.96
	1" to 6" Cobble Stone Rock	13250	Robin	25.04	$26.00	$651.04
	1" to 6" Cobble Stone Rock	13251	Joe	13.25	$26.00	$344.50
	1" to 6" Cobble Stone Rock	13252	Tony	26.02	$26.00	$676.52
	1" to 6" Cobble Stone Rock	13253	J. Meek	13.71	$26.00	$356.46
10/20/05	1" to 6" Cobble Stone Rock	13254	J. Meek	23.94	$26.00	$622.44
	1" to 6" Cobble Stone Rock	13255	Tony	25.46	$26.00	$661.96
	1" to 6" Cobble Stone Rock	13256	IDA	24.79	$26.00	$644.54
	1" to 6" Cobble Stone Rock	13257	Justin	23.91	$26.00	$621.66
	1" to 6" Cobble Stone Rock	13258	Albert	22.60	$26.00	$587.60
	1" to 6" Cobble Stone Rock	13259	Eloy	24.96	$26.00	$648.96
	1" to 6" Cobble Stone Rock	13260	Tony	23.48	$26.00	$610.48
	1" to 6" Cobble Stone Rock	13261	Justin	22.45	$26.00	$583.70
	1" to 6" Cobble Stone Rock	13262	Albert	23.56	$26.00	$612.56
	1" to 6" Cobble Stone Rock	13263	Matt	23.46	$26.00	$609.96
	1" to 6" Cobble Stone Rock	13264	Justin	21.92	$26.00	$569.92
	1" to 6" Cobble Stone Rock	13265	Tony	23.70	$26.00	$616.20
	1" to 6" Cobble Stone Rock	13266	Eloy	27.62	$26.00	$718.12
10/21/05	1" to 6" Cobble Stone Rock	13267	Matt	24.49	$26.00	$636.74
	1" to 6" Cobble Stone Rock	13268	Justin	23.50	$26.00	$611.00
	1" to 6" Cobble Stone Rock	13269	Tony	24.29	$26.00	$631.54
	1" to 6" Cobble Stone Rock	13270	Albert	24.96	$26.00	$648.96
	1" to 6" Cobble Stone Rock	13271	Eloy	27.71	$26.00	$720.46
	1" to 6" Cobble Stone Rock	13272	Justin	22.40	$26.00	$582.40
	1" to 6" Cobble Stone Rock	13273	Matt	24.98	$26.00	$649.48
	1" to 6" Cobble Stone Rock	13274	Justin	22.50	$26.00	$585.00
	1" to 6" Cobble Stone Rock	13275	Eloy	27.56	$26.00	$716.56
	1" to 6" Cobble Stone Rock	13276	Tony	23.87	$26.00	$620.62
	1" to 6" Cobble Stone Rock	13277	Matt	24.33	$26.00	$632.58
			TOTAL TONS	2832.49	TOTAL DUE:	$73,644.74

PAUL PARKER CONSTRUCTION
P O BOX 459
LOS ALAMOS, NEW MEXICO 87544
PHONE: 505-662-7456 FAX 505-661-6168

November 10, 2005 INVOICE# 05-1110

TO: Sandia National Laboratories
ATT: Armani Vadiee
MS 0214
P. O. Box 5800
Albuquerque, NM 87185-0214

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PROJECT: Document NO.: 494326 PAGE 1

DATE	DESCRIPTION	TICKET NO	DRIVER	TOTAL TONS	PRICE PER TON	TOTAL
10/24/05	1" to 6" Cobble Stone Rock	13278	Matt	22.01	$26.00	$572.26
	1" to 6" Cobble Stone Rock	13279	Eloy	26.11	$26.00	$678.86
	1" to 6" Cobble Stone Rock	13280	Albert	24.03	$26.00	$624.78
	1" to 6" Cobble Stone Rock	13281	Tony	26.82	$26.00	$697.32
	1" to 6" Cobble Stone Rock	13282	Robin	23.66	$26.00	$615.16
	1" to 6" Cobble Stone Rock	13283	P Jones	25.71	$26.00	$668.46
	1" to 6" Cobble Stone Rock	13284	Justin	23.45	$26.00	$609.70
	1" to 6" Cobble Stone Rock	13285	Albert	23.26	$26.00	$604.76
	1" to 6" Cobble Stone Rock	13286	Tony	23.98	$26.00	$623.48
	1" to 6" Cobble Stone Rock	13287	Eloy	28.96	$26.00	$752.96
	1" to 6" Cobble Stone Rock	13288	Robin	23.27	$26.00	$605.02
	1" to 6" Cobble Stone Rock	13289	Armenta	24.28	$26.00	$631.28
	1" to 6" Cobble Stone Rock	13290	P Jones	25.89	$26.00	$673.14
	1" to 6" Cobble Stone Rock	13291	Tony	25.44	$26.00	$661.44
	1" to 6" Cobble Stone Rock	13292	Armenta	23.37	$26.00	$607.62
	1" to 6" Cobble Stone Rock	13293	Justin	24.07	$26.00	$625.82
	1" to 6" Cobble Stone Rock	13294	P Jones	25.65	$26.00	$666.90
10/25/05	1" to 6" Cobble Stone Rock	13295	Justin	23.41	$26.00	$608.66
	1" to 6" Cobble Stone Rock	13296	Tony	23.20	$26.00	$603.20
	1" to 6" Cobble Stone Rock	13297	Albert	24.45	$26.00	$635.70
	1" to 6" Cobble Stone Rock	13298	Robin	22.42	$26.00	$582.92
	1" to 6" Cobble Stone Rock	13299	P Jones	26.31	$26.00	$684.06
	1" to 6" Cobble Stone Rock	13300	Tony	24.08	$26.00	$626.08
	1" to 6" Cobble Stone Rock	13301	Albert	25.11	$26.00	$652.86
	1" to 6" Cobble Stone Rock	13302	Justin	21.90	$26.00	$569.40
	1" to 6" Cobble Stone Rock	13303	Robin	25.95	$26.00	$674.70
	1" to 6" Cobble Stone Rock	13304	Eloy	27.98	$26.00	$727.48
	1" to 6" Cobble Stone Rock	13305	Tony	22.80	$26.00	$592.80
	1" to 6" Cobble Stone Rock	13306	P Jones	26.62	$26.00	$692.12
	1" to 6" Cobble Stone Rock	13307	Albert	23.97	$26.00	$623.22
	1" to 6" Cobble Stone Rock	13308	Justin	22.02	$26.00	$572.52
	1" to 6" Cobble Stone Rock	13309	Robin	23.32	$26.00	$606.32
	1" to 6" Cobble Stone Rock	13310	Tony	25.09	$26.00	$652.34
	1" to 6" Cobble Stone Rock	13311	P Jones	25.74	$26.00	$669.24
	1" to 6" Cobble Stone Rock	13312	Eloy	27.12	$26.00	$705.12

	DOCUMENT #: 494326				PAGE #2	
10/25/05	1" to 6" Cobble Stone Rock	13313	Albert	21.89	$26.00	$569.14
10/26/05	1" to 6" Cobble Stone Rock	13314	Tony	23.91	$26.00	$621.66
	1" to 6" Cobble Stone Rock	13315	Albert	24.51	$26.00	$637.26
	1" to 6" Cobble Stone Rock	13316	Eloy	28.84	$26.00	$749.84
	1" to 6" Cobble Stone Rock	13317	Albert	25.45	$26.00	$661.70
	1" to 6" Cobble Stone Rock	13318	Tony	27.99	$26.00	$727.74
	1" to 6" Cobble Stone Rock	13319	Robin	24.83	$26.00	$645.58
	1" to 6" Cobble Stone Rock	13320	James	13.43	$26.00	$349.18
	1" to 6" Cobble Stone Rock	13321	Justin	24.43	$26.00	$635.18
	1" to 6" Cobble Stone Rock	13322	Eloy	28.00	$26.00	$728.00
	1" to 6" Cobble Stone Rock	13323	P Jones	27.17	$26.00	$706.42
	1" to 6" Cobble Stone Rock	13324	Albert	23.57	$26.00	$612.82
	1" to 6" Cobble Stone Rock	13325	Tony	24.08	$26.00	$626.08
	1" to 6" Cobble Stone Rock	13326	James	13.51	$26.00	$351.26
	1" to 6" Cobble Stone Rock	13327	Robin	23.49	$26.00	$610.74
	1" to 6" Cobble Stone Rock	13328	Justin	23.24	$26.00	$604.24
	1" to 6" Cobble Stone Rock	13329	Eloy	26.55	$26.00	$690.30
	1" to 6" Cobble Stone Rock	13330	P Jones	26.51	$26.00	$689.26
	1" to 6" Cobble Stone Rock	13331	Albert	25.38	$26.00	$659.88
10/27/05	1" to 6" Cobble Stone Rock	13332	Robin	25.50	$26.00	$663.00
	1" to 6" Cobble Stone Rock	13333	P Jones	27.26	$26.00	$708.76
	1" to 6" Cobble Stone Rock	13334	Albert	23.26	$26.00	$604.76
	1" to 6" Cobble Stone Rock	13335	Eloy	27.37	$26.00	$711.62
	1" to 6" Cobble Stone Rock	13336	Matt	24.50	$26.00	$637.00
	1" to 6" Cobble Stone Rock	13337	Albert	23.13	$26.00	$601.38
	1" to 6" Cobble Stone Rock	13338	Eloy	28.64	$26.00	$744.64
	1" to 6" Cobble Stone Rock	13339	Tony	23.83	$26.00	$619.58
	1" to 6" Cobble Stone Rock	13340	P Jones	32.54	$26.00	$846.04
	1" to 6" Cobble Stone Rock	13341	Albert	23.47	$26.00	$610.22
	1" to 6" Cobble Stone Rock	13342	Robin	25.71	$26.00	$668.46
	1" to 6" Cobble Stone Rock	13343	Eloy	29.26	$26.00	$760.76
	1" to 6" Cobble Stone Rock	13344	Tony	24.72	$26.00	$642.72
	1" to 6" Cobble Stone Rock	13345	Matt	24.77	$26.00	$644.02
	1" to 6" Cobble Stone Rock	13346	P Jones	28.48	$26.00	$740.48
10/28/05	1" to 6" Cobble Stone Rock	13347	Robin	24.23	$26.00	$629.98
	1" to 6" Cobble Stone Rock	13348	Justin	23.60	$26.00	$613.60
	1" to 6" Cobble Stone Rock	13349	Eloy	27.20	$26.00	$707.20
	1" to 6" Cobble Stone Rock	13350	P Jones	26.03	$26.00	$676.78
	1" to 6" Cobble Stone Rock	13351	Robin	24.96	$26.00	$648.96
	1" to 6" Cobble Stone Rock	13352	Albert	25.03	$26.00	$650.78
	1" to 6" Cobble Stone Rock	13353	Justin	23.46	$26.00	$609.96
	1" to 6" Cobble Stone Rock	13354	Eloy	26.66	$26.00	$693.16
	1" to 6" Cobble Stone Rock	13355	P Jones	28.70	$26.00	$746.20
	1" to 6" Cobble Stone Rock	13356	Robin	25.20	$26.00	$655.20
	1" to 6" Cobble Stone Rock	13357	Justin	23.71	$26.00	$616.46
	1" to 6" Cobble Stone Rock	13358	Albert	23.31	$26.00	$606.06
	1" to 6" Cobble Stone Rock	13359	P Jones	28.45	$26.00	$739.70
	1" to 6" Cobble Stone Rock	13360	Eloy	27.28	$26.00	$709.28
10/31/05	1" to 6" Cobble Stone Rock	13361	Justin	23.54	$26.00	$612.04
	1" to 6" Cobble Stone Rock	13362	Paul Jones	28.43	$26.00	$739.18
	1" to 6" Cobble Stone Rock	13363	Eloy	27.25	$26.00	$708.50
	1" to 6" Cobble Stone Rock	13364	Albert	24.35	$26.00	$633.10
	1" to 6" Cobble Stone Rock	13365	Robin	22.14	$26.00	$575.64

	DOCUMENT NO: 494326				PAGE 3	
10/31/05	1" to 6" Cobble Stone Rock	13366	Paul Jones	26.19	$26.00	$680.94
	1" to 6" Cobble Stone Rock	13367	Albert	23.67	$26.00	$615.42
	1" to 6" Cobble Stone Rock	13368	Eloy	25.72	$26.00	$668.72
	1" to 6" Cobble Stone Rock	13369	Justin	23.73	$26.00	$616.98
	1" to 6" Cobble Stone Rock	13370	Paul Jones	26.78	$26.00	$696.28
	1" to 6" Cobble Stone Rock	13371	Robin	26.54	$26.00	$690.04
	1" to 6" Cobble Stone Rock	13372	Justin	23.43	$26.00	$609.18
	1" to 6" Cobble Stone Rock	13373	Albert	23.43	$26.00	$609.18
	1" to 6" Cobble Stone Rock	13374	Eloy	27.10	$26.00	$704.60
11/1/05	1" to 6" Cobble Stone Rock	13375	Paul Jones	29.08	$26.00	$756.08
	1" to 6" Cobble Stone Rock	13376	Albert	23.50	$26.00	$611.00
	1" to 6" Cobble Stone Rock	13377	Eloy	27.01	$26.00	$702.26
	1" to 6" Cobble Stone Rock	13378	Paul Jones	25.34	$26.00	$658.84
	1" to 6" Cobble Stone Rock	13379	Albert	25.20	$26.00	$655.20
	1" to 6" Cobble Stone Rock	13380	Paul Jones	26.30	$26.00	$683.80
	1" to 6" Cobble Stone Rock	13381	Eloy	28.00	$26.00	$728.00
	1" to 6" Cobble Stone Rock	13382	Albert	23.66	$26.00	$615.16
	1" to 6" Cobble Stone Rock	13383	Paul Jones	27.53	$26.00	$715.78
	1" to 6" Cobble Stone Rock	13384	Eloy	27.84	$26.00	$723.84
11/2/05	1" to 6" Cobble Stone Rock	13385	Albert	22.56	$26.00	$586.56
	1" to 6" Cobble Stone Rock	13386	Paul Jones	27.69	$26.00	$719.94
	1" to 6" Cobble Stone Rock	13387	Eloy	25.26	$26.00	$656.76
	1" to 6" Cobble Stone Rock	13388	Matt	12.54	$26.00	$326.04
	1" to 6" Cobble Stone Rock	13389	Tony	23.85	$26.00	$620.10
	1" to 6" Cobble Stone Rock	13390	Albert	24.61	$26.00	$639.86
	1" to 6" Cobble Stone Rock	13391	Paul Jones	24.18	$26.00	$628.68
	1" to 6" Cobble Stone Rock	13392	Tony	24.26	$26.00	$630.76
	1" to 6" Cobble Stone Rock	13393	Justin	24.28	$26.00	$631.28
	1" to 6" Cobble Stone Rock	13394	Eloy	26.32	$26.00	$684.32
	1" to 6" Cobble Stone Rock	13395	Albert	22.74	$26.00	$591.24
	1" to 6" Cobble Stone Rock	13396	Paul Jones	25.53	$26.00	$663.78
	1" to 6" Cobble Stone Rock	13397	Tony	22.87	$26.00	$594.62
	1" to 6" Cobble Stone Rock	13398	Justin	22.63	$26.00	$588.38
	1" to 6" Cobble Stone Rock	13399	Eloy	26.45	$26.00	$687.70
	1" to 6" Cobble Stone Rock	13400	Robin	23.12	$26.00	$601.12
11/3/05	1" to 6" Cobble Stone Rock	3448	Justin	22.54	$26.00	$586.04
	1" to 6" Cobble Stone Rock	3449	Albert	24.39	$26.00	$634.14
	1" to 6" Cobble Stone Rock	3450	Paul Jones	26.79	$26.00	$696.54
	1" to 6" Cobble Stone Rock	3451	Missing Ticket		$26.00	$0.00
	1" to 6" Cobble Stone Rock	3452	Eloy	27.48	$26.00	$714.48
	1" to 6" Cobble Stone Rock	3453	Justin	23.74	$26.00	$617.24
	1" to 6" Cobble Stone Rock	3454	Robin	23.29	$26.00	$605.54
	1" to 6" Cobble Stone Rock	3455	Paul Jones	25.91	$26.00	$673.66
	1" to 6" Cobble Stone Rock	3456	Albert	23.63	$26.00	$614.38
	1" to 6" Cobble Stone Rock	3457	Eloy	27.75	$26.00	$721.50
	1" to 6" Cobble Stone Rock	3458	Justin	22.63	$26.00	$588.38
	1" to 6" Cobble Stone Rock	3459	Paul Jones	24.50	$26.00	$637.00
	1" to 6" Cobble Stone Rock	3460	Albert	22.85	$26.00	$594.10
	1" to 6" Cobble Stone Rock	3461	Eloy	26.53	$26.00	$689.78
	1" to 6" Cobble Stone Rock	3462	Justin	22.53	$26.00	$585.78
11/4/05	1" to 6" Cobble Stone Rock	3463	Robin	23.31	$26.00	$606.06
	1" to 6" Cobble Stone Rock	3464	Tony	22.90	$26.00	$595.40
	1" to 6" Cobble Stone Rock	3465	Albert	22.31	$26.00	$580.06

	DOCUMENT NO: 494326				PAGE 4	
11/4/05	1" to 6" Cobble Stone Rock	3466	Tony	27.13	$26.00	$705.38
	1" to 6" Cobble Stone Rock	3467	Paul Jones	26.52	$26.00	$689.52
	1" to 6" Cobble Stone Rock	3468	Albert	23.80	$26.00	$618.80
	1" to 6" Cobble Stone Rock	3469	Justin	22.69	$26.00	$589.94
	1" to 6" Cobble Stone Rock	3470	Tony	23.88	$26.00	$620.88
	1" to 6" Cobble Stone Rock	3471	Paul Jones	25.14	$26.00	$653.64
	1" to 6" Cobble Stone Rock	3472	Justin	24.04	$26.00	$625.04
	1" to 6" Cobble Stone Rock	3473	Jaf	23.20	$26.00	$603.20
				TOTAL TONS		
				3672.62		
					TOTAL	**$95,488.12**
				NM	STATE TAX	$5,968.00
OCT 24,2005		PLUS STATE TAX DUE FROM INVOUCE 05-1021				$4,602.80
	YOU MAY DEDUCT THE STATE			TOTAL AMOOUNT DUE		**$106,058.92**
	TAX IF YOU FURNISH US WITH					
	A NEW MEXICO NON TAXABLE					
	CERTIFICATE.					
	OUR CRS NO.:01-736398-005					

PAUL PARKER CONSTRUCTION
P O BOX 459
LOS ALAMOS, NEW MEXICO 87544
PHONE: 505-662-7456 FAX 505-661-6168

November 17, 2005 INVOICE# 05-1117

TO: Sandia National Laboratories
ATT: Armani Vadiee
MS 0214
P. O. Box 5800
Albuquerque, NM 87185-0214

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PROJECT: Document NO.: 494326 PAGE 1

DATE	DESCRIPTION	TICKET NO	DRIVER	TOTAL TONS	PRICE PER TON	TOTAL
11/7/05	1" to 6" Cobble Stone Rock	13401	Paul Jones	25.76	$26.00	$669.76
	1" to 6" Cobble Stone Rock	13402	Eloy	27.22	$26.00	$707.72
	1" to 6" Cobble Stone Rock	13403	Tony	22.90	$26.00	$595.40
	1" to 6" Cobble Stone Rock	13404	Justin	22.96	$26.00	$596.96
	1" to 6" Cobble Stone Rock	13405	Albert	22.74	$26.00	$591.24
	1" to 6" Cobble Stone Rock	13406	Tony	23.87	$26.00	$620.62
	1" to 6" Cobble Stone Rock	13407	Paul Jones	25.47	$26.00	$662.22
	1" to 6" Cobble Stone Rock	13408	Eloy	26.71	$26.00	$694.46
	1" to 6" Cobble Stone Rock	13409	Tony	22.89	$26.00	$595.14
	1" to 6" Cobble Stone Rock	13410	Paul Jones	24.80	$26.00	$644.80
	1" to 6" Cobble Stone Rock	13411	Eloy	25.97	$26.00	$675.22
11/8/05	1" to 6" Cobble Stone Rock	13412	Paul Jones	25.31	$26.00	$658.06
	1" to 6" Cobble Stone Rock	13413	Tony	22.93	$26.00	$596.18
	1" to 6" Cobble Stone Rock	13414	J. Meek	13.90	$26.00	$361.40
	1" to 6" Cobble Stone Rock	13415	Justin	23.41	$26.00	$608.66
	1" to 6" Cobble Stone Rock	13416	Paul Jones	25.70	$26.00	$668.20
	1" to 6" Cobble Stone Rock	13417	P Jones	25.71	$26.00	$668.46
	1" to 6" Cobble Stone Rock	13418	Justin	23.69	$26.00	$615.94
11/9/05	1" to 6" Cobble Stone Rock	13419	Tony	23.76	$26.00	$617.76
	1" to 6" Cobble Stone Rock	13420	Albert	23.31	$26.00	$606.06
	1" to 6" Cobble Stone Rock	13421	P. Jones	25.67	$26.00	$667.42
	1" to 6" Cobble Stone Rock	13422	Eloy	25.53	$26.00	$663.78
	1" to 6" Cobble Stone Rock	13423	Justin	23.46	$26.00	$609.96
	1" to 6" Cobble Stone Rock	13424	Tony	23.24	$26.00	$604.24
	1" to 6" Cobble Stone Rock	13425	Albert	23.01	$26.00	$598.26
	1" to 6" Cobble Stone Rock	13426	Eloy	28.64	$26.00	$744.64
	1" to 6" Cobble Stone Rock	13427	Justin	27.98	$26.00	$727.48
	1" to 6" Cobble Stone Rock	13428	P. Jones	26.51	$26.00	$689.26
	1" to 6" Cobble Stone Rock	13429	Joe	13.69	$26.00	$355.94
	1" to 6" Cobble Stone Rock	13430	Albert	24.34	$26.00	$632.84
	1" to 6" Cobble Stone Rock	13431	Eloy	24.66	$26.00	$641.16
	1" to 6" Cobble Stone Rock	13432	Albert	23.69	$26.00	$615.94
11/10/05	1" to 6" Cobble Stone Rock	13433	Albert	25.09	$26.00	$652.34
	1" to 6" Cobble Stone Rock	13434	P Jones	27.67	$26.00	$719.42
	1" to 6" Cobble Stone Rock	13435	Eloy	26.94	$26.00	$700.44

	DOCUMENT #: 494326				PAGE #2	
11/10/05	1" to 6" Cobble Stone Rock	13436	Justin	24.25	$26.00	$630.50
	1" to 6" Cobble Stone Rock	13437	Albert	24.97	$26.00	$649.22
	1" to 6" Cobble Stone Rock	13438	Eloy	26.67	$26.00	$693.42
	1" to 6" Cobble Stone Rock	13439	Paul Jones	23.39	$26.00	$608.14
	1" to 6" Cobble Stone Rock	13440	Justin	23.39	$26.00	$608.14
	1" to 6" Cobble Stone Rock	13441	Eloy	26.37	$26.00	$685.62
	1" to 6" Cobble Stone Rock	13442	Paul Jones	24.07	$26.00	$625.82
	1" to 6" Cobble Stone Rock	13443	Justin	23.77	$26.00	$618.02
	1" to 6" Cobble Stone Rock	13444	Eloy	25.51	$26.00	$663.26
11/11/05	1" to 6" Cobble Stone Rock	13445	Paul Jones	25.68	$26.00	$667.68
	1" to 6" Cobble Stone Rock	13446	Albert	23.35	$26.00	$607.10
	1" to 6" Cobble Stone Rock	13447	Eloy	26.39	$26.00	$686.14
	1" to 6" Cobble Stone Rock	13448	Tony	22.86	$26.00	$594.36
	1" to 6" Cobble Stone Rock	13449	Justin	22.71	$26.00	$590.46
	1" to 6" Cobble Stone Rock	13450	Tony	21.27	$26.00	$553.02
	1" to 6" Cobble Stone Rock	13451	Eloy	26.72	$26.00	$694.72
	1" to 6" Cobble Stone Rock	13452	Albert	23.96	$26.00	$622.96
	1" to 6" Cobble Stone Rock	13453	P Jones	27.55	$26.00	$716.30
	1" to 6" Cobble Stone Rock	13454	Justin	23.51	$26.00	$611.26
	1" to 6" Cobble Stone Rock	13455	Tony	23.30	$26.00	$605.80
	1" to 6" Cobble Stone Rock	13456	Eloy	26.41	$26.00	$686.66
	1" to 6" Cobble Stone Rock	13457	Albert	23.84	$26.00	$619.84
	1" to 6" Cobble Stone Rock	13458	Paul Jones	25.94	$26.00	$674.44
	1" to 6" Cobble Stone Rock	13459	Justin	25.88	$26.00	$672.88
11/14/05	1" to 6" Cobble Stone Rock	13460	Paul Jones	24.24	$26.00	$630.24
	1" to 6" Cobble Stone Rock	13462	Robin	24.21	$26.00	$629.46
	1" to 6" Cobble Stone Rock	13463	Paul Jones	25.08	$26.00	$652.08
	1" to 6" Cobble Stone Rock	13464	Justin	21.03	$26.00	$546.78
	1" to 6" Cobble Stone Rock	13465	Elloy	24.90	$26.00	$647.40
	1" to 6" Cobble Stone Rock	13466	Paul Jones	24.88	$26.00	$646.88
	1" to 6" Cobble Stone Rock	13467	Robin	24.50	$26.00	$637.00
						$41,852.98
			TOTAL TONS:	1609.73		
					NM ST. TAX	$2,615.81
					TOTAL DUE	$44,468.79

2009 Biointrusion Rock

PAUL PARKER CONSTRUCTION
P O BOX 459
LOS ALAMOS, NEW MEXICO 8754
PHONE: 505-662-7456

DATE: JUNE 12,2009

INVOICE # 09-0612

TO: ENVIRONMENTAL DIMENSIONS INC.
P O BOX 6250
ALBUQUERQUE, NEW MEXICO 87197-6250

****

REFERENCE JOB # 288

PAGE # 1 OF 2

DATE	MATERIAL	TICKET NO.	TONS	PRICE PER TON	JOB NAME	TOTAL
6/8/2009	3"-6" COBBLE	19063	22.19	$18.00	EDI SNL TECH 3	$399.42
6/8/2009	3"-6" COBBLE	19064	23.12	$18.00	EDI SNL TECH 3	$416.16
6/8/2009	3"-6" COBBLE	19065	23.45	$18.00	EDI SNL TECH 3	$422.10
6/8/2009	3"-6" COBBLE	19066	23.34	$18.00	EDI SNL TECH 3	$420.12
6/8/2009	3"-6" COBBLE	19067	21.98	$18.00	EDI SNL TECH 3	$395.64
6/8/2009	3"-6" COBBLE	19068	22.22	$18.00	EDI SNL TECH 3	$399.96
6/8/2009	3"-6" COBBLE	19069	22.32	$18.00	EDI SNL TECH 3	$401.76
6/8/2009	3"-6" COBBLE	19070	24.56	$18.00	EDI SNL TECH 3	$442.08
6/8/2009	3"-6" COBBLE	19071	22.91	$18.00	EDI SNL TECH 3	$412.38
6/9/2009	3"-6" COBBLE	19072	27.83	$18.00	EDI SNL TECH 3	$500.94
6/9/2009	3"-6" COBBLE	19073	22.65	$18.00	EDI SNL TECH 3	$407.70
6/9/2009	3"-6" COBBLE	19074	23.23	$18.00	EDI SNL TECH 3	$418.14
6/9/2009	3"-6" COBBLE	19076	26.16	$18.00	EDI SNL TECH 3	$470.88
6/9/2009	3"-6" COBBLE	19077	21.92	$18.00	EDI SNL TECH 3	$394.56
6/9/2009	3"-6" COBBLE	19078	24.53	$18.00	EDI SNL TECH 3	$441.54
6/9/2009	3"-6" COBBLE	19079	22.94	$18.00	EDI SNL TECH 3	$412.92
6/9/2009	3"-6" COBBLE	19080	23.87	$18.00	EDI SNL TECH 3	$429.66
6/9/2009	3"-6" COBBLE	19087	22.13	$18.00	EDI SNL TECH 3	$398.34
6/9/2009	3"-6" COBBLE	19089	24.96	$18.00	EDI SNL TECH 3	$449.28
6/9/2009	3"-6" COBBLE	19092	22.8	$18.00	EDI SNL TECH 3	$410.40
6/9/2009	3"-6" COBBLE	19093	25.34	$18.00	EDI SNL TECH 3	$456.12
6/9/2009	3"-6" COBBLE	19094	25.81	$18.00	EDI SNL TECH 3	$464.58
6/9/2009	3"-6" COBBLE	19095	24.54	$18.00	EDI SNL TECH 3	$441.72
6/9/2009	3"-6" COBBLE	19096	23.46	$18.00	EDI SNL TECH 3	$422.28
6/9/2009	3"-6" COBBLE	19097	21.92	$18.00	EDI SNL TECH 3	$394.56
6/9/2009	3"-6" COBBLE	19098	22.80	$18.00	EDI SNL TECH 3	$410.40
6/9/2009	3"-6" COBBLE	19101	24.84	$18.00	EDI SNL TECH 3	$447.12
6/9/2009	3"-6" COBBLE	19124	24.07	$18.00	EDI SNL TECH 3	$433.26
6/9/2009	3"-6" COBBLE	19186	23.09	$18.00	EDI SNL TECH 3	$415.62
6/9/2009	3"-6" COBBLE	19187	22.05	$18.00	EDI SNL TECH 3	$396.90
6/9/2009	3"-6" COBBLE	19197	23.61	$18.00	EDI SNL TECH 3	$424.98
6/9/2009	3"-6" COBBLE	19198	15.91	$18.00	EDI SNL TECH 3	$286.38

		PAUL PARKER CONSTRUCTION				
		P O BOX 459				
		LOS ALAMOS, NEW MEXICO 8754				
		PHONE: 505-662-7456				
DATE:	JUNE 12,2009					
				INVOICE #	09-0612	
						PAGE #2
6/12/2009	3"-6" COBBLE	19200	21.87	$18.00	EDI SNL TECH 3	$393.66
6/12/2009	3"-6" COBBLE	19131	26.10	$18.00	EDI SNL TECH 3	$469.80
6/12/2009	3"-6" COBBLE	19138	25.3	$18.00	EDI SNL TECH 3	$455.40
6/12/2009	3"-6" COBBLE	19139	25.07	$18.00	EDI SNL TECH 3	$451.26
6/12/2009	3"-6" COBBLE	19140	23.92	$18.00	EDI SNL TECH 3	$430.56
6/12/2009	3"-6" COBBLE	19141	23.98	$18.00	EDI SNL TECH 3	$431.64
6/12/2009	3"-6" COBBLE	19142	25.6	$18.00	EDI SNL TECH 3	$460.80
6/12/2009	3"-6" COBBLE	19143	24.97	$18.00	EDI SNL TECH 3	$449.46
6/12/2009	3"-6" COBBLE	19144	25.01	$18.00	EDI SNL TECH 3	$450.18
6/12/2009	3"-6" COBBLE	19145	24.78	$18.00	EDI SNL TECH 3	$446.04
6/12/2009	3"-6" COBBLE	19146	26.76	$18.00	EDI SNL TECH 3	$481.68
6/12/2009	3"-6" COBBLE	19147	24.66	$18.00	EDI SNL TECH 3	$443.88
6/12/2009	3"-6" COBBLE	19154	24.78	$18.00	EDI SNL TECH 3	$446.04
					MATERIALS	$19,248.30
	FREIGHT CHARGE	1069.35 TONS @$12.00 PER TON			FREIGHT CHARGE	$12,832.20
					NM STATE TAX	EXEMPT
					TOTAL DUE	$32,080.50
	TEMRS: FREIGHT CHARGE DUE 15 DAYS FROM DATE OF INVOICE					
	MATERIALS DUE 30 DAYS FROM DATE OF INVOICE					

PAUL PARKER CONSTRUCTION
P O BOX 459
LOS ALAMOS, NEW MEXICO 8754
PHONE: 505-662-7456

DATE: JUNE 15,2009

INVOICE # 09-0615

TO: ENVIRONMENTAL DIMENSIONS INC.
P O BOX 6250
ALBUQUERQUE, NEW MEXICO 87197-6250

****

REFERENCE JOB # 288

PAGE # 1

DATE	MATERIAL	TICKET NO.	TONS	PRICE PER TON	JOB NAME	TOTAL
6/11/09	3"-6" COBBLE	19099	26.43	$18.00	EDI SNL TECH 3	$475.74
6/11/09	3"-6" COBBLE	19102	25.98	$18.00	EDI SNL TECH 3	$467.64
6/11/09	3"-6" COBBLE	19103	24.87	$18.00	EDI SNL TECH 3	$447.66
6/11/09	3"-6" COBBLE	19104	22.59	$18.00	EDI SNL TECH 3	$406.62
6/11/09	3"-6" COBBLE	19105	26.23	$18.00	EDI SNL TECH 3	$472.14
6/11/09	3"-6" COBBLE	19106	24.02	$18.00	EDI SNL TECH 3	$432.36
6/11/09	3"-6" COBBLE	19107	24.35	$18.00	EDI SNL TECH 3	$438.30
6/11/09	3"-6" COBBLE	19108	24.58	$18.00	EDI SNL TECH 3	$442.44
6/11/09	3"-6" COBBLE	19109	24.64	$18.00	EDI SNL TECH 3	$443.52
6/11/09	3"-6" COBBLE	19110	26.5	$18.00	EDI SNL TECH 3	$477.00
6/11/09	3"-6" COBBLE	19111	24.7	$18.00	EDI SNL TECH 3	$444.60
6/11/09	3"-6" COBBLE	19112	25.25	$18.00	EDI SNL TECH 3	$454.50
6/11/09	3"-6" COBBLE	19113	27.46	$18.00	EDI SNL TECH 3	$494.28
6/11/09	3"-6" COBBLE	19114	27.13	$18.00	EDI SNL TECH 3	$488.34
6/11/09	3"-6" COBBLE	19115	27.72	$18.00	EDI SNL TECH 3	$498.96
6/11/09	3"-6" COBBLE	19116	25.78	$18.00	EDI SNL TECH 3	$464.04
6/11/09	3"-6" COBBLE	19118	25.52	$18.00	EDI SNL TECH 3	$459.36
6/11/09	3"-6" COBBLE	19119	24.59	$18.00	EDI SNL TECH 3	$442.62
6/11/09	3"-6" COBBLE	19120	24.35	$18.00	EDI SNL TECH 3	$438.30
6/11/09	3"-6" COBBLE	19122	24.45	$18.00	EDI SNL TECH 3	$440.10
6/11/09	3"-6" COBBLE	19123	25.62	$18.00	EDI SNL TECH 3	$461.16
6/11/09	3"-6" COBBLE	19121	23.10	$18.00	EDI SNL TECH 3	$415.80
6/11/09	3"-6" COBBLE	19133	23.63	$18.00	EDI SNL TECH 3	$425.34
6/11/09	3"-6" COBBLE	19135	24.22	$18.00	EDI SNL TECH 3	$435.96
6/11/09	3"-6" COBBLE	19137	26.04	$18.00	EDI SNL TECH 3	$468.72
	FREIGHT CHARGE	629.75 TONS @	$12.00 PER TON		MATERIALS	$11,335.50
					FREIGHT CHARGE	$7,557.00
					NM STATE TAX	EXEMPT
				PREVIOUS	BALANCE	$32,080.50
					TOTAL DUE	$50,973.00

TERMS: FREIGHT CHARGE DUE 15 DAYS FROM DATE OF INVOICE
MATERIALS DUE 30 DAYS FROM DATE OF INVOICE

P O BOX 459
LOS ALAMOS, NEW MEXICO 8754
PHONE: 505-662-7456

DATE: JUNE 15,2009

INVOICE # 09-0615-A

TO: ENVIRONMENTAL DIMENSIONS INC.
P O BOX 6250
ALBUQUERQUE, NEW MEXICO 87197-6250

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REFERENCE JOB # 288 **PAGE # 1**

DATE	MATERIAL	TICKET NO.	TONS	PRICE PER TON	JOB NAME	TOTAL
6/11/2009	3"-6" COBBLE	19100	25.88	$18.00	EDI SNL TECH 3	$465.84
6/11/2009	3"-6" COBBLE	19132	22.72	$18.00	EDI SNL TECH 3	$408.96
6/11/2009	3"-6" COBBLE	19136	26.48	$18.00	EDI SNL TECH 3	$476.64
6/11/2009	3"-6" COBBLE	19150	26.02	$18.00	EDI SNL TECH 3	$468.36
6/11/2009	3"-6" COBBLE	19151	24.67	$18.00	EDI SNL TECH 3	$444.06
6/11/2009	3"-6" COBBLE	19152	24.47	$18.00	EDI SNL TECH 3	$440.46
6/11/2009	3"-6" COBBLE	19153	26.11	$18.00	EDI SNL TECH 3	$469.98
		TONS	176.35		MATERIALS	**$3,174.30**
	FREIGHT CHARGE	176.35	$12.00 PER TON		FREIGHT CHARGE	**$2,116.20**
				PREVIOUS	**BALANCE**	**$50,973.00**
				Credit on Tickets	19038 & 19072	**-$60.86**
				Credit on Freight		**-$39.24**
				Credit on Ticket	19135 F&M	**-$726.60**
					Sub Total	$55,436.80
					NM STATE TAX	**$3,534.10**
					TOTAL DUE	**$58,970.90**

TERMS: FREIGHT CHARGE DUE 15 DAYS FROM DATE OF INVOICE
ERIALS DUE 30 DAYS FROM DATE OF INVOICE

2009 Aggregate

Table 2

Material Receiving for 3/8" Crushed Gravel

Supplier	Material	Ticket #	Date Received	Quantity (tons)
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62474	6/29/2009	25.27
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62476	6/29/2009	26.08
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62477	6/29/2009	22.29
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62479	6/29/2009	25.42
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62485	6/29/2009	22.63
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62487	6/29/2009	25.75
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62616	6/29/2009	27.74
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62618	6/29/2009	27.86
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62624	6/29/2009	22.60
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62627	6/29/2009	26.39
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62645	6/29/2009	25.94
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62705	6/29/2009	27.04
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62709	6/29/2009	27.20
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62711	6/29/2009	22.17
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62730	6/29/2009	28.01
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62770	6/29/2009	27.55
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62774	6/29/2009	27.65
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62775	6/29/2009	22.29
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62880	6/30/2009	26.24
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62883	6/30/2009	23.05
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62892	6/30/2009	22.71
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62893	6/30/2009	22.76
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62895	6/30/2009	26.63
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	62898	6/30/2009	28.26
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63011	6/30/2009	27.74
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63014	6/30/2009	23.05
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63015	6/30/2009	22.78
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63018	6/30/2009	27.72
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63024	6/30/2009	22.29
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63037	6/30/2009	28.27
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63109	6/30/2009	27.74
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63111	6/30/2009	23.50
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63118	6/30/2009	21.52
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63124	6/30/2009	27.73
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63132	6/30/2009	25.46
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63136	6/30/2009	28.27
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63148	6/30/2009	27.79
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63150	6/30/2009	23.35
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63151	6/30/2009	22.02
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63152	6/30/2009	27.62
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63153	6/30/2009	26.82
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63194	7/1/2009	28.15
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63197	7/1/2009	22.70
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63200	7/1/2009	26.75
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63204	7/1/2009	26.64
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63220	7/1/2009	26.95
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63223	7/1/2009	23.31
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63230	7/1/2009	22.80
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63327	7/1/2009	21.74
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63330	7/1/2009	26.56

Supplier	Material	Ticket #	Date Received	Quantity (tons)
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63331	7/1/2009	25.92
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63341	7/1/2009	26.35
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63357	7/1/2009	27.45
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63361	7/1/2009	23.09
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63363	7/1/2009	22.69
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63428	7/1/2009	22.50
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63430	7/1/2009	27.02
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63434	7/1/2009	26.41
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63458	7/1/2009	27.03
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63460	7/1/2009	27.49
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63462	7/1/2009	22.28
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63481	7/1/2009	21.13
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63482	7/1/2009	27.63
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63483	7/1/2009	26.36
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63491	7/1/2009	22.00
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	63492	7/1/2009	27.64
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65590	7/14/2009	27.90
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65591	7/14/2009	24.54
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65592	7/14/2009	26.93
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65595	7/14/2009	24.41
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65597	7/14/2009	26.57
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65670	7/14/2009	27.80
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65673	7/14/2009	24.79
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65675	7/14/2009	24.19
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65681	7/14/2009	27.78
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65691	7/14/2009	27.68
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65741	7/14/2009	23.40
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65743	7/14/2009	26.07
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65756	7/14/2009	26.09
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65758	7/14/2009	27.59
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65761	7/14/2009	28.41
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	65782	7/14/2009	26.10
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67010	7/21/2009	27.33
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67012	7/21/2009	23.59
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67013	7/21/2009	23.39
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67075	7/21/2009	26.88
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67079	7/21/2009	23.69
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67141	7/21/2009	26.74
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67152	7/21/2009	22.07
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67173	7/21/2009	27.52
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67228	7/22/2009	23.75
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67227	7/22/2009	23.81
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67299	7/22/2009	23.15
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67301	7/22/2009	23.78
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67428	7/22/2009	23.81
Fisher Sand & Gravel Co.	3/8" Minus Crushed Gravel	67432	7/22/2009	24.12
			TOTAL	**2435.67**

2009 Seed and Mulch

RI-01
RECEIVING INSPECTION FORM
SEED/FERTILIZER/MULCH

Project Name: Sandia Mixed Waste Landfill
Weather: 62 low – 93 high
Material Name: Seed and Mulch
Transporter/Supplier: Lee Landscaping
Number of Bags/Bales: 26 Bags of seed (80 lb/Acre)

Date: 08/19/2009 Time: N A
Inspected By: Paul Molina (URS)
Delivery Shipment No. #1
Storage Location MWL Conex

	SPECIFICATION	MATERIAL RECEIVED	NOTE NO.
Supplier: Lee Landscape			
Supplier Designation: NA			
Material: Seed and Mulch			

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Checks before unloading:		
Have delivery tickets and QC certificates been provided for seed/fertilizer/mulch received?	YES	
Does the material description match the construction specifications?	YES	
Is the material free of damage?	YES	
Is the material acceptable for use?	YES	
Checks before unloading:		
Is the material free of damage?	YES	
Is the material properly stored?	YES	
Is the storage area free of water and/or moisture?	YES	

NOTES: No fertilizer required per design change due to time of year of seed placement.

2009 Seed Bag Labels

NOTE: The seed bag labels provided in this Attachment include copies of 23 seed bag labels. As stated on each label, the full order included 26 bags, with 25 containing 36.39 pounds of seed and 1 bag containing 10.48 pounds, for total of 926.23 pounds of seed.

Although the full order including 26 bags was received and inspected, 3 labels could not be located after receipt and inspection, and are not included in this attachment. Two of the missing labels were for 36.39 pound bags, and one was for the 10.48 pound bag.

MWL Seed Bag Label 1

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

MWL Seed Bag Label 2

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

MWL Seed Bag Label 3

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
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Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

MWL Seed Bag Label 4

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15% There Are 26 Bags For This Mix Total Bulk Pounds: 920.225
Weed Seed: 00.05% This Bag Weighs 36.39 Bulk Pounds
Inert Matter: 34.15% Use This Bag For .25 Acres

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15% There Are 26 Bags For This Mix Total Bulk Pounds: 920.225
Weed Seed: 00.05% This Bag Weighs 36.39 Bulk Pounds
Inert Matter: 34.15% Use This Bag For .25 Acres

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15% There Are 26 Bags For This Mix Total Bulk Pounds: 920.225
Weed Seed: 00.05% This Bag Weighs 36.39 Bulk Pounds
Inert Matter: 34.15% Use This Bag For .25 Acres

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15% There Are 26 Bags For This Mix Total Bulk Pounds: 920.225
Weed Seed: 00.05% This Bag Weighs 36.39 Bulk Pounds
Inert Matter: 34.15% Use This Bag For .25 Acres

MWL Seed Bag Label 5

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Gallata Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Gallata Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
Sand Dropseed Not Stated	New Mexico	08.87%	17.00%	76.00%	93.00%	03/09	075.9
Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Gallata Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
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Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Gallata Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
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Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

MWL Seed Bag Label 6

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
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Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
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Spike Muhly El Vado	Wyoming	11.69%	56.50%	14.00%	70.50%	02/09	075.9

Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Lee Landscaping
6.3225 Acre Custom Mix
4 Times the rate (80 PLS/Acre)
25 - .25 Acre Bags @ 36.39 Bulk Pounds Each
1 - .0725 Acre @ 10.48 Bulk Pounds
JOB: Sandia National Lab

Lot# M-9118

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Galleta Viva	Texas	23.14%	95.00%	00.00%	95.00% (TZ)	07/09	202.3
Black Grama Nogal, Certified	Texas	21.95%	93.00%	00.00%	93.00% (TZ)	12/08	151.7
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Other Crop: 00.15%
Weed Seed: 00.05%
Inert Matter: 34.15%

There Are 26 Bags For This Mix
This Bag Weighs 36.39 Bulk Pounds
Use This Bag For .25 Acres

Total Bulk Pounds: 920.225

ATTACHMENT 5

Construction Inspection Forms

2006 Construction Inspection Forms

CI-01
CONSTRUCTION INSPECTION FORM
EXISTING LANDFILL SURFACE AND PERIMETER CLEAR AND GRUB FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA Date 10-25-06 Time 1330

Weather Mostly Cloudy Inspected by Corey Woods

Compaction Equipment Smooth Drum Roller

Surface area and location covered during shift Existing landfill surface and Perimeter

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have all shrubs, grass, roots, and other vegetation been completely cleared and grubbed from the landfill surface and perimeter?	YES	
Has the landfill surface and perimeter been inspected to ensure that all loose or soft zones have been properly compacted?	YES	1
Has the landfill surface and perimeter been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

① Compaction testing at 5 tests/Acre will be conducted to ensure adequate coverage of compaction equipment.

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MVC Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Cool

Date 10/30/06 Time 1430
Max Dry Density (pcf) 113.2
Optimum Moisture (%) 10.9

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus screened subgrade stockpile

Volume and location of soil placed during shift 120 cy, Low-lying areas of northern half of unclassified Area, Lift 1

Surface area and location covered during shift Low-lying areas, northern half of unclassified area, see lift Maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	NO	1
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	2

NOTES:

① Survey crew having problems matching data points to Sandia data. Elevations were surveyed, but grid will be completed at a later date.
② Compaction tests will be conducted to ensure adequate coverage.

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pierl

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name: MWL Cover CQA
Date: 10/31/06 Time: 1400
Inspected by: Cory Woods
Borrow Area: West of CAMU
Max Dry Density (pcf): 113.2
Weather: Clear, Cool
Optimum Moisture (%): 10.9

Compaction Equipment: Smooth Drum Roller

Fill Description: 2" minus screened subgrade stockpile

Volume and location of soil placed during shift: 240 cy, low-lying areas of northern half of unclassified area, lifts 2, 3, 4

Surface area and location covered during shift: low-lying areas, northern half of unclassified area, see lift maps.

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	NO	1
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	2

NOTES:

① Survey crew having problems matching data points to sand in data. Elevations were surveyed, but grid will be completed at a later date.

② Compaction tests will be conducted to ensure adequate coverage

CQA Inspector Signature: [signature]

CQA Engineer Signature: Kelly M Ferl

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name: MWL Cover CQA
Inspected by: Corey Woods
Borrow Area: West of CAMU
Weather: Clear, Warm

Date: 11/1/06 Time: 1130
Max Dry Density (pcf): 113.2
Optimum Moisture (%): 10.9

Compaction Equipment: Smooth Drum Roller

Fill Description: 2" Minus screened subgrade stockpile

Volume and location of soil placed during shift: 364 cy, low-lying areas of northern half of unclassified area, Lifts 4 and 5

Surface area and location covered during shift: Low-lying areas, northern half of unclassified area, see lift maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

① Coverage will be verified with compaction testing

CQA Inspector Signature: [signature]

CQA Engineer Signature: Kelly M Ruf

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Warm

Date 11/2/06 Time 1400
Max Dry Density (pcf) 113.2
Optimum Moisture (%) 10.9

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus screened subgrade stockpile

Volume and location of soil placed during shift 412 cy, low-lying areas of unclassified area, Lift 6

Surface area and location covered during shift Low-lying areas of unclassified area, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

Coverage verified with compaction testing.

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Reid

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name: MWL Cover CQA
Inspected by: Carey Woods
Borrow Area: West of CAMU
Weather: Clear, Warm

Date: 11/6/06 Time: 1100
Max Dry Density (pcf): 113.3
Optimum Moisture (%): 13.2

Compaction Equipment: Smooth Drum Roller

Fill Description: 2" Minus subgrade stockpile

Volume and location of soil placed during shift: 476 cy total, 100 cy Lift 7, 376 cy Lift 8, see Lift Maps

Surface area and location covered during shift: Lifts 7 and 8, see Lift Maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

1 coverage verified by compaction testing

CQA Inspector Signature: [signature]

CQA Engineer Signature: Kelly M Pond

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area west of CAMU
Weather Clear, warm

Date 11/7/06 Time 0930
Max Dry Density (pcf) 113.3 / 117.4
Optimum Moisture (%) 13.2 / 12.9

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 344 cy Lift 9, see Lift Map

Surface area and location covered during shift Lift 9, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

① Coverage verified by compaction testing

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pirl

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Warm

Date 11/8/06 Time 1030
Max Dry Density (pcf) 117.4
Optimum Moisture (%) 12.9

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 576 cy, Lifts 9 and 10, see lift Maps
316 cy placed on Lift 9 (Completed), 260 cy on Lift 10

Surface area and location covered during shift Lifts 9 & 10, see Lift Maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

① Coverage verified with compaction testing

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Reid

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, warm

Date 11/9/06 Time 1500
Max Dry Density (pcf) 118.3 / 118.7
Optimum Moisture (%) 12.7 / 12.4

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 496 cy, Lift 10, see Lift Map

Surface area and location covered during shift Lift 10, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	No	1

NOTES:
① coverage verified with compaction testing

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Price

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area west of CAMU
Weather Overcast, Cool

Date 11/13/06 Time 1430
Max Dry Density (pcf) 119.0
Optimum Moisture (%) 11-2

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade Stockpile

Volume and location of soil placed during shift 580 cy, Lift 10, see Lift Map

Surface area and location covered during shift Lift 10, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

① Coverage verified with compaction testing.

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Rice

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name: GWL Cover CQA
Inspected by: Cory Woods
Borrow Area: West of CAMU
Weather: Overcast, cold, windy

Date: 11/14/06 Time: 0830
Max Dry Density (pcf): 115.4
Optimum Moisture (%): 12.9

Compaction Equipment: Smooth Drum Roller

Fill Description: 2" Minus subgrade stockpile

Volume and location of soil placed during shift: 280 cy, completed Lift 10, see lift Map

Surface area and location covered during shift: Lift 10, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

1) Coverage verified with compaction testing

CQA Inspector Signature: [signature]

CQA Engineer Signature: Kelly M Pine

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area west of CAMU
Weather Clear, cool

Date 11/15/06 Time 1430
Max Dry Density (pcf) 115.4 / 116.5
Optimum Moisture (%) 12.5 / 13.0

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 530 cy, Lift 11, see Lift Map

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

1) Coverage verified with compaction tests

CQA Inspector Signature [signature]

CQA Engineer Signature [signature]

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL cover CQA
Inspected by Percy Woods
Borrow Area West of CAMU
Weather Overcast, cool

Date 11/16/06 Time 1000
Max Dry Density (pcf) 116.5 / 113.5
Optimum Moisture (%) 13.0 / 13.0

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 464 cubic yards, Lift 11, see Lift Map. 200 cy proctor MWL-SG-008, 264 cy Proctor MWL-SG-009

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	1

NOTES:

(1) coverage verified with compaction testing

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly [signature]

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Warm

Date 11/20/06 Time 1400
Max Dry Density (pcf) 113.5 / 113.6
Optimum Moisture (%) 13.0 / 12.6

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus Subgrade stockpile

Volume and location of soil placed during shift 624 cy total, (236 proctor MWL-SG-009, 388 proctor MWL-SG-010), Lift 11, see Lift Map

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pul

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name: NWL Cover CQA
Date: 11/20/06 Time: 1400
Inspected by: Gary Woods
Borrow Area: West of CAMU
Max Dry Density (pcf): 113.6 / 116.0
Weather: Clear, warm
Optimum Moisture (%): 12.6 / 12.3

Compaction Equipment: Smooth Drum Roller

Fill Description: 2" Minus subgrade stockpile

Volume and location of soil placed during shift: 856 cy total (112 cy proctor 010, 500 cy proctor 013, 244 cy proctor 014). Lift 11, see Lift Map

Surface area and location covered during shift: Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature: [signature]

CQA Engineer Signature: Kelly M Pond

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Cory Woods
Borrow Area West of CAMU
Weather Clear, warm

Date 11/22/06 Time 1000
Max Dry Density (pcf) 117.9
Optimum Moisture (%) 13.0

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 56 cy (Proctor MWL-SG-014) completed Lift 11

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Rice

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Percy Woods
Borrow Area west of CAMU
Weather overcast

Date 11/28/06 Time 1300
Max Dry Density (pcf) 117.9
Optimum Moisture (%) 13.0

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 284 cy (Proctor 014), began Lift 12

Surface area and location covered during shift Began Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pond

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Cold / Snow

Date 11/29/06 Time 1400
Max Dry Density (pcf) 118.1
Optimum Moisture (%) 13.3

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 648 cy (Proctor 015), Lift 12

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Rice

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Cool

Date 12/4/2006 Time 1030
Max Dry Density (pcf) 118.4
Optimum Moisture (%) 12.7

Compaction Equipment Smooth Drum Roller

Fill Description 2" Minus screened subgrade

Volume and location of soil placed during shift 160 cy, Lift 12, see Lift Map, Proctor 020

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pond

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Cool

Date 12/5/06 Time 1430
Max Dry Density (pcf) 118.4
Optimum Moisture (%) 12.7

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Minus screened subgrade

Volume and location of soil placed during shift 340 cy, Lift 12, see Lift Map, Proctor 020

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Bird

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Cory Woods
Borrow Area West of CAMU
Weather Clear, Cool

Date 12/6/06 Time 1100
Max Dry Density (pcf) 112.4
Optimum Moisture (%) 13.6

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Mining screened subgrade

Volume and location of soil placed during shift 460 cy, Lift 12, see Lift Map, Proctor 019

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pond

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover-CQA
Inspected by Cory Woods
Borrow Area West of CAMU
Weather Clear, Cool

Date 12/7/06 Time 1400
Max Dry Density (pcf) 119.0
Optimum Moisture (%) 12.0

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Minus Screened subgrade

Volume and location of soil placed during shift 492 cy, cell 12, see cell Map, Proctor 021

Surface area and location covered during shift cell 12, see cell Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature [signature]

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, Cool

Date 12/11/06 Time 1500
Max Dry Density (pcf) 115.9
Optimum Moisture (%) 12.2

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Minus Screened Subgrade

Volume and location of soil placed during shift 220 cy, Lift 12, see Lift Map, Proctor 022

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Reid

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Clear, warm

Date 12/14/06 Time 1000
Max Dry Density (pcf) 115.9 / 117.9
Optimum Moisture (%) 12.2 / 12.1

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Mesh screened subgrade

Volume and location of soil placed during shift 440 CY, Lift 12, see Lift Map (280 cy Proctor 022, 160 cy Proctor 023)

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pirl

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Percy Woods
Borrow Area West of CAMU
Weather Clear, warm

Date 12/15/06 Time 1000
Max Dry Density (pcf) 117.9 / 116.5
Optimum Moisture (%) 12.1 / 12.0

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Minus screened subgrade

Volume and location of soil placed during shift 512 cy, Lift 12, see Lift Map. (340 cy Proctor 023, 172 cy Proctor 024)

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pirl

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Corey Woods
Borrow Area West of CAMU
Weather Overcast, cold, windy

Date 12/18/06 Time 1000
Max Dry Density (pcf) 116.5
Optimum Moisture (%) 12.0

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Minus screened subgrade

Volume and location of soil placed during shift 788 cy, Lift 12, see Lift Map

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Reil

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL Cover CQA
Inspected by Cory Woods
Borrow Area West of CAMU
Weather Cold, Windy, Intermittent snow

Date 12/19/06 Time 1030
Max Dry Density (pcf) _____
Optimum Moisture (%) _____

Compaction Equipment Smooth Drum Vibratory Roller

Fill Description 2" Minus Subgrade stockpile

Volume and location of soil placed during shift ~~ea, Lift 12, see Lift Map~~ Completed final grade on Lift 12 (Final subgrade Lift)

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?	YES	
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?	YES	
Have TA-3 borrow soils been determined to be suitable for subgrade fill?	YES	
Has approved fill been used during subgrade construction?	YES	
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	YES	
Has the number of passes and the coverage of the compaction equipment been documented?	NO	

NOTES: Completed subgrade installation.

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pond

CI-02
CONSTRUCTION INSPECTION FORM
SUBGRADE FILL FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name MWL
Inspected by KMP
Borrow Area
Weather clear / sunny - breezy

Date 11 Apr 07 Time 10 AM
Max Dry Density (pcf)
Optimum Moisture (%)

Compaction Equipment NA

Fill Description NA

Volume and location of soil placed during shift NA

Surface area and location covered during shift south 1/3 of subgrade layer covered with ~~ero~~ straw blanket

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has all organic matter, rubble, trash, and deleterious material been removed from subgrade fill prior to use?		NA
Has the prepared subgrade been surveyed for final grades to verify that it conforms to the construction drawings?		
Have TA-3 borrow soils been determined to be suitable for subgrade fill?		
Has approved fill been used during subgrade construction?		
Has the subgrade been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?		
Has the number of passes and the coverage of the compaction equipment been documented?		

NOTES: (1) Erosion control blanket installation; shallow trench excavated along toe of subgrade layer to anchor the ~~edge~~ of the straw blanket. Blankets are laid in an east-west direction across the site to minimize the prevailing wind effect. Blankets are installed in accordance with manufacturer's instructions, i.e., six inch overlap, staples 18 inches apart along overlap and intermittently down the middle of the blankets,

CQA Inspector Signature

CQA Engineer Signature

(over)

(2) Drainage swale: The partial ~~dra~~ swale was excavated on the eastern side of the MWL in the footprint of the design drawing location for the final swale. The swale is next to the subgrade layer toe of slope. The final swale could not be excavated because of the interference with the side-slopes of the final cover layers. The swale's ~~ea~~ NE and SE corners direct any water around the MWL and to the West. No rock armorment is installed at this time.

QA Engineer Signature Kelly M. Pirl

2009 Construction Inspection Forms

CI-01

CONSTRUCTION INSPECTION FORM

EXISTING LANDFILL SURFACE AND PERIMETER CLEAR AND GRUB FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name Sandia Mixed Waste LF Date 5/21/09 Time 9:00am

Weather Cloudy Inspected by Paul Mitchner

Compaction Equipment Loader (See attached)

Surface area and location covered during shift Top surface of existing Sub grade was cleared and grubbed of material. (See daily report

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have all shrubs, grass, roots, and other vegetation been completely cleared and grubbed from the landfill surface and perimeter?	yes	Existing Surface
Has the landfill surface and perimeter been inspected to ensure that all loose or soft zones have been properly compacted?	yes	
Has the landfill surface and perimeter been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	yes	
Has the number of passes and the coverage of the compaction equipment been documented?	yes	

NOTES:

Meets Specification Requirements. Bonded T. PE
CQA Engineer.
May 22, 2009.

CI-01
CONSTRUCTION INSPECTION FORM
EXISTING LANDFILL SURFACE AND PERIMETER CLEAR AND GRUB FIELD FORM

ONE FORM PER SHIFT WHEN THIS WORK IS BEING DONE

Project Name Sandia Mixed Waste LF Date 5/20/09 Time 9:00 am

Weather Cloudy Inspected by David Molnar

Compaction Equipment Loader (See attached)

Surface area and location covered during shift Perimeter slope was clear and grubbed. (See daily report)

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have all shrubs, grass, roots, and other vegetation been completely cleared and grubbed from the landfill surface and perimeter?	yes	around slope.
Has the landfill surface and perimeter been inspected to ensure that all loose or soft zones have been properly compacted?	yes	
Has the landfill surface and perimeter been inspected to ensure that it is free of all rocks greater than 2 inches in dimension?	yes	
Has the number of passes and the coverage of the compaction equipment been documented?	yes	

NOTES:

Meets Specification Requirements.

Donald T. Lyon PE
CQA Engineer.

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill

Date: 05/27/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 900 CY (60 loads @ 15 CY/Load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
The Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Carl T. Lyon PE 5/27/09

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 05/28/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 630 CY (42 loads @ 15 CY/Load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
The Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Bardel T. Lyon PE, 5/28/09

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill

Date: 05/29/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 810 CY (54 loads @ 15 CY/Load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
The Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Paul T. Molina PE 5/29/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/01/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 840 CY (56 loads @ 15 CY/Load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
The Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Bard T. Lyons PE, 6/01/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/02/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 780 CY (52 loads @ 15 CY/Load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
The Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Gerald T. Lee PE 6/02/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/03/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 1035 CY (69 loads @ 15 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Donald T. [illegible] PE, 6/03/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/04/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 1020 CY (68 loads @ 15 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Bardel T. [illegible] PE, 6/04/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/05/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 435 CY (29 loads @ 15 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Donald T. [illegible] PE, 6/05/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/08/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 479CY (312.94 tons delivered)**

Approximate surface area of Loose Soil in voids installed: **Approx. 612 CY (34 loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**YES**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil to fill Biointrusion Voids has been approved for South Portion of MWL. Water has not been approved.

Randal T. [illegible] PE, 6/08/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/09/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 307 CY (429.57 tons delivered)**

Approximate surface area of Loose Soil in voids installed: **Approx. 864 CY (48 loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**YES**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. Water has not been approved to fill rock voids at this time.

Bardel T. Lyp PE. 6/09/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill

Date: 06/10/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 0 CY (XX loads @ 15 CY/load)**

Approximate surface area of Loose Soil in voids installed: **Approx. 0 CY (XX loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**NO**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**NO**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**NO**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. No construction today.

Bardel T. [illegible] PE, 6/10/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/11/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 558 CY (781.88 tons delivered)**

Approximate surface area of Loose Soil in voids installed: **Approx. 1044 CY (58 loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**YES**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. Water has not been approved to fill rock voids at this time.

Randal T. [illegible] PE, 6/11/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill

Date: 06/12/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 197 CY (275.88 tons delivered)**

Approximate surface area of Loose Soil in voids installed: **Approx. 936 CY (52 loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**YES**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. Water has not been approved to fill rock voids at this time.

Bendel T. [illegible] PE. 6/12/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 06/15/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 0 CY**

Approximate surface area of Loose Soil in voids installed: **Approx. 522 CY (29 loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**YES**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. Water has not been approved to fill rock voids at this time.

Ronald T. [illegible] PE, 6/15/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill

Date: 06/16/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 0 CY**

Approximate surface area of Loose Soil in voids installed: **Approx. 108CY (6 loads @ 18 CY/load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?.	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**YES**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. Water has not been approved to fill rock voids at this time.

Gerald T. [illegible] PE, 6/16/2009

CONSTRUCTION INSPECTION FORM
BIOINTRUSION BARRIER CONSTRUCTION

Project Name: Sandia Mixed Waste Landfill Date: 05/26/2009

Inspected By: Paul Molina (URS)

Approximate surface area of Biointrusion Rock installed: **Approx. 300 CY (20 loads @ 15 CY/Load)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
The Was the Existing Subgrade Layer scarified using a minimum of four passes with the tracks of the dozer?	**YES**
After the rock was spread, was a minimum of four passes with the dozer performed to compact/interlock the Biointrusion Barrier Rock?	**YES**
Was the Biointrusion rock thickness verified with survey equipment to ensure a minimum thickness of 1.0 – feet?	**YES**
Was dry, loose soil placed over the Biointrusion Barrier and worked into the voids with a minimum of four passes with the vibratory, smooth drum roller.	**NO**
Was water applied to bring the soil in the filled voids of the rock to approximately the optimum moisture content (-2 to +2 percent)?	**NO**

NOTES:

1. The placement of dry, loose soil and water is not permitted until the Biointrusion Layer is completed and approved.

Daniel T. [illegible] PE, 5/26/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/16/2009

Lift Number: 6:1 Slopes Lift 1& 2

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 3:00 PM (86 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 504 CY) North, East and West 6:1 Slopes

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 6/16/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/17/2009

Lift Number: 6:1 Slopes Lift 1, 2, 3, &4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 3:20 PM (86 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 792 CY) North, East and West 6:1 Slopes

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bandel T. [illegible] PE, 6/17/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/18/2009

Lift Number: 6:1 Slopes Lifts # 5, 6, 7, & 8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 10:09 am PM (76 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1170 CY) North, East and West 6:1 Slopes

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bandel T. [illegible] PE, 6/18/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/19/2009

Lift Number: Wedge Lifts #1 & #2

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 2:10 PM (85 deg); Clear Sky

Optimum Moisture (%) 12.3

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1080 CY) Northeast Wedge Lifts 1 & 2

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Paul T. [illegible] PE, 6/19/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/22/2009

Lift Number: NA

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 7:38 AM (72 deg); Partly Cloudy

Optimum Moisture (%) 12.3

Compaction Equipment: NA

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 810 CY) MWL Berm To Borrow Area

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 6/22/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/23/2009

Lift Number: Native Soil Lift #3

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 1:21 PM (72 deg); Cloudy

Optimum Moisture (%) 12.3

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1206 CY) MWL Cover Native Soil Lift #3

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bonded Ti PE, 6/23/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/24/2009

Lift Number: Native Soil Lift #3 & 4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:30 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1116 CY) MWL Cover Native Soil Lift #3 & 4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Randall T. [illegible] PE, 6/24/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/25/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 12:45 PM (82 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1170 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Randal T. [illegible] PE, 6/25/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/26/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 432 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 6/26/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill
Date: 06/29/2009
Lift Number: Native Soil Lift #4
Inspected By: Paul Molina
Borrow Area: Native Soil Borrow Area
Max Dry Density (pcf) 117.0
Weather: 7:34 (61 deg); Partly Cloudy
Optimum Moisture (%) 12.0

Compaction Equipment: NA
Fill Description: Native Soil Located in TA-3 Borrow Area
Surface area and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**NO**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**NO**
Has approved fill been used during lift construction?	**NO**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**NO**
Has the number of passes and the coverage of compaction equipment been documented?	**NO**

NOTES:

No soil has been placed today

Donald T. [illegible] PE, 6/29/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 06/30/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (86 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller.

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Randal T. [illegible] PE, 6/30/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/01/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:33 PM (88 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 792 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Randel T. [illegible] PE, 7/01/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Lift Number: Native Soil Lift #5

Borrow Area: Native Soil Borrow Area

Weather: 9:38 AM (74 deg); Partly Cloudy

Date: 07/02/2009

Inspected By: Paul Molina

Max Dry Density (pcf) 117.0

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 630 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 7/02/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/03/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: NA

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Gerald T. [illegible] PE, 7/03/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/06/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:34 PM (86 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bendel T. [illegible] PE, 7/06/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/07/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:30 PM (91 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Gerald T. [illegible] PE, 7/07/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/08/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:00 PM (92 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 720 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 7/08/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/09/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (91 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 522 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bonded Tr PE, 7/09/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/10/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (90 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bandel TI PE, 7/10/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/13/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:58 PM (96 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 738 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Paul T. [illegible] PE, 7/13/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/14/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 7:13 AM (74 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller.

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1170 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 7/14/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/15/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 1:45 PM (93 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller.

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 954 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Randel T. [illegible] PE, 7/15/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/16/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:29 PM (93 deg); Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 864 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	YES
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	YES
Has approved fill been used during lift construction?	YES
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	YES
Has the number of passes and the coverage of compaction equipment been documented?	YES

NOTES:

Gandel T. Lopez PE, 7/16/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/17/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:29 PM (93 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 828 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Randal T. [illegible] PE, 7/17/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/20/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:05 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1630 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 7/20/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/21/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:28 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1606 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Bendel T. [illegible] PE, 7/21/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/22/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:02 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller.

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Paul T. [illegible] PE, 7/22/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/23/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1458 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Donald T. [illegible] PE, 7/23/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/24/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 8:39 AM (69 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 1410 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	YES
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	YES
Has approved fill been used during lift construction?	YES
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	YES
Has the number of passes and the coverage of compaction equipment been documented?	YES

NOTES:

Donald T. [illegible] PE, 7/24/2009

CI-03
CONSTRUCTION INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 07/27/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 1:00 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface area and location covered during shift: (Approx. 962 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Have TA-3 Borrow soils been determined to be suitable for Native Soil Lifts?	**YES**
Has approved fill been used during lift construction?	**YES**
Has the lift been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**
Has the number of passes and the coverage of compaction equipment been documented?	**YES**

NOTES:

Ronald T. [illegible] PE, 7/27/2009

CI-04
CONSTRUCTION INSPECTION FORM
TOPSOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 08/03/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 1:06 PM (88 deg); Partly Cloudy

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 2132 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	YES
Has the topsoil been admixed with 25% by volume 3/8-inch crushed gravel?	YES
Has approved topsoil been used for the topsoil layer?	YES
Has the topsoil been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	YES

NOTES:

Paul T. [illegible] PE, 08/03/2009

CI-04
CONSTRUCTION INSPECTION FORM
TOPSOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 08/04/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 1:45 PM (91 deg); Partly Cloudy

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 1950 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Has the topsoil been admixed with 25% by volume 3/8-inch crushed gravel?	**YES**
Has approved topsoil been used for the topsoil layer?	**YES**
Has the topsoil been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**

NOTES:

Randall T. [illegible] PE, 08/04/2009

CI-04
CONSTRUCTION INSPECTION FORM
TOPSOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 08/05/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 2:18 PM (94 deg); Partly Cloudy

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 2028 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

YES/NO (If no, see notes below)

Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Has the topsoil been admixed with 25% by volume 3/8-inch crushed gravel?	**YES**
Has approved topsoil been used for the topsoil layer?	**YES**
Has the topsoil been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**

NOTES:

Bardel T. [illegible] PE, 08/05/2009

CI-04
CONSTRUCTION INSPECTION FORM
TOPSOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 08/06/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 1:54 PM (94 deg); Heavy Rain @ 2:30 PM

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 2106 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	**YES**
Has the topsoil been admixed with 25% by volume 3/8-inch crushed gravel?	**YES**
Has approved topsoil been used for the topsoil layer?	**YES**
Has the topsoil been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	**YES**

NOTES:

Bandel T. [illegible] PE, 08/06/2009

CI-04
CONSTRUCTION INSPECTION FORM
TOPSOIL LAYER FIELD FORM

ONE PER SHIFT WHEN WORK IS BEING DONE

Project Name: Sandia Mixed Waste Landfill

Date: 08/07/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 11:47 AM (79 deg)

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 962 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO (If no, see notes below)
Has the previous lift been surveyed for final grades to verify that in conforms to the construction specifications?	YES
Has the topsoil been admixed with 25% by volume 3/8-inch crushed gravel?	YES
Has approved topsoil been used for the topsoil layer?	YES
Has the topsoil been inspected to ensure that it is free of all rocks greater than 2-inches in dimension?	YES

NOTES:

Bardel T. [illegible] PE, 08/07/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 08/25/2009 Time: 8:00 am

Weather: 7:01 am (57 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. ¾ acre (60lb. of seed)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	
Has approved seed been used for seeding?	YES	
Has the cover surface been mulched and crimped after seeding?	NO	1
Did application rate of seed mix meet the construction specifications?	YES	2

** (If no, see notes below)

NOTES:

1. No mulch was placed on seed today.
2. Application rate of seed mix is 80 lb/acre per revised CMIP.

Bonald T. [illegible] PE, 08/25/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 08/26/2009 Time: 8:00 am

Weather: 7:01 am (57 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. ¾ acre (60lb. of seed)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	
Has approved seed been used for seeding?	YES	
Has the cover surface been mulched and crimped after seeding?	NO	1
Did application rate of seed mix meet the construction specifications?	YES	2

** (If no, see notes below)

NOTES:

1. No mulch was placed on seed today.
2. Application rate of seed mix is 80 lb/acre per revised CMIP.

PE, 08/26/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 08/27/2009 Time: 8:00 am

Weather: 7:10 am (58 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. 1.0 acre (80 lb. of seed)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	____
Has approved seed been used for seeding?	YES	____
Has the cover surface been mulched and crimped after seeding?	NO	1
Did application rate of seed mix meet the construction specifications?	YES	2

** (If no, see notes below)

NOTES:

1. No mulch was placed on seed today.
2. Application rate of seed mix is 80 lb/acre per revised CMIP.

Randel T. [illegible] PE, 08/27/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 08/28/2009 Time: 8:00 am

Weather: 7:10 am (58 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. 0 acre (0 lb. of seed); Straw only.**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	____
Has approved seed been used for seeding?	YES	____
Has the cover surface been mulched and crimped after seeding?	YES	____
Did application rate of seed mix meet the construction specifications?	NO	1

** (If no, see notes below)

NOTES:

1. No seed was placed on seed today. Mulch only

Paul T. [illegible] PE, 08/28/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 08/31/2009 Time: 8:00 am

Weather: 7:10 am (56 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. 0 acre (0 lb. of seed); Straw only.**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	____
Has approved seed been used for seeding?	YES	____
Has the cover surface been mulched and crimped after seeding?	YES	____
Did application rate of seed mix meet the construction specifications?	NO	1

** (If no, see notes below)

NOTES:

1. No seed was placed on seed today. Mulch only

Ronald T. [illegible] PE, 08/31/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 09/01/2009 Time: 8:00 am

Weather: 7:00 am (57 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. 1.0 acre (80 lb. of seed)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	____
Has approved seed been used for seeding?	YES	____
Has the cover surface been mulched and crimped after seeding?	YES	____
Did application rate of seed mix meet the construction specifications?	YES	1

** (If no, see notes below)

NOTES:

1. Application rate of seed mix is 80 lb/acre per revised CMIP.

Paul T. [illegible] PE, 09/01/2009

CI-05
CONSTRUCTION INSPECTION FORM
RECLAMATION SEEDING AND MULCHING FIELD FORM
(Complete One Form Per Shift When This Work Is Being Done)

Project Name: Sandia Mixed Waste Landfill Date: 09/02/2009 Time: 8:00 am

Weather: 7:00 am (57 deg); cloudy Inspected By: Paul Molina (URS)

Surface area and location covered during shift **Approx. 1.0 acre (80 lb. of seed)**

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the cover surface been surveyed for final grade prior to placement of seed?	YES	____
Has approved seed been used for seeding?	YES	____
Has the cover surface been mulched and crimped after seeding?	YES	____
Did application rate of seed mix meet the construction specifications?	YES	1

** (If no, see notes below)

NOTES:

1. Application rate of seed mix is 80 lb/acre per revised CMIP.

David T. [illegible] PE, 09/02/2009

ATTACHMENT 6

Testing Inspection Forms

2006 Testing Inspection Forms

TI-01
TESTING INSPECTION FORM
EXISTING LANDFILL SURFACE AND PERIMETER FIELD TEST FORM

Project Name MWL Cover CQA Date 10/27/06 Time 1015

Inspected by Corey Woods Weather Clear, Cool

Compaction Equipment Smooth Drum Roller

Surface area and location covered during shift Existing surface and perimeter

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has soil been moistened to approximate optimum moisture content?	NO	1
Has surface been compacted/proof-rolled utilizing 10 passes of a roller?	NO	2
Have depressions been filled with moistened, clean fill, and recompacted with ten passes of a roller?	NO	2
Did roller have a minimum ballasted weight of 25 tons?	NO	2
Did roller have a minimum pneumatic tire pressure of 90 psi?	NO	2
Was any proof rolling conducted within a 2-ft radius of any groundwater monitoring well?	NO	

NOTES:

① Out of 15 tests performed, only 3 met ± 2% of optimum. Optimum moisture of proctor was unusually high, however (13.4%). Three additional proctors were collected to be analyzed by AMEC. Decision was made to proceed with subgrade installation, density measurements met spec. for all locations.

② Compaction testing was conducted in lieu of requirements regarding 10 passes and type of compaction equipment.

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 10/31/06 Time 0800-1500

Lift Number 1 through 4 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, cool

Compaction Equipment Smooth drum roller

Soil Description 2" Minus screened subgrade

Volume and location of soil placed during shift Northern half of unclassified Area, 240 cy

Surface area and location covered during shift Low-lying areas of Northern half of unclassified areas, Trenches B and C

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	NO	1
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	2

NOTES:

1. Survey grid not yet in place, locations approximated, see Lift Maps
2. Backscatter Method used to avoid coming in contact with potentially contaminated Material

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Rice

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/1/06 Time 1130

Lift Number 4 and 5 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" minus screened subgrade stockpile

Volume and location of soil placed during shift 364 cy, low-lying areas of northern half of unclassified area, Lifts 4 and 5

Surface area and location covered during shift Low-lying areas, northern half of unclassified area, see lift maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/2/06 Time 1400

Lift Number 6 Inspected by Cory Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus screened subgrade stockpile

Volume and location of soil placed during shift 412 cy, low-lying areas of unclassified area, Lift 6

Surface area and location covered during shift low-lying areas of unclassified area, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/6/06 Time 1100

Lift Number 7 and 8 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 476 cy total, 100 cy Lift 7, 376 cy Lift 8, see Lift Maps

Surface area and location covered during shift Lifts 7 and 8, see Lift Maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name Mill Cover CQA Date 11/7/06 Time 0930

Lift Number 9 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 344 cy, Lift 9, see lift Map

Surface area and location covered during shift Lift 9, see lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Rice

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/8/06 Time 1030

Lift Number 9 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" minus subgrade stockpile

Volume and location of soil placed during shift 576 cy total, 316 Lift 9, 260 Lift 10, see lift map for location

Surface area and location covered during shift Completed Lift 9, started Lift 10, see Lift Maps

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/9/06 Time 1500

Lift Number 9 and 10 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 496 cy, Lift 10, See Lift Map

Surface area and location covered during shift Lift 10, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Rice

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/14/06 Time 0830

Lift Number 10 Inspected by Corey Woods

Borrow Area West of CAMU Weather Overcast, high winds

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 280 cy, completed lift 10, see Lift Map

Surface area and location covered during shift Lift 10, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Price

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/15/06 Time 1430

Lift Number 11 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, cool

Compaction Equipment Smooth Drum Roller

Soil Description 2" minus subgrade stockpile

Volume and location of soil placed during shift 520 cy. Lift 11, see Lift Map

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name NWL Cover CQA Date 11/16/06 Time 1500

Lift Number 11 Inspected by Percy Woods

Borrow Area West of CAMU Weather Overcast, Cool

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus Subgrade

Volume and location of soil placed during shift 464 cy total - 200 cy Proctor MWL-SG-008, 264 cy proctor MWL-SG-009, Lift 11, see Lift Map

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/20/06 Time 1400

Lift Number 11 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus Subgrade stockpile

Volume and location of soil placed during shift 624 cy total 236 cy Proctor MWL-SG-009, 388 proctor MWL-SG-010, Lift 11, see Lift Map

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pul

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/21/06 Time 1400

Lift Number 11 Inspected by Percy Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift 856 cy total (112 proctor 010, 500 cy Proctor 013, and 244 cy Proctor 014), Lift 11, see Map

Surface area and location covered during shift Lift 11, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name: MWL Cover CQA Date: 11/22/06 Time: 1000

Lift Number: 11 Inspected by: Tony Woods

Borrow Area: West of CAMU Weather: Clear, Warm

Compaction Equipment: Smooth Drum Roller

Soil Description: 2" Minus Subgrade Stockpile

Volume and location of soil placed during shift: 56 cy (Proctor 014), completed Lift 11

Surface area and location covered during shift: Completed Lift 11, see Lift Map.

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature: [signature] CQA Engineer Signature: Kelly M Pruil

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 11/30/06 Time 0930

Lift Number 12 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Cold

Compaction Equipment Smooth Drum Roller

Soil Description 2" Minus subgrade stockpile

Volume and location of soil placed during shift None on this date

Surface area and location covered during shift None on this date, tests taken on soils placed 11/28 and 11/29

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pul

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 12/5/06 Time 1430

Lift Number 12 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Cool

Compaction Equipment Smooth Drum Vibratory Roller

Soil Description 2" Minus Screened Subgrade

Volume and location of soil placed during shift 340 Cy, Lift 12, See Lift Map

Surface area and location covered during shift Lift 12, See Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 12/7/06 Time 1400

Lift Number 12 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Cool

Compaction Equipment Smooth Drum Vibratory Roller

Soil Description 2" Minus screened subgrade

Volume and location of soil placed during shift 492 cy, Lift 12, see Lift Map

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kellyn Fine

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 12/13/06 Time 1000

Lift Number 12 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Vibratory Roller

Soil Description 2" Minus screened Subgrade

Volume and location of soil placed during shift N/A (No soil placed during this shift, testing conducted on material placed 12/11)

Surface area and location covered during shift N/A

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 12/15/06 Time 1000

Lift Number 12 Inspected by Corey Woods

Borrow Area West of CAMU Weather Clear, Warm

Compaction Equipment Smooth Drum Vibratory Roller

Soil Description 2" Minus screened subgrade

Volume and location of soil placed during shift 512 cy, Lift 12, see Lift Map

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name MWL Cover CQA Date 12/18/06 Time 1000

Lift Number 12 Inspected by Corey Woods

Borrow Area west of CAMU Weather Overcast, Cold, windy

Compaction Equipment Smooth Drum Vibratory Roller

Soil Description 2" Minus screened subgrade

Volume and location of soil placed during shift cy, Lift 12, see Lift Map

Surface area and location covered during shift Lift 12, see Lift Map

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	
Have field density test locations and elevations been plotted and checked?	YES	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D 2922 and ASTM D 3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	N/A	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL CQA Date 10/2/06 Time 1330

Inspected by Corey Woods

Weather Clear, Cool

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	1

NOTES:

Collected the following proctors on this date:
MWL-ES-001 - Existing surface, appx. 30' NW of monitor well MWL-4
MWL-SG-001 - Subgrade stockpile, west end

Results received Oct. 19

1 No specification for existing surface

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pail

TI-04
TESTING INSPECTION FORM
~~SUBGRADE FILL~~ LABORATORY TEST VERIFICATION FORM
Existing Surface

Project Name MWL Cover CQA Date 10/27/06 Time 1100

Inspected by Tony Woods

Weather Clear, Cool

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	N/A	1

NOTES:
samples collected 10/27, MWL-ES-002, -003, and -004
① No specification for existing surface
Results received 11/2/06

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 10/31/06 Time 1430

Inspected by Corey Woods

Weather Clear, Cool

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Samples collected 10/31/06:

MWL-SG-002 - Southwest corner of stockpile

MWL-SG-003 - Middle west end of stockpile

MWL-SG-001 - Northwest corner of stockpile

Results received 11/6/06

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Peil

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 11/2/06 Time 1430

Inspected by Corey Woods

Weather Clear, Warm

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected proctors MWL-SG-005, -006, and -007 on 11/2

Results received 11/6 for MWL-SG-005 and -006

Results received 11/13 for MWL-SG-007

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pirl

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 11/8/06 Time 1030

Inspected by Corey Woods

Weather Clear, Warm

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected the following proctor samples on 11/8/06:

MWL-SG-008 - Northwest corner of subgrade stockpile
MWL-SG-009 - Middle west of stockpile
MWL-SG-010 - Southwest corner of stockpile

Results for MWL-SG-008 received 11/14/06
Results for MWL-SG-009 and -010 received 11/15/06

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 11/14/06 Time 0900

Inspected by Perry Woods

Weather Overcast, High winds

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	NO	1

NOTES:

The following samples were collected for proctor analysis on 11/14.

MWL-SG-011 - East end of Southern Stockpile
MWL-SG-012 - West end of Southern Stockpile
MWL-SG-013 - South-central area of subgrade stockpile.

> Material from a pile that was existing on-site prior to present field operations, screened to 2" minus

(1) Results received 11/20/06. Sample MWL-SG-011 #200 sieve at 15% vs. 20-40% in spec. This sample was from the soil pile that was existing at the MWL prior to field operations, this soil will be used for perimeter grading only, not for subgrade placement.

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 11/16/06 Time 1530

Inspected by Cory Woods

Weather Overcast, Cool

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected the following samples for proctor analysis on 11/16:

MWL-SG-014 Northwest corner of subgrade stockpile

MWL-SG-015 Southwest corner of subgrade stockpile

Received Results 11/28

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 11/20/06 Time 1430

Inspected by Corey Woods

Weather Clear, warm

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	NO	1
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected the following samples for proctor analysis on 11/20:

MWL-SG-016 Southwest corner of subgrade stockpile
MWL-SG-017 Middle west side " "
MWL-SG-018 Northwest corner of " "

Results for MWL-SG-016 and -017 received 11/28
Results for MWL-SG-018 received 12/4

① Proctor MWL-SG-018 analyzed by ASTM 1557 (Modified proctor). This proctor was not used for compaction testing.

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 11/27/06 Time 1100

Inspected by Corey Woods

Weather Overcast, Breezy, Cold

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected the following samples for proctor analysis on 11/27:

MWL-SG-019 North End of stockpile
MWL-SG-020 West side of stockpile
MWL-SG-021 East side of stockpile

Samples collected from stockpile at CAMU Borrow Area

Received Results for MWL-SG-020 on 12/5
Received Results for MWL-SG-019 and -021 on 12/7

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 12/5/06 Time 1500

Inspected by Corey Woods

Weather Clear, Cool

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected sample MWL-SG-022 for proctor analysis, newly screened material.

Results received 12/13

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pirl

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 12/12/06 Time 1100

Inspected by Corey Woods

Weather Clear, Warm

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Collected two samples for proctor analysis from stockpile at borrow area:
MWL-SG-023 - North side of stockpile
MWL-SG-024 - South side of stockpile
Received Results for MWL-SG-023 on 12/15
Received Results for MWL-SG-024 on 12/18

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Prill

TI-04
TESTING INSPECTION FORM
SUBGRADE FILL LABORATORY TEST VERIFICATION FORM

Project Name MWL Cover CQA Date 12/14/06 Time 1000

Inspected by Cory Woods

Weather Clear, warm

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor test in accordance with ASTM D 698?	YES	
Has gradation been performed in accordance with ASTM C 136?	YES	
Has classification been performed in accordance with ASTM D 2487 and D 4318?	YES	
Do laboratory tests meet the construction specification?		

NOTES:

Collected the following samples for Proctor analysis from the newly screened material stockpile at the MWL:

MWL-SG-025 - South side of stockpile
MWL-SG-026 - North side of stockpile

Results for MWL-SG-025 received 12/20

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pail

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Attached

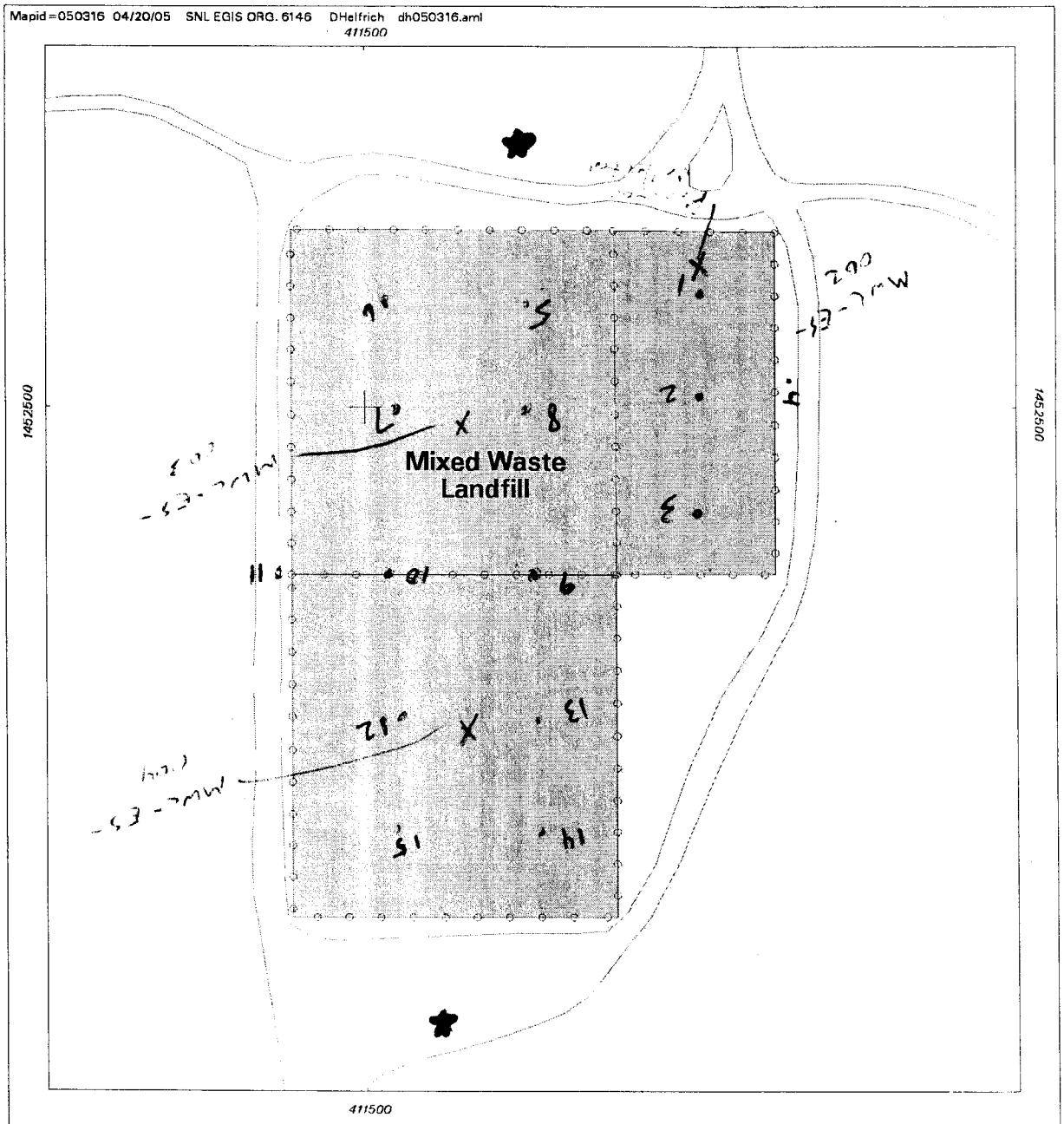
Project Name:
Date: 10/27/04 Time: 1000 Weather: Clear, Cool
Stockpile Area: Existing Surface
Borrow Area: N/A
Type of Construction: Existing Surface
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 115.5 ; Proctor ~~MWL-ES-001~~ MWL-ES-001
Optimum Moisture: 13.4%

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-ES1-001	See Attached			104.1	90.1	13.8	+0.4	Existing Surface
MWL-ES1-002				111.8	96.8	7.5	-3.9	
MWL-ES1-003				110.2	95.4	7.8	-5.6	
MWL-ES1-004				106.0	91.8	10.2	-3.2	
MWL-ES1-005				106.8	92.5	7.1	-6.3	
MWL-ES1-006				107.8	93.3	7.4	-6.0	
MWL-ES1-007				111.0	96.1	9.5	-3.9	
MWL-ES1-008				108.2	93.7	10.6	-2.8	
MWL-ES1-009				108.7	94.1	8.0	-5.4	
MWL-ES1-010				103.5	89.6	11.9	-1.5	
MWL-ES1-011				107.7	93.2	8.4	-5.0	
MWL-ES1-012				117.3	>100	8.1	-5.3	
MWL-ES1-013				114.2	98.9	8.8	-4.6	
MWL-ES1-014				110.2	95.4	8.8	-4.6	
MWL-ES1-015				109.8	95.1	11.9	-1.5	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M [signature]

Existing Surface Compaction test locations



Legend

- Muster Point
- Unpaved Road
- Fence
- Mixed Waste Landfill

Figure 3
Mixed Waste Landfill
Muster Points

0 50 100
Scale in Feet

0 12 24
Scale in Meters

Sandia National Laboratories, New Mexico
Environmental Geographic Information System

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Maps

Project Name:
Date: 10/31/06 Time: 0800 Weather: Clear, Cool
Stockpile Area: 2" Minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.2
Optimum Moisture: 10.9 Proctor MWL-SG-001

Time	Test Number	Approximate Location North	East	Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
0800	MWL-SG1-001	Middle of Trench C, appx. 100' south of Northern Boundary			113.2	100	9.1	-1.8	2" Minus subgrade
	MWL-SG1-002	Middle of Trench B, appx. 110 south of Northern Boundary			112.8	99.6	9.8	-1.1	
1030	MWL-SG2-001	Middle of Trench C, appx. 75' south of Northern Boundary			110.6	97.7	11.1	+0.2	
	MWL-SG2-002	Middle of Trench B, Appx. 80' south of Northern Boundary			113.0	99.8	10.6	-0.3	
1400	MWL-SG3-001	Middle of Trench B, 100' south			106.7	94.3	10.0	-0.9	
	MWL-SG3-002	Middle of Trench B, 150' south			105.3	93.0	10.6	-0.3	
	MWL-SG3-003	Middle of Trench A, 100' south			113.0	99.8	10.0	-0.9	
	MWL-SG3-004	Middle of Trench C, 160' south			109.6	96.8	10.7	-0.2	
	MWL-SG3-005	Middle of Trench C, 100' south			113.2	100	9.0	-1.9	
	MWL-SG4-001	Middle of Trench B, 75' south			106.2	93.8	10.7	-0.2	
	MWL-SG4-002	Middle of Trench B, 150' south			106.8	94.3	10.5	-0.4	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Ford

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Maps

Project Name:
Date: 11/1/06 Time: 1130 Weather: clear, warm
Stockpile Area: 2" minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.2
Optimum Moisture: 10.9 Proctor: MWL-SG-001

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG5-001	Trench B,	70' from	North	108.8	96.1	10.2	-0.7	2" Minus subgrade
MWL-SG4-003	Trench C,	100' from	North	103.0	91.0	11.1	+0.2	↓
MWL-SG4-004	Trench C,	200' from	North	111.5	98.2	9.6	-1.3	↓

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pirl

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Maps

Project Name:
Date: 11/2/06 Time: 1400 Weather: Clear, Warm
Stockpile Area: 2" Minus Subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.2
Optimum Moisture: 10.9 Proctor MWL-SG-001

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG4-005	5' SE of stake		4025	102.3	90.4	8.9	-2.0	2" Minus Subgrade
MWL-SG6-001	5' SSE of stake		4015	113.2	100	9.2	-1.7	
MWL-SG6-002	10' South of stake		4029	110.5	97.6	11.0	+0.1	
MWL-SG6-003	5' NE of stake		4043	107.5	95.0	12.1	+1.2	

NOTES:

CQA Inspector Signature _____ CQA Engineer Signature _____

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

see Lift Map

Project Name:
Date: 11/6/06 Time: 1100 Weather: Clear, Warm
Stockpile Area: 2" Minus Subgrade
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.3
Optimum Moisture: 13.2 Proctor MWL-SG-002

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG7-001	15' NE of 4008			109.8	96.9	11.2	-2.0	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Rul

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 11/7/06 Time: 0930 Weather: Clear/Warm
Stockpile Area: 2" Minus subgrade
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.3 (Proctor MWL-SG-002), 117.4 (Proctor MWL-SG-003)
Optimum Moisture: 13.2 (Proctor MWL-SG-002), 12.9 (Proctor MWL-SG-003)

Time/Proctor #	Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
		North	East	Elevation					
0930/002	MWL-SG8-001	10' SW ~~NE~~	of 4009		111.5	98.4 ~~107.4~~	11.5 ~~104.3~~	-1.7	2" minus subgrade
	MWL-SG8-002	5' SW ~~NE~~	of 4019		107.4	94.8	11.5	-1.7	
	MWL-SG8-003	10' East	of 4008		104.3	92.1	12.5	-0.7	
1430/003	MWL-SG9-001	12' SSW	of 4022		107.9	91.6	14.2	+1.3	
	MWL-SG9-002	15' SW	of 4020		114.1	96.9	11.0	-1.9	
	MWL-SG9-003	25' SW	of 4008		110.4	93.8	11.0	-1.9	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pine

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Last Maps

Project Name:
Date: 11/8/06 Time: 1030 Weather: Clear, Warm
Stockpile Area: 2" minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 117.4
Optimum Moisture: 12.9 Proctor MWL-SG-003

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG1-004	25' NW	of 4008		108.7	92.3	12.7	-0.2	2" minus subgrade

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature [signature]

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 11/9/06 Time: 1500 Weather: Clear, Warm
Stockpile Area: 2" minus subgrade stockpile
Borrow Area: West of C4MU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 118.3 (Proctor MWL-SG-004), 118.7 (Proctor MWL-SG-005)
Optimum Moisture: 12.7 (Proctor MWL-SG-004), 12.4 (Proctor MWL-SG-005)

Proctor
MWL-SG-004
↓
MWL-SG-005
↓

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG7-005	20' SSW of 4004			113.2	95.7	11.7	-1.0	2" Minus Subgrade
MWL-SG10-001	5' SSE of 4022			111.2	94.0	13.8	+1.1	
MWL-SG10-002	5' NNE of 4019			110.8	93.3	11.3	-1.1	
MWL-SG10-003	10' N of 4008			108.3	91.2	11.7	-0.7	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Pirl

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Map

Project Name:
Date: 11/14/06 Time: 0850 Weather: Overcast, High winds
Stockpile Area: 2" minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 119.6 (Proctor MWL-SG-006), 115.4 (Proctor MWL-SG-007)
Optimum Moisture: 11.2 (Proctor MWL-SG-006), 12.3 (Proctor MWL-SG-007)

Time / Proctor	Test Number	Approximate Location North	East	Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
0830 / 006	MWL-SG10-003	15' East of 4011			112.9	94.4	9.6	-1.6	2" minus subgrade
	MWL-SG10-005	5' NE of 4012			117.5	98.2	9.6	-1.6	
	MWL-SG10-006	15' WSW of 4018			112.9	94.4	12.5	+1.3	
	MWL-SG10-007	5' E of 4031			114.6	95.8	9.4	-1.8	
	MWL-SG10-008	15' ESE of 4038			118.1	98.7	10.9	-0.3	
1400 / 007	MWL-SG10-009	5' NW of 4055			106.5	92.3	13.9	+1.0	
	MWL-SG10-010	20' NW of 4038			114.4	99.1	12.4	-0.5	

NOTES:

CQA Inspector Signature [signature]

CQA Engineer Signature Kelly M Reid

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Map

Project Name:
Date: 11/5/06 Time: 1430 Weather: Clear, Cool
Stockpile Area: 2" minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 115.4
Optimum Moisture: 12.4 Proctor MWL-SG-007

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG11-001	35' NW of	4037		114.6	99.3	11.8	-1.1	
MWL-SG11-002	25' W of	4049		112.9	97.8	14.2	+1.3	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M [signature]

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Map

Project Name:
Date: 11/16/06 Time: 1500 Weather: Overcast, Cool
Stockpile Area: 2" Minus Subgrade
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 116.5 (Proctor MWL-SG-008) 113.5 (Proctor MWL-SG-001)
Optimum Moisture: 13.0 (Both Proctors)

Proctor	Test Number	Approximate Location North	East	Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
008	MWL-SG11-003	15' W of 4038			108.9	93.5	14.1	+1.1	2" Minus subgrade
	MWL-SG11-004	20' W of 4050			114.6	98.4	11.5	-1.5	
	MWL-SG11-005	10' W of 4051			114.4	98.2	12.7	-0.3	
009	MWL-SG11-006	15' S of 4039			106.6	93.9	11.8	-1.2	
	MWL-SG11-007	15' W of 4055			113.0	99.6	14.1	+1.1	
	MWL-SG11-008	5' E of 4042			113.5	100	12.6	-0.4	

NOTES:

CQA Inspector Signature _____ CQA Engineer Signature Kelly M Pirl

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 1/20/06 Time: 1400 Weather: Clear, Warm
Stockpile Area: 2" Minus subgrade
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.5
Optimum Moisture: 13.0 Proctor MWL-SG-009

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG11-009	15' NW of 4026			113.5	100	14.1	+1.1	2" Minus Subgrade
MWL-SG11-010	15' NE of 4013			109.3	96.3	12.0	-1.0	↓

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Prill

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 11/21/06 Time: 1400 Weather: Clear, Warm
Stockpile Area: 2' Minus subgrade
Borrow Area: West of CAMU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 113.6 (Proctor MWL-SG-010) 116.0 (Proctor MWL-SG-013)
Optimum Moisture: 12.6 (Proctor -010) 12.3 (Proctor -013)

Proctor	Test Number	Approximate Location North	East	Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
010	MWL-SG11-011	10' E of 4025			110.0	96.8	14.3	+1.7	
	MWL-SG11-012	15' SW of 4010			114.2	100	11.8	-0.8	
	MWL-SG11-013	17' W of 4011			105.5	92.9	13.7	+1.1	
	MWL-SG11-014	17' W of 4023 ~~5' SE of 4010~~			106.4	93.7	12.3	-0.3	
013	MWL-SG11-015	5' SE of 4010			113.4	97.8	10.7	-1.6	
	MWL-SG11-016	15' SE of 4009			114.2	98.4	11.6	-0.7	
	MWL-SG11-017	7' NE of 4032			112.7	97.2	13.9	+1.6	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pul

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 11/22/06 Time: 1000 Weather: Clear, warm
Stockpile Area: 2" Mining subgrade
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 116.0
Optimum Moisture: 12.3 Proctor MWL-SG-013

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG#1-018	6' W of	4021		116.3	100	13.2	+0.9	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Price

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Left Map

Project Name:
Date: 11/30/06 Time: 0930 Weather: windy, Cold
Stockpile Area: 2" Minus subgrade
Borrow Area: West of CAMU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 117.9 (Proctor MWL-SG-014) 118.1 (Proctor MWL-SG-015)
Optimum Moisture: 13.0 (Proctor -014) 13.3 (Proctor -015)

Proctor	Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
		North	East	Elevation					
-014	MWL-SG12-001	12' W of	4058		109.4	93.2	12.2	-0.8	
	MWL-SG12-002	20' NW of	4049		114.2	96.9	11.7	-1.3	
-015	MWL-SG12-003	20' NW of	4045		117.7	99.7	11.8	-1.5	
	MWL-SG12-004	25' SW of	4050		117.0	99.1	12.2	-1.1	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pirl

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Map

Project Name:
Date: 12/5/06 Time: 1430 Weather: Clear, Cool
Stockpile Area: ~~West of A~~ @ 2" Minus subgrade
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 118.4
Optimum Moisture: 12.7 Proctor 020

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG12-005	15' W of	4039		118.9	>100	12.3	-0.4	2" Minus subgrade
MWL-SG12-006	15' E of	4052		112.0	94.6	12.4	-0.3	↓

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pirl

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

See Lift Map

Project Name:
Date: 12/7/06 Time: 1400 Weather: Clear, Cool
Stockpile Area: ~~[illegible]~~ @ 2" Minus subgrade
Borrow Area: West of CAMU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 112.4 (Proctor 019), 119.0 (Proctor 021)
Optimum Moisture: 13.6 (Proctor 019), 12.0 (Proctor 021)

Proctor	Test Number	Approximate Location North	East	Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
019	MWL-SG12-007	25' SE of 405		3	112.4	100	13.1	-0.5	2" Minus subgrade
↓	MWL-SG12-008	25' NE of 404		2	112.4	100	14.1	+0.5	↓
021	MWL-SG12-009	25' SSE of 402		7	112.4	94.4	13.6	+1.6	↓
↓	MWL-SG12-010	20' E of 401		4	110.4	92.8	11.9	-0.1	↓

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Price

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 12/13/06 Time: 1000 Weather: Clear, Warm
Stockpile Area: 2" Minus Subgrade
Borrow Area: West of CAMU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 115.9
Optimum Moisture: 12.2 Proctor MWL-SG-022

See Lift Map

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG12-011	20' W of	4016		114.8	99.1	10.8	-1.4	
MWL-SG12-012	25' SW of	4025		113.1	97.6	12.1	-0.1	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pond

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name:
Date: 12/15/06 Time: 1000 Weather: Clear, Warm
Stockpile Area: 2" Minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: Subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 115.9 (Proctor 022), 117.9 (Proctor 023)
Optimum Moisture: 12.2 (Proctor 022), 12.1 (Proctor 023)

Proctor

	Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
		North	East	Elevation					
022	MWL-SG12-013	20' SW of 4010			112.3	96.9	12.3	+0.1	
023	MWL-SG12-014	15' SSW of 4024			113.2	96.0	13.7	+1.6	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Pil

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

LOCATION SKETCH

Project Name: MWL Cover CQA
Date: 12/18/06 Time: 1000 Weather: overcast, Cold, Windy
Stockpile Area: 2" Minus subgrade stockpile
Borrow Area: West of CAMU
Type of Construction: subgrade
(landfill surface and perimeter, subgrade, native soil layer, topsoil layer)
Maximum Dry Density (pcf): 117.9
Optimum Moisture: 12.1

see Lift Map

Proctor MWL-SG-~~022~~ 023

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
MWL-SG12-015	15' SSE of 4024			108.7	92.2	14.0	+1.9	
MWL-SG12-016	20' SE of 4010			111.1	94.2	13.1	+1.0	

NOTES:

CQA Inspector Signature [signature] CQA Engineer Signature Kelly M Reid

2009 Testing Inspection Forms

TI-02
TESTING INSPECTION FORM
SUBGRADE FILL FIELD TEST FORM

Project Name Sandia Mixed Waste LF Date 5/22/09 Time 8:30 AM

Lift Number N/A Inspected by Paul Molina / Don Lopez

Borrow Area N/A Weather Cloudy

Compaction Equipment Vibrating Roller

Soil Description Existing Subgrade w/ native Soil

Volume and location of soil placed during shift N/A

Surface area and location covered during shift N/A

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	yes	
Have field density test locations and elevations been plotted and checked?	yes	
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	No ~~yes~~	- will be included when ~~test~~ received from AMEC.
Have all holes from the soil nuclear density tests been backfilled with like material and hand-tamped?	yes	

NOTES:

- Additional test data and survey data will be included when received.

All Tests, Density and Moisture content meet Specification Requirements

Approved: Donald T. Lopez PE, CQA Engineer. May 22, 2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/16/2009

Lift Number: 6:1 Slopes Lift 1& 2

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 3:00 PM (86 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Volume and location covered during shift: (Approx. 504 CY) North, East and West 6:1 Slopes:

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bondel Ti PE, 06/16/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill
Lift Number: 6:1 Slopes Lift 1, 2, 3, &4
Borrow Area: Native Soil Borrow Area
Weather: 3:20 PM (86 deg); Clear Sky

Date: 06/17/2009
Inspected By: Paul Molina
Max Dry Density (pcf) 120.1
Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,
Fill Description: Native Soil Located in TA-3 Borrow Area
Surface volume and location covered during shift: (Approx. 792 CY) North, East and West 6:1 Slopes

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Paul T. [illegible] PE 06/17/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/18/2009

Lift Number: 6:1 Slopes Lifts # 5, 6, 7, & 8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 10:09 am PM (76 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1170 CY) North, East and West 6:1 Slopes

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Passed TI PE, 06/18/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Lift Number: Wedge Lifts #1 & #2

Borrow Area: Native Soil Borrow Area

Weather: 2:10 PM (85 deg); Clear Sky

Date: 06/19/2009

Inspected By: Paul Molina

Max Dry Density (pcf) 115.8

Optimum Moisture (%) 12.3

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1080 CY) Northeast Wedge Lifts 1 & 2

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Donald T. [illegible] PE, 06/19/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/22/2009

Lift Number: NA

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 7:38 AM (72 deg); Partly Cloudy

Optimum Moisture (%) 12.3

Compaction Equipment: NA

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 810 CY) MWL Berm To Borrow Area

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Paul T. [illegible] PE, 06/22/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/23/2009

Lift Number: Native Soil Lift #3

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 1:21 PM (72 deg); Cloudy

Optimum Moisture (%) 12.3

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1206 CY) MWL Cover Native Soil Lift #3

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Daniel T. [illegible] PE, 06/23/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/24/2009

Lift Number: Native Soil Lift #3 & 4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:30 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1116 CY) MWL Cover Native Soil Lift #3 & 4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bonded Ti PE, 06/24/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/25/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 12:45 PM (82 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1170 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bendel T. PE, 06/25/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/26/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 432 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bonded Ti [illegible] PE, 06/26/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/29/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 7:34 (61 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: NA

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

No soil has been placed today

Randal T. [illegible] PE, 06/29/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/30/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (86 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bandel TI PE 06/30/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/01/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:33 PM (88 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 792 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Donald T. [illegible] PE, 07/01/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/02/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 9:38 AM (74 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 630 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gandel T. [illegible] PE, 07/02/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/03/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: NA

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gerald T. [illegible] PE, 07/03/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/06/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:34 PM (86 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Paul T. L PE, 07/06/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/07/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:30 PM (91 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gerald T. [illegible] PE, 07/07/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/08/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:00 PM (92 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 720 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Randal T. [illegible] PE, 07/08/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/09/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (91 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller.

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 522 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gordel T. [illegible] PE, 07/09/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/10/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (90 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Donald T. [illegible] PE, 07/10/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/13/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:58 PM (96 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 738 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Conducted TI by PE, 07/13/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/14/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 7:13 AM (74 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1170 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gerald T. [illegible] PE, 07/14/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/15/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 1:45 PM (93 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 954 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bandel T. PE, 07/15/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/16/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:29 PM (93 deg); Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 864 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Bandel T. [signature] PE. 07/16/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Lift Number: Native Soil Lift #7

Borrow Area: Native Soil Borrow Area

Weather: 2:29 PM (93 deg); Partly Cloudy

Date: 07/17/2009

Inspected By: Paul Molina

Max Dry Density (pcf) 117.0

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 828 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Ronald T. [illegible] PE, 07/17/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/20/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:05 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1630 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gerald T. [illegible] PE, 07/20/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/21/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:28 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1606 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Gordel T. [illegible] PE, July 21, 2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/22/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:02 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Randel T. [illegible] PE, July 22, 2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/23/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1458 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Daniel T. [illegible] PE, 07/23/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/24/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 8:39 AM (69 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1410 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Donald T. [illegible] PE, 07/24/2009

TI-03
TESTING INSPECTION FORM
NATIVE SOIL LAYER FIELD FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/27/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 1:00 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller.

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 962 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Have in situ soil nuclear density and moisture content tests been performed at the frequency required?	YES	____
Have field density test locations and elevations been plotted and checked?	YES	____
Have the results of the in situ density and moisture content tests been performed in accordance with ASTM D2922 and ASTM D3017, and recorded on Form TI-07 "Moisture/Density Field Test Results Form?"	YES	____
Have all holes from the soil nuclear density tests been backfield with like material and hand-tamped?	YES	____
Have the laboratory hydraulic conductivity tests been performed at the specified frequency and the locations plotted?	YES	____

NOTES:

Donald T. [illegible] PE, 07/27/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/16/2009

Lift Number: 6:1 Slopes Lift 1& 2

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Time/Weather: 3:00 PM (86 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Volume and location covered during shift: (Approx. 504 CY) North, East and West 6:1 Slopes:

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bardel T. [signature] PE, 06/16/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/17/2009

Lift Number: 6:1 Slopes Lift 1, 2, 3, &4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 3:20 PM (86 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 792 CY) North, East and West 6:1 Slopes

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Randal T. [illegible] PE, 06/17/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/18/2009

Lift Number: 6:1 Slopes Lifts # 5, 6, 7, & 8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 120.1

Weather: 10:09 am PM (76 deg); Clear Sky

Optimum Moisture (%) 11.6

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1170 CY) North, East and West 6:1 Slopes

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(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bradley T. [illegible] PE, 06/18/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/19/2009

Lift Number: Wedge Lifts #1 & #2

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 2:10 PM (85 deg); Clear Sky

Optimum Moisture (%) 12.3

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1080 CY) Northeast Wedge Lifts 1 & 2

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Gerald T. [illegible] PE, 06/19/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/22/2009

Lift Number: NA

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 7:38 AM (72 deg); Partly Cloudy

Optimum Moisture (%) 12.3

Compaction Equipment: NA

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 810 CY) MWL Berm To Borrow Area

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Randel T. [illegible] PE 06/22/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/23/2009

Lift Number: Native Soil Lift #3

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 115.8

Weather: 1:21 PM (72 deg); Cloudy

Optimum Moisture (%) 12.3

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1206 CY) MWL Cover Native Soil Lift #3

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Donald T. [signature] PE, 06/23/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill — **Date: 06/24/2009**

Lift Number: Native Soil Lift #3 & 4 — Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area — Max Dry Density (pcf) 117.0

Weather: 3:30 PM (87 deg); Partly Cloudy — Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1116 CY) MWL Cover Native Soil Lift #3 & 4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Gordel T. [illegible] PE, 06/24/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/25/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 12:45 PM (82 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1170 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bardel T. [illegible] PE, 06/25/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/26/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 432 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bardel T. [illegible] PE, 06/26/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/29/2009

Lift Number: Native Soil Lift #4

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 7:34 (61 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: NA

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #4

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

No soil has been placed today

Gordon T. [illegible] PE, 06/29/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 06/30/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (86 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	
Has gradation been performed in accordance with ASTM C136?	YES	
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	
Do laboratory tests meet the construction specification?	YES	

NOTES:

Bondel T. [illegible] PE, 06/30/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/01/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:33 PM (88 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 792 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Daniel T. [illegible] PE, 07/01/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/02/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 9:38 AM (74 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 630 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Daniel T. [illegible] PE, 07/02/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/03/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: NA

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Randal T. [illegible] PE, 07/03/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/06/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:34 PM (86 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Gerald T. [illegible] PE, 07/06/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/07/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:30 PM (91 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Conducted TI PE, 07/07/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill | **Date: 07/08/2009**

Lift Number: Native Soil Lift #5 | Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area | Max Dry Density (pcf) 117.0

Weather: 4:00 PM (92 deg); Partly Cloudy | Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 720 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bonded Tr PE 07/08/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Lift Number: Native Soil Lift #5

Borrow Area: Native Soil Borrow Area

Weather: 3:00 PM (91 deg); Partly Cloudy

Date: 07/09/2009

Inspected By: Paul Molina

Max Dry Density (pcf) 117.0

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 522 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Randall T. [illegible] PE, 07/09/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/10/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (90 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 756 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bonded T. [illegible] PE, 07/10/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/13/2009

Lift Number: Native Soil Lift #5

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:58 PM (96 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 738 CY) MWL Cover Native Soil Lift #5

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Donald T. [illegible] PE, 07/13/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/14/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 7:13 AM (74 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1170 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Gerald T. [illegible] PE, 07/14/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/15/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 1:45 PM (93 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 954 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Randal T. [illegible] PE, 07/15/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/16/2009

Lift Number: Native Soil Lift #6

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:29 PM (93 deg); Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 864 CY) MWL Cover Native Soil Lift #6

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bardel T. [illegible] PE, 07/16/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/17/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 2:29 PM (93 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 828 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bondel T. [illegible] PE, 07/17/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/20/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:05 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1630 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bonded T. [illegible] PE, 07/20/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/21/2009

Lift Number: Native Soil Lift #7

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 4:28 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1606 CY) MWL Cover Native Soil Lift #7

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Randall T. [illegible] PE, 07/21/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill — **Date: 07/22/2009**

Lift Number: Native Soil Lift #8 — Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area — Max Dry Density (pcf) 117.0

Weather: 4:02 PM (87 deg); Partly Cloudy — Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 0 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Donald T. [illegible] PE, 07/22/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/23/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 3:00 PM (78 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1458 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Paul T. [illegible] PE. 07/23/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/24/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 8:39 AM (69 deg); Clear Sky

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 1410 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Gordel T. [illegible] PE 07/24/2009

TI-05
TESTING INSPECTION FORM
NATIVE SOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 07/27/2009

Lift Number: Native Soil Lift #8

Inspected By: Paul Molina

Borrow Area: Native Soil Borrow Area

Max Dry Density (pcf) 117.0

Weather: 1:00 PM (87 deg); Partly Cloudy

Optimum Moisture (%) 12.0

Compaction Equipment: Vibrating, Smooth Drum Roller,

Fill Description: Native Soil Located in TA-3 Borrow Area

Surface volume and location covered during shift: (Approx. 962 CY) MWL Cover Native Soil Lift #8

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has the relationship between moisture content and density been analyzed by the Standard Proctor Test in accordance with ASTM D698?	YES	____
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Has hydraulic conductivity testing been performed in accordance with ASTM rigid wall testing procedure?	YES	____
Do laboratory tests meet the construction specification?	YES	____

NOTES:

Bardell T. [signature] P.E., 07/27/2009

TI-06
TESTING INSPECTION FORM
TOPSOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 08/03/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 1:06 PM (88 deg); Partly Cloudy

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 2132 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Do laboratory tests meet the construction specifications?	YES	____

NOTES:

Gandd T. [illegible] PE, 08/03/2009

TI-06
TESTING INSPECTION FORM
TOPSOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 08/04/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 1:45 PM (91 deg); Partly Cloudy

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 1950 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Do laboratory tests meet the construction specifications?	YES	____

NOTES:

Bandel T. [illegible] PE, 08/04/2009

TI-06
TESTING INSPECTION FORM
TOPSOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 08/05/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 2:18 PM (94 deg); Partly Cloudy

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 2028 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Do laboratory tests meet the construction specifications?	YES	____

NOTES:

Bardel T. [illegible] PE 08/05/2009

TI-06
TESTING INSPECTION FORM
TOPSOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 08/06/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 1:54 PM (94 deg); Heavy Rain @ 2:30 PM

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 2106 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Do laboratory tests meet the construction specifications?	YES	____

NOTES:

David T. [illegible] PE 08/06/2009

TI-06
TESTING INSPECTION FORM
TOPSOIL LAYER LABORATORY TEST VERIFICATION FORM

Project Name: Sandia Mixed Waste Landfill

Date: 08/07/2009
Inspected By: Paul Molina

Borrow Area: Topsoil Borrow Area
Weather: 11:47 AM (79 deg)

Topsoil Description: Topsoil Located in TA-3 Borrow Area

Volume and location of soil placed during shift: (Approx. 962 CY) MWL Cover Topsoil

---

(Provide explanatory notes if the answer to any of the following questions is "no." include any remedial steps required.)

	YES/NO	NOTE NO.
Has gradation been performed in accordance with ASTM C136?	YES	____
Has classification been performed in accordance with ASTM D2487 and D4318?	YES	____
Do laboratory tests meet the construction specifications?	YES	____

NOTES:

Bandel T. L PE, 08/07/2009

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations 2009 Subgrade Surface
Maximum Dry Density (pcf): 120.1
Optimum Moisture: 11.6
Date: 5/22/2009
Approximate Time: 8:00 AM
Weather: 58 (F)

LOCATION SKETCH:
Figure 21

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS Subgrade Surface (Subgrade Surface/Grid Block 5)	1453083.9	411683.3	5381.0	117.3	98	10.6	+/- 2	Light Red Sandy
URS Subgrade Surface (Subgrade Surface/Grid Block 12)	1453008.0	411859.2	5385.8	116.1	97	11.0	+/- 2	Light Red Sandy
URS Subgrade Surface (Subgrade Surface/Grid Block 8)	1452939.2	411755.4	5384.1	118.9	99	10.0	+/- 2	Light Red Sandy
URS Subgrade Surface (Subgrade Surface/Grid Block 1)	1452723.0	411680.2	5381.7	117.9	98	10.0	+/- 2	Light Red Sandy

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Side Slope Lifts and Native Soil Wedge Lifts 1&2
Maximum Dry Density (pcf): 120.1 & 115.8
Optimum Moisture: 11.6 & 12.3
Date: 6/19/2009
Approximate Time: 11:00 AM
Weather: 79 (F)

LOCATION SKETCH:
Figures 22 & 23

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS Wedge Lift 1 (Native Soil Lift 1/Grid Block 8)	1452939.09	411789.54	5386.80	105.7	91	10.7	+/- 2	Clayey Silty Sand
URS Wedge Lift 1 (Native Soil Lift 1/Grid Block 11)	1452934.55	411879.23	5388.33	107.1	92	11.0	+/- 2	Clayey Silty Sand
URS East Slope Lift 6 (East Slope Lift 6/East Slope)	1453115.79	411912.88	5384.57	117.4	98	10.1	+/- 2	Light Red Sandy
URS East Slope Lift 5 (East Slope Lift 5/East Slope)	1453115.79	411912.88	5384.07	112.3	94	10.3	+/- 2	Light Red Sandy
URS West Slope Lift 6 (West Slope Lift 6/West Slope)	1452721.94	411574.36	5379.92	117.9	98	11.1	+/- 2	Light Red Sandy
URS West Slope Lift 5 (West Slope Lift 5/West Slope)	1452721.94	411574.36	5379.42	115.4	96	10.6	+/- 2	Light Red Sandy
URS Wedge Lift 2 (Native Soil Lift 2/Grid Block 11)	1452928.83	411861.93	5388.23	108.5	94	11.0	+/- 2	Clayey Silty Sand
URS North Slope Lift 8 (North Slope Lift 8/North Slope)	1453129.33	411778.76	5382.30	102.5	89	15.2	+/- 2	Clayey Silty Sand
URS North Slope Lift 7 (North Slope Lift 7/North Slope)	1453129.33	411778.76	5381.80	106.7	92	14.0	+/- 2	Clayey Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL

Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Side Slope Re-Test
Maximum Dry Density (pcf): 115.8
Optimum Moisture: 12.3
Date: 6/22/2009
Approximate Time: 10:00 am
Weather:72 (F)

LOCATION SKETCH:

Figure 22

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS North Slope Lift 8 Re-Test (North Slope Lift 8/Grid Block 13)	1453139.784	411825.3244	5382.30	105.6	91	10.9	+/- 2	Clayey Silty Sand
URS North Slope Lift 8 Re-Test (North Slope Lift 8/Grid Block 10)	1453141.195	411775.7289	5381.31	105.9	92	10.5	+/- 2	Clayey Silty Sand
URS North Slope Lift 8 Re-Test (North Slope Lift 8/Grid Block 5)	1453141.019	411626.7926	5378.87	106.0	92	11.0	+/- 2	Clayey Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL

LOCATION SKETCH

Figure 24

Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 3
Maximum Dry Density (pcf): 115.8
Optimum Moisture: 12.3
Date: 6/23/2009
Approximate Time: 10:00 AM
Weather: 72 (F)

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 3 (Native Soil Lift 3/Grid Block 2)	1452875.899	411616.4673	5383.34	115.8	97	10.8	+/- 2	Clayey Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations native Soil Layer Lift 3
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 6/24/2009
Approximate Time: 3:30 PM
Weather: 87 (F)

LOCATION SKETCH
Figure 24

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 3 (Native Soil Lift 3/Grid Block 8)	1452990.737	411734.8062	5385.53	110.1	94	10.0	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 3 & 4
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 6/26/2009
Approximate Time: 3:15
Weather: 78 (F)

LOCATION SKETCH
Figures 24 & 25

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 3 (Native Soil Lift 3/Grid Block 11)	1452901.18	411889.1	5388.37	114.4	98	13.7	+/- 2	Silty Sand
URS NS Lift 4 (Native Soil Lift 4/Grid Block 1)	1452711.86	411629.3	5383.83	117.7	100+	14.0	+/- 2	Silty Sand
URS NS Lift 4 (Native Soil Lift 4/Grid Block 3)	1452947.35	411639.1	5383.88	110.9	95	13.5	+/- 2	Silty Sand
URS NS Lift 4 (Native Soil Lift 4/Grid Block 5)	1453124.35	411629.6	5380.70	111.6	95	12.8	+/- 2	Silty Sand
URS NS Lift 4 (Native Soil Lift 4/Grid Block 9)	1453056.44	411736.3	5384.69	115.0	98	11.5	+/- 2	Silty Sand
URS NS Lift 4 (Native Soil Lift 4/Grid Block 7)	1452841.98	411745.1	5385.81	111.9	96	11.6	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 4
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 6/29/2009
Approximate time: 8:00 am
Weather: 61 (F)

LOCATION SKETCH
Figure 25

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 4 (Native Soil Lift 4/Grid Block 13)	1453083.953	411883.6456	5386.65	114.8	98	11.6	+/- 2	Silty Sand
URS NS Lift 4 (Native Soil Lift 4/Grid Block 11)	1452933.739	411835.6811	5387.97	113.0	97	10.1	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 5
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/1/2009
Approximate Time: 8:30 am
Weather: 67 (F)

LOCATION SKETCH
Figure 26

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 5 (Native Soil Lift 5/Grid Block 12)	1453028.304	411884.8002	5388.33	108.0	92	10.0	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Lift 5
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/2/2009
Approximate Time: 9:38 am
Weather: 74 (F)

LOCATION SKETCH
Figure 26

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 5 (Native Soil Lift 5/Grid Block 10)	1453095.1	411772.2522	5385.29	109.9	94	12.3	+/- 2	Silty Sand
URS NS Lift 5 (Native Soil Lift 5/Grid Block 8)	1452931.527	411771.8425	5387.37	109.0	93	12.8	+/- 2	Silty Sand
URS NS Lift 5 (Native Soil Lift 5/Grid Block 6)	1452705.202	411778.9914	5386.45	113.2	97	13.5	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 5
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/9/2009
Approximate Time: 3:00 pm
Weather: 91 (F)

LOCATION SKETCH
Figure 26

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 5 (Native Soil Lift 5/Grid Block 4)	1453022.353	411690.4044	5385.02	117.0	100	10.0	+/- 2	Silty Sand
URS NS Lift 5 (Native Soil Lift 5/Grid Block 2)	1452805.212	411640.3927	5384.18	113.1	97	10.2	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Lift 6
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/14/2009
Approximate Time: 3:17 pm
Weather: 88 (F)

LOCATION SKETCH
Figure 27

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 6 (Native Soil Lift 6/Grid Block 11)	1453106.092	411858.5263	5386.88	116.3	99	10.4	+/- 2	Silty Sand
URS NS Lift 6 (Native Soil Lift 6/Grid Block 13)	1452925.644	411808.051	5388.39	116.9	100	12.2	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 6
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/17/2009
Approximate Time: 10:00 am
Weather: 79 (F)

LOCATION SKETCH
Figure 27

Test Number	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 6 (Native Soil Lift 6/Grid Block 8)	1452977.748	411717.2438	5386.48	117.5	100	12.8	+/- 2	Silty Sand
URS NS Lift 6 (Native Soil Lift 6/Grid Block 6)	1452762.578	411748.4522	5386.67	108.3	93	10.3	+/- 2	Silty Sand
URS NS Lift 6 (Native Soil Lift 6/Grid Block 2)	1452826.899	411600.6799	5383.91	111.1	95	14.0	+/- 2	Silty Sand
URS NS Lift 6 (Native Soil Lift 6/Grid Block 4)	1452997.604	411636.6782	5384.61	113.9	97	10.9	+/- 2	Silty Sand
URS NS Lift 6 (Native Soil Lift 6/Grid Block 9)	1453021.233	411722.0303	5386.18	118.6	100+	11.4	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Lift 7
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/21/2009
Approximate Time: 10:10 am
Weather: 79 deg

LOCATION SKETCH
Figure 28

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 7 (Native Soil Lift 7/Grid Block 11)	1452921.536	411855.486	5389.85	112.8	96	12.0	+/- 2	Silty Sand
URS NS Lift 7 (Native Soil Lift 7/Grid Block 13)	1453112.476	411868.9895	5387.14	114.4	98	12.8	+/- 2	Silty Sand
URS NS Lift 7 (Native Soil Lift 7/Grid Block 9)	1452986.894	411768.0364	5387.79	115.4	99	11.9	+/- 2	Silty Sand
URS NS Lift 7 (Native Soil Lift 7/Grid Block 7)	1452834.201	411767.7785	5387.64	117.3	100	12.4	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 7
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/22/2009
Approximate Time: 8:00 am
Weather: 71 (F)

LOCATION SKETCH
Figures 28

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 7 (Native Soil Lift 7/Grid Block 1)	1452735.60	411635.78	5384.90	108.9	93	14.0	+/- 2	Silty Sand
URS NS Lift 7 (Native Soil Lift 7/Grid Block 3)	1452893.88	411703.46	5386.74	108.2	92	10.5	+/- 2	Silty Sand
URS NS Lift 7 (Native Soil Lift 7/Grid Block 5)	1453118.42	411627.18	5382.35	111.0	95	12.2	+/- 2	Silty Sand

NOTES:

TI-07
TESTING INSPECTION FORM
MOISTURE/DENSITY FIELD TEST RESULTS FORM

Project Name: SANDIA MIXED WASTE LANDFILL
Stockpile Area: BORROW AREA TA-3
Borrow Area: TA-3
Type of Construction: Moisture/Density Test Locations Native Soil Layer Lift 8
Maximum Dry Density (pcf): 117.0
Optimum Moisture: 12.0
Date: 7/28/2009
Approximate Time: 1:00 pm
Weather: 93 (F)

LOCATION SKETCH
Figure 29

Test Number (Description/Location)	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (WC %)	Percent Water Content Variation	Soil Description
	North	East	Elevation					
URS NS Lift 8 (Native Soil lift 8/Grid Block 12)	1453005.689	411858.7063	5389.71	117.0	100	10.0	+/- 2	Silty Sand
URS NS Lift 8 (Native Soil lift 8/Grid Block 6)	1452688.962	411757.9778	5387.23	115.5	99	10.0	+/- 2	Silty Sand
URS NS Lift 8 (Native Soil lift 8/Grid Block 2)	1452809.726	411637.4463	5385.65	116.1	99	10.8	+/- 2	Silty Sand
URS NS Lift 8 (Native Soil lift 8/Grid Block 4)	1453019.746	411603.3982	5384.78	113.3	97	12.1	+/- 2	Silty Sand
URS NS Lift 8 (Native Soil lift 8/Grid Block 8)	1452950.355	411770.4436	5388.56	117.0	100	10.3	+/- 2	Silty Sand
URS NS Lift 8 (Native Soil lift 8/Grid Block 10)	1453105.035	411770.1856	5386.42	116.4	99	11.0	+/- 2	Silty Sand

NOTES:

ATTACHMENT 7

Laboratory and Field Test Results and Supporting Data

2006 Standard Proctor, Gradation, and Classification Tests

Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

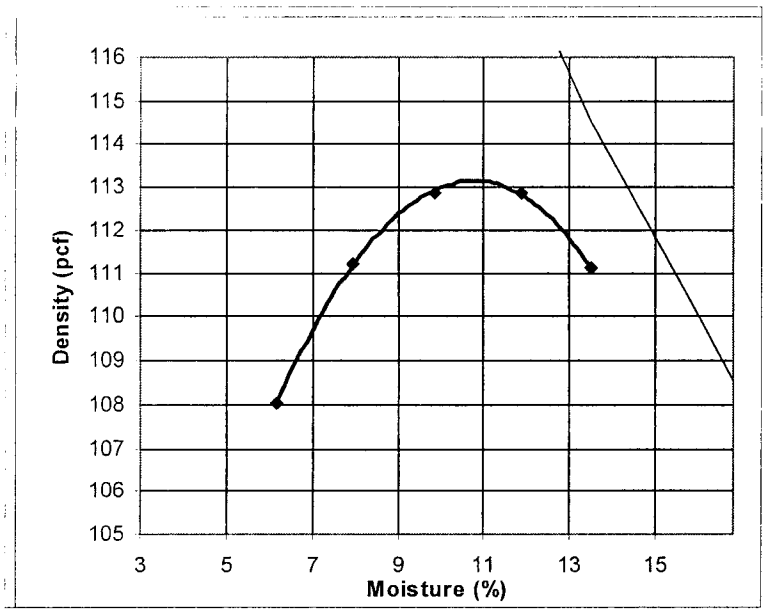
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: October 10, 2006

Project #: 6-519-004081
Work Order #: 4
Lab #: 6-1444-01
Sampled By: Client
Date Sampled: 10/06/2006
Visual Description of Material:
Sample Source: MWL-SG-001

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
1/2in.	99%		
3/8in.	99%		
#4	98%		
#8	97%		
#10	97%		
#16	96%		
#30	95%		
#40	94%		
#50	92%		
#100	52%		
#200	24%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 **Assumed**
Maximum Density: 113.2
Optimum Moisture: 10.9
Remarks: Sample source revised on 1-30-07

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SM

Reviewed By: _____
HG

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

AMEC Earth Environmental, Inc.
8519 Jefferson NE
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amec

Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

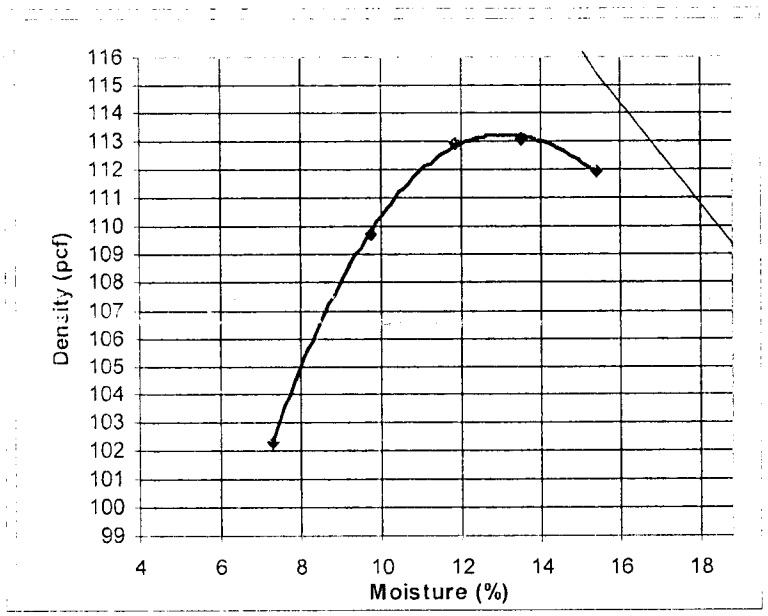
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 03, 2006

Project #: 6-519-004081
Work Order #: 8
Lab #: 6-1624
Sampled By: Robert Carr
Date Sampled: 10/31/2006
Visual Description of Material: Light Brown
Sample Source: SW Corner of stockpile, MWL-SG-002

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	99%		
#4	98%		
#8	96%		
#10	95%		
#16	93%		
#30	91%		
#40	89%		
#50	87%		
#100	69%		
#200	32%		

Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.601 Assumed
Maximum Density: 113.3
Optimum Moisture: 13.2

Plasticity Index (ASTM D4318)
Liquid Limit: 24
Plastic Limit: 19
Plasticity Index: 5
Preperation Method: Dry Liquid Limit Method: A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
ah

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

AMEC Earth .Environmental, Inc.
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

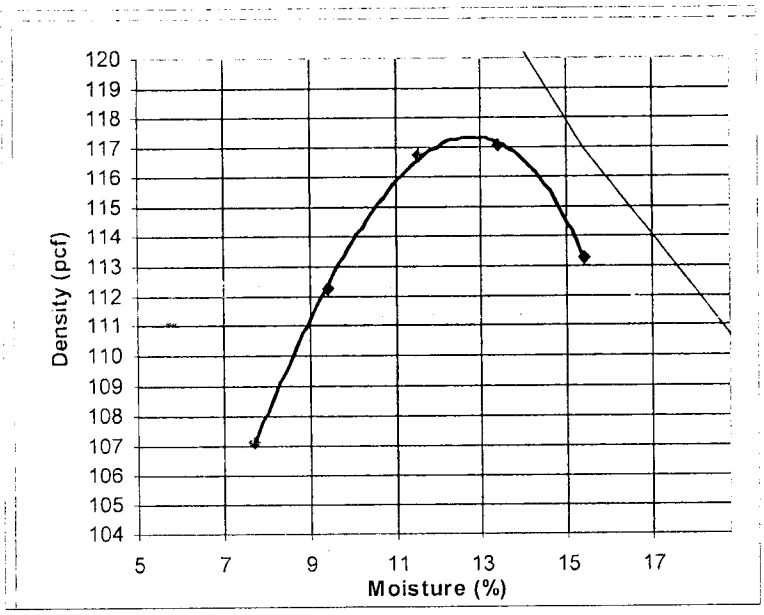
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 03, 2006

Project #: 6-519-004081
Work Order #: 9
Lab #: 6-1625
Sampled By: Robert Carr
Date Sampled: 10/31/2006
Visual Description of Material: Light Brown
Sample Source: Middle of West End of Pile.MWL-SG-003

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	100%		
#4	98%		
#8	96%		
#10	96%		
#16	93%		
#30	91%		
#40	89%		
#50	87%		
#100	65%		
#200	32%		

Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 117.4
Optimum Moisture: 12.9

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 19
Plasticity Index: 6
Preperation Method: Dry Liquid Limit Method: A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
sna

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

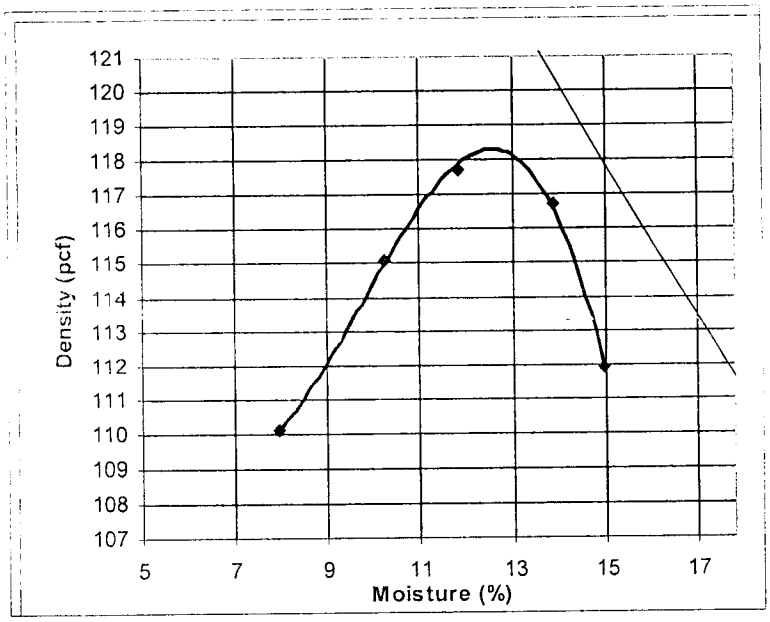
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 03, 2006

Project #: 6-519-004081
Work Order #: 10
Lab #: 6-1626
Sampled By: Robert Carr
Date Sampled: 10/13/2006
Visual Description of Material: Light Brown
Sample Source: North West Corner of Stockpile .MWL-SG-004

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
1/2in.	100%		
3/8in.	99%		
#4	98%		
#8	96%		
#10	95%		
#16	93%		
#30	91%		
#40	89%		
#50	88%		
#100	68%		
#200	32%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 118.3
Optimum Moisture: 12.7

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 19
Plasticity Index: 6
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
ah

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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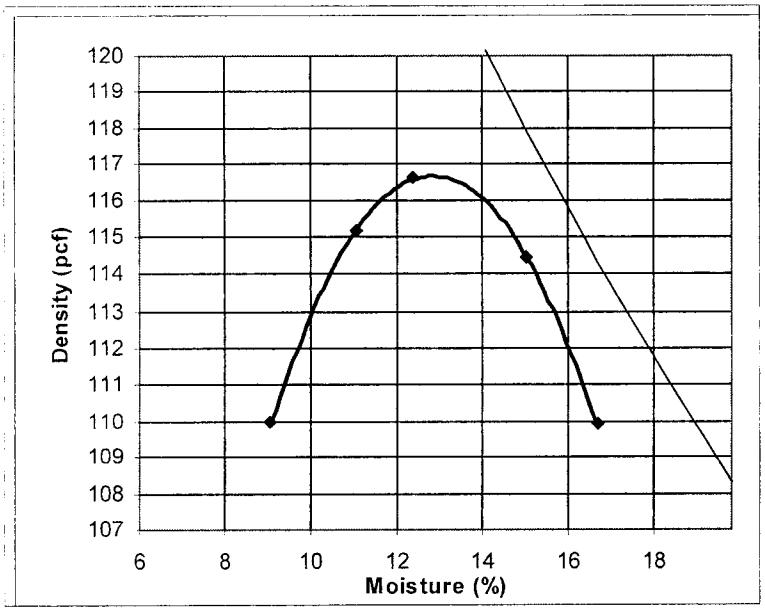
amec

Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** November 22, 2006	
		Project #: 6-519-004081	
		Work Order #: 21	
Attn:	Don Lopez	**Lab #:** 6-1780	
		Sampled By: Miguel Chavez	
Project Name:	Mixed Waste Landfill Cover KAFB Albuquerque, NM	**Date Sampled:** 11/16/2006	
		Visual Description of Material: Light Red & Rocky	
		Sample Source: MWL-SG-~~08~~ 005	
Project Manager:	Robert Romero	**SOILS / AGGREGATES**	



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	98%		
#8	96%		
#10	95%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	65%		
#200	23%		

Moisture Density Relationship: **(ASTM D698)** **Method:** B

Preparation Method: Moist **Rammer Type:** Manual

Specific Gravity: 2.651 **Assumed**

Maximum Density: 116.7

Optimum Moisture: 12.9

Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**

Liquid Limit: 25

Plastic Limit: 17

Plasticity Index: 8

Preperation Method: Dry **Liquid Limit Method:** A

Soil Classification (ASTM D2487) SC

Reviewed By: _____
HG

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

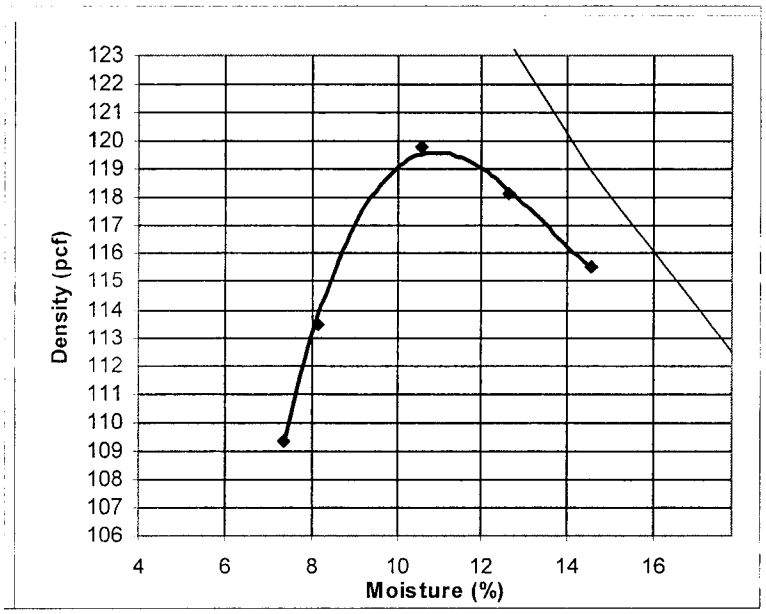
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 06, 2006

Project #: 6-519-004081
Work Order #: 12
Lab #: 6-1646
Sampled By: Robert Carr
Date Sampled: 11/02/2006
Visual Description of Material: Light Brown
Sample Source: MWL-SG-006

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	100%		
#4	98%		
#8	97%		
#10	96%		
#16	94%		
#30	92%		
#40	90%		
#50	88%		
#100	71%		
#200	32%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 119.6
Optimum Moisture: 11.0
Remarks: Sample source revised on 1-30-07

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 17
Plasticity Index: 8
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC

Reviewed By: _____
ah

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Albuquerque, NM 87110-

Report Date: November 08, 2006

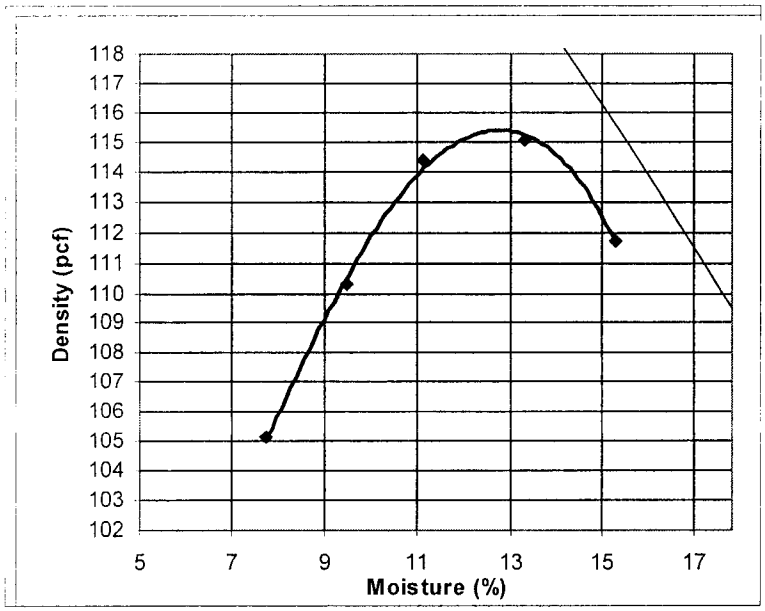
Project #: 6-519-004081
Work Order #: 13
Lab #: 6-1647
Sampled By: Robert Carr
Date Sampled: 11/02/2006
Visual Description of Material: Light Brown
Sample Source: MWL-SG-007

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	99%		
#4	98%		
#8	96%		
#10	96%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	73%		
#200	33%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.601 **Assumed**
Maximum Density: 115.4
Optimum Moisture: 12.9
Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 25
Plastic Limit: 18
Plasticity Index: 7
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
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Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

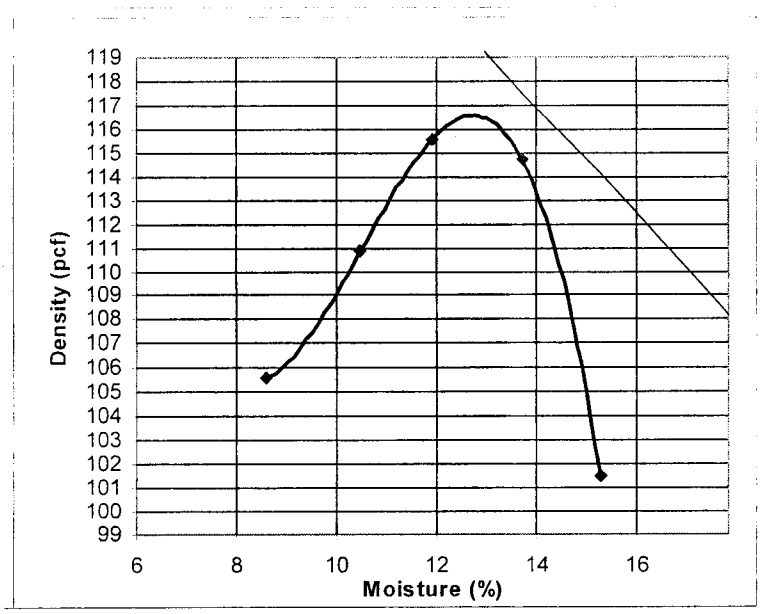
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 14, 2006

Project #: 6-519-004081
Work Order #: 14
Lab #: 6-1690
Sampled By: Robert Carr
Date Sampled: 11/08/2006
Visual Description of Material: Light Brown
Sample Source: MWL-SG-008

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	100%		
#4	98%		
#8	96%		
#10	96%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	66%		
#200	33%		

Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 116.6
Optimum Moisture: 12.8
Remarks: Revised 12/8/06 to show correct proctor method used.

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 19
Plasticity Index: 6
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
HG

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Client: URS
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Albuquerque, NM 87110-

Attn: Don Lopez

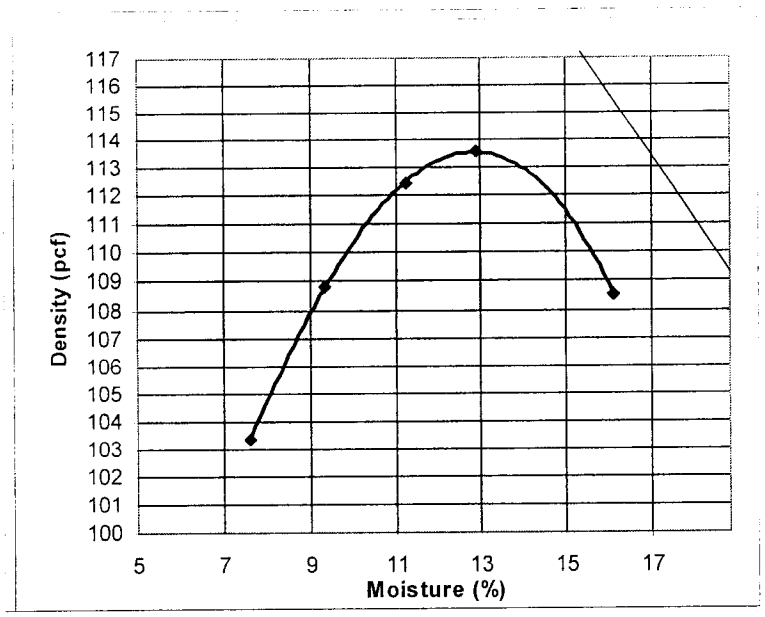
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 13, 2006

Project #: 6-519-004081
Work Order #: 15
Lab #: 6-1691
Sampled By: Robert Carr
Date Sampled: 11/08/2006
Visual Description of Material: Light Brown
Sample Source: MWL-SG-009

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1 1/2in.	100%		
1in.	96%		
3/4in.	100%		
1/2in.	96%		
3/8in.	95%		
#4	94%		
#8	92%		
#10	91%		
#16	90%		
#30	87%		
#40	86%		
#50	84%		
#100	61%		
#200	31%		

Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 113.6
Optimum Moisture: 12.9
Remarks: Revised 12/8/06 to show correct proctor method used.

Plasticity Index (ASTM D4318)
Liquid Limit: 24
Plastic Limit: 19
Plasticity Index: 5
Preperation Method: Dry Liquid Limit Method: A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
Jr

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Attn: Don Lopez

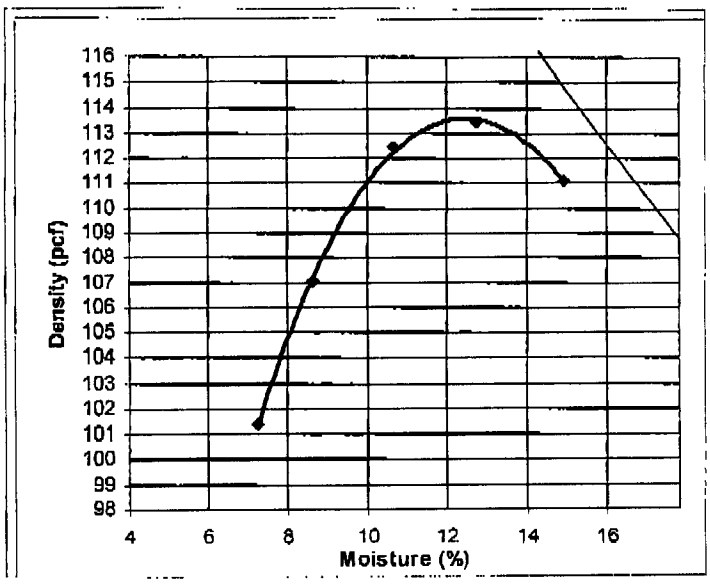
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

SOILS / AGGREGATES

Report Date: November 13, 2006

Project #: 6-519-004081
Work Order #: 16
Lab #: 6-1692
Sampled By: Robert Carr
Date Sampled: 11/08/2006
Visual Description of Material: light Brown
Sample Source: MWL-SG-010



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
1/2in.	99%		
3/8in.	99%		
#4	98%		
#8	96%		
#10	96%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	67%		
#200	33%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551
Maximum Density: 113.6
Optimum Moisture: 12.6

Plasticity Index **(ASTM D4318)**
Liquid Limit: 25
Plastic Limit: 19
Plasticity Index: 6
Preparation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: jr

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

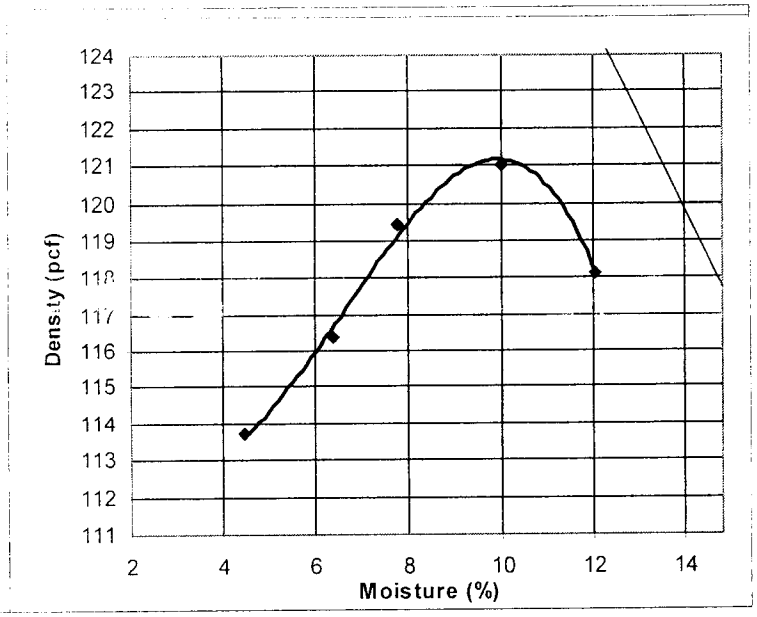
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 21, 2006

Project #: 6-519-004081
Work Order #: 19
Lab #: 6-1743
Sampled By: Miguel Chavez
Date Sampled: 11/14/2006
Visual Description of Material: Light Brown Rocky
Sample Source: MWL-SG-011

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1 1/4in.	100%		
1in.	100%		
3/4in.	96%		
1/2in.	93%		
3/8in.	92%		
#4	88%		
#8	84%		
#10	83%		
#16	79%		
#30	75%		
#40	72%		
#50	69%		
#100	50%		
#200	15%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 121.2
Optimum Moisture: 10.0

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SM

Reviewed By: HG

Distribution: Client: ✔ File: ✔ Supplier: ☑ Other: Addressee (2)
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Albuquerque, NM 87110-

Attn: Don Lopez

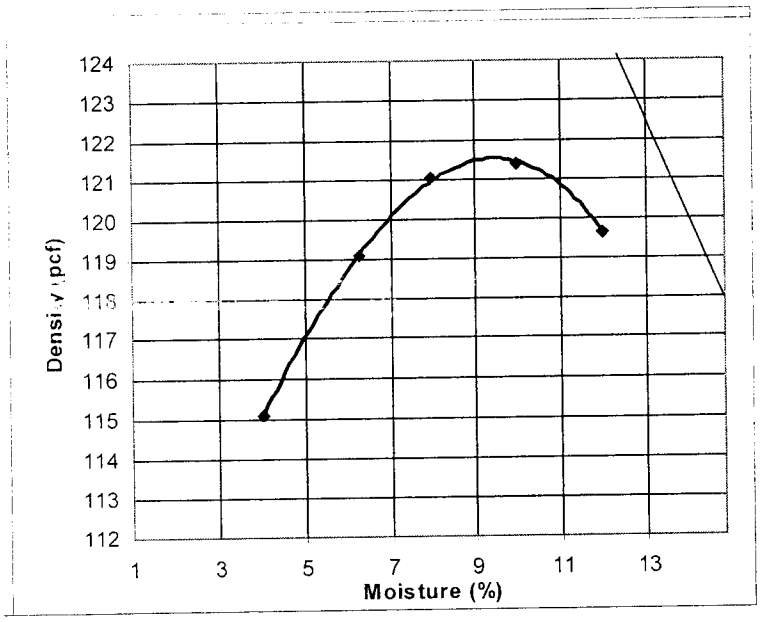
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 21, 2006

Project #: 6-519-004081
Work Order #: 18
Lab #: 6-1742
Sampled By: Miguel Chavez
Date Sampled: 11/14/2006
Visual Description of Material: Light Brown Rocky
Sample Source: MWL-SG-012

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1 1/4in.	100%		
1in.	94%		
3/4in.	94%		
1/2in.	91%		
3/8in.	90%		
#4	86%		
#8	82%		
#10	81%		
#16	77%		
#30	74%		
#40	72%		
#50	70%		
#100	54%		
#200	24%		

Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 121.5
Optimum Moisture: 9.6

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry Liquid Limit Method: A
Soil Classification (ASTM D2487) SM

Reviewed By: HG

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
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Client: URS
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Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

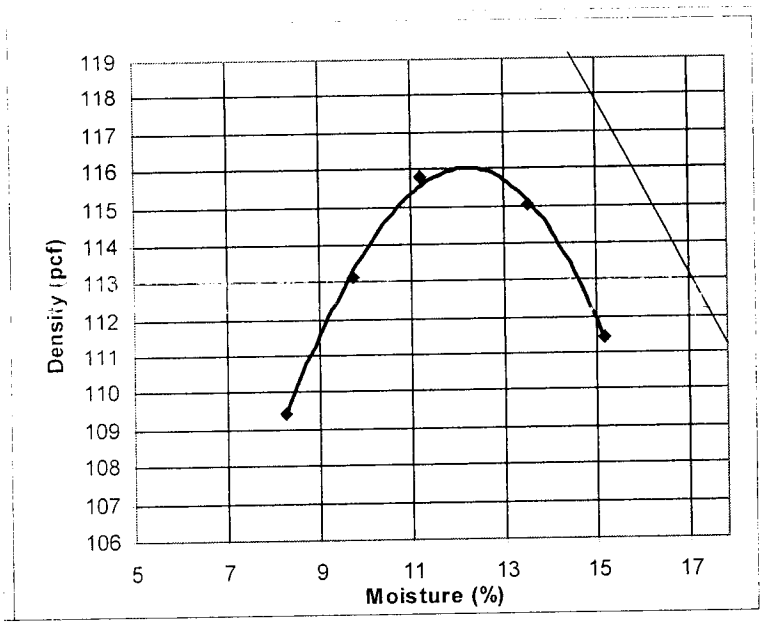
Report Date: November 21, 2006

Project #: 6-519-004081
Work Order #: 17
Lab #: 6-1740
Sampled By: Miguel Chavez
Date Sampled: 11/14/2006
Visual Description of Material: Light Brown
Sample Source: East Side of South Pul MWL-SG-013

SOILS / AGGREGATES

Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	99%		
#8	97%		
#10	97%		
#16	95%		
#30	93%		
#40	91%		
#50	90%		
#100	77%		
#200	36%		



Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 116.0
Optimum Moisture: 12.3

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry Liquid Limit Method: A
Soil Classification (ASTM D2487) SM

Reviewed By: HG

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
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Client: URS
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Attn: Don Lopez

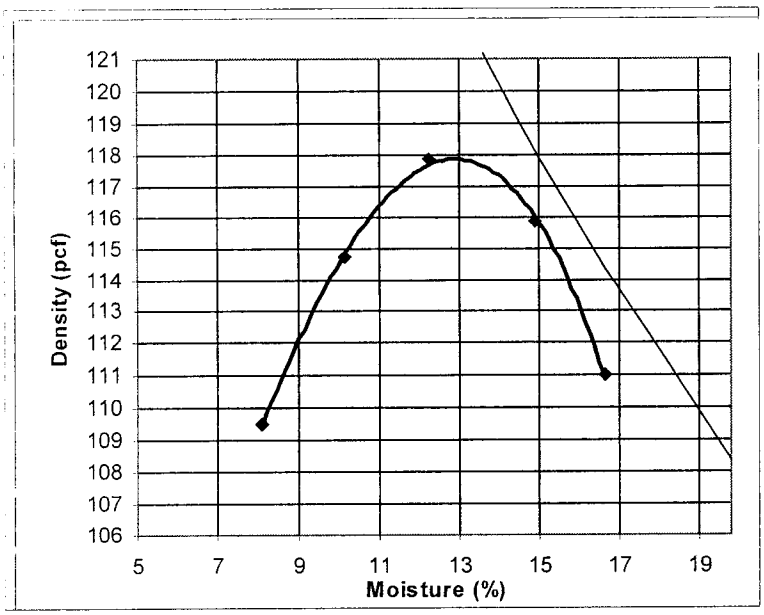
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 28, 2006

Project #: 6-519-004081
Work Order #: 20
Lab #: 6-1779
Sampled By: Miguel Chavez
Date Sampled: 11/16/2006
Visual Description of Material: Light Red & Rocky
Sample Source: MWL-SG-014

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	98%		
#8	96%		
#10	95%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	73%		
#200	30%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 117.9
Optimum Moisture: 13.0
Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 23
Plastic Limit: 18
Plasticity Index: 5
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
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Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
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Client: URS
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Attn: Don Lopez

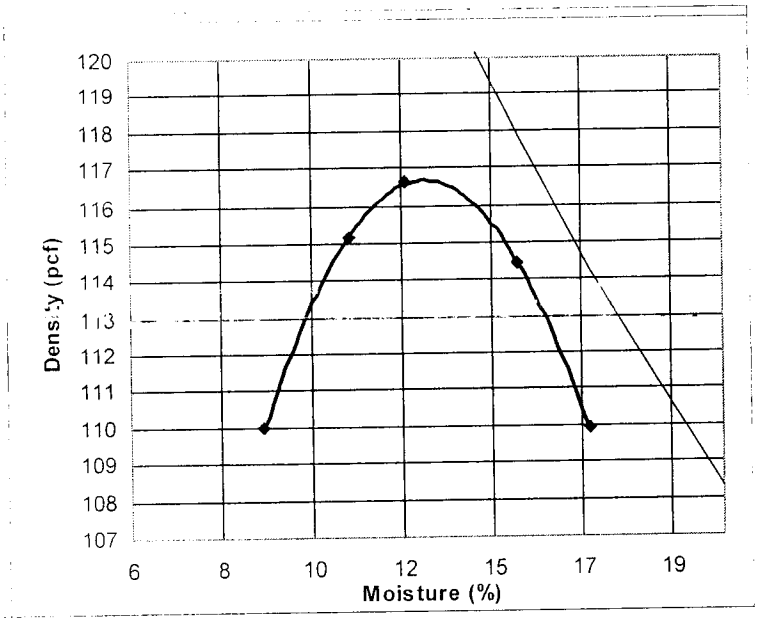
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 22, 2006

Project #: 6-519-004081
Work Order #: 21
Lab #: 6-1780
Sampled By: Miguel Chavez
Date Sampled: 11/16/2006
Visual Description of Material: Light Red & Rocky
Sample Source: South Side of Stock Pile / MWL-~~015~~ C-56-005

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	98%		
#8	96%		
#10	95%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	65%		
#200	23%		

Moisture Density Relationship: (ASTM D698) **Method:** B
Preparation Method: Moist **Rammer Type:** Manual
Specific Gravity: 2.651 **Assumed**
Maximum Density: 116.7
Optimum Moisture: 12.9

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 17
Plasticity Index: 8
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC

Reviewed By: HG

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Client: URS
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Albuquerque, NM 87110-

Attn: Don Lopez

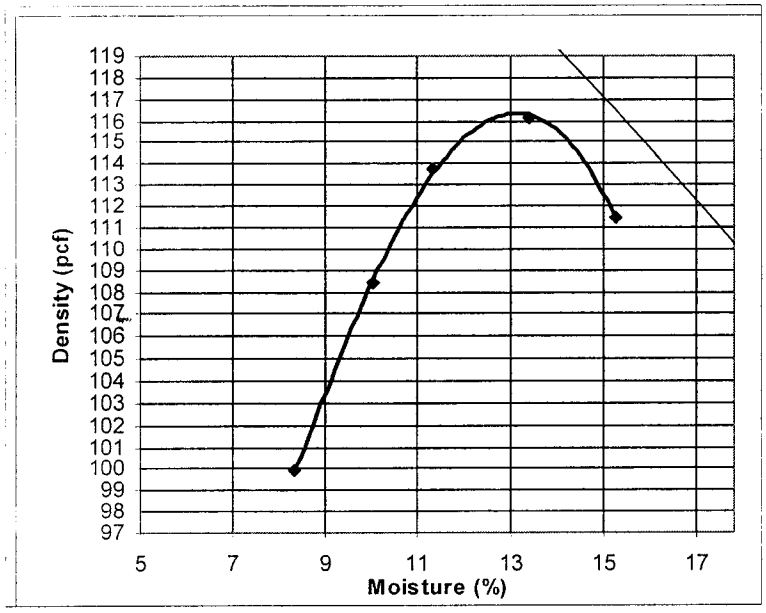
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 27, 2006

Project #: 6-519-004081
Work Order #: 22
Lab #: 6-1809
Sampled By: Miguel Chavez
Date Sampled: 11/20/2006
Visual Description of Material: Light Red Sandy
Sample Source: MWL-SG-016

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
1/2in.	99%		
3/8in.	99%		
#4	99%		
#8	97%		
#10	96%		
#16	94%		
#30	92%		
#40	90%		
#50	88%		
#100	74%		
#200	31%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.625 **Assumed**
Maximum Density: 116.4
Optimum Moisture: 13.2
Remarks: Sample source revised on 1/30/07

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 21
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
ah

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Albuquerque, NM 87110-

Attn: Don Lopez

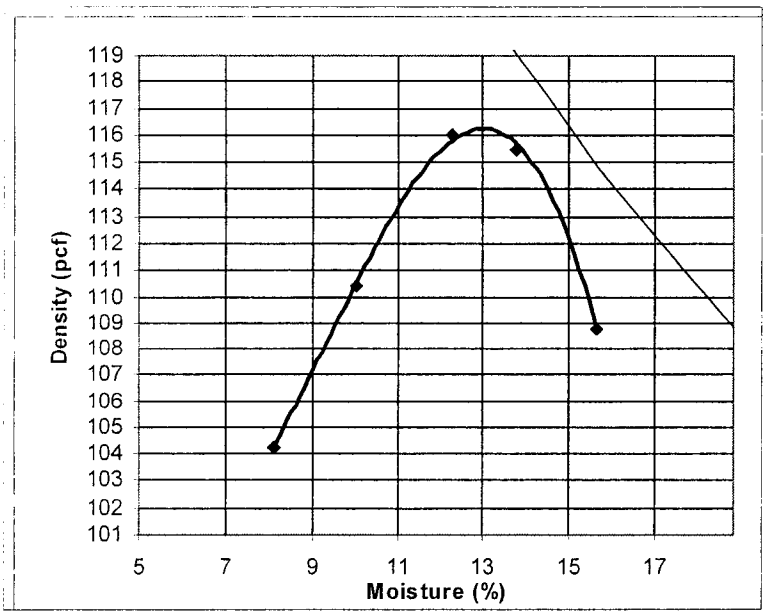
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 28, 2006

Project #: 6-519-004081
Work Order #: 23
Lab #: 6-1810
Sampled By: Miguel Chavez
Date Sampled: 11/20/2006
Visual Description of Material: Light red Sandy
Sample Source: MW-SG-017

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
3/8in.	99%		
#4	97%		
#8	96%		
#10	95%		
#16	93%		
#30	91%		
#40	89%		
#50	87%		
#100	73%		
#200	31%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.6 **Assumed**
Maximum Density: 116.2
Optimum Moisture: 13.1
Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 24
Plastic Limit: 19
Plasticity Index: 5
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
HG

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

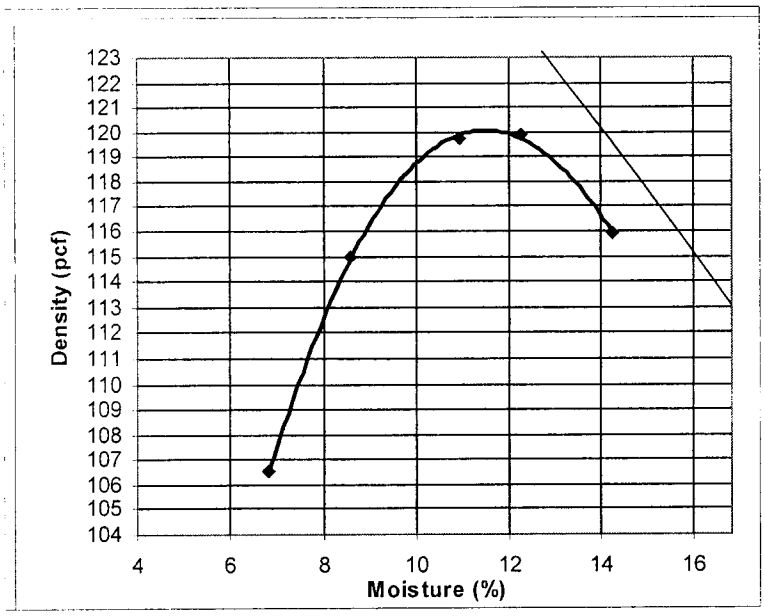
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 29, 2006

Project #: 6-519-004081
Work Order #: 24
Lab #: 6-1811
Sampled By: Miguel Chavez
Date Sampled: 11/20/2006
Visual Description of Material: Light Red Sandy
Sample Source: MWL-SG-018

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	100%		
#4	98%		
#8	96%		
#10	96%		
#16	94%		
#30	91%		
#40	90%		
#50	88%		
#100	74%		
#200	32%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 120.1
Optimum Moisture: 11.6
Remarks: Revised 12/8/06 to show correct proctor method used.
**Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 26
Plastic Limit: 19
Plasticity Index: 7

Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
vs

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

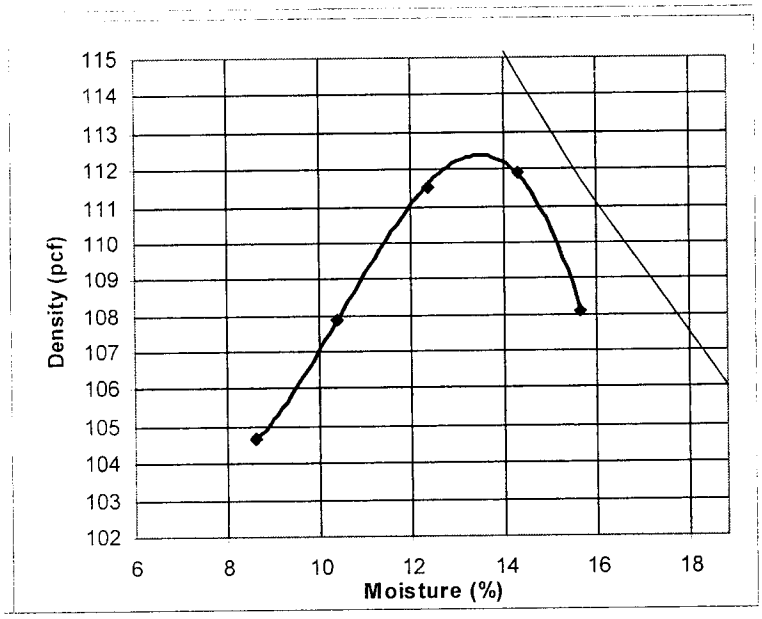
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 07, 2006

Project #: 6-519-004081
Work Order #: 25
Lab #: 6-1833
Sampled By: Miguel Chavez
Date Sampled: 11/27/2006
Visual Description of Material: Light Red & Rocky
Sample Source: MWL SG-019 North Side of Pile

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
1/2in.	100%		
3/8in.	100%		
#4	99%		
#8	98%		
#10	98%		
#16	97%		
#30	94%		
#40	93%		
#50	91%		
#100	78%		
#200	37%		

Moisture Density Relationship: (ASTM D698) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.501 **Assumed**
Maximum Density: 112.4
Optimum Moisture: 13.6

Plasticity Index (ASTM D4318)
Liquid Limit: 27
Plastic Limit: 19
Plasticity Index: 8
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC

Reviewed By: _____
Jr

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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www.amec.com

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

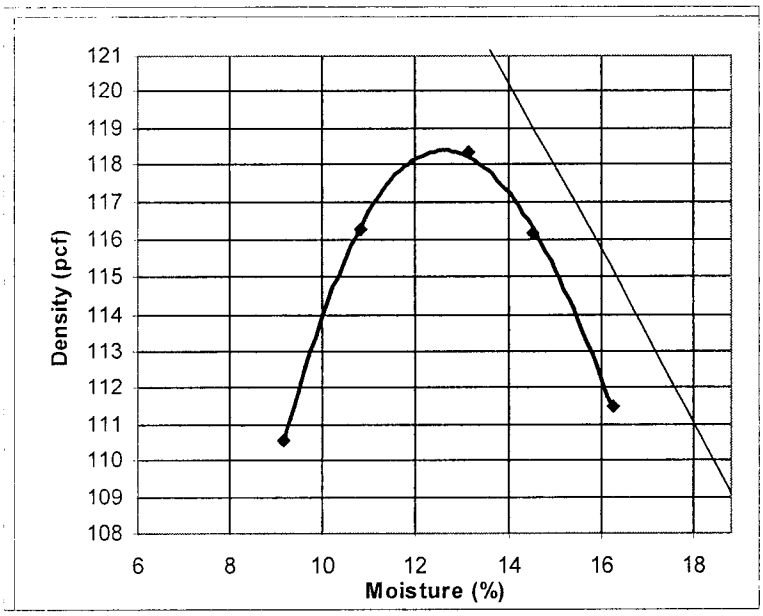
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 05, 2006

Project #: 6-519-004081
Work Order #: 26
Lab #: 6-1834
Sampled By: Miguel Chavez
Date Sampled: 11/27/2006
Visual Description of Material: Light Red
Sample Source: MWL-SG-020

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	99%		
#8	97%		
#10	96%		
#16	95%		
#30	93%		
#40	91%		
#50	90%		
#100	77%		
#200	33%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 118.4
Optimum Moisture: 12.7
Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 24
Plastic Limit: 21
Plasticity Index: 3
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SM

Reviewed By: _____
Jr

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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www.amec.com

Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

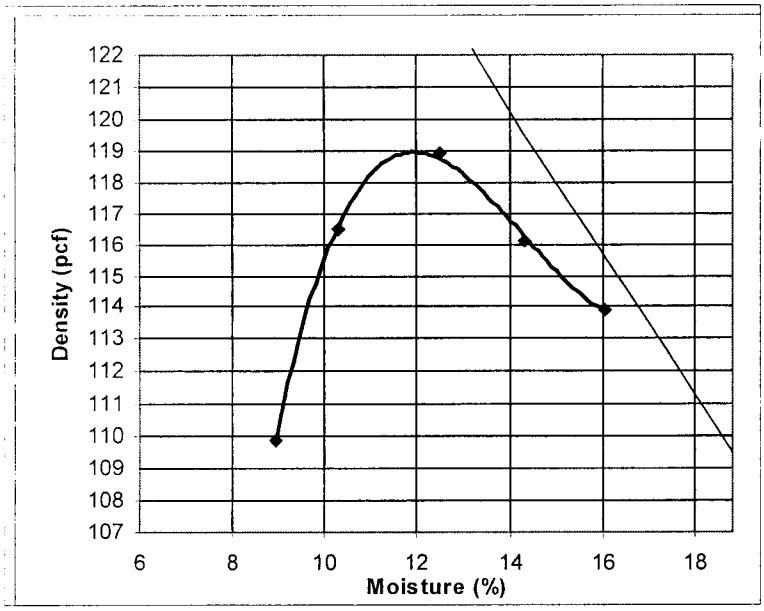
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 05, 2006

Project #: 6-519-004081
Work Order #: 27
Lab #: 6-1835
Sampled By: Miguel Chavez
Date Sampled: 11/27/2006
Visual Description of Material: Light Red
Sample Source: MWL-SG-021

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	99%		
#8	97%		
#10	96%		
#16	94%		
#30	92%		
#40	90%		
#50	88%		
#100	73%		
#200	31%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 119.0
Optimum Moisture: 12.0
Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 25
Plastic Limit: 21
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
Jr

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371 www.amec.com

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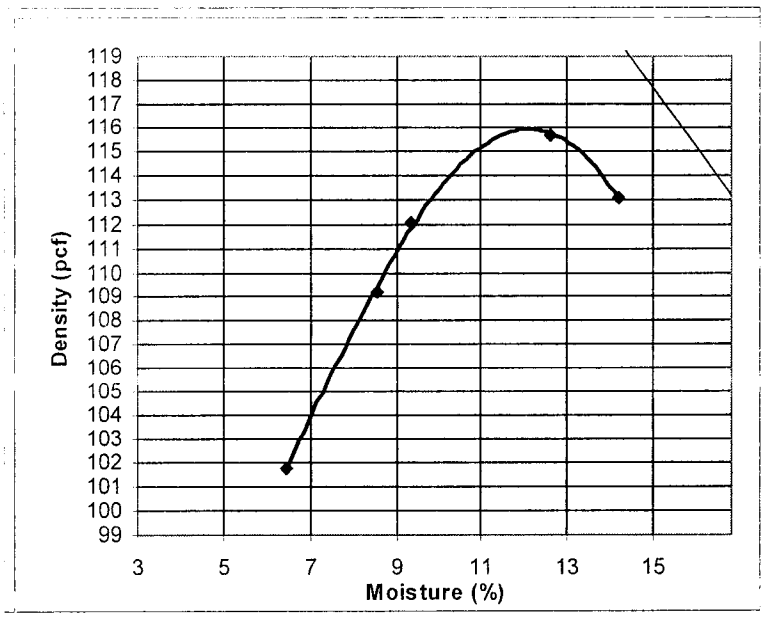
Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** December 12, 2006	
		Project #: 6-519-004081	
		Work Order #: 28	
Attn:	Don Lopez	**Lab #:** 6-1895	
Project Name:	Mixed Waste Landfill Cover KAFB Albuquerque, NM	**Sampled By:** Miguel Chavez	
		Date Sampled: 12/05/2006	
		Visual Description of Material: Light Brown	
		Sample Source: MWL-SG-022	
Project Manager:	Robert Romero	**SOILS / AGGREGATES**	



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
1 1/2in.	100%		
1in.	99%		
3/4in.	98%		
3/8in.	98%		
#4	98%		
#8	96%		
#10	96%		
#16	94%		
#30	91%		
#40	87%		
#50	86%		
#100	77%		
#200	30%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A

Preparation Method: Dry **Rammer Type:** Mechanical

Specific Gravity: 2.651 **Assumed**

Maximum Density: 115.9

Optimum Moisture: 12.2

Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**

Liquid Limit: 28

Plastic Limit: 16

Plasticity Index: 12

Preperation Method: Dry **Liquid Limit Method:** A

Soil Classification (ASTM D2487) SC

Reviewed By: _____
sna

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Albuquerque, NM 87113
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www.amec.com

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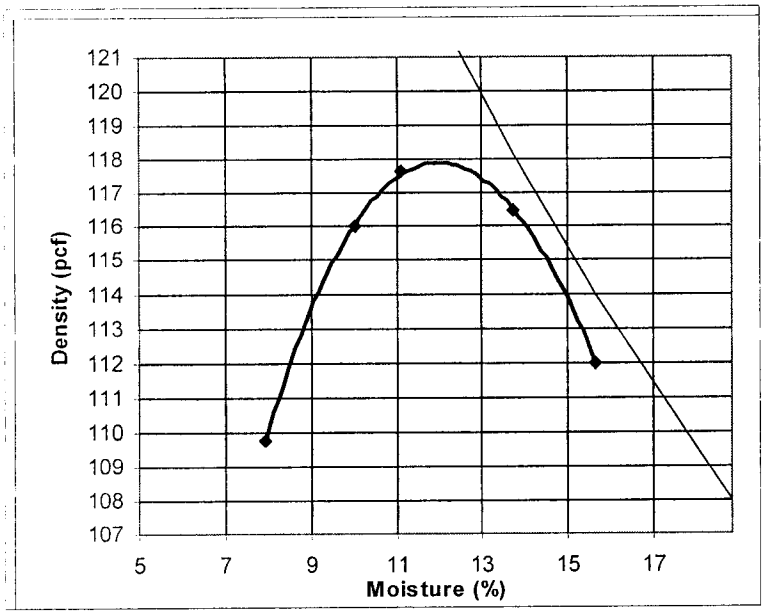
Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** December 14, 2006	
		Project #: 6-519-004081	
		Work Order #: 29	
Attn:	Don Lopez	**Lab #:** 6-1951	
		Sampled By: Michael Olson	
Project Name:	Mixed Waste Landfill Cover KAFB Albuquerque, NM	**Date Sampled:** 12/12/2006	
		Visual Description of Material:	Light Brown
		Sample Source:	MWL-SG-023
Project Manager:	Robert Romero	**SOILS / AGGREGATES**	



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	92%		
#4	90%		
#8	88%		
#10	87%		
#16	85%		
#30	83%		
#50	80%		
#100	63%		
#200	28%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A

Preparation Method: Dry **Rammer Type:** Mechanical

Specific Gravity: 2.571 **Assumed**

Maximum Density: 117.9

Optimum Moisture: 12.1

Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**

Liquid Limit: 23

Plastic Limit: 20

Plasticity Index: 3

Preperation Method: Dry **Liquid Limit Method:** A

Soil Classification (ASTM D2487) SM

Reviewed By: _____
HG

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

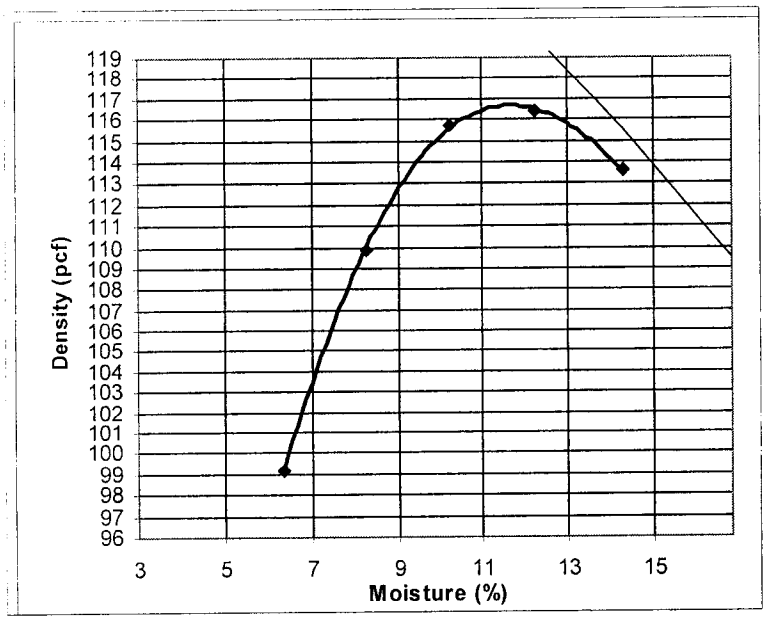
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 15, 2006

Project #: 6-519-004081
Work Order #: 30
Lab #: 6-1952
Sampled By: Miguel Chavez
Date Sampled: 12/12/2006
Visual Description of Material: Light Brown
Sample Source: MWL-SG-024

SOILS / AGGREGATES



Sieve Analysis **(ASTM C117/C136)**

Sieve Size	Passing	Specifications Min	Specifications Max
1/2in.	100%		
3/8in.	99%		
#4	96%		
#8	92%		
#10	92%		
#30	87%		
#40	85%		
#50	84%		
#100	68%		
#200	28%		

Moisture Density Relationship: **(ASTM D698)** **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.531 **Assumed**
Maximum Density: 116.7
Optimum Moisture: 11.8
Remarks: Sample source revised on 1/30/07

Plasticity Index **(ASTM D4318)**
Liquid Limit: 23
Plastic Limit: 20
Plasticity Index: 3
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SM

Reviewed By: _____
HG

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

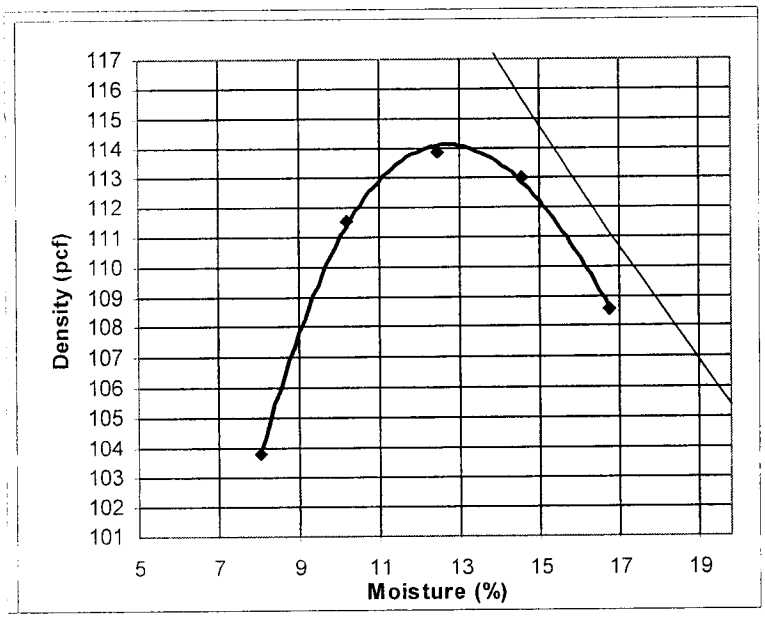
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 20, 2006

Project #: 6-519-004081
Work Order #: 32
Lab #: 6-1967
Sampled By: Miguel Chavez
Date Sampled: 12/14/2006
Visual Description of Material: Light Brown
Sample Source: MWL-SG-025

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	97%		
#8	95%		
#10	94%		
#16	92%		
#30	89%		
#40	87%		
#50	85%		
#100	67%		
#200	30%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 114.1
Optimum Moisture: 12.8
Remarks: Sample source revised on 1/30/07

Plasticity Index (ASTM D4318)
Liquid Limit: 25
Plastic Limit: 18
Plasticity Index: 7
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: AH

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

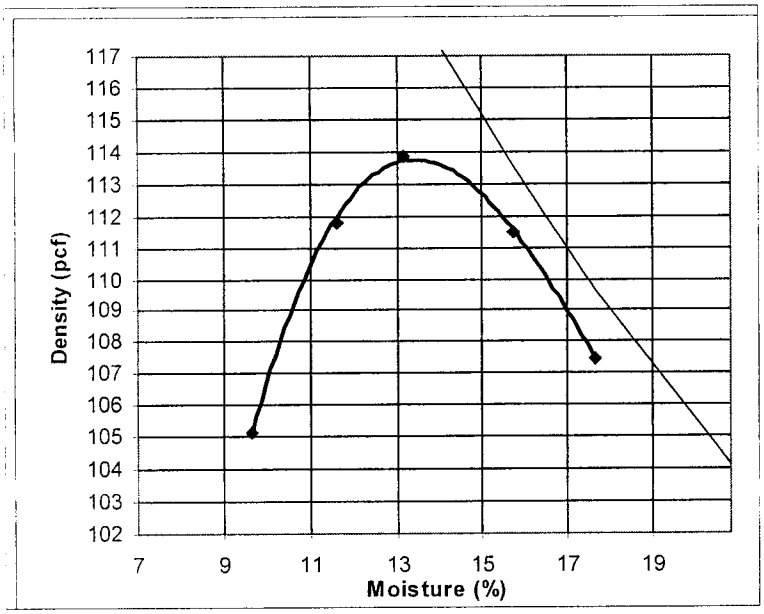
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 20, 2006

Project #: 6-519-004081
Work Order #: 31
Lab #: 6-1966
Sampled By: Miguel Chavez
Date Sampled: 12/14/2006
Visual Description of Material: Light Brown Silty
Sample Source: MWL-SG-026

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
3/8in.	100%		
#4	98%		
#8	96%		
#10	96%		
#16	94%		
#30	91%		
#40	89%		
#50	87%		
#100	71%		
#200	35%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.561 **Assumed**
Maximum Density: 113.8
Optimum Moisture: 13.5
Remarks: Sample source revised on 1/30/07

Plasticity Index (ASTM D4318)
Liquid Limit: 27
Plastic Limit: 21
Plasticity Index: 6
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SC-SM

Reviewed By: _____
AH

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn : Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

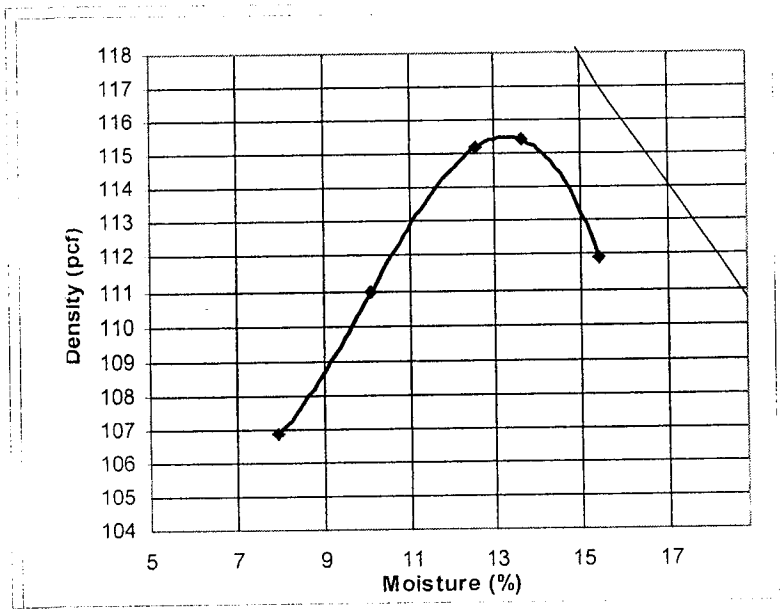
Report Date: October 10, 2006

Project #: 6-519-004081
Work Order #: 4
Lab #: 6-1444-02
Sampled By: Client
Date Sampled: 10/06/2006
Visual Description of Material:
Sample Source: MWL-ES-001

SOILS / AGGREGATES

Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max



Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 115.5
Optimum Moisture: 13.4

Reviewed By: HG

Distribution: Client ✓ File: ✓ Supplier: ✓ Other: Addressee (2)
Email:
Cory Woods / MKM Engineering (1)

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Report Date: November 02, 2006

Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

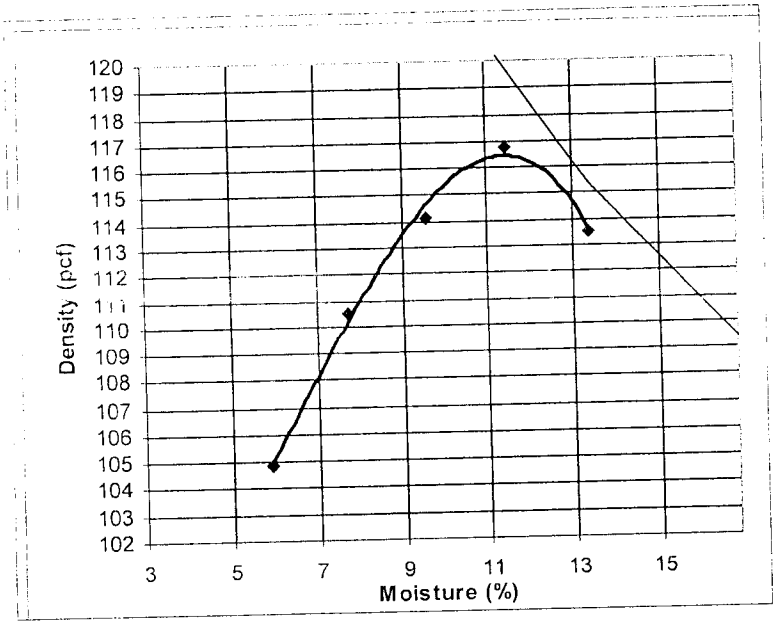
Project #: 6-519-004081
Work Order #: 6
Lab #: 6-1588
Sampled By: Wesley Newman
Date Sampled: 10/27/2006
Visual Description of Material: Light Brown Clay
Sample Source: MWL-ES-~~003~~ 002

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1in.	100%		
3/4in.	98%		
1/2in.	97%		
3/8in.	96%		
#4	94%		
#8	91%		
#10	90%		
#16	88%		
#30	85%		
#40	83%		
#50	81%		
#100	35%		
#200	21%		

Moisture Density Relationship: (ASTM D1557) Method:
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.471 Assumed
Maximum Density: 116.5
Optimum Moisture: 11.5

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry Liquid Limit Method: A
Soil Classification (ASTM D2487) SM

Reviewed By: SNA

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
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Albuquerque, NM 87110-

Attn: Don Lopez

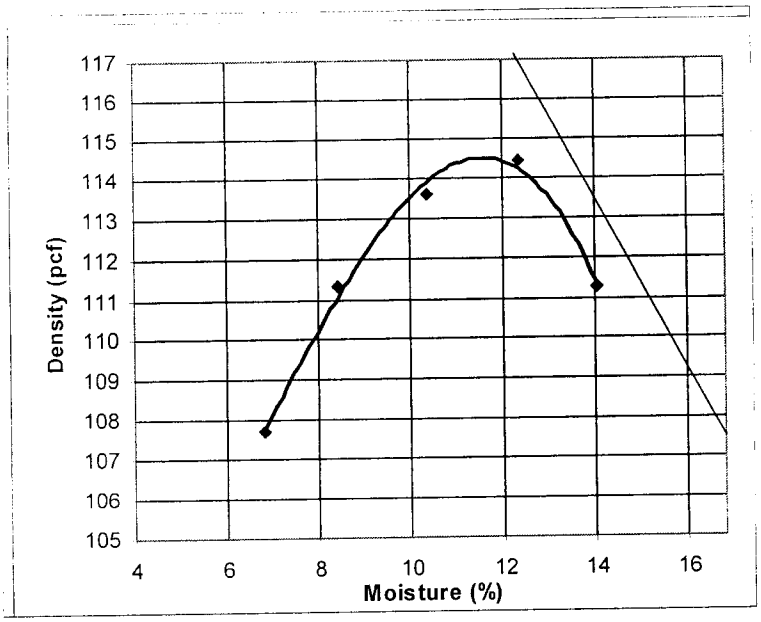
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 02, 2006

Project #: 6-519-004081
Work Order #: 5
Lab #: 6-1589
Sampled By: Wesley Newman
Date Sampled: 10/27/2006
Visual Description of Material: Light Brown Clay
Sample Source: MWL-ES-003

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1 1/2in.	100%		
1in.	99%		
3/4in.	98%		
1/2in.	97%		
3/8in.	96%		
#4	94%		
#8	91%		
#10	91%		
#16	88%		
#30	85%		
#40	84%		
#50	81%		
#100	25%		
#200	17%		

Moisture Density Relationship: (ASTM D698) Method: A
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 114.5
Optimum Moisture: 11.7
Remarks: Revised 12/8/06 to show correct proctor method used.

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry Liquid Limit Method: A

Soil Classification (ASTM D2487) SM

Reviewed By: SNA

Distribution: Client: ✓ File: ✓ Supplier: ☑ Other: Addressee (2)
Email:
Cory Woods / MKM Engineering (1)

AMEC Earth .Environmental, Inc.
8519 Jefferson NE
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Tel 5058211801
Fax 5058217371
www.amec.com

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

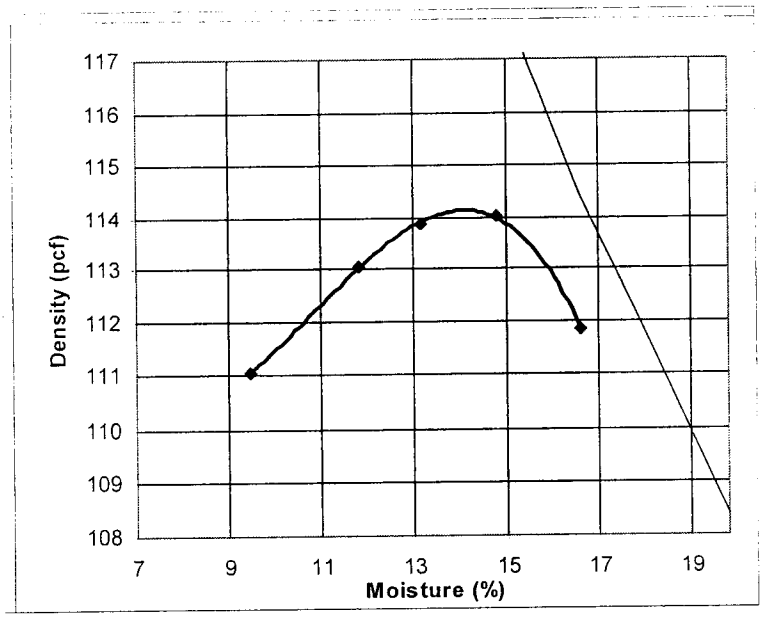
Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 02, 2006

Project #: 6-519-004081
Work Order #: 7
Lab #: 6-1590
Sampled By: Wesley Newman
Date Sampled: 10/27/2006
Visual Description of Material: Light Brown Clay
Sample Source: MWL-ES-004

SOILS / AGGREGATES



Sieve Analysis (ASTM C117/C136)

Sieve Size	Passing	Specifications Min	Specifications Max
1in.	100%		
3/4in.	98%		
1/2in.	97%		
3/8in.	96%		
#4	94%		
#8	91%		
#10	90%		
#16	88%		
#30	85%		
#40	83%		
#50	81%		
#100	31%		
#200	19%		

Moisture Density Relationship: (ASTM D698) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 114.1
Optimum Moisture: 14.2
Remarks: Revised 12/8/06 to show correct proctor method used.

Plasticity Index (ASTM D4318)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
Soil Classification (ASTM D2487) SM

Reviewed By: SNA

Distribution: **Client:** ✓ **File:** ✓ **Supplier:** ☑ **Other:** Addressee (2)
Cory Woods / MKM Engineering (1)
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2006 Density and Moisture Tests

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: October 31, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13034
Tested By: Wesley Newman
Date Tested: 10/27/2006
Visual Description of Material: Land Fill Field Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1444-02	115.5	13.4	ASTM D698-07 / A	

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 30282

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max	
01-1	NE Classified Area, 30' S From NE Corner (MWL-ES1-001)	FSG	B		13.8	2	2	118.5	104.1	115.5	90	90		
02-1	Center of Classified Area (MWL-ES1-002)	FSG	B		7.5	2	2	120.2	111.8	115.5	97	90		*
03-1	South End of Classified Area (MWL-ES1-003	FSG	B		7.8	2	2	118.7	110.2	115.5	95	90		*
04-1	East Perimeter of Classified Area (MWL-ES1-004)	FSG	B		10.2	2	2	116.8	106.0	115.5	92	90		*
05-1	NE Cornrer of Unclassified Area (MWL-ES1-005)	FSG	B		7.1	2	2	114.4	106.8	115.5	92	90		*
06-1	NW Corner of Unclassified Area (MWL-ES1-006)	FSG	B		7.4	2	2	115.8	107.8	115.5	93	90		*
07-1	100' S & 30' E of NW Corner of Unclassified Area (MWL-ES1-007)	FSG	B		9.5	2	2	121.5	111.0	115.5	96	90		*
08-1	100' S & 40' W From NE Corner of Unclassified Area (MWL-ES1-008)	FSG	B		10.6	2	2	119.7	108.2	115.5	94	90		*
09-1	200' N & 30' W From SE Corner of Unclassified Area (MWL-ES1-009)	FSG	B		8.0	2	2	117.4	108.7	115.5	94	90		*
10-1	200' N & 40' E From SW Corner of Unclassified Area (MWL-ES1-010)	FSG	B		11.9	2	2	115.8	103.5	115.5	90	90		
11-1	200' N & 5' E From SW Corner W Perimeter of Unclassified Area (MWL-ES1-011)	FSG	B		8.4	2	2	116.8	107.7	115.5	93	90		*

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

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Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max	
12-1	130' N & 25' E From SW Corner of Unclassified Area (MWL-ES1-012)	FSG	B		8.1	2	2	126.8	117.3	115.5	100+	90		*
13-1	130' N & 50' W From SE Corner of Unclassified Area (MWL-ES1-013)	FSG	B		8.8	2	2	124.3	114.2	115.5	99	90		*
14-1	75' N & 40' W From SE Corner of Unclassified Area (MWL-ES1-014)	FSG	B		8.8	2	2	119.8	110.2	115.5	95	90		*
15-1	75' N & 40' E From SW Corner of Unclassified Area (MWL-ES1-015)	FSG	B		11.9	2	2	122.8	109.8	115.5	95	90		

Reviewed By: _____
SC

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 03, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13062
Tested By: Robert Carr
Date Tested: 10/31/2006
Visual Description of Material: Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1444-01	113.2	10.9	ASTM D698-07 / A	

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Trench C, 100' S of N Edge (MWL-SG1-001)	1ST LIFT	B	0	9.1	2	2	123.5	113.2	113.2	100	90	
02-1	Trench B, 110' S of N Edge(MWL-SG1-002)	1ST LIFT	B	0	9.8	2	2	123.9	112.8	113.2	100	90	
03-1	Trench C, N End (MWL-SG2-001)	2ND LIFT	B	0	11.1	2	2	122.9	110.6	113.2	98	90	
04-1	Trench C, S End (MWL-SG2-002)	2ND LIFT	B	0	10.6	2	2	125.0	113.0	113.2	100	90	
05-1	Trench B, N End (MWL-SG4-001)	2ND LIFT	B	0	10.7	2	2	117.6	106.2	113.2	94	90	
06-1	Trench B, S End (MWL-SG4-002)	2ND LIFT	B	0	10.5	2	2	118.0	106.8	113.2	94	90	
07-1	Trench B, S End (MWL-SG3-001)	3RD LIFT	B	0	10.0	2	2	117.0	106.4	113.2	94	90	
08-1	Trench B, N End (MWL-SG3-002)	3RD LIFT	B	0	10.6	2	2	116.5	105.3	113.2	93	90	
09-1	Trench A, N End (MWL-SG3-003)	1ST LIFT	B	0	10.0	2	2	124.3	113.0	113.2	100	90	
10-1	Trench C, N End (MWL-SG3-004)	3RD LIFT	B	0	10.7	2	2	121.3	109.6	113.2	97	90	
11-1	Trench C, S End (MWL-SG3-005)	3RD LIFT	B	0	9.0	2	2	123.4	113.2	113.2	100	90	

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

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Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 03, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13063
Tested By: Robert Carr
Date Tested: 11/01/2006
Visual Description of Material: Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1444-01	113.2	10.9	ASTM D698-07 / A	

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Trench B, N End (MWL-SG5-001)	5TH LIFT	B	0	10.2	2	2	119.9	108.8	113.2	96	90	
02-1	Trench C, S End (MWL-SG4-003)	4TH LIFT	B	0	11.1	2	2	114.4	103.0	113.2	91	90	
03-1	Trench C, N End (MWL-SG4-004)	4TH LIFT	B	0	9.6	2	2	122.3	111.5	113.2	98	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 03, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13064
Tested By: Robert Carr
Date Tested: 11/02/2006
Visual Description of Material: Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1444-01	113.2	10.9	ASTM D698-07 / A	

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Trench C, N End (MWL-SG4-005)	4TH LIFT	B	0	8.9	2	2	111.4	102.3	113.2	90	90	
02-1	Trench C, S End (MWL-SG6-001)	6TH LIFT	B	0	9.2	2	2	123.6	113.2	113.2	100	90	
03-1	Trench B, N End (MWL-SG6-002	6TH LIFT	B	0	11.0	2	2	122.7	110.5	113.2	98	90	
04-1	Trench B, S End (MWL-SG6-003)	6TH LIFT	B	0	12.1	2	2	120.5	107.5	113.2	95	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 10, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13107
Tested By: Robert Carr
Date Tested: 11/06/2006
Visual Description of Material: Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1624	113.3	13.2	ASTM D698-07 / a	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	4008 15' Northeast (MWL-SG7-001)	7TH LIFT	B	0	11.2	2	2	122.1	109.8	113.3	97	90	

Reviewed By: _____
Jr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 10, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13108
Tested By: Robert Carr
Date Tested: 11/07/2006
Visual Description of Backfill Material:

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1624	113.3	13.2	ASTM D698-07 / a	Light Brown
6-1625	117.4	12.9	ASTM D698-07 / a	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	4009 6' West (MWL-SG8-001)	8TH LIFT	B	0	11.5	2	2	124.3	111.5	113.3	98	90	
02-1	4019 4' West (MWL-SG8-002)	8TH LIFT	B	0	11.5	2	2	119.8	107.4	113.3	95	90	
03-1	4008 12' East (MWL-SG8-003(	8TH LIFT	B	0	12.5	2	2	117.7	104.3	113.3	92	90	
04-1	4022 12' SW (MWL-SG9-001)	9TH LIFT	B	0	14.2	2	2	123.1	107.9	117.4	92	90	
05-1	4020 15' SW (MWL-SG9-002)	9TH LIFT	B	0	11.0	2	2	126.7	114.1	117.4	97	90	
06-1	4008 25' SW (MWL-SG9-003)	9TH LIFT	B	0	11.0	2	2	122.5	110.4	117.4	94	90	

Reviewed By: _____
Jr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 10, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13109
Tested By: Robert Carr
Date Tested: 11/08/2006
Visual Description of Backfill Material:

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1625	117.4	12.9	ASTM D698-07 / a	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	4005 25' SW (MWL-SG9-004)	9TH LIFT	B	0	12.7	2	2	1217.0	108.7	117.4	93	90	

Reviewed By: _____
Jr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 10, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13110
Tested By: Robert Carr
Date Tested: 11/09/2006
Visual Description of Backfill Material:

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1626	118.3	12.7	ASTM D698-07 / a	Light Brown
6-1645	118.7	12.4	ASTM D698-07 / a	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	4004 20' SW (MWL-SG9-005)	9TH LIFT	B	0	11.7	2	2	126.4	113.2	118.3	96	90	
02-1	4022 4' S (MWL-SG10-001)	10TH LIFT	B	0	13.8	2	2	126.5	111.2	118.3	94	90	
03-1	4019 6' NE (MWL-SG10-002)	10TH LIFT	B	0	11.3	2	2	123.3	110.8	118.7	93	90	
04-1	4008 10' N (MWL-SG10-003)	10TH LIFT	B	0	11.7	2	2	120.9	108.3	118.7	91	90	

Reviewed By: _____
Jr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 21, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13233
Tested By: Miguel Chavez
Date Tested: 11/14/2006
Visual Description of Material: Land Fill Cover Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1646	119.6	11.0	ASTM D698-07 / a	Light Brown
6-1647	115.4	12.9	ASTM D698-07 / a	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	15' W of 4018 10th Lift (MWL-SG10-004)	FSG -1.0'	B	0	9.6	2	2	123.7	112.9	119.6	94	90	
02-1	5' NE of 4012 10th Lift (MWL-SG10-005)	FSG -1.0'	B	0	9.6	2	2	127.6	117.5	119.6	98	90	
03-1	15' E of 4011 10th Lift (MWL-SG10-006)	FSG -1.0'	B	0	12.5	2	2	127.0	112.9	119.6	94	90	
04-1	5' E of 4031 10th Lift (MWL-SG10-007)	FSG -1.0'	B	0	9.4	2	2	128.2	114.6	119.6	96	90	
05-1	15' E of 4038 10th Lift, (MWL-SG10-008	FSG -1.0'	B	0	10.9	2	2	130.9	118.1	119.6	99	90	
06-1	8' NW of 4055 (MWL-SG10-009)	FSG -1.0'	B	0	13.9	2	2	121.3	106.5	115.4	92	90	
07-1	20' NW of 4038 (MWL-SG10-10)	FSG -1.0'	B	0	12.4	2	2	128.7	114.4	115.4	99	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 21, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13234
Tested By: Miguel Chavez
Date Tested: 11/15/2006
Visual Description of Material: Land Fill Cover Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1647	115.4	12.9	ASTM D698-07 / a	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	34' NW of 4036 (MWL-SG11-01)	FSG -0.5'	B	0	11.8	2	2	128.2	114.6	115.4	99	90	
02-1	25' W of 4049 (MWL-SG11-02)	FSG -0.5'	B	0	14.2	2	2	129.0	112.9	115.4	98	90	

Reviewed By: _____
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Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 21, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13235
Tested By: Miguel Chavez
Date Tested: 11/16/2006
Visual Description of Material: Land Fill Cover Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1690	116.5	13.0	ASTM D698-07 / a	Light Brown
6-1691	113.5	13.0	ASTM D698-07 / A	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	15' W of 4038 (MWL-SG11-003	FSG -0.5'	B	0	14.1	2	2	124.2	108.9	116.5	93	90	
02-1	20' W of 4050 (MWL-SG11-004)	FSG -0.5'	B	0	11.5	2	2	127.8	114.6	116.5	98	90	
03-1	10' W of 4051 (MWL-SG-005)	FSG -0.5'	B	0	12.7	2	2	128.9	114.4	116.5	98	90	
04-1	15' S of 4039 (MWL-SG11-006)	FSG -0.5'	B	0	11.8	2	2	119.2	106.6	113.5	94	90	
05-1	15' W of 4055 (MWL-SG11-007)	FSG -0.5'	B	0	14.1	2	2	128.9	113.0	113.5	100	90	
06-1	5' E of 4042 (MWL-SG11-008)	FSG -0.5'	B	0	12.6	2	2	127.7	113.5	113.5	100	90	

Reviewed By: _____
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Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
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Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 28, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13314
Tested By: Miguel Chavez
Date Tested: 11/20/2006
Visual Description of Material: Landfill Cover Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1692	113.6	12.6	ASTM D698-07 / a	light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	15' Northwest of 4026 (MWL-SG11-09)	FSG -0.5'	B		14.1	2	2	130.1	113.5	113.6	100	90	
02-1	15' Northwest of 4013 (MWL-SG11-10)	FSG -0.5'	B		12.0	2	2	122.5	109.3	113.6	96	90	

Reviewed By: _____
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Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Report Date: November 28, 2006

Project #: 6-519-004081
Report #: 13315
Tested By: Miguel Chavez
Date Tested: 11/21/2006
Visual Description of Material: Landfill Cover Backfill

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1692	113.6	12.6	ASTM D698-07 / a	light Brown
6-1740	116.0	12.3	ASTM D698-07 / A	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	10' East of 4025 (MWL-SG11-011)	FSG -0.5'	B		14.3	2	2	125.7	110.0	113.6	97	90	
02-1	15' Southwest of 4010 (MWL-SG11-012)	FSG -0.5'	B		11.8	2	2	127.7	114.2	113.6	100+	90	
03-1	17' West of 4011 (MWL-SG11-013)	FSG -0.5'	B		13.7	2	2	120.0	105.5	113.6	93	90	
04-1	12' West of 4023 (MWL-SG11-014)	FSG -0.5'	B		12.3	2	2	119.4	106.4	113.6	94	90	
05-1	5' Southeast of 4010 (MWL-SG11-015)	FSG -0.5'	B		10.7	2	2	125.5	113.4	116.0	98	90	
06-1	13' Southeast of 4009 (MWL-SG11-016)	FSG -0.5'	B		11.6	2	2	127.5	114.2	116.0	98	90	
07-1	7' Northeast of 4032 (MWL-SG11-017)	FSG -0.5'	B		13.9	2	2	128.3	112.7	116.0	97	90	

Reviewed By: _____
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Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Test Mode = D for Direct Transmission and B for Backscatter Modes

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Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: November 28, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13316
Tested By: Miguel Chavez
Date Tested: 11/22/2006
Visual Description of Material: Landfill Cover Backfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1740	116.0	12.3	ASTM D698-07 / A	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	6' West of 4021 (MWL-SG11-018)	FSG -0.5'	B		13.2	2	2	131.6	116.3	116.0	100	90	

Reviewed By: _____
sna

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 04, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13361
Tested By: Miguel Chavez
Date Tested: 11/30/2006
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1779	117.9	13.0	ASTM D698-07 / A	Light Red & Rocky

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 28750

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	12' W of 4058 (MWL-SG12-001)	FSG	D	6	12.2	2	2	123.3	109.9	117.9	93	90	
02-1	20' NW of 4049 (MWL-SG12-002)	FSG	D	6	11.7	2	2	127.6	114.2	117.9	97	90	
03-1	20' NW of 4045 (MWL-SG12-003)	FSG	D	6	11.8	2	2	131.6	117.7	117.9	100	90	
04-1	25' SW of 4050 (MWL-SG12-004)	FSG	D	6	12.2	2	2	131.3	117.0	117.9	99	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 07, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13425
Tested By: Miguel Chavez
Date Tested: 12/05/2006
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1834	118.4	12.7	ASTM D698-07 / A	Light Red

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 28750

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	15' W of 4039 (MWL-SG12-005)	FSG	D	6	12.3	2	2	133.5	118.9	118.4	100	90	
02-1	15' E of 4052 (MWL-SG12-006)	FSG	D	6	12.4	2	2	125.8	112.0	118.4	95	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 08, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13427
Tested By: Robert Carr
Date Tested: 12/07/2006
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1833	112.4	13.6	ASTM D698-07 / B	Light Red & Rocky
6-1835	119.0	12.0	ASTM D698-07 / A	Light Red

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	4053, 25' SE (MWL-SG12-007)	FSG	B	0	13.1			127.1	112.4	112.4	100	90	
02-1	4042, 25' NE (MWL-SG12-008)	FSG	B	0	14.1			128.2	112.4	112.4	100	90	
03-1	4027, 25' SE (MWL-SG12-009)	FSG	B	0	13.6			127.7	112.4	119.0	94	90	
04-1	4014, 20' E (MWL-SG12-010)	FSG	B	0	11.9			123.0	110.4	119.0	93	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
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Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 14, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13513
Tested By: Miguel Chavez
Date Tested: 12/13/2006
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1895	115.9	12.2	ASTM D698-07 / A	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 28750

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Landfill 10' W of 4016 (MWL-SG12-011)	FSG	D	0	10.8	2	2	127.2	114.8	115.9	99	90	
02-1	Landfill 25' SW of 4025 (MWL-SG12-012)	FSG	D		12.1	2	2	126.8	113.1	115.9	98	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 18, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13522
Tested By: Miguel Chavez
Date Tested: 12/15/2006
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1895	115.9	12.2	ASTM D698-07 / A	Light Brown
6-1951	117.9	12.1	ASTM D698-07 / A	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 28750

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	20' SW of 4010 (MWL-SG12-013)	FSG	B	0	12.3	2	2	126.2	112.3	115.9	97	90	
02-1	15' SW of 4024 (MWL-SG12-14)	FSG	B	0	13.7	2	2	115.0	113.2	117.9	96	90	

Reviewed By: _____
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Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

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Fax 5058217371
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mixed Waste Landfill Cover
KAFB
Albuquerque, NM

Project Manager: Robert Romero

Report Date: December 19, 2006
Amended Date: December 22, 2009
Project #: 6-519-004081
Report #: 13523
Tested By: Robert Carr
Date Tested: 12/18/2006
Visual Description of Material: Landfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1951	117.9	12.1	ASTM D698-07 / A	Light Brown

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	4024, 15' Southeast (MWL-SG12-015)	FSG	D	6	14.0	2	2	123.9	108.7	117.9	92	90	
02-1	4010, 20' Southeast (MWL-SG12-016)	FSG	D	6	13.1	2	2	125.6	111.1	117.9	94	90	

Reviewed By: _____
SC

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐ Cory Woods / MKM Engineering (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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2009 Standard Proctor, Gradation, and Classification Tests

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

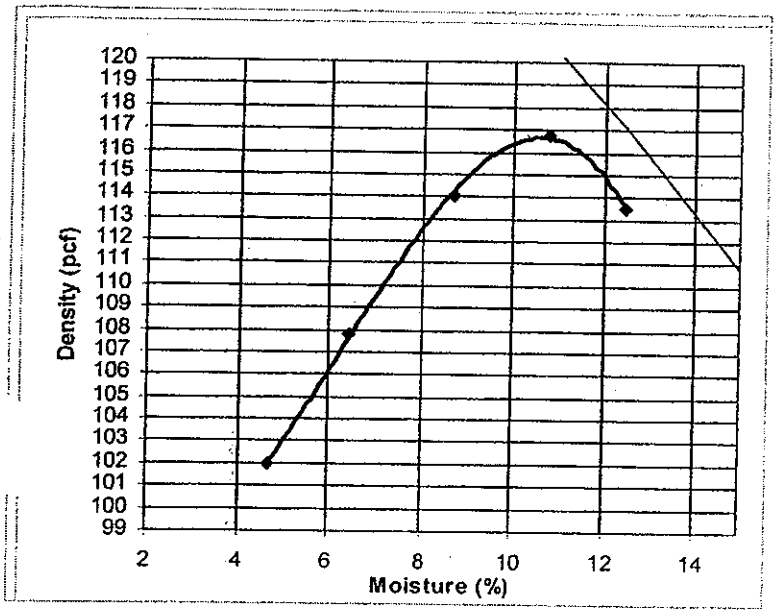
Report Date: May 27, 2009

Project #: 9-517-00022a
Work Order #: 3
Lab #: 9-0589-01
Sampled By: Client
Date Sampled: 05/20/2009
Visual Description of Material: Silty Sand w/Rock
Sample Source: SNL MWL 05-2009-1

SOILS / AGGREGATES

Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing



Moisture Density Relationship: (ASTM D698-00) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 116.7
Optimum Moisture: 10.6

Reviewed By: _____
hg

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	**Report Date:** June 15, 2009	
		Project #: 9-517-00022D	
		Work Order #: 5	
Attn:	Chris Edgmon	**Lab #:** 9-0589a-01	
Project Name:	EDI SNL Mixed Waste Landfill Cover	**Sampled By:** Client	
		Date Sampled: 05/20/2009	
	ABQ, NM	**Visual Description of Material:**	Silty Sand w/Rock
		Sample Source: SNL MWL 05-2009-1	
Project Manager:	Vickie Maranville	**SOILS / AGGREGATES**	

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/8in.	100%
#4	98%
#8	96%
#10	95%
#16	92%
#30	89%
#40	87%
#50	85%
#100	74%
#200	34%

(ASTM D2216-05)
Moisture Content (%): 5.7%

Plasticity Index (ASTM D4318-05)

Preperation Method: Dry
Liquid Limit Method: A
Soil Classification (ASTM D2487-06) SC-SM

Liquid Limit: 27
Plastic Limit: 20
Plasticity Index: 7

PI Sample Was Air Dried.

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: May 27, 2009

Project #: 9-517-00022a
Work Order #: 3
Lab #: 9-0589-02
Sampled By: Client
Date Sampled: 05/20/2009
Visual Description of Material: Silty Sand w/Rock
Sample Source: SNL MWL 05-2009-2

Attn: Chris Edgmon
Project Name: EDI SNL Mixed Waste Landfill Cover

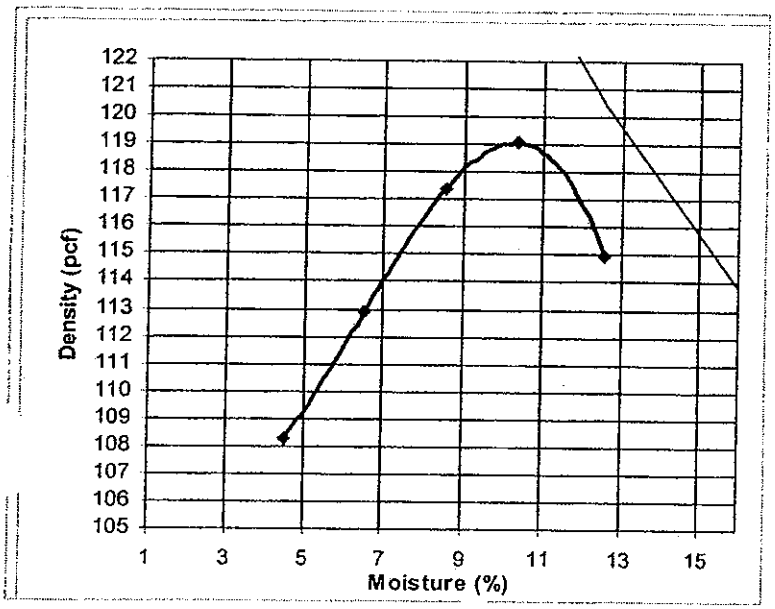
ABQ, NM

Project Manager: Vickie Maranville

SOILS / AGGREGATES

Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing



Moisture Density Relationship: (ASTM D698-00) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 Assumed
Maximum Density: 119.1
Optimum Moisture: 10.3

Reviewed By: _____
hg

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: June 15, 2009

Project #: 9-517-00022D
Work Order #: 5
Lab #: 9-0589a-02
Sampled By: Client
Date Sampled: 05/20/2009
Visual Description of Material: Silty Sand w/Rock
Sample Source: SNL MWL 05-2009-2

Attn: Chris Edgmon
Project Name: EDI SNL Mixed Waste Landfill Cover
ABQ, NM
Project Manager: Vickie Maranville

SOILS / AGGREGATES

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	98%
3/8in.	97%
#4	94%
#8	90%
#10	90%
#16	86%
#30	83%
#40	81%
#50	79%
#100	67%
#200	26%

(ASTM D2216-05)
Moisture Content (%): 4.2%

Plasticity Index (ASTM D4318-05)
Preperation Method: Dry
Liquid Limit Method: A
Soil Classification (ASTM D2487-06) SC-SM

Liquid Limit: 24
Plastic Limit: 20
Plasticity Index: 4

PI Sample Was Air Dried.

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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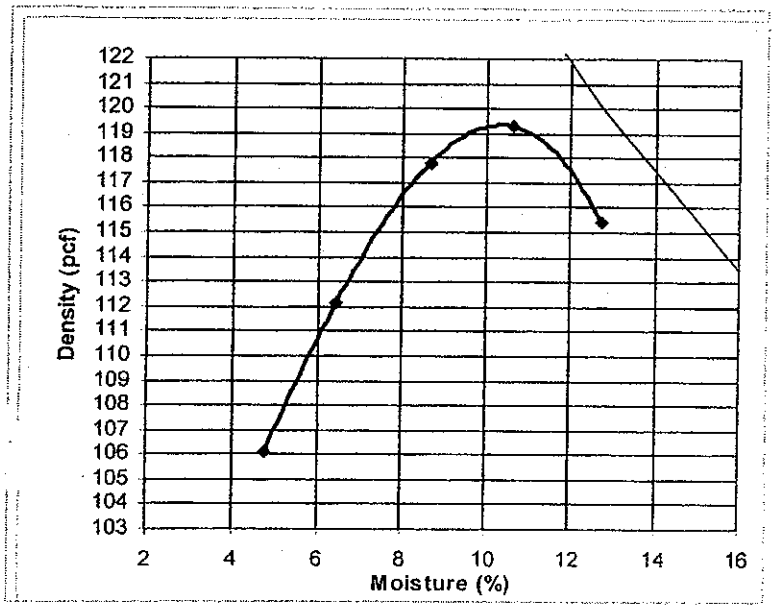
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	**Report Date:**	May 27, 2009
		Project #:	9-517-00022a
		Work Order #:	3
Attn:	Chris Edgmon	**Lab #:**	9-0589-03
Project Name:	EDI SNL Mixed Waste Landfill Cover	**Sampled By:**	Client
		Date Sampled:	05/20/2009
	ABQ, NM	**Visual Description of Material:**	Silty Sand w/Rock
		Sample Source:	SNL MWL 05-2009-3
Project Manager:	Vickie Maranville		

SOILS / AGGREGATES

Sieve Analysis **(ASTM C117-04/C136-06)**
200 Wash Procedure: A

Sieve Size	Passing



Moisture Density Relationship: **(ASTM D698-00)** **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 119.3
Optimum Moisture: 10.3

Reviewed By: _____
hg

Distribution: **Client** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	**Report Date:** June 15, 2009	
		Project #: 9-517-00022D	
		Work Order #: 5	
Attn:	Chris Edgmon	**Lab #:** 9-0589a-03	
Project Name:	EDI SNL Mixed Waste Landfill Cover	**Sampled By:** Client	
		Date Sampled: 05/20/2009	
	ABQ, NM	**Visual Description of Material:**	Silty Sand w/Rock
		Sample Source:	SNL MWL 05-2009-3
Project Manager:	Vickie Maranville	**SOILS / AGGREGATES**	

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	98%
3/8in.	98%
#4	95%
#8	91%
#10	90%
#16	87%
#30	84%
#40	82%
#50	81%
#100	69%
#200	26%

(ASTM D2216-05)
Moisture Content (%): 4.7%

Plasticity Index (ASTM D4318-05)

Preperation Method: Dry
Liquid Limit Method: A
Soil Classification (ASTM D2487-06) SC-SM

Liquid Limit: 24
Plastic Limit: 20
Plasticity Index: 4

PI Sample Was Air Dried.

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

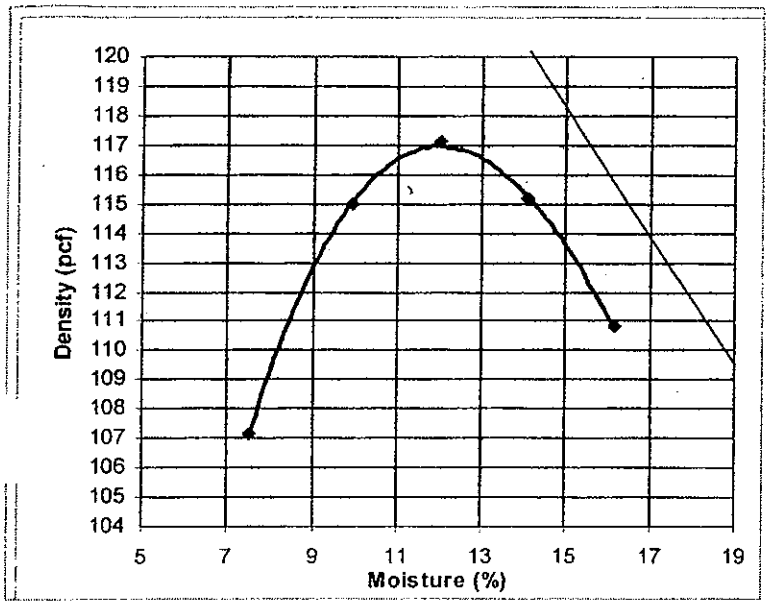
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 01, 2009

Project #: 9-517-00022D
Work Order #: 1
Lab #: 9-0629-01
Sampled By: Client
Date Sampled: 05/29/2009
Visual Description of Material: Silty Sand
Sample Source: SNLMWL: 052909-4

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	98%
3/8in.	98%
#4	95%
#8	92%
#10	90%
#16	87%
#30	83%
#40	81%
#50	79%
#100	67%
#200	31%

Moisture Density Relationship: (ASTM D698-00) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 117.0
Optimum Moisture: 12.0

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 20
Plasticity Index: 3
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
hg

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

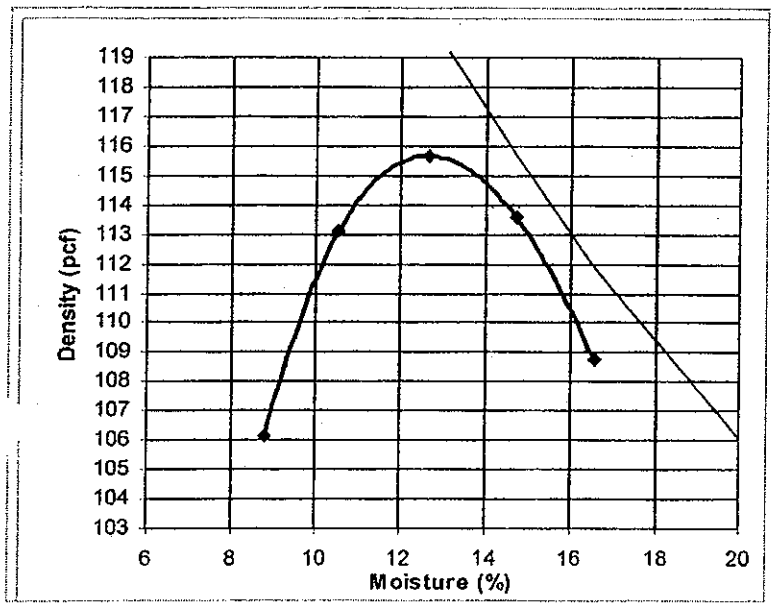
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 02, 2009

Project #: 9-517-00022D
Work Order #: 1
Lab #: 9-0629-02
Sampled By: Client
Date Sampled: 05/29/2009
Visual Description of Material: Clayey Silty Sand
Sample Source: SNLMWL: 052909-5

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	98%
1/2in.	98%
3/8in.	97%
#4	95%
#8	93%
#10	92%
#16	90%
#30	87%
#40	86%
#50	84%
#100	74%
#200	36%

Moisture Density Relationship: (ASTM D698-00) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 Assumed
Maximum Density: 115.7
Optimum Moisture: 12.6

Plasticity Index (ASTM D4318-05)
Liquid Limit: 26
Plastic Limit: 20
Plasticity Index: 6
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
hg

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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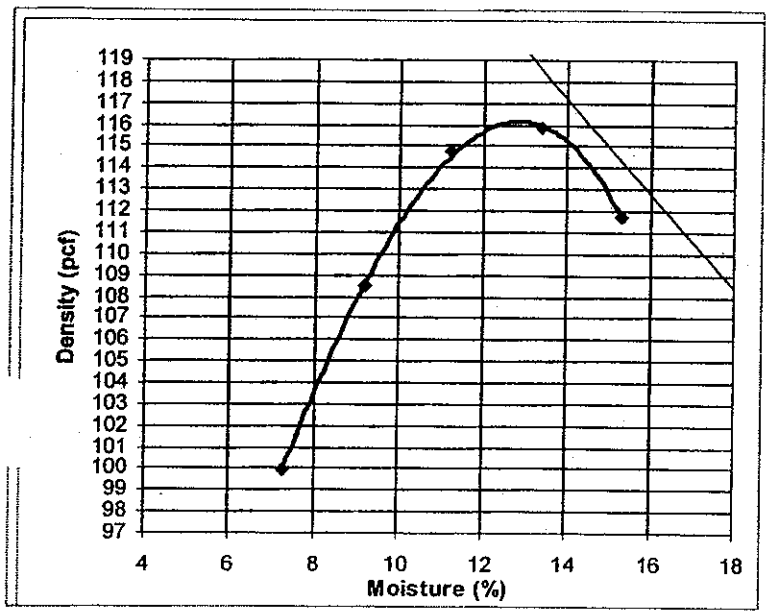
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: June 02, 2009	
		Project #: 9-517-00022D	
		Work Order #: 1	
Attn:	Chris Edgmon	Lab #: 9-0629-03	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Client	
		Date Sampled: 05/29/2009	
	ABQ, NM	Visual Description of Material:	Clayey Sandy
Project Manager:	Vickie Maranville	Sample Source: SNLMWL: 052909-6	

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	96%
#10	96%
#16	94%
#30	91%
#40	90%
#50	88%
#100	78%
#200	38%

Moisture Density Relationship: (ASTM D698-00) **Method:** A

Preparation Method: Dry **Rammer Type:** Mechanical

Specific Gravity: 2.551 **Assumed**

Maximum Density: 116.2

Optimum Moisture: 12.8

Plasticity Index (ASTM D4318-05)

Liquid Limit: 25

Plastic Limit: 17

Plasticity Index: 8

Preperation Method: Dry **Liquid Limit Method:** A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC

Reviewed By: _____

hg

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)

Email: ☐

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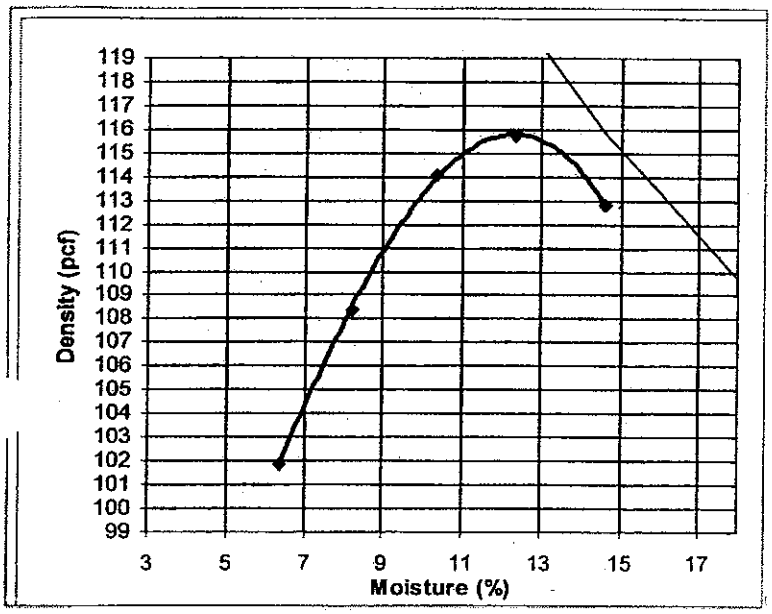
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: June 02, 2009	
		Project #: 9-517-00022D	
		Work Order #: 1	
Attn:	Chris Edgmon	Lab #: 9-0629-04	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Client	
		Date Sampled: 05/29/2009	
	ABQ, NM	Visual Description of Material:	Clayey Silty Sand
		Sample Source: SNLMWL: 052909-7	
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/8in.	100%
#4	99%
#8	97%
#10	96%
#16	94%
#30	91%
#40	90%
#50	88%
#100	76%
#200	37%

Moisture Density Relationship: (ASTM D698-00) Method: A

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 115.8

Optimum Moisture: 12.3

Plasticity Index (ASTM D4318-05)

Liquid Limit: 26

Plastic Limit: 20

Plasticity Index: 6

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____

hg

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371 www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

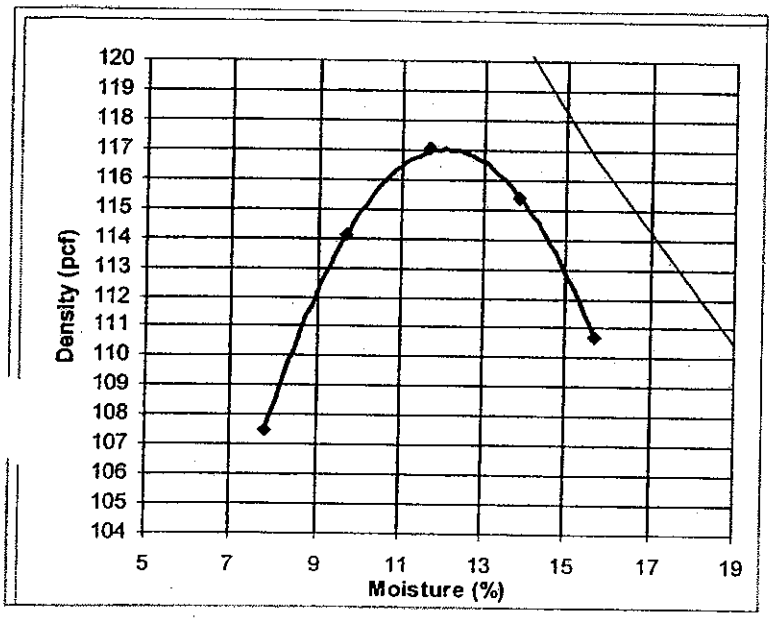
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 02, 2009

Project #: 9-517-00022D
Work Order #: 1
Lab #: 9-0629-05
Sampled By: Client
Date Sampled: 05/29/2009
Visual Description of Material: Clayey Silty Sand
Sample Source: SNLMWL: 052909-8

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	99%
3/8in.	98%
#4	97%
#8	94%
#10	94%
#16	91%
#30	88%
#40	87%
#50	85%
#100	73%
#200	32%

Moisture Density Relationship: (ASTM D1557-02) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 117.0
Optimum Moisture: 12.0

Plasticity Index (ASTM D4318-05)
Liquid Limit: 25
Plastic Limit: 20
Plasticity Index: 5
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: MBR

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
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www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

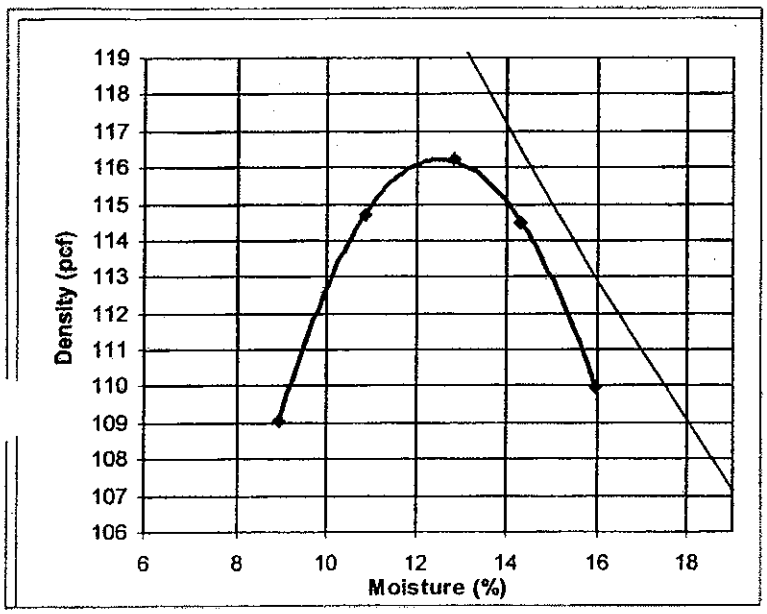
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 12, 2009

Project #: 9-517-00022D
Work Order #: 6
Lab #: 9-0671-01
Sampled By: Jon Schermerhorn/Client
Date Sampled: 06/09/2009
Visual Description of Material: Brown Silty Sand - From Native Soil
Sample Source: SNL MWL: 060909-009

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	99%
3/8in.	98%
#4	96%
#8	94%
#10	93%
#16	92%
#30	89%
#40	87%
#50	85%
#100	73%
#200	36%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 Assumed
Maximum Density: 116.2
Optimum Moisture: 12.5

Plasticity Index (ASTM D4318-05)
Liquid Limit: 27
Plastic Limit: 19
Plasticity Index: 8
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

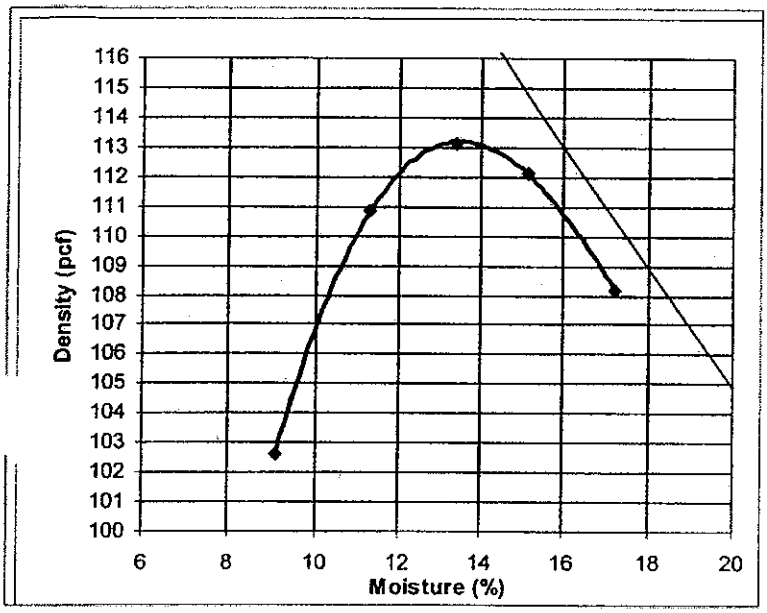
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 12, 2009

Project #: 9-517-00022D
Work Order #: 6
Lab #: 9-0671-02
Sampled By: Jon Schemerhorn/Client
Date Sampled: 06/09/2009
Visual Description of Material: Brown Silty Sand - From Native Soil
Sample Source: SNL MWL: 060909-010

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	99%
#4	98%
#8	96%
#10	95%
#16	93%
#30	90%
#40	88%
#50	87%
#100	74%
#200	38%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 113.2
Optimum Moisture: 13.5

Plasticity Index (ASTM D4318-05)
Liquid Limit: 26
Plastic Limit: 18
Plasticity Index: 8
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC

Reviewed By: _____
hg

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

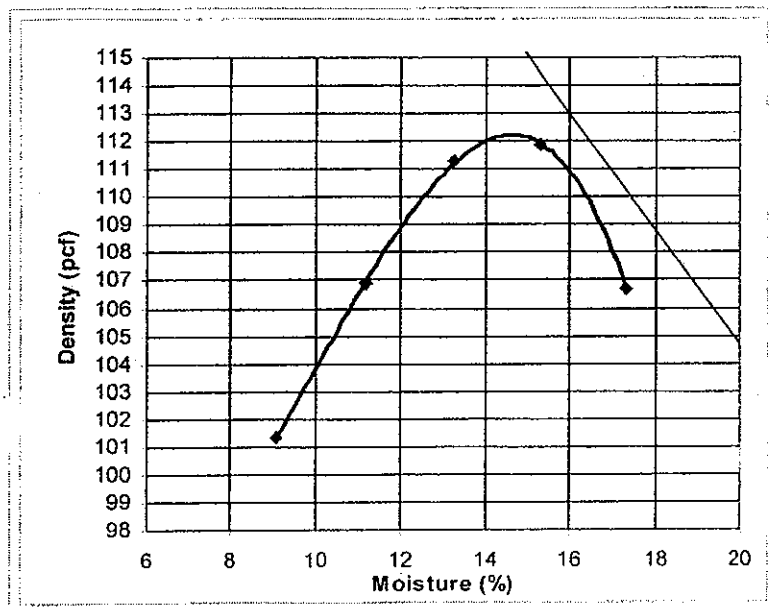
ABQ, NM

Project Manager: Vickie Maranville

SOILS / AGGREGATES

Report Date: June 12, 2009

Project #: 9-517-00022D
Work Order #: 6
Lab #: 9-0671-03
Sampled By: Jon Schermerhorn/Client
Date Sampled: 6/9/2009
Visual Description of Material: Brown Silty Sand - From Native Soil
Sample Source: SNL MWL: 060909-011



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	99%
3/8in.	98%
#4	97%
#8	94%
#10	94%
#16	92%
#30	90%
#40	88%
#50	85%
#100	76%
#200	29%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 112.2
Optimum Moisture: 14.6

Plasticity Index (ASTM D4318-05)
Liquid Limit: 27
Plastic Limit: 20
Plasticity Index: 7
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

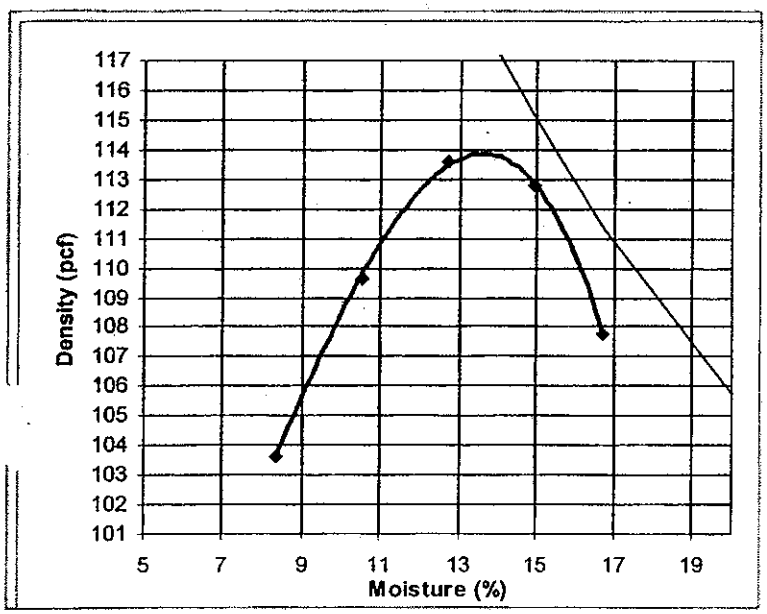
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 11, 2009

Project #: 9-517-00022D
Work Order #: 6
Lab #: 9-0671-04
Sampled By: Jon Schermerhorn/Client
Date Sampled: 06/09/2009
Visual Description of Material: Brown Silty Sand - From Native Soil
Sample Source: SNL MWL: 060909-012

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	95%
#10	94%
#16	92%
#30	89%
#40	87%
#50	86%
#100	72%
#200	35%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.55 Assumed
Maximum Density: 113.9
Optimum Moisture: 13.6

Plasticity Index (ASTM D4318-05)
Liquid Limit: 25
Plastic Limit: 21
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
hg

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

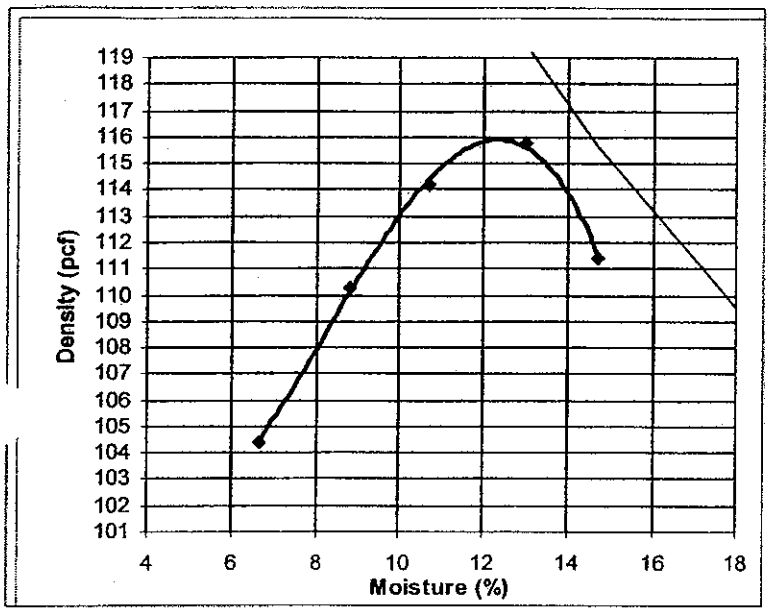
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 11, 2009

Project #: 9-517-00022D
Work Order #: 6
Lab #: 9-0671-05
Sampled By: Jon Schermerhorn/Client
Date Sampled: 06/09/2009
Visual Description of Material: Brown Silty Sand - From Native Soil
Sample Source: SNL MWL: 060909-013

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	97%
#8	94%
#10	93%
#16	91%
#30	88%
#40	86%
#50	84%
#100	70%
#200	27%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 Assumed
Maximum Density: 115.9
Optimum Moisture: 12.3

Plasticity Index (ASTM D4318-05)
Liquid Limit: 24
Plastic Limit: 20
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
hg

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nt: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

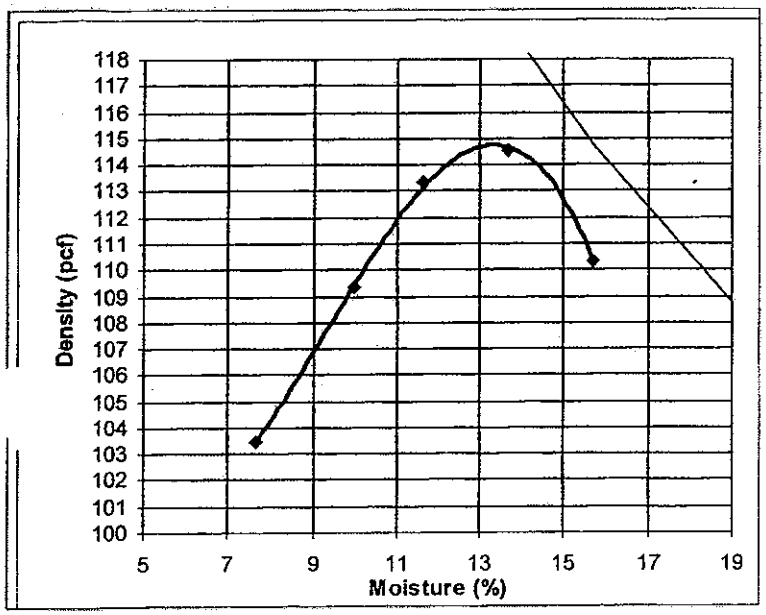
ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 29, 2009

Project #: 9-517-00022D
Work Order #: 10
Lab #: 9-0720-01
Sampled By: David A. Luna
Date Sampled: 06/24/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL-062409-014

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	98%
#8	96%
#10	95%
#16	93%
#30	91%
#40	89%
#50	87%
#100	77%
#200	38%

Moisture Density Relationship: (ASTM D698-07) Method: B
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.591 Assumed
Maximum Density: 114.7
Optimum Moisture: 13.3

Plasticity Index (ASTM D4318-05)
Liquid Limit: 25
Plastic Limit: 18
Plasticity Index: 7
Preperation Method: Dry Liquid Limit Method: A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
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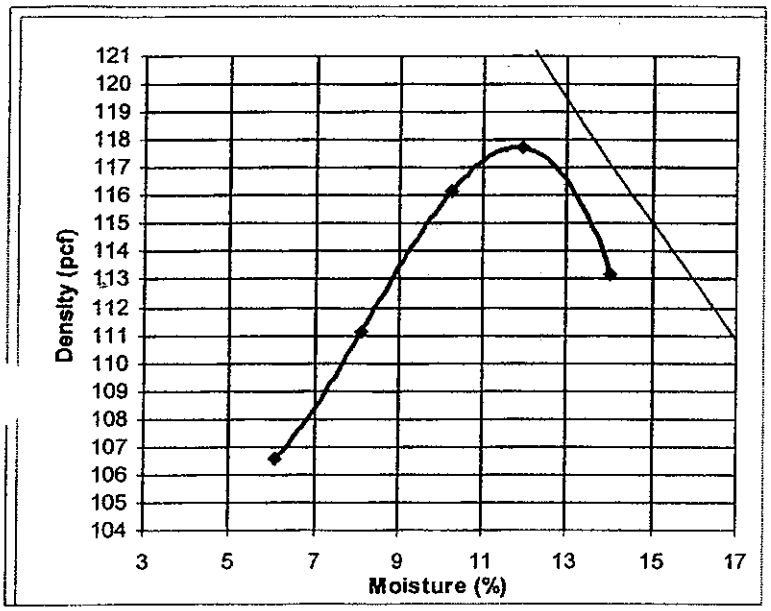
ient:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		Report Date: June 30, 2009
			Project #: 9-517-00022D
			Work Order #: 10
Attn:	Chris Edgmon		Lab #: 9-0720-02
Project Name:	EDI SNL Mixed Waste Landfill Cover		Sampled By: David A. Luna
			Date Sampled: 06/24/2009
	ABQ, NM		Visual Description of Material: Brown Silty Sand
			Sample Source: SNL MWL-062409-015
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	95%
#10	95%
#16	92%
#30	90%
#40	89%
#50	87%
#100	76%
#200	35%

Moisture Density Relationship: (ASTM D698-07) **Method: B**

Preparation Method: Dry **Rammer Type:** Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 117.7

Optimum Moisture: 11.8

Plasticity Index (ASTM D4318-05)

Liquid Limit: 24

Plastic Limit: 18

Plasticity Index: 6

Preperation Method: Dry **Liquid Limit Method:** A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____

hg

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)

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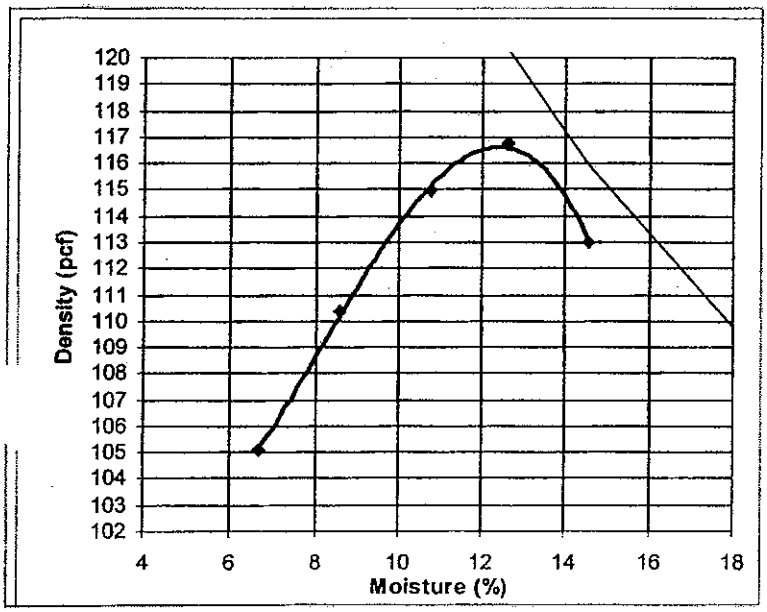
ent:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: June 30, 2009	
		Project #: 9-517-00022D	
		Work Order #: 10	
Attn:	Chris Edgmon	Lab #: 9-0720-03	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: David A. Luna	
		Date Sampled: 06/24/2009	
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNL MWL-062409-016
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	97%
#8	94%
#10	93%
#16	91%
#30	88%
#40	86%
#50	85%
#100	73%
#200	33%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 116.6

Optimum Moisture: 12.4

Plasticity Index (ASTM D4318-05)

Liquid Limit: 22

Plastic Limit: 19

Plasticity Index: 3

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____

hg

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'ent: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: June 30, 2009

Project #: 9-517-00022D
Work Order #: 10
Lab #: 9-0720-04
Sampled By: David A. Luna
Date Sampled: 06/24/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL-062409-017

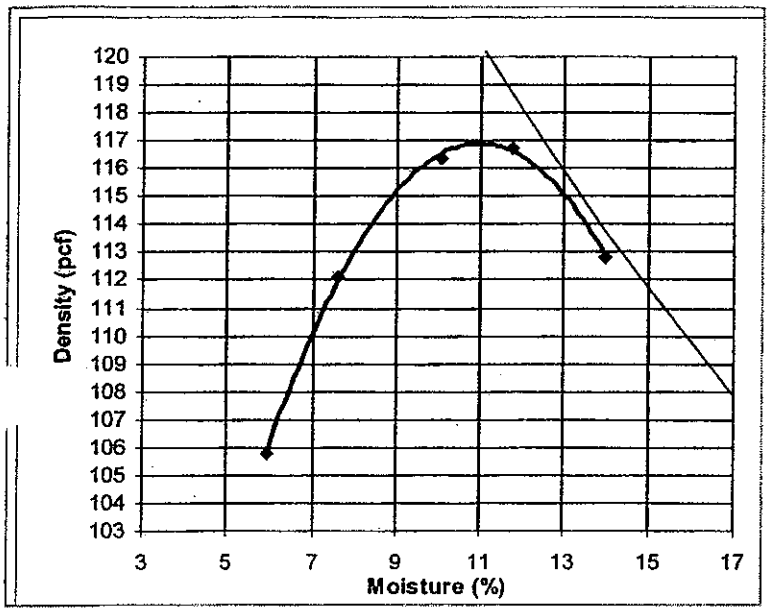
Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	98%
#8	96%
#10	95%
#16	92%
#30	90%
#40	88%
#50	86%
#100	74%
#200	33%

Moisture Density Relationship: (ASTM D698-07) Method: B
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 116.9
Optimum Moisture: 11.0

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 20
Plasticity Index: 3
Preperation Method: Dry Liquid Limit Method: A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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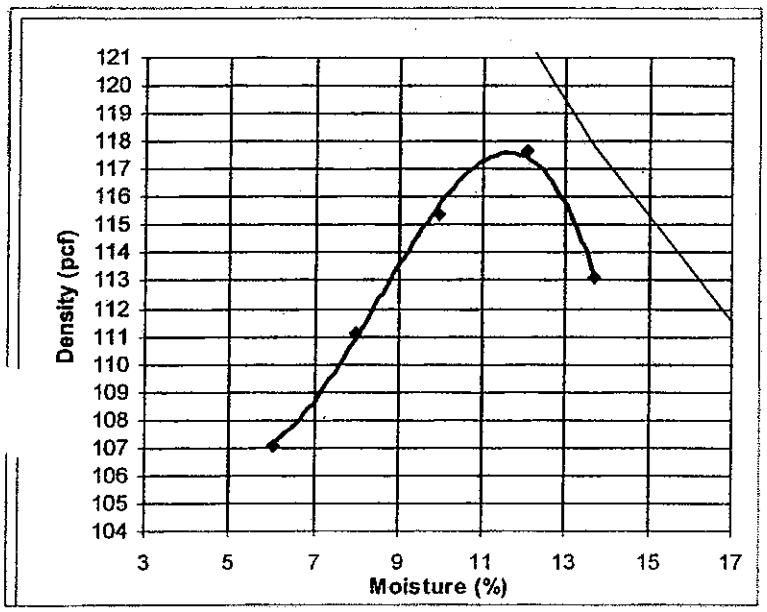
'ent:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		Report Date: June 30, 2009
			Project #: 9-517-00022D
			Work Order #: 10
Attn:	Chris Edgmon		Lab #: 9-0720-05
Project Name:	EDI SNL Mixed Waste Landfill Cover		Sampled By: David A. Luna
			Date Sampled: 06/24/2009
	ABQ, NM		Visual Description of Material: Brown Silty Sand
			Sample Source: SNL MWL-062409-018
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	100%
#4	97%
#8	95%
#10	93%
#16	91%
#30	88%
#40	86%
#50	84%
#100	73%
#200	33%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 117.6

Optimum Moisture: 11.6

Plasticity Index (ASTM D4318-05)

Liquid Limit: NV

Plastic Limit: NV

Plasticity Index: NP

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

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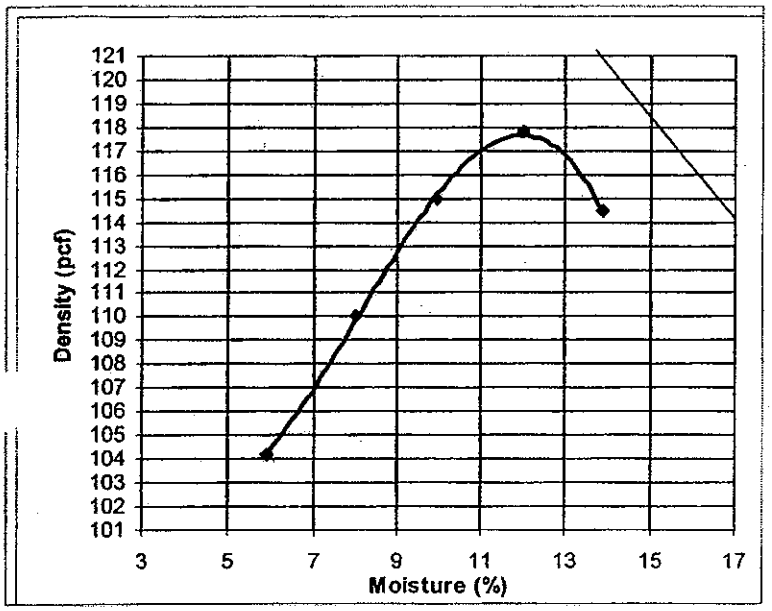
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date:	July 09, 2009
		Project #:	9-517-00022D
		Work Order #:	11
Attn:	Chris Edgmon	Lab #:	9-0733-01
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By:	Jon Schermerhorn
		Date Sampled:	06/29/2009
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNI MWL 062909-19
Project Manager:	Vickie Maranville		

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	98%
3/8in.	97%
#4	96%
#8	93%
#10	93%
#16	90%
#30	88%
#40	86%
#50	85%
#100	72%
#200	33%

Moisture Density Relationship: (ASTM D698-07) **Method:** B

Preparation Method: Dry **Rammer Type:** Mechanical

Specific Gravity: 2.651 **Assumed**

Maximum Density: 117.7

Optimum Moisture: 12.0

Plasticity Index (ASTM D4318-05)

Liquid Limit: 23

Plastic Limit: 16

Plasticity Index: 7

Preperation Method: Dry **Liquid Limit Method:** A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
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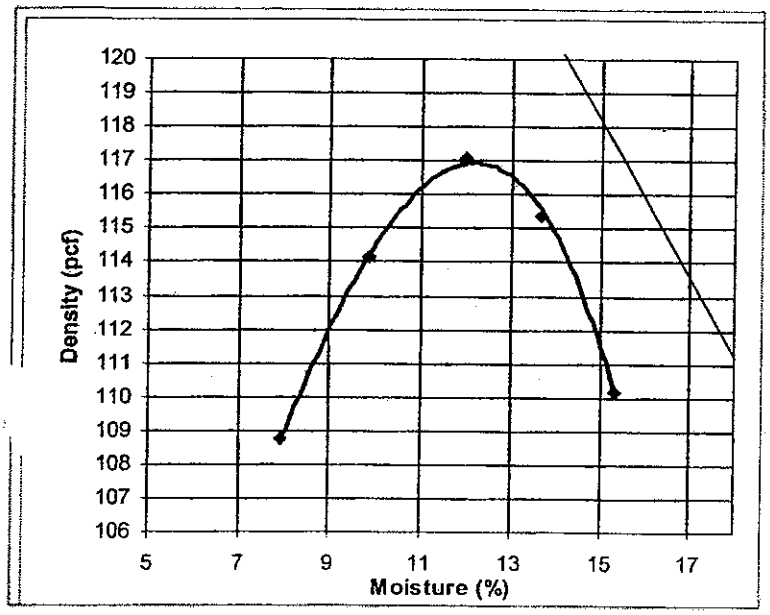
ɔnt:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: July 09, 2009	
		Project #: 9-517-00022D	
		Work Order #: 11	
Attn:	Chris Edgmon	Lab #: 9-0733-02	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Jon Schermerhorn	
		Date Sampled: 06/29/2009	
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNL MWL 062909-20
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	98%
#8	96%
#10	96%
#16	93%
#30	91%
#40	90%
#50	88%
#100	75%
#200	36%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.651 Assumed

Maximum Density: 116.9

Optimum Moisture: 12.2

Plasticity Index (ASTM D4318-05)

Liquid Limit: 24

Plastic Limit: 17

Plasticity Index: 7

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____

Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

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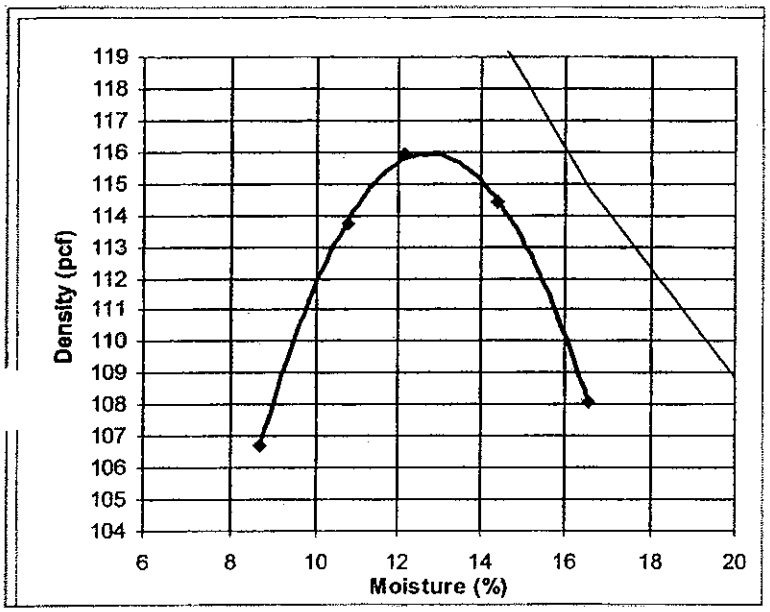
nt:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		Report Date: July 09, 2009 Project #: 9-517-00022D Work Order #: 11
Attn:	Chris Edgmon		Lab #: 9-0733-03 Sampled By: Jon Schermerhorn
Project Name:	EDI SNL Mixed Waste Landfill Cover		Date Sampled: 06/29/2009
	ABQ, NM		Visual Description of Material: Brown Silty Sand
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	Sample Source: SNL MWL 062909-21



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	98%
#4	96%
#8	94%
#10	93%
#16	91%
#30	88%
#40	86%
#50	84%
#100	73%
#200	41%

Moisture Density Relationship: (ASTM D698-07) Method: A

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.651 Assumed

Maximum Density: 115.9

Optimum Moisture: 12.7

Plasticity Index (ASTM D4318-05)

Liquid Limit: 24

Plastic Limit: 17

Plasticity Index: 7

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371 www.amec.com

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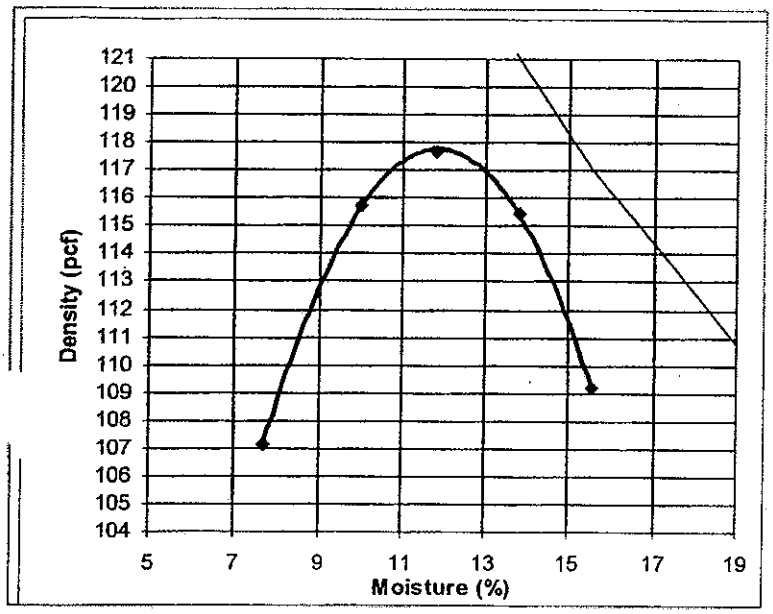
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: July 09, 2009	
		Project #: 9-517-00022D	
		Work Order #: 11	
Attn:	Chris Edgmon	Lab #: 9-0733-04	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Jon Schermerhorn	
		Date Sampled: 06/29/2009	
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNL MWL 062909-22
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	99%
#8	97%
#10	96%
#16	94%
#30	92%
#40	90%
#50	89%
#100	75%
#200	36%

Moisture Density Relationship: (ASTM D698-07) Method: A

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.651 Assumed

Maximum Density: 117.8

Optimum Moisture: 11.8

Plasticity Index (ASTM D4318-05)

Liquid Limit: NV

Plastic Limit: NV

Plasticity Index: NP

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

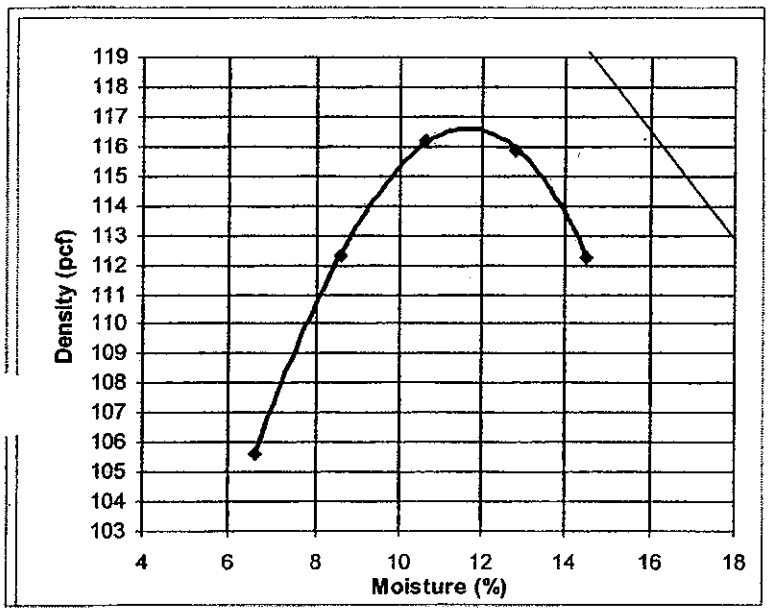
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 11
Lab #: 9-0733-05
Sampled By: Jon Schermerhorn
Date Sampled: 06/29/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 062909-23

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	97%
#8	94%
#10	93%
#16	91%
#30	89%
#40	88%
#50	86%
#100	74%
#200	36%

Moisture Density Relationship: (ASTM D698-07) Method: B
Preparation Method: Dry Rammer Type: Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 116.6
Optimum Moisture: 11.6

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry Liquid Limit Method: A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: Jan

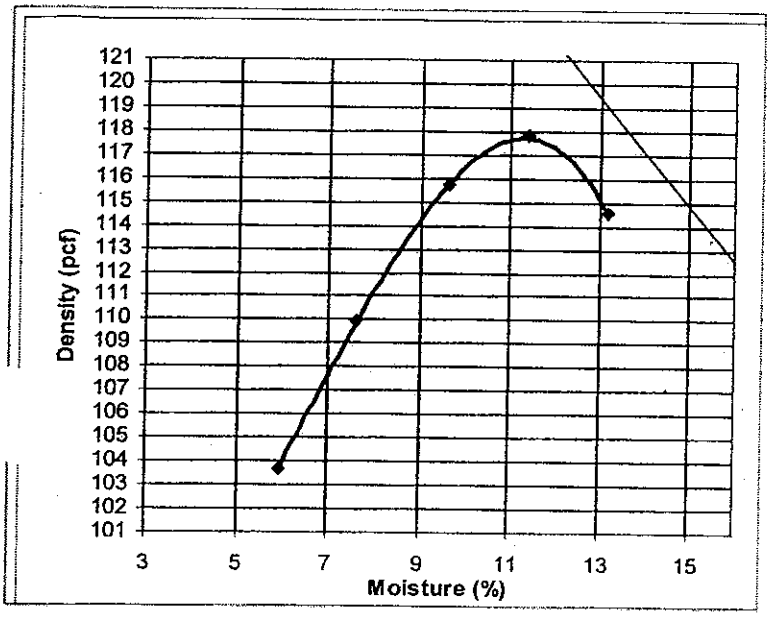
Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: July 10, 2009	
		Project #: 9-517-00022D	
		Work Order #: 11	
Attn:	Chris Edgmon	Lab #: 9-0733-06	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Jon Schermerhorn	
		Date Sampled: 06/29/2009	
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
Project Manager:	Vickie Maranville	Sample Source: SNL MWL 062909-24	

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	99%
#4	97%
#8	95%
#10	94%
#16	92%
#30	90%
#40	88%
#50	86%
#100	74%
#200	34%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 117.7

Optimum Moisture: 11.3

Plasticity Index (ASTM D4318-05)

Liquid Limit: 22

Plastic Limit: 15

Plasticity Index: 7

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____

Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

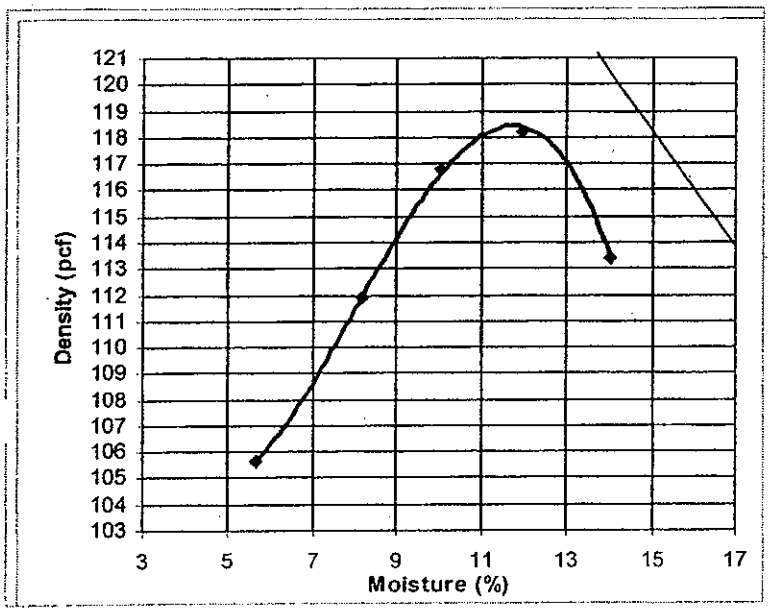
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 13
Lab #: 9-0737-01
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 063009-25

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	98%
3/8in.	98%
#4	96%
#8	93%
#10	92%
#16	90%
#30	88%
#40	86%
#50	84%
#100	73%
#200	34%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 118.4
Optimum Moisture: 11.7

Plasticity Index (ASTM D4318-05)
Liquid Limit: 24
Plastic Limit: 20
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: Jan

Distribution: **Client** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

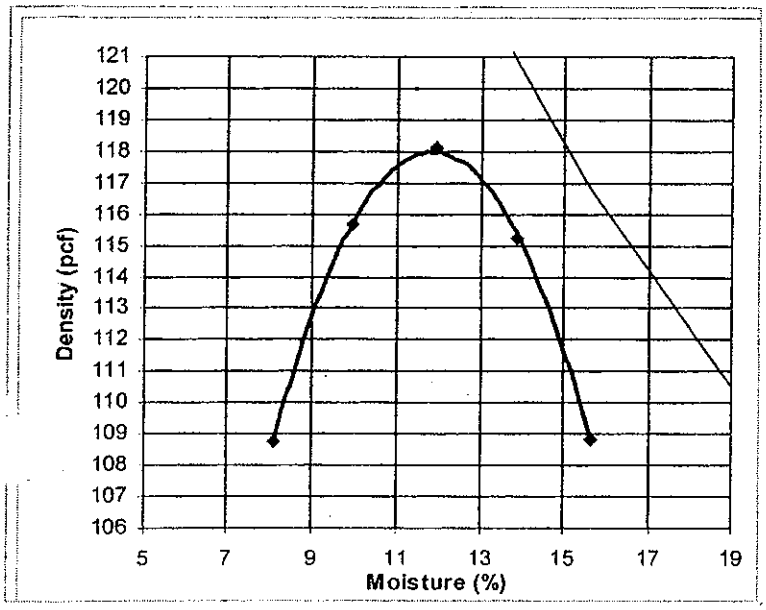
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 13
Lab #: 9-0737-02
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 063009-26

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	98%
3/8in.	97%
#4	96%
#8	94%
#10	93%
#16	91%
#30	88%
#40	87%
#50	85%
#100	74%
#200	36%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 118.0
Optimum Moisture: 11.8

Plasticity Index (ASTM D4318-05)
Liquid Limit: 25
Plastic Limit: 20
Plasticity Index: 5
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: Jan

Distribution: **Client** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

:C Earth Environmental, Inc.
6019 Jefferson NE
Albuquerque, NM 87113
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Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

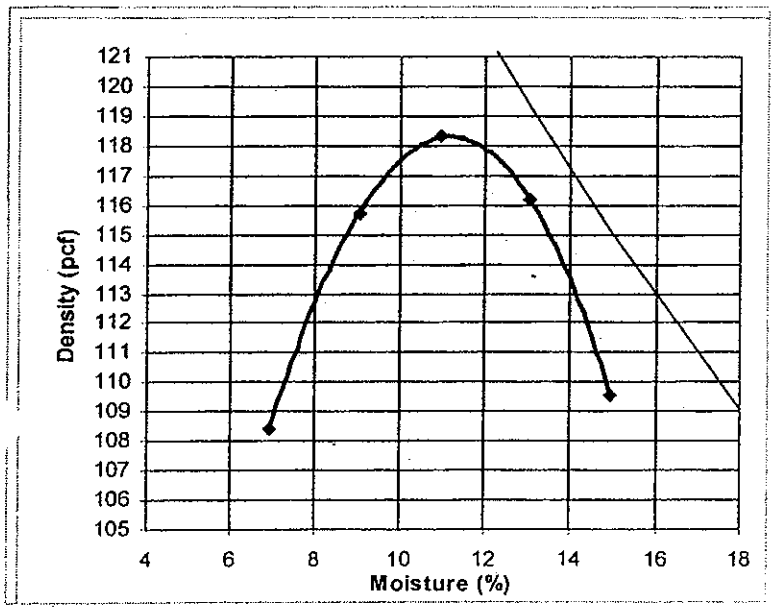
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 13
Lab #: 9-0737-03
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 063009-27

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	98%
1/2in.	97%
3/8in.	96%
#4	94%
#8	92%
#10	91%
#16	89%
#30	86%
#40	85%
#50	83%
#100	70%
#200	32%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 Assumed
Maximum Density: 118.3
Optimum Moisture: 11.2

Plasticity Index (ASTM D4318-05)
Liquid Limit: 22
Plastic Limit: 20
Plasticity Index: 2
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371 www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

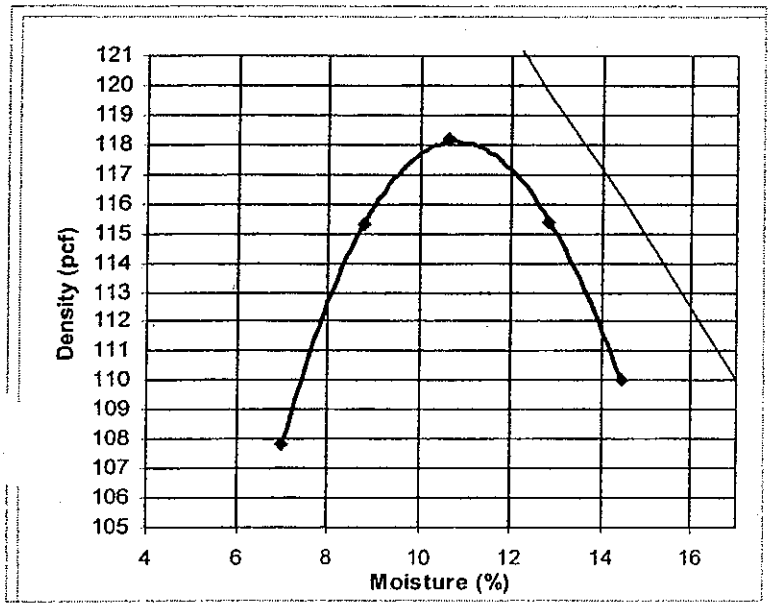
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 13
Lab #: 9-0737-04
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 063009-28

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	99%
#4	98%
#8	95%
#10	95%
#16	92%
#30	90%
#40	88%
#50	86%
#100	73%
#200	33%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 118.1
Optimum Moisture: 10.8

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 20
Plasticity Index: 3
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

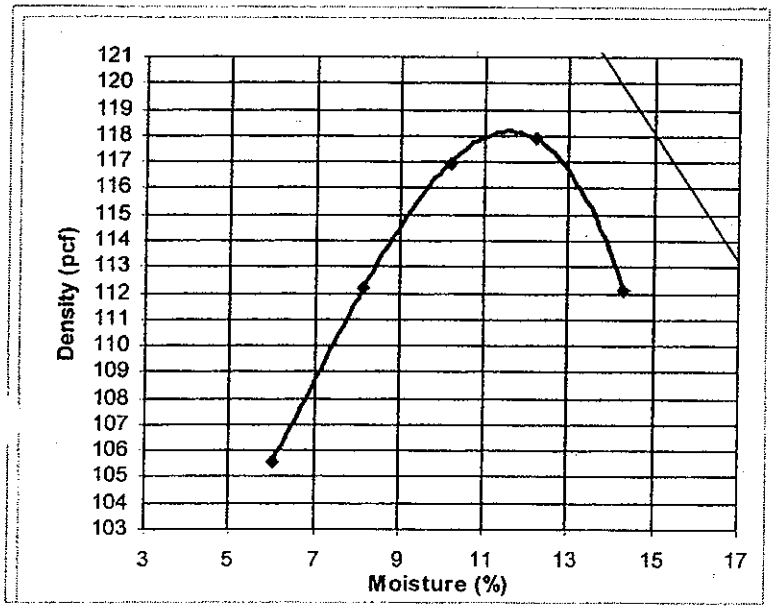
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 13
Lab #: 9-0737-05
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 063009-29

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	97%
#8	95%
#10	94%
#16	92%
#30	89%
#40	88%
#50	86%
#100	72%
#200	33%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 118.2
Optimum Moisture: 11.6

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

AMEC Earth Environmental, Inc.
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Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

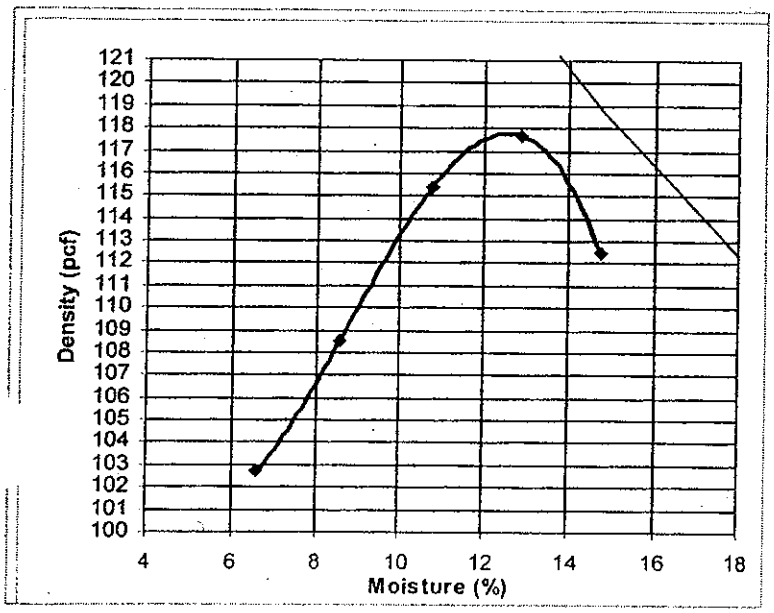
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 09, 2009

Project #: 9-517-00022D
Work Order #: 13
Lab #: 9-0737-06
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 063009-30

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	97%
#10	96%
#16	94%
#30	92%
#40	91%
#50	89%
#100	78%
#200	39%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 117.8
Optimum Moisture: 12.5

Plasticity Index (ASTM D4318-05)
Liquid Limit: 24
Plastic Limit: 17
Plasticity Index: 7
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

EC Earth Environmental, Inc.
5519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

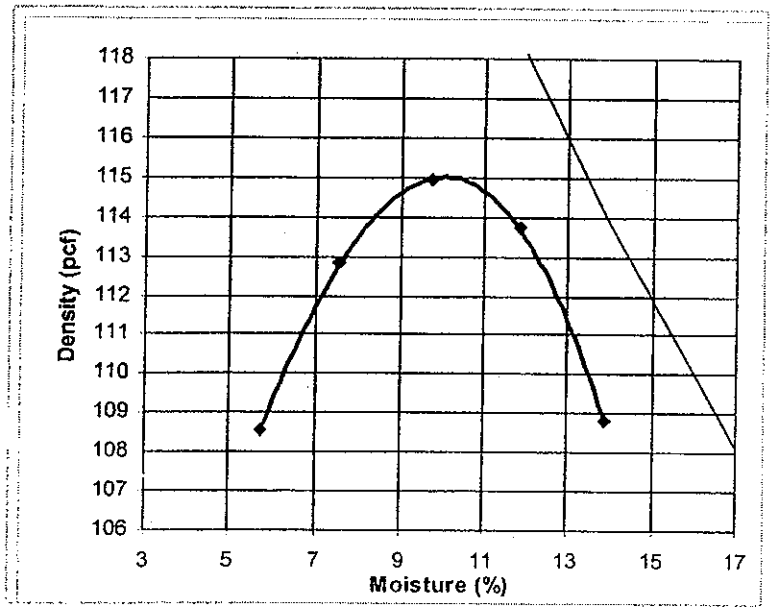
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 07, 2009

Project #: 9-517-00022D
Work Order #: 15
Lab #: 9-0743-01
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Burm-1

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	98%
#8	97%
#10	96%
#16	95%
#30	93%
#40	92%
#50	90%
#100	68%
#200	30%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 115.0
Optimum Moisture: 10.0

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
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Fax 5058217371
www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

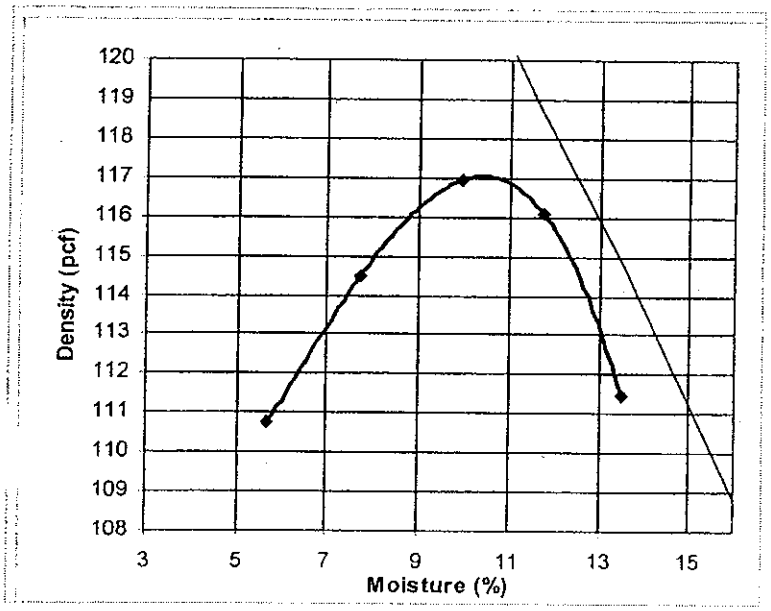
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 07, 2009

Project #: 9-517-00022D
Work Order #: 15
Lab #: 9-0743-02
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Burm-2

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	98%
3/8in.	97%
#4	95%
#8	93%
#10	92%
#16	90%
#30	88%
#40	86%
#50	84%
#100	65%
#200	27%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 **Assumed**
Maximum Density: 117.0
Optimum Moisture: 10.4

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: **Client** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

EC Earth Environmental, Inc.
19 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

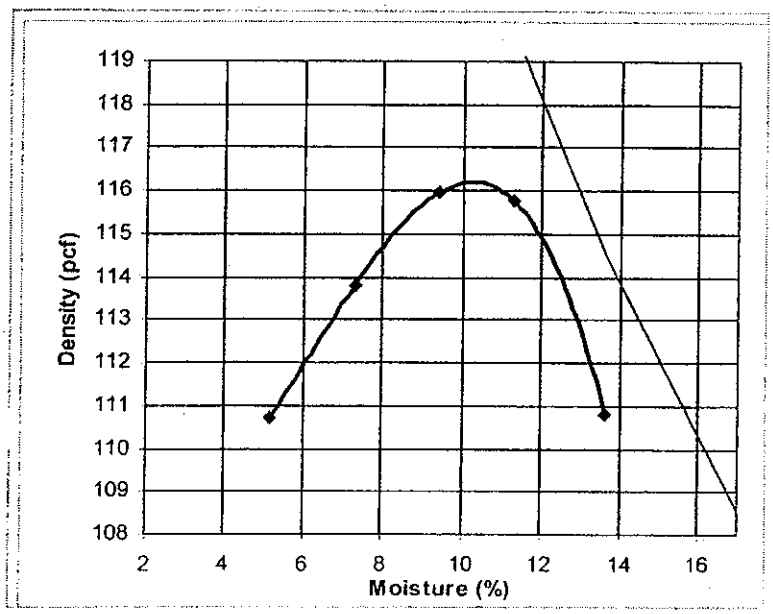
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 07, 2009

Project #: 9-517-00022D
Work Order #: 15
Lab #: 9-0743-03
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Burm-3

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: B

Sieve Size	Passing
1in.	100%
3/4in.	99%
1/2in.	97%
3/8in.	96%
#4	94%
#8	92%
#10	91%
#16	90%
#30	87%
#40	86%
#50	84%
#100	65%
#200	26%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 116.2
Optimum Moisture: 10.2

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

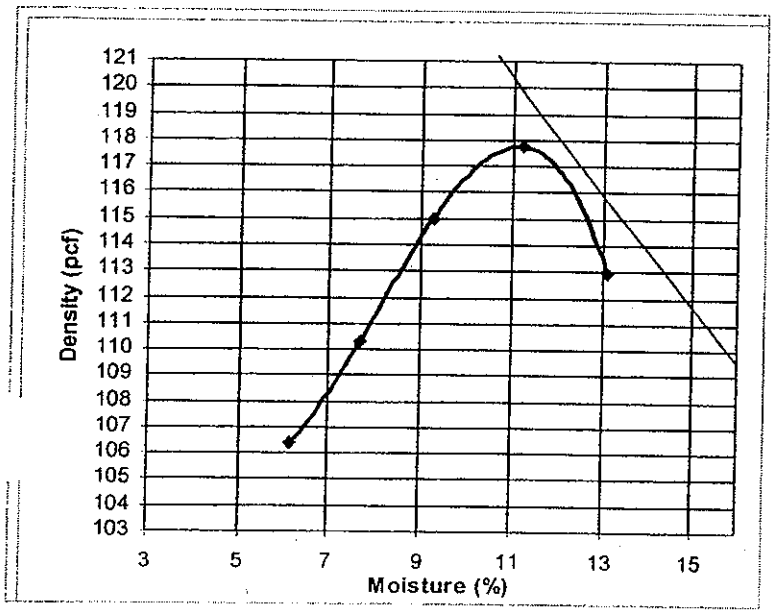
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 15, 2009

Project #: 9-517-00022D
Work Order #: 17
Lab #: 9-0770-01
Sampled By: Jon Schermerhorn
Date Sampled: 07/10/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-4

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	100%
#4	99%
#8	97%
#10	97%
#16	95%
#30	92%
#40	90%
#50	88%
#100	73%
#200	28%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 117.8
Optimum Moisture: 11.1

Plasticity Index (ASTM D4318-05)
Liquid Limit: 25
Plastic Limit: 18
Plasticity Index: 7
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

AMEC Earth Environmental, Inc.
6319 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

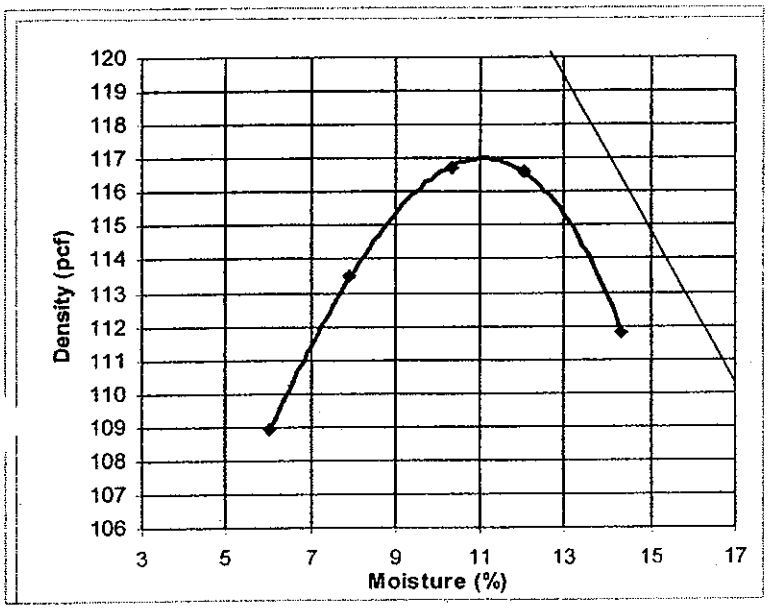
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 15, 2009

Project #: 9-517-00022D
Work Order #: 17
Lab #: 9-0770-02
Sampled By: Jon Schermerhorn
Date Sampled: 07/10/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-5

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	98%
3/8in.	97%
#4	94%
#8	92%
#10	91%
#16	89%
#30	86%
#40	85%
#50	82%
#100	65%
#200	24%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 117.0
Optimum Moisture: 11.1

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: **Client** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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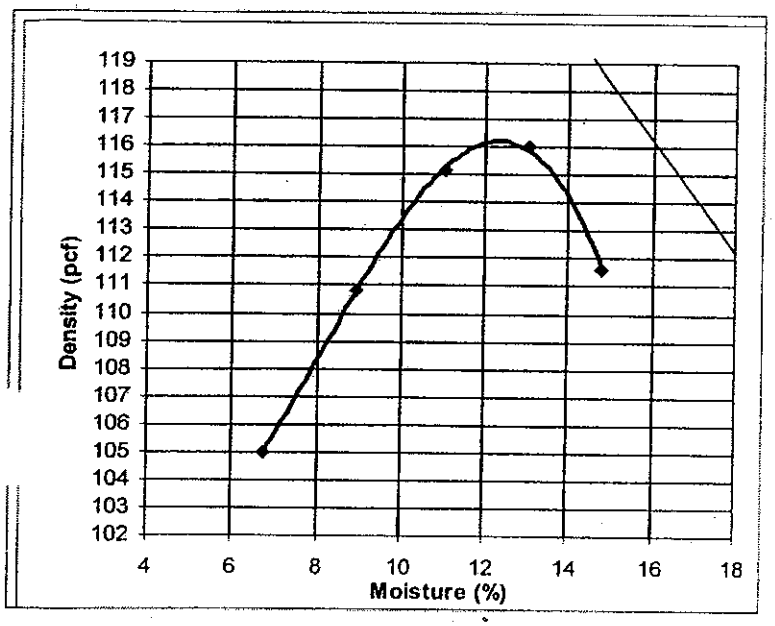
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	**Report Date:** July 17, 2009	
		Project #: 9-517-00022D	
		Work Order #: 18	
Attn:	Chris Edgmon	**Lab #:** 9-0781-02	
Project Name:	EDI SNL Mixed Waste Landfill Cover	**Sampled By:** Jon Schermerhorn	
		Date Sampled: 7/14/2009	
	ABQ, NM	**Visual Description of Material:**	Brown Silty Sand
Project Manager:	Vickie Maranville	**Sample Source:**	SNL MWL Berm-6

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	100%
#4	98%
#8	96%
#10	95%
#16	93%
#30	90%
#40	88%
#50	86%
#100	74%
#200	32%

Moisture Density Relationship: (ASTM D698-07) **Method:** B

Preparation Method: Dry **Rammer Type:** Mechanical

Specific Gravity: 2.651 Assumed

Maximum Density: 116.2

Optimum Moisture: 12.3

Plasticity Index (ASTM D4318-05)

Liquid Limit: 23

Plastic Limit: 21

Plasticity Index: 2

Preperation Method: Dry **Liquid Limit Method:** A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____

hg

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

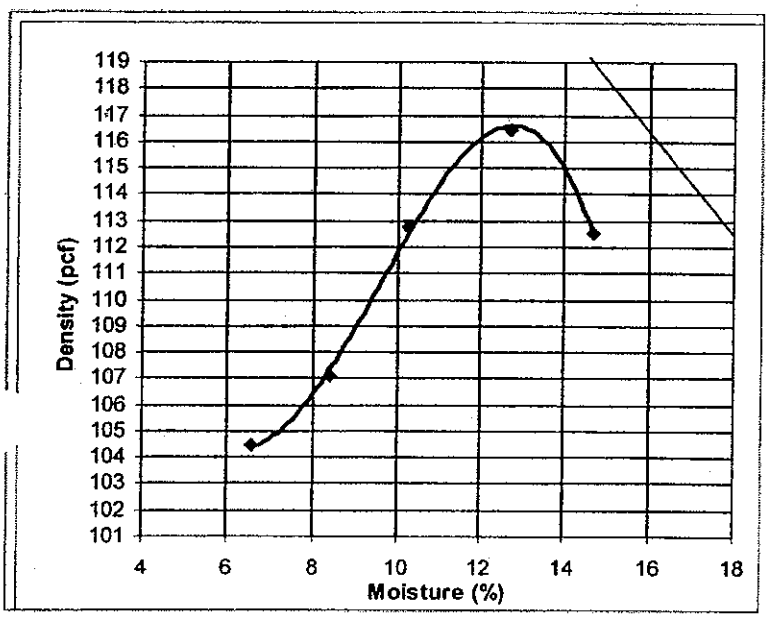
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 17, 2009

Project #: 9-517-00022D
Work Order #: 18
Lab #: 9-0781-03
Sampled By: Jon Schermerhorn
Date Sampled: 7/14/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-7

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	97%
#8	95%
#10	94%
#16	92%
#30	89%
#40	88%
#50	86%
#100	73%
#200	32%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 116.6
Optimum Moisture: 12.7

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 19
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
hg

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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Fax 5058217371
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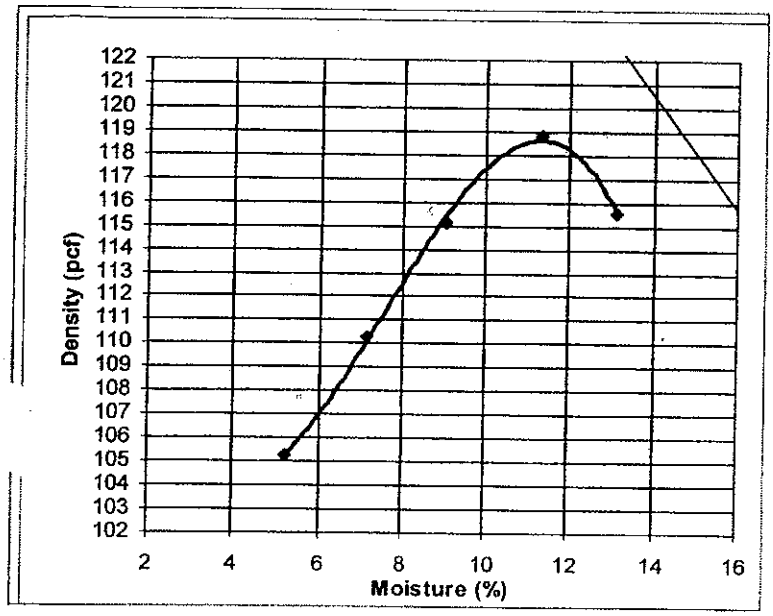
Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 20, 2009

Project #: 9-517-00022D
Work Order #: 18
Lab #: 9-0781-04
Sampled By: Jon Schermerhorn
Date Sampled: 7/14/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-8

Attn: Chris Edgmon
Project Name: EDI SNL Mixed Waste Landfill Cover
ABQ, NM
Project Manager: Vickie Maranville

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	99%
#4	98%
#8	96%
#10	95%
#16	93%
#30	91%
#40	89%
#50	87%
#100	74%
#200	36%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 118.6
Optimum Moisture: 11.3

Plasticity Index (ASTM D4318-05)
Liquid Limit: 21
Plastic Limit: 17
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
hg

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

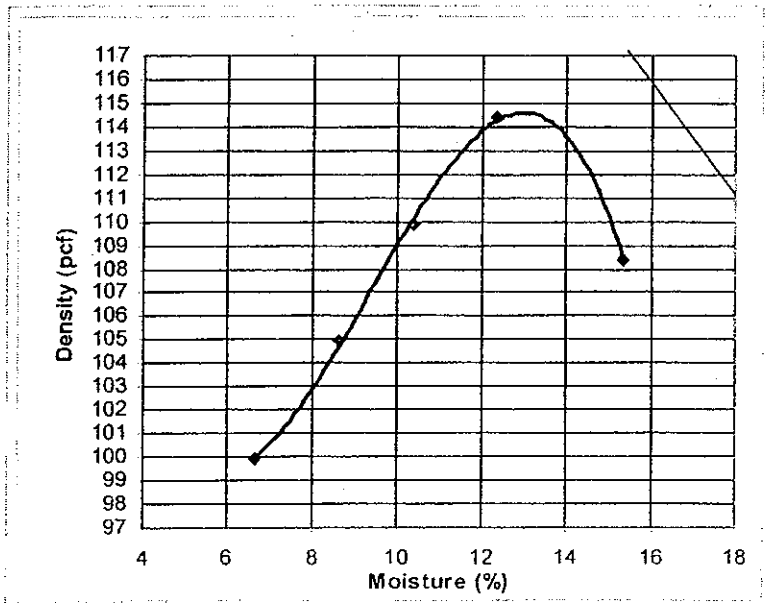
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 22, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-01
Sampled By: Jon Schermerhorn
Date Sampled: 7/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-9

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	98%
#8	97%
#10	97%
#16	96%
#30	94%
#40	92%
#50	91%
#100	79%
#200	38%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 114.6
Optimum Moisture: 13.0
Remarks: 8/3/09 Revised 1/2" screen input from 113.4 to 13.4 value

Plasticity Index (ASTM D4318-05)
Liquid Limit: 22
Plastic Limit: 18
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: Jan

Distribution: Client ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371 www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

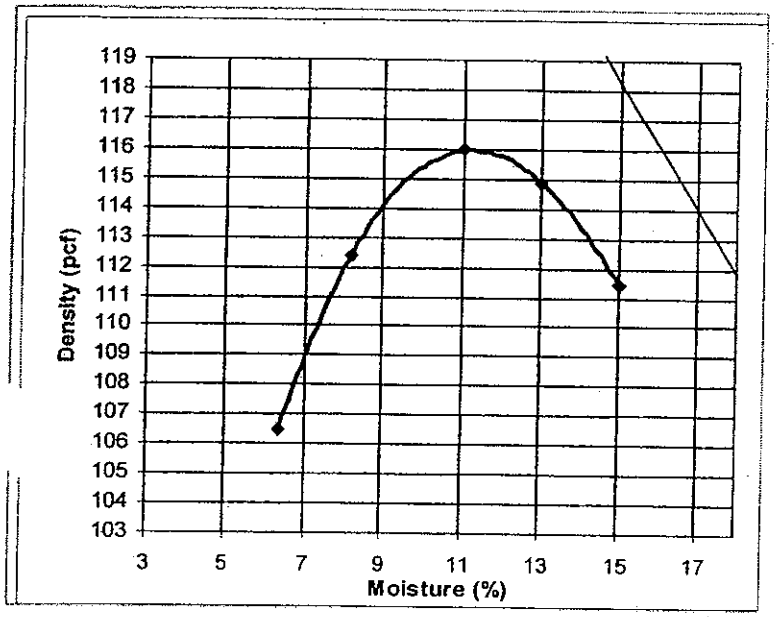
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 21, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-02
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-10

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	95%
#10	95%
#16	93%
#30	91%
#40	90%
#50	88%
#100	75%
#200	30%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 116.0
Optimum Moisture: 11.2

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

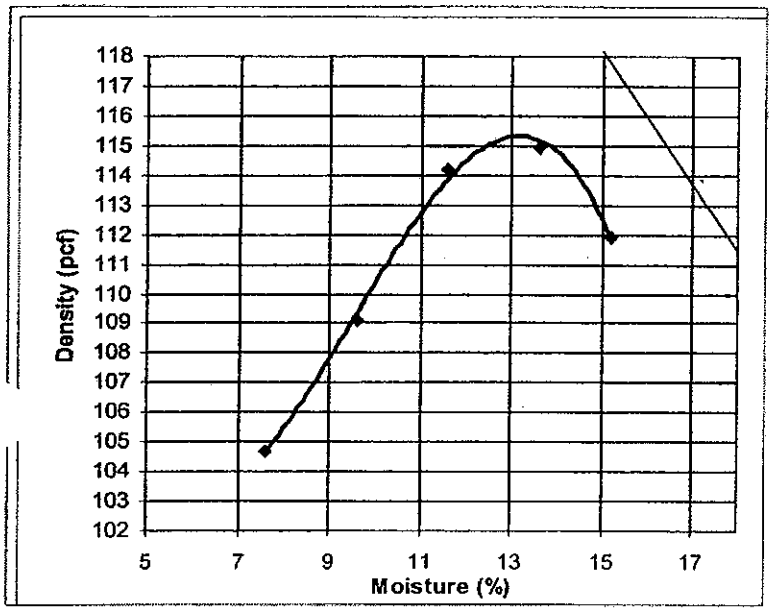
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 22, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-03
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-11

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	100%
#4	98%
#8	97%
#10	96%
#16	95%
#30	92%
#40	91%
#50	89%
#100	77%
#200	36%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 115.3
Optimum Moisture: 13.2

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 19
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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Fax 5058217371 www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

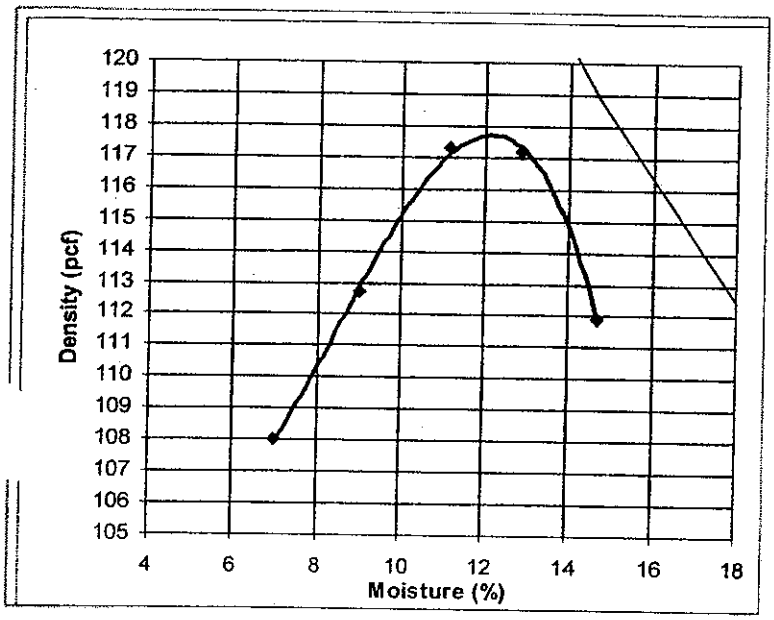
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 23, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-04
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-12

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	98%
#4	97%
#8	95%
#10	94%
#16	92%
#30	90%
#40	89%
#50	87%
#100	74%
#200	32%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 117.7
Optimum Moisture: 12.1

Plasticity Index (ASTM D4318-05)
Liquid Limit: 24
Plastic Limit: 18
Plasticity Index: 6
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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Fax 5058217371
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

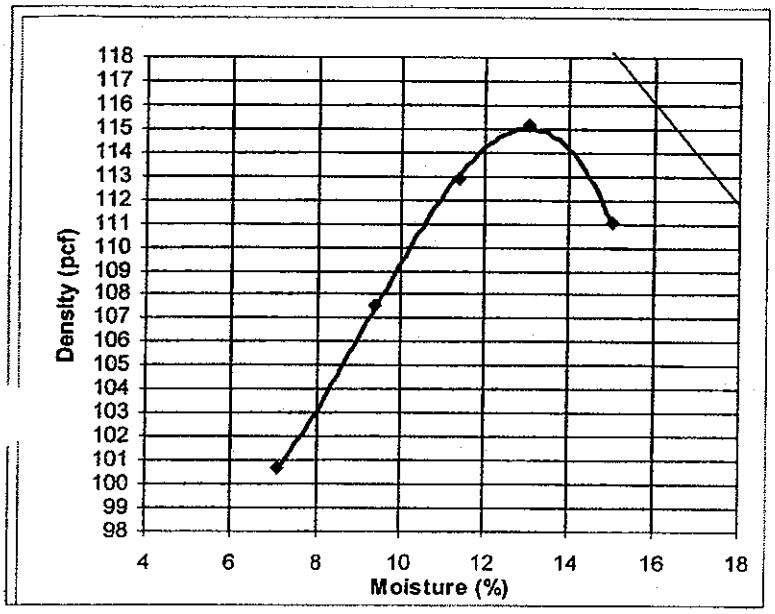
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 23, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-05
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-13

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	99%
#4	97%
#8	95%
#10	94%
#16	93%
#30	90%
#40	89%
#50	87%
#100	76%
#200	37%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 115.0
Optimum Moisture: 13.0

Plasticity Index (ASTM D4318-05)
Liquid Limit: 26
Plastic Limit: 17
Plasticity Index: 9
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

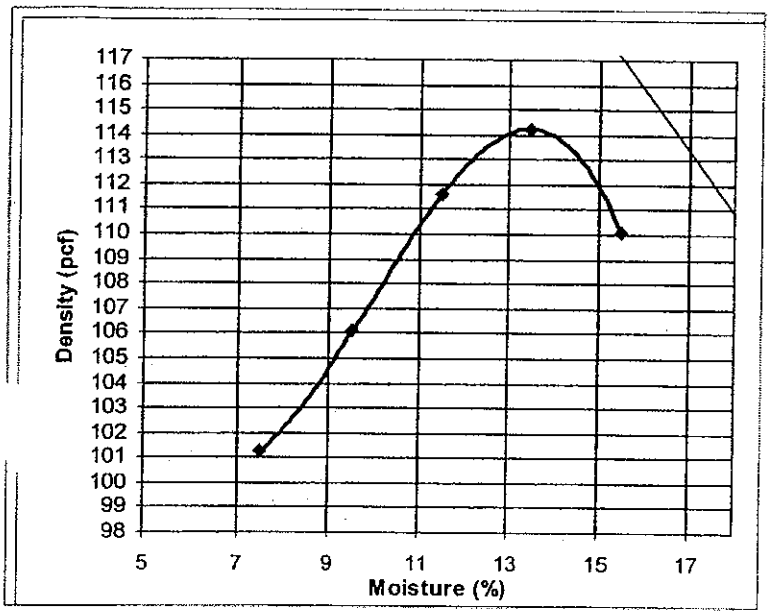
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 23, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-06
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-14

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	98%
#8	97%
#10	97%
#16	95%
#30	93%
#40	92%
#50	90%
#100	78%
#200	34%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 Assumed
Maximum Density: 114.2
Optimum Moisture: 13.5

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

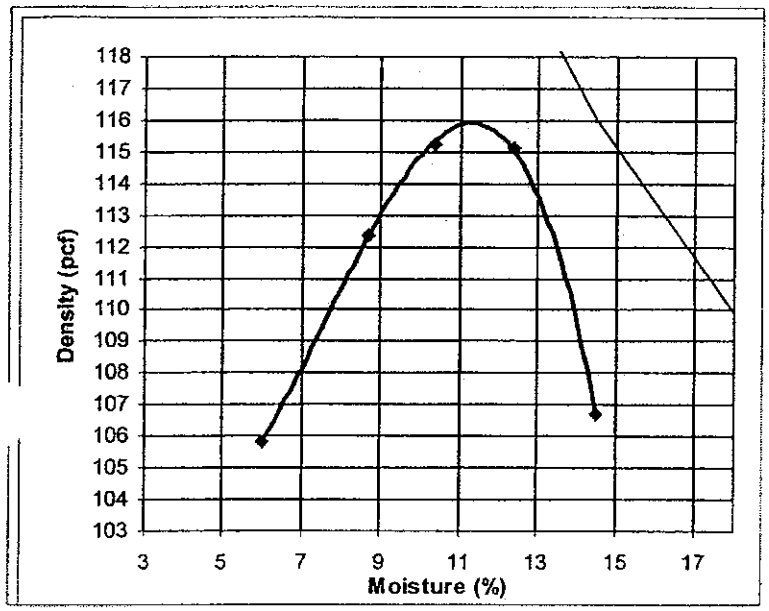
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 27, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-07
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-15

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	99%
#8	97%
#10	97%
#16	96%
#30	93%
#40	92%
#50	90%
#100	78%
#200	37%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 Assumed
Maximum Density: 115.9
Optimum Moisture: 11.3

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 19
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

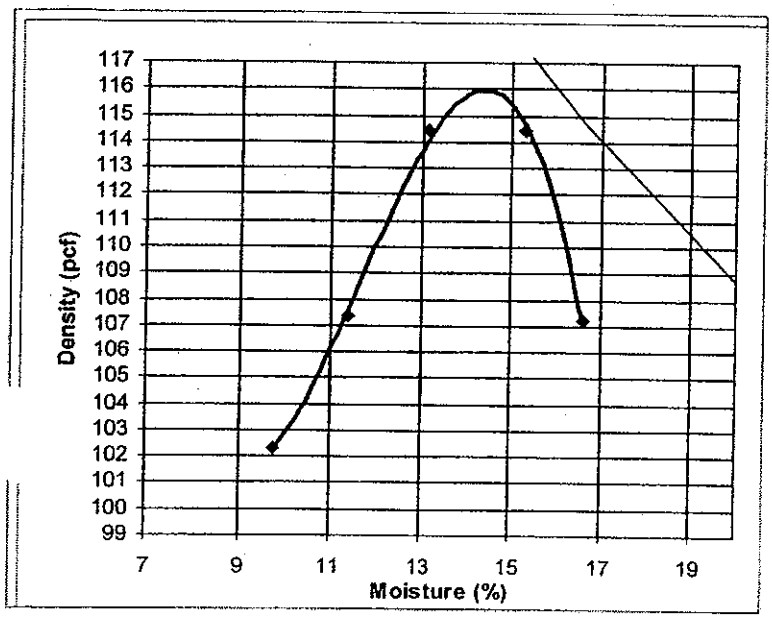
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 27, 2009

Project #: 9-517-00022D
Work Order #: 19
Lab #: 9-0798-08
Sampled By: Jon Schermerhorn
Date Sampled: 07/16/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-16

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	96%
#10	96%
#16	94%
#30	91%
#40	90%
#50	88%
#100	75%
#200	34%

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 116.0
Optimum Moisture: 14.4

Plasticity Index (ASTM D4318-05)
Liquid Limit: 23
Plastic Limit: 19
Plasticity Index: 4
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SC-SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Albuquerque, NM 87113
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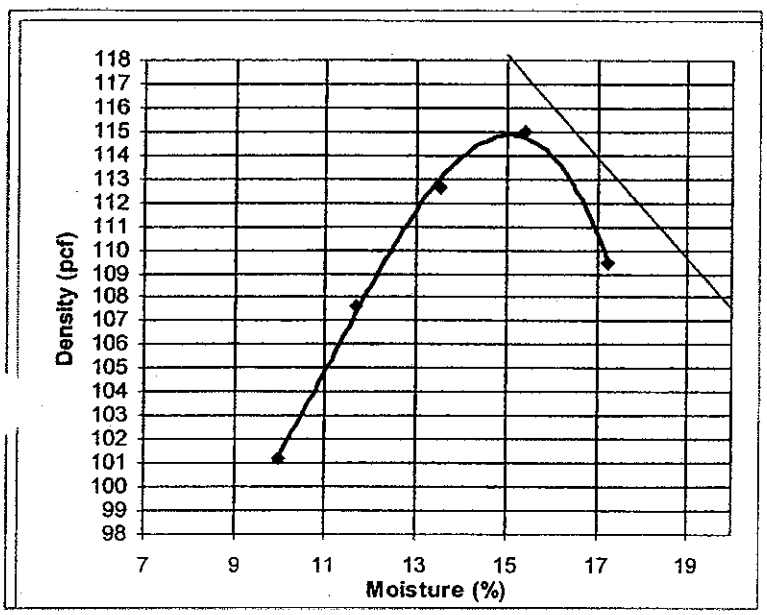
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: July 27, 2009	
		Project #: 9-517-00022D	
		Work Order #: 22	
Attn:	Chris Edgmon	Lab #: 9-0825-02	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Jon Schermerhorn	
		Date Sampled: 07/23/2009	
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNL MWL Berm-17
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	98%
3/8in.	98%
#4	97%
#8	94%
#10	93%
#16	91%
#30	89%
#40	87%
#50	85%
#100	74%
#200	34%

Moisture Density Relationship: (ASTM D698-07) Method: A

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.651 Assumed

Maximum Density: 114.9

Optimum Moisture: 15.0

Plasticity Index (ASTM D4318-05)

Liquid Limit: 21

Plastic Limit: 19

Plasticity Index: 2

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____

Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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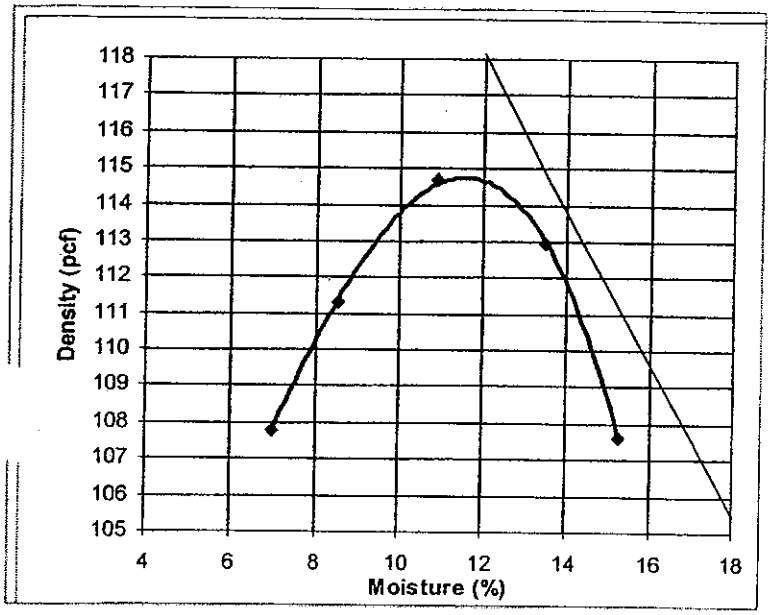
ient:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		Report Date: July 27, 2009
			Project #: 9-517-00022D
			Work Order #: 22
Attn:	Chris Edgmon		Lab #: 9-0825-03
Project Name:	EDI SNL Mixed Waste Landfill Cover		Sampled By: Jon Schermerhorn
			Date Sampled: 07/23/2009
	ABQ, NM		Visual Description of Material: Brown Silty Sand
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	Sample Source: SNL MWL Berm-18



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
1 1/2in.	100%
1in.	98%
3/4in.	97%
1/2in.	95%
3/8in.	94%
#4	93%
#8	91%
#10	91%
#16	89%
#30	87%
#40	86%
#50	84%
#100	72%
#200	26%

Moisture Density Relationship: (ASTM D698-07) Method: A

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.451 Assumed

Maximum Density: 114.7

Optimum Moisture: 11.6

Plasticity Index (ASTM D4318-05)

Liquid Limit: NV

Plastic Limit: NV

Plasticity Index: NP

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

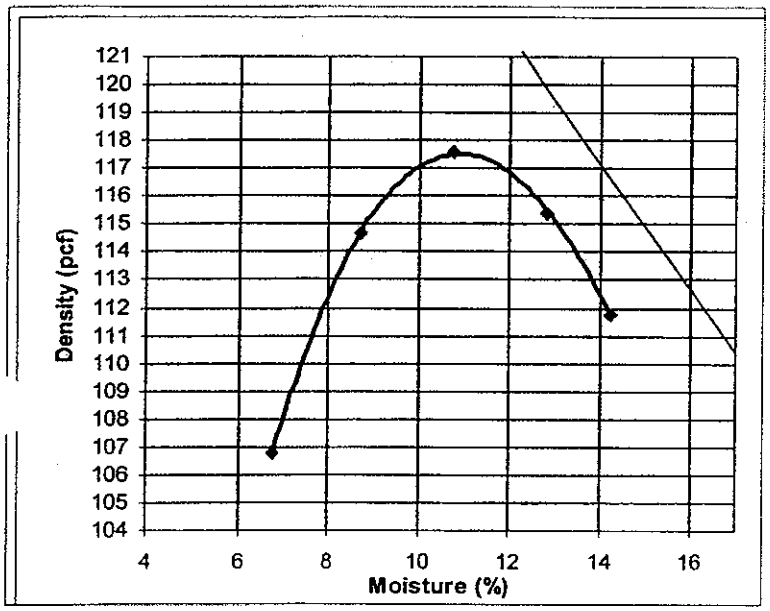
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 30, 2009

Project #: 9-517-00022D
Work Order #: 22
Lab #: 9-0825-04
Sampled By: Jon Schermerhorn
Date Sampled: 07/23/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL Berm-19

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	99%
#8	98%
#10	97%
#16	96%
#30	94%
#40	92%
#50	91%
#100	80%
#200	34%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.551 **Assumed**
Maximum Density: 117.5
Optimum Moisture: 10.9

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

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Email: ☐

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Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		**Report Date:** July 07, 2009
			Project #: 9-517-00022D
			Work Order #: 12
Attn:	Chris Edgmon		**Lab #:** 9-0734-01
Project Name:	EDI SNL Mixed Waste Landfill Cover		**Sampled By:** Client/C.Timm
			Date Sampled: 06/02/2009
	ABQ, NM		**Visual Description of Material:** Silty Sand
			Sample Source: SNLMWL-060209-4
Project Manager:	Vickie Maranville	**SOILS / AGGREGATES**	

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 **Assumed**
Maximum Density: 118.9
Optimum Moisture: 9.6

Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	100%
#4	99%
#8	98%
#10	98%
#16	96%
#30	93%
#40	92%
#50	90%
#100	77%
#200	32%

MMM 12/21/09

This Gradation test was performed as part of the Standard Proctor test. A separate Gradation test was performed to compare this topsoil material to the CMIP specifications. A separate laboratory form is provided and the corresponding Lab Number is 9-0636-04.

Plasticity Index (ASTM D4318-05)

Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP

Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: [signature]
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Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

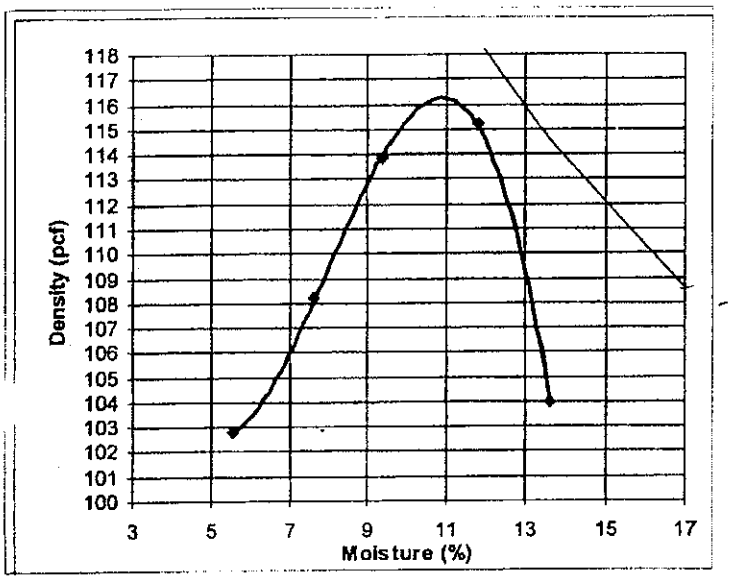
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 07, 2009

Project #: 9-517-00022D
Work Order #: 12
Lab #: 9-0734-02
Sampled By: Client/C.Timm
Date Sampled: 06/02/2009
Visual Description of Material: Silty Sand
Sample Source: SNLMWL-060209-6

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
1/2in.	100%
3/8in.	100%
#4	99%
#8	96%
#10	94%
#16	90%
#30	88%
#40	86%
#50	85%
#100	72%
#200	29%

MMM 12/21/09

This Gradation test was performed as part of the Standard Proctor test. A separate Gradation test was performed to compare this topsoil material to the CMIP specifications. A separate laboratory form is provided and the corresponding Lab Number is 9-0636-06.

Moisture Density Relationship: (ASTM D698-07) **Method:** A
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.451 Assumed
Maximum Density: 116.2
Optimum Moisture: 10.9

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP

Preperation Method: Dry Liquid Limit Method: A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: [signature]
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Email: ☐

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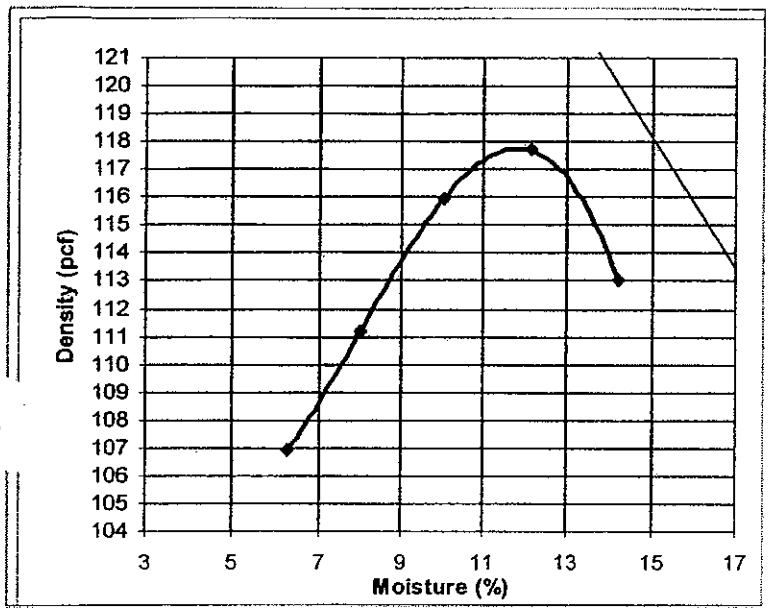
Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date: July 15, 2009	
		Project #: 9-517-00022D	
		Work Order #: 17	
Attn:	Chris Edgmon	Lab #: 9-0770-04	
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By: Jon Schermerhorn	
		Date Sampled: 07/10/2009	
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNL MWL 071009-8
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	98%
#8	96%
#10	95%
#16	93%
#30	91%
#40	89%
#50	87%
#100	70%
#200	21%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.651 Assumed

Maximum Density: 117.8

Optimum Moisture: 11.8

Plasticity Index (ASTM D4318-05)

Liquid Limit: NV

Plastic Limit: NV

Plasticity Index: NP

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____

Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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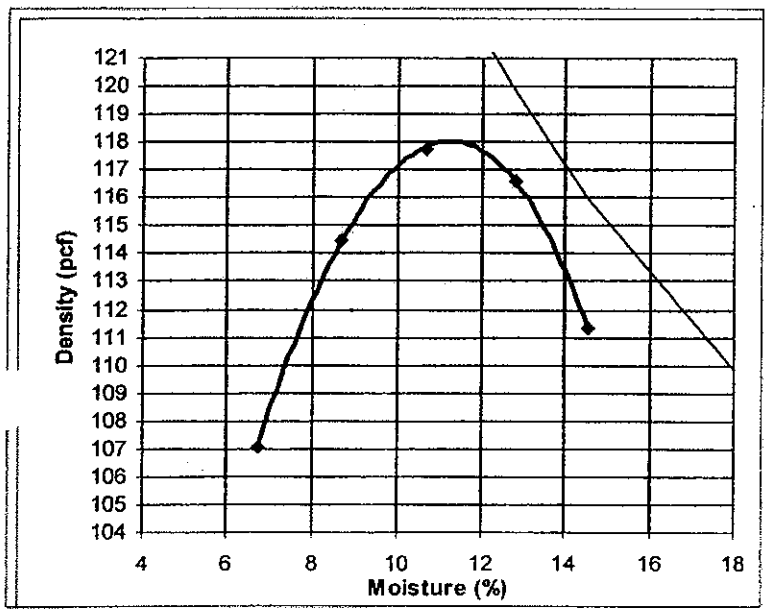
ent:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		Report Date: July 17, 2009
			Project #: 9-517-00022D
			Work Order #: 18
Attn:	Chris Edgmon		Lab #: 9-0781-01
Project Name:	EDI SNL Mixed Waste Landfill Cover		Sampled By: Jon Schermerhorn
			Date Sampled: 07/14/2009
	ABQ, NM		Visual Description of Material: Brown Silty Sand
			Sample Source: SNL MWL 071409-10
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	97%
#8	96%
#10	95%
#16	93%
#30	91%
#40	89%
#50	87%
#100	74%
#200	31%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 118.0

Optimum Moisture: 11.2

Plasticity Index (ASTM D4318-05)

Liquid Limit: 23

Plastic Limit: 21

Plasticity Index: 2

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____

hg

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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MSHEK INDUSTRIES #2

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: June 01, 2009

Project #: 9-517-00022D
Work Order #: 2
Lab #: 9-0632
Sampled By: Client
Date Sampled:
Visual Description of Material: 3/8" Aggregate
Sample Source: Bar J

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

SOILS / AGGREGATES

Type of Specification: Topsoil Layer Fill Specifications for SNL Mixed Waste Landfill Cover

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing	Specifications Min	Specifications Max
3/4in.	100%		
1/2in.	100%		
3/8in.	93%		
#4	25%	5 *	
#8	2%		
#10	1%		
#16	1%		
#30	1%		
#40	1%		
#50	1%		
#100	1%		
#200	0.7%		

These results represent the 3/8-inch crushed gravel used in the Topsoil Layer (mixed with topsoil at 25% by volume ratio). Sample date was not specified, but within several days of the report date (i.e., ~~within~~ June 1, 2009).

MMM
12/21/09

* Material did not fall within specified tolerances.

Reviewed By: [signature]
hg

Distribution: Client ✓ File: ✓ Supplier: ✓ Other: Addressee (2)
Email:

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attention: Chris Edgmon
Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 03, 2009

Project #: 9-517-00022D
Work Order #: 3
Sampled By: Client/C.Timm
Date Sampled: 06/02/2009

Sieve Analaysis (ASTM C117-04/C136-06)
Plasticity Index (ASTM D4318-05)
Soil Classification (ASTM D2487-06)

SOILS / AGGREGATES

Sample Location	Soil Class.	L.L.	P.I.	#200	#100	#50	#40	#30	#16	#10	#8	#4	1/4"	3/8"	1/2"	3/4'	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	6"	12"	Lab Number
SNLMWL-060209-1	SM	NV	NP	32	77	90	92	93	96	98	98	99		100											9-0636-01
SNLMWL-060209-2	SM	NV	NP	29	72	85	86	88	90	94	96	99		100											9-0636-02
SNLMWL-060209-3	SM	NV	NP	33	78	91	93	95	97	98	98	99		100											9-0636-03
SNLMWL-060209-4	SM	NV	NP	30	75	89	91	93	96	98	98	99		100											9-0636-04
SNLMWL-060209-5	SM	NV	NP	30	75	88	90	91	94	97	97	99		100											9-0636-05
SNLMWL-060209-6	SM	NV	NP	31	73	88	90	92	95	96	97	99		99	100										9-0636-06

Reviewed By:_____

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attention: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 03, 2009

Project #: 9-517-00022D
Work Order #: 3
Sampled By: Client/C.Timm
Date Sampled: 06/02/2009

Sieve Analaysis (ASTM C117-04/C136-06)
Plasticity Index (ASTM D4318-05)
Soil Classification (ASTM D2487-06)

SOILS / AGGREGATES

Lab Number	Sample Location	Soil Class.	L.L.	P.I.	D10	D30	D60	CC	CU
9-0636-01	SNLMWL-060209-1	SM	NV	NP	0	0	0.114	0	0
9-0636-02	SNLMWL-060209-2	SM	NV	NP	0	0.074	0.122	0	0
9-0636-03	SNLMWL-060209-3	SM	NV	NP	0	0	0.113	0	0
9-0636-04	SNLMWL-060209-4	SM	NV	NP	0	0.074	0.118	0	0
9-0636-05	SNLMWL-060209-5	SM	NV	NP	0	0	0.118	0	0
9-0636-06	SNLMWL-060209-6	SM	NV	NP	0	0	0.119	0	0

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
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Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		**Report Date:** July 15, 2009
			Project #: 9-517-00022D
			Work Order #: 17
Attn:	Chris Edgmon		**Lab #:** 9-0770-03
Project Name:	EDI SNL Mixed Waste Landfill Cover		**Sampled By:** Jon Schermerhorn
			Date Sampled: 07/10/2009
	ABQ, NM		**Visual Description of Material:** Brown Silty Sand
			Sample Source: SNL MWL 071009-7
Project Manager:	Vickie Maranville	**SOILS / AGGREGATES**	

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/8in.	100%
#4	99%
#8	98%
#10	97%
#16	97%
#30	94%
#40	92%
#50	90%
#100	77%
#200	27%

Plasticity Index (ASTM D4318-05)

Preperation Method: Dry

Liquid Limit Method: A

Soil Classification (ASTM D2487-06) SM

Liquid Limit: NV

Plastic Limit: NV

Plasticity Index: NP

PI Sample Was Air Dried.

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

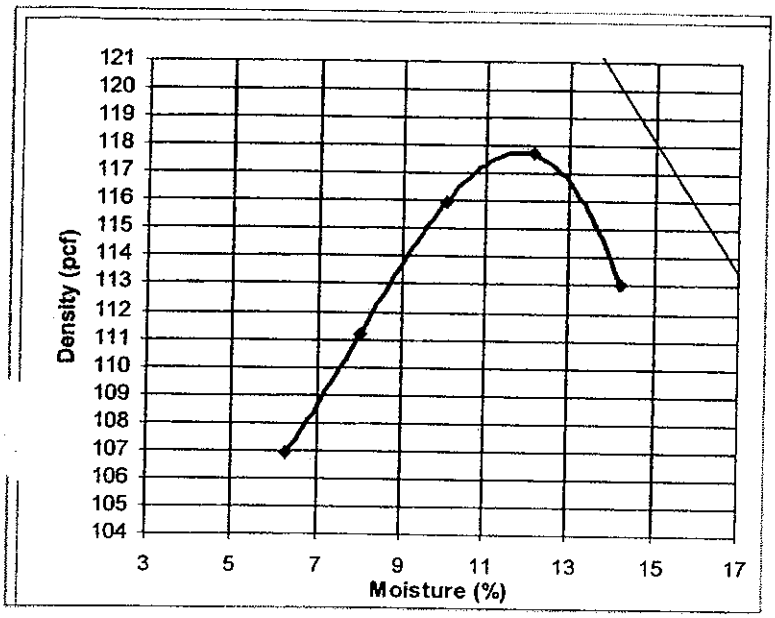
ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 15, 2009

Project #: 9-517-00022D
Work Order #: 17
Lab #: 9-0770-04
Sampled By: Jon Schermerhorn
Date Sampled: 07/10/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 071009-8

SOILS / AGGREGATES



Sieve Analysis (ASTM C117-04/C136-06)
200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	98%
#8	96%
#10	95%
#16	93%
#30	91%
#40	89%
#50	87%
#100	70%
#200	21%

Moisture Density Relationship: (ASTM D698-07) **Method:** B
Preparation Method: Dry **Rammer Type:** Mechanical
Specific Gravity: 2.651 **Assumed**
Maximum Density: 117.8
Optimum Moisture: 11.8

Plasticity Index (ASTM D4318-05)
Liquid Limit: NV
Plastic Limit: NV
Plasticity Index: NP
Preperation Method: Dry **Liquid Limit Method:** A
PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____
Jan

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	**Report Date:** July 15, 2009	
		Project #: 9-517-00022D	
		Work Order #: 17	
Attn:	Chris Edgmon	**Lab #:** 9-0770-05	
Project Name:	EDI SNL Mixed Waste Landfill Cover	**Sampled By:** Jon Schermerhorn	
		Date Sampled: 07/10/2009	
	ABQ, NM	**Visual Description of Material:**	Brown Silty Sand
		Sample Source:	SNL MWL 071009-9
Project Manager:	Vickie Maranville	**SOILS / AGGREGATES**	

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	100%
3/8in.	99%
#4	98%
#8	96%
#10	96%
#16	94%
#30	91%
#40	90%
#50	87%
#100	73%
#200	26%

Plasticity Index (ASTM D4318-05)

Preperation Method: Dry

Liquid Limit Method: A

Soil Classification (ASTM D2487-06) SM

Liquid Limit: NV

Plastic Limit: NV

Plasticity Index: NP

PI Sample Was Air Dried.

Reviewed By: _____
jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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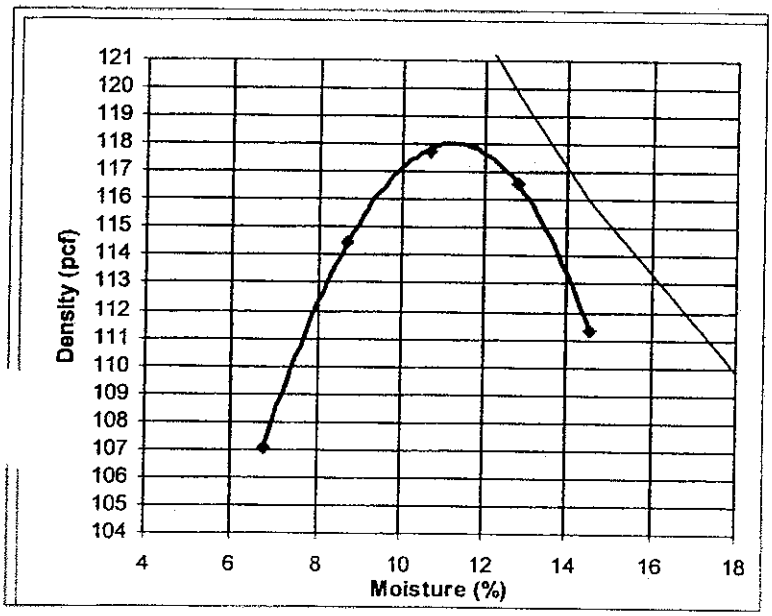
"ent:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-		Report Date: July 17, 2009
			Project #: 9-517-00022D
			Work Order #: 18
Attn:	Chris Edgmon		Lab #: 9-0781-01
Project Name:	EDI SNL Mixed Waste Landfill Cover		Sampled By: Jon Schermerhorn
			Date Sampled: 07/14/2009
	ABQ, NM		Visual Description of Material: Brown Silty Sand
Project Manager:	Vickie Maranville	SOILS / AGGREGATES	Sample Source: SNL MWL 071409-10



Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/4in.	100%
1/2in.	99%
3/8in.	99%
#4	97%
#8	96%
#10	95%
#16	93%
#30	91%
#40	89%
#50	87%
#100	74%
#200	31%

Moisture Density Relationship: (ASTM D698-07) Method: B

Preparation Method: Dry Rammer Type: Mechanical

Specific Gravity: 2.551 Assumed

Maximum Density: 118.0

Optimum Moisture: 11.2

Plasticity Index (ASTM D4318-05)

Liquid Limit: 23

Plastic Limit: 21

Plasticity Index: 2

Preperation Method: Dry Liquid Limit Method: A

PI Air Dried.

Soil Classification (ASTM D2487-06) SM

Reviewed By: _____

hg

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)

Email: ☐

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Client:	Environmental Dimentions Inc 1901 Candelaria Rd NW ABQ, NM 87107-	Report Date:	July 27, 2009
		Project #:	9-517-00022D
		Work Order #:	20
Attn:	Chris Edgmon	Lab #:	9-0805-01
Project Name:	EDI SNL Mixed Waste Landfill Cover	Sampled By:	Jon Schermerhorn
		Date Sampled:	07/16/2009
	ABQ, NM	Visual Description of Material:	Brown Silty Sand
		Sample Source:	SNL MWL 071609-11
Project Manager:	Vickie Maranville		

SOILS / AGGREGATES

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/8in.	100%
#4	100%
#8	99%
#10	98%
#16	97%
#30	95%
#40	94%
#50	89%
#100	80%
#200	36%

Plasticity Index (ASTM D4318-05)

Preperation Method: Dry

Liquid Limit Method: A

Soil Classification (ASTM D2487-06) SC-SM

Liquid Limit: 24

Plastic Limit: 18

Plasticity Index: 6

PI Sample Was Air Dried.

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

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Fax 5058217371
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 27, 2009

Project #: 9-517-00022D
Work Order #: 22
Lab #: 9-0825-01
Sampled By: Jon Schermerhorn
Date Sampled: 07/23/2009
Visual Description of Material: Brown Silty Sand
Sample Source: SNL MWL 071609-12

SOILS / AGGREGATES

Sieve Analysis (ASTM C117-04/C136-06)

200 Wash Procedure: A

Sieve Size	Passing
3/8in.	100%
#4	98%
#8	97%
#10	96%
#16	94%
#30	92%
#40	90%
#50	88%
#100	76%
#200	29%

Plasticity Index (ASTM D4318-05)

Preperation Method: Dry
Liquid Limit Method: A
Soil Classification (ASTM D2487-06) SM

Liquid Limit: 22
Plastic Limit: 20
Plasticity Index: 2

PI Sample Was Air Dried.

Reviewed By: _____
Jan

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
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2009 Density and Moisture Tests

2009 CQC Density and Moisture Tests

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: May 29, 2009
Amended Date: December 22, 2009
Project #: 9-517-00022D
Report #: 22359
Tested By: Miguel Chavez
Date Tested: 5/22/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTM D698-07 / a	Light Red Sandy

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Gridline #5	FSG	D	6	11.6	2	2	131.6	117.9	120.1	98	90	
02-1	Gridline #9	FSG	D	6	9.7	2	2	128.9	117.5	120.1	98	90	
03-1	Gridline #12	FSG	D	6	10.2	2	2	128.0	116.1	120.1	97	90	
04-1	Gridline #11	FSG	D	6	9.8	2	2	131.5	119.1	120.1	99	90	
05-1	Gridline #8	FSG	D	6	11.5	2	2	131.6	118.0	120.1	98	90	
06-1	Gridline #3	FSG	D	6	9.8	2	2	132.9	121.0	120.1	100+	90	
07-1	Gridline #2	FSG	D	6	9.8	2	2	131.5	119.1	120.1	99	90	
08-1	Gridline #7	FSG	D	6	10.2	2	2	132.0	119.8	120.1	100	90	
09-1	Gridline #6	FSG	D	6	10.5	2	2	130.6	118.1	120.1	98	90	
10-1	Gridline #1	FSG	D	6	11.4	2	2	129.5	116.3	120.1	97	90	
11-1	Gridline #4	FSG	D	6	9.9	2	2	132.9	120.9	120.1	100+	90	
12-1	Gridline #10	FSG	D	6	11.6	2	2	129.2	115.8	120.1	96	90	
13-1	Gridline #13	FSG	D	6	10.2	2	2	129.9	117.8	120.1	98	90	

Remarks: Revised.

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 22, 2009
Amended Date: December 22, 2009
Project #: 9-517-00022D
Report #: 22550
Tested By: Miguel Chavez
Date Tested: 6/18/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTM D698-07 / a	Light Red Sandy

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453140.678/411700.30, Edi North Slope Lift 6	5380.11	D	6	11.1	2	2	131.9	118.7	120.1	99	90	
02-1	1453140.678/411700.30, Edi North Slope Lift 5	5380.11	D	12	11.8	2	2	129.8	116.0	120.1	97	90	
03-1	1452871.387/411839.40, Edi Dog Leg Lift 2	5385.25	D	6	11.1	2	2	129.0	116.1	120.1	97	90	
04-1	1452871.387/411839.40, Edi Dpg Leg Lift 1	5385.25	D	12	11.9	2	2	129.8	115.9	120.1	97	90	
05-1	1452720.29/411575.421, Edi West Slope Lift 6	5379.98	D	6	11.9	2	2	131.2	117.2	120.1	98	90	
06-1	1452720.29/411575.421, Edi West Slope Lift 5	5379.48	D	12	11.3	2	2	130.0	116.8	120.1	97	90	
07-1	1453118.61/411913.206, Edi East Slope Lift 6	5384.43	D	6	11.7	2	2	132.3	118.4	120.1	99	90	
08-1	1453118.61/411913.206, Edi East Slope Lift 5	5383.93	D	12	11.3	2	2	128.2	115.1	120.1	96	90	

Remarks: Revised.

Reviewed By: _____
jdr

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 22, 2009

Project #: 9-517-00022D
Report #: 22551
Tested By: Miguel Chavez
Date Tested: 6/19/2009
Visual Description of Material: Mixed Waste Landfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTM D698-07 / a	Light Red Sandy
9-0629-04	115.8	12.3	ASTM D698-07 / A	Clayey Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452857.354/411788.535, EDi Wedge Lift 1-GB #7	5386.27	D	4	11.1	2	2	127.8	115.0	120.1	96	90	
02-1	1452939.658/411787.773, EDi Wedge Lift 1-GB #8	5386.75	D	4	12.4	2	2	125.9	112.0	115.8	97	90	
03-1	1452937.721/411879.78, EDi Wedge Lift 1-GB #11	5388.28	D	4	12.2	2	2	123.2	109.1	115.8	94	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 23, 2009
Amended Date: December 22, 2009
Project #: 9-517-00022D
Report #: 22565
Tested By: Miguel Chavez
Date Tested: 6/17/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTM D698-07 / a	Light Red Sandy

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452921.699/411914.751, Edi East Slope Lift 4	5386.69	D	6	11.3	2	2	130.9	117.6	120.1	98	90	
02-1	1452921.699/411914.751, Edi East Slope Lift 3	5386.69	D	12	12.2	2	2	131.2	116.9	120.1	97	90	
03-1	1452823.77/411579.7, Edi West Slope Lift 4	5380.63	D	6	11.1	2	2	129.9	116.9	120.1	97	90	
04-1	1452823.77/411579.7, Edi West Slope Lift 3	5380.63	D	12	11.1	2	2	127.7	114.9	120.1	96	90	
05-1	1453138.757/411644.75, Edi North Slope Lift 4	5378.58	D	6	12.7	2	2	128.0	113.5	120.1	95	90	
06-1	1453138.757/411644.75, Edi North Slope Lift 3	5378.58	D	12	11.8	2	2	129.9	116.1	120.1	97	90	

Remarks: Revised.

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 23, 2009

Project #: 9-517-00022D
Report #: 22572
Tested By: Miguel Chavez
Date Tested: 6/19/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-04	115.8	12.3	ASTM D698-07 / A	Clayey Silty Sand

Nuclear Density Gauge
Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452928.831/411861.929, Edi Wedge Lift 2 GB #11	5388.23	D	6	11.5	2	2	123.6	110.9	115.8	96	90	
02-1	1452884.006/411800.636, Edi Wedge Lift 2 GB #7	5386.71	D	6	11.7	2	2	125.9	112.7	115.8	97	90	
03-1	1452930.863/411786.160, Edi Wedge Lift 2 GB #8	5386.69	D	6	10.6	2	2	122.5	110.8	115.8	96	90	
04-1	1453129.332/411778.762, Edi North Slope Lift 8	5382.30	D	6	14.2	2	2	122.8	107.6	115.8	93	90	
05-1	1453129.332/411778.762, Edi North Slope Lift 7	5382.30	D	12	14.3	2	2	123.7	108.0	115.8	93	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 23, 2009
Amended Date: December 22, 2009
Project #: 9-517-00022D
Report #: 22575
Tested By: Miguel Chavez
Date Tested: 6/17/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTM D698-07 / a	Light Red Sandy

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453138.995/411843.859, Edi North Slope Lift 2	5381.41	D	6	10.8	2	2	131.8	118.9	120.1	99	90	
02-1	1453138.995/411843.859, Edi North Slope Lift 1	5381.41	D	12	11.2	2	2	129.9	116.8	120.1	97	90	
03-1	1453029.223/411915.938, Edi East Slope Lift 2	5384.52	D	6	11.2	2	2	129.0	116.0	120.1	97	90	
04-1	1453029.223/411915.938, Edi East Slope Lift 1	5384.52	D	12	11.0	2	2	128.9	116.1	120.1	97	90	
05-1	1452969.883/411578.344, Edi West Slope Lift 2	5379.90	D	6	11.8	2	2	131.0	117.1	120.1	98	90	
06-1	1452969.883/411578.344, Edi West Slope Lift 1	5379.90	D	12	11.7	2	2	128.5	115.0	120.1	96	90	

Remarks: Revised.

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 25, 2009
Amended Date: December 22, 2009
Project #: 9-517-00022D
Report #: 22590
Tested By: Miguel Chavez
Date Tested: 6/24/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452988.634/411737.606, Edi Lift #3, GB 8	5385.54	D	2	10.9	2	2	122.7	110.7	117.0	95	90	
02-1	1452693.015/411774.812, Edi Lift #3, GB 6	5385.27	D	2	11.6	2	2	126.5	113.4	117.0	97	90	

Remarks: Revised.

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 25, 2009

Project #: 9-517-00022D
Report #: 22591
Tested By: Miguel Chavez
Date Tested: 6/23/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-04	115.8	12.3	ASTM D698-07 / A	Clayey Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452875.793/411617.388, Edi NS Lift #3, GB 2	5383.35	D	2	10.3	2	2	129.8	117.9	115.8	100+	90	
02-1	1452775.977/411630.181, Edi NS Lift #3 GB #1	5383.15	D	2	10.7	2	2	131.9	119.2	115.8	100+	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: June 30, 2009

Project #: 9-517-00022D
Report #: 22688
Tested By: Miguel Chavez
Date Tested: 6/26/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452902.581/411891.485 Edi NS Lift 3, GB 11 SE	5388.43	D	2	11.4	2	2	128.7	115.6	117.0	99	90	
02-1	1452984.795/411896.276 Edi NS Lift 3 GB 11 NE	5388.55	D	2	12.4	2	2	119.9	106.6	117.0	91	90	
03-1	1452717.578/411628.846 Edi NS Lift 4 GB 1	5383.09	D	4	13.8	2	2	135.7	119.4	117.0	100+	90	
04-1	1452835.983/411659.565 Edi NS Lift 4 GB 2	5384.16	D	4	11.6	2	2	127.9	114.5	117.0	98	90	
05-1	1452941.727/411653.987 Edi NS Lift 4 GB 3	5384.26	D	4	13.8	2	2	124.6	109.5	117.0	94	90	
06-1	1453050.698/411638.477 Edi NS Lift 4 GB 4	5382.93	D	4	12.4	2	2	127.3	113.3	117.0	97	90	
07-1	1453125.331/411628.696 Edi NS Lift 4 GB 5	5380.69	D	4	12.9	2	2	127.6	113.0	117.0	97	90	
08-1	1453114.596/411738.755 Edi NS Lift 4 GB 10	5383.31	D	4	12.0	2	2	127.5	113.9	117.0	97	90	
09-1	1453049.705/411727.447 Edi NS Lift 4 GB 9	5384.54	D	4	12.0	2	2	131.7	117.7	117.0	100+	90	
10-1	1452956.112/411746.608 Edi NS Lift 4 GB 8	5385.93	D	4	12.7	2	2	135.4	117.1	117.0	100	90	
11-1	1452844.073/411750.636 Edi NS Lift 4 GB 7	5385.90	D	4	11.6	2	2	130.0	116.4	117.0	99	90	
12-1	1452717.204/411751.361 Edi NS Lift 4 GB 6	5385.40	D	4	13.5	2	2	133.3	117.4	117.0	100	90	

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
8519 Jefferson NE
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www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 02, 2009

Project #: 9-517-00022D
Report #: 22709
Tested By: Miguel Chavez
Date Tested: 6/29/2009
Visual Description of Land Fill Material:

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453087.931/411883.297, Edi NS Lift 4 GB 13	5386.64	D	4	10.9	2	2	126.2	113.8	117.0	97	90	
02-1	1453011.692/411829.950, Edi NS Lift 4 GB 12	5387.18	D	4	13.1	2	2	127.3	112.2	117.0	96	90	
03-1	1452942.355/411842.351, Edi NS Lift 4 GB 11	5387.98	D	4	10.1	2	2	125.7	114.1	117.0	98	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 02, 2009

Project #: 9-517-00022D
Report #: 22710
Tested By: Miguel Chavez
Date Tested: 07/01/2009
Visual Description of Material: Land Fill

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Compaction	% Compaction Required Min	% Compaction Required Max	
01-1	1453089.584/411865.806, Edi NS Lift 5 GB 13	5386.736	D	4	12.1	2	2	124.7	111.3	117.0	95	90		
02-1	1453005.708/411862.029, Edi NS Lift 5 GB 12	5388.433	D	4	11.5	2	2	125.8	112.8	117.0	96	90		
03-1	1452928.388/411870.284, Edi NS Lift 5 GB 11	5389.165	D	4	10.2	2	2	117.3	106.5	117.0	91	90		
04-1	1452764.037/411801.181, Edi NS Lift 5 GB 7 East Edge ~~(Retest)~~	5387.15	D	4	7.1	2	2	111.9	104.5	117.0	89	90		*
05-1	1452764.037/411801.181, Edi NS Lift 5 GB 7 East Edge (Retest of #04-1, Dated Today 7/1/09)	5387.15	D	4	10.3	2	2	123.7	112.1	117.0	96	90		

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 06, 2009

Project #: 9-517-00022D
Report #: 22744
Tested By: Miguel Chavez
Date Tested: 7/2/2009
Visual Description of Material: Landfill

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453098.80/411772.287, Edi NS Lift 5, GB 10	5385.18	D	4	11.1	2	2	122.5	110.2	117.0	94	90	
02-1	1453031.124/411773.428, Edi NS Lift 5, GB 9	5386.58	D	4	11.9	2	2	127.9	114.3	117.0	98	90	
03-1	1452934.646/411771.944, Edi NS Lift 5, GB 8	5387.385	D	4	10.8	2	2	125.2	113.1	117.0	97	90	
04-1	1452836.872/411776.795, Edi NS Lift 5, GB 7	5387.113	D	4	13.6	2	2	128.3	112.9	117.0	96	90	
05-1	1452711.127/411778.989, Edi NS Lift 5, GB 6	5386.501	D	4	13.4	2	2	133.8	118.0	117.0	100+	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 10, 2009

Project #: 9-517-00022D
Report #: 22811
Tested By: Miguel Chavez
Date Tested: 7/7/2009
Visual Description of Material: Landfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max	
01-1	1453106.816/411648.065, Edi NS, Lift 5, GB 5	5382.41	D	4	6.9	2	2	110.9	103.7	117.0	89	90		*
02-1	1453017.754/411680.674, Edi NS, Lift 5, GB 4	5384.76	D	4	11.9	2	2	123.8	110.6	117.0	95	90		
03-1	1452890.528/411651.069, Edi NS, Lift 5, GB 3	5384.58	D	4	12.2	2	2	117.0	104.3	117.0	89	90		*
04-1	1452807.640/411639.611, Edi NS, Lift 5, GB 2	5384.22	D	4	6.8	2	2	113.3	106.1	117.0	91	90		*
05-1	1452703.661/411666.680, Edi NS, Lift 5, GB 1	5384.08	D	4	12.3	2	2	123.6	110.1	117.0	94	90		

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
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Albuquerque, NM 87113
Tel 5058211801
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 10, 2009

Project #: 9-517-00022D
Report #: 22812
Tested By: Miguel Chavez
Date Tested: 07/09/2009
Visual Description of Material: Landfill

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453106.816/411648.065, Edi NS, Lift 5, GB 5 (Retest of #01-1, Dated 7/7/09)	5382.41	D	4	13.5	2	2	131.5	115.9	117.0	99	90	
02-1	1453017.754/411680.674, Edi NS, Lift 5, GB 4 (Retest)	5384.76	D	4	12.1	2	2	132.3	118.0	117.0	100+	90	
03-1	1452890.528/411651.069, Edi NS, Lift 5, GB 3 (Retest of #03-1, Dated 7/7/09)	5384.58	D	4	12.2	2	2	118.2	115.4	117.0	99	90	
04-1	1452807.640/411639.611, Edi NS, Lift 5, GB 2 (Retest of #04-1, Dated 7/7/09)	5384.22	D	4	10.5	2	2	129.0	116.7	117.0	100	90	
05-1	1452703.661/411666.680, Edi NS, Lift 5, GB 1 (Retest)	5384.08	D	4	10.9	2	2	123.7	111.6	117.0	95	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth .Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 16, 2009

Project #: 9-517-00022D
Report #: 22864
Tested By: Miguel Chavez
Date Tested: 7/14/2009
Visual Description of Landfill Material:

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453102.8/411858.290, Edi NS, Lift 6, GB 13	5387.02	D	4	13.2	2	2	130.7	115.5	117.0	99	90	
02-1	1453014.835/411888.254, Edi NS, Lift 6, GB 12	5389.19	D	4	12.7	2	2	130.6	115.5	117.0	99	90	
03-1	1452927.72/411807.645, Edi NS, Lift 6, GB 11	5388.36	D	4	10.9	2	2	128.0	115.5	117.0	99	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Albuquerque, NM 87113
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www.amec.com

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 22, 2009

Project #: 9-517-00022D
Report #: 22899
Tested By: Miguel Chavez
Date Tested: 7/17/2009
Visual Description of Material: Landfill

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max	
01-1	1452727.365/411659.073, Edi, NS, Lift 6, GB 10	5384.73	D	4	10.5	2	2	130.8	118.4	117.0	100+	90		
02-1	1452827.740/411597.936, Edi, NS, Lift 6, MW 4	5383.85	D	4	9.6	2	2	120.5	109.9	117.0	94	90		*
03-1	1452909.633/411610.716, Edi, NS, Lift 6, GB 8	5384.37	D	4	11.6	2	2	132.2	118.5	117.0	100+	90		
04-1	1452994.019/411636.632, Edi, NS, Lift 6, GB 7	5384.62	D	4	10.0	2	2	117.1	106.5	117.0	91	90		
05-1	1453106.027/411597.539, Edi, NS, Lift 6, GB 6	5382.05	D	4	10.7	2	2	121.7	110.0	117.0	94	90		
06-1	1452766.080/411748.630, Edi, NS, Lift 6, GB 1	5386.65	D	4	14.0	2	2	129.7	113.8	117.0	97	90		
07-1	1452874.222/411765.722, Edi, NS, Lift 6, GB 2	5387.35	D	4	14.0	2	2	128.4	112.2	117.0	96	90		
08-1	1452983.309/411717.119, Edi, NS, Lift 6, GB 3	5386.47	D	4	10.2	2	2	127.3	115.5	117.0	99	90		
09-1	1453020.845/411720.980, Edi, NS, Lift 6, GB 4	5386.19	D	4	10.1	2	2	121.3	110.2	117.0	94	90		
10-1	1453119.012/411768.980, Edi, NS, Lift 6, GB 5	5384.68	D	4	12.5	2	2	130.5	116.0	117.0	99	90		
11-1	1453020.845/411720.980, Edi, NS, Lift 6, GB 9	5386.19	D	4	12.4	2	2	131.4	117.0	117.0	100	90		

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

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Albuquerque, NM 87113
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 22, 2009

Project #: 9-517-00022D
Report #: 22900
Tested By: Teri Godinez
Date Tested: 7/21/2009
Visual Description of Landfill Material:

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1453072.143/411748.214, Edi, NS, Lift 6, MW 4 (Retest of #02-1, Dated 7/17/09)	5385.71	D	4	10.3	2	2	118.0	107.0	117.0	91	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 22, 2009

Project #: 9-517-00022D
Report #: 22901
Tested By: Teri Godinez
Date Tested: 7/21/2009
Visual Description of Material: Landfill

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452921.950/411855.364, Edi, NS, Lift 7, GB 11	5389.83	D	4	11.9	2	2	129.7	115.9	117.0	99	90	
02-1	1452987.568/411813.348, Edi, NS, Lift 7, GB 12	5388.46	D	4	13.8	2	2	126.2	110.9	117.0	95	90	
03-1	1453110.586/411868.463, Edi, NS, Lift 7, GB 13	5387.18	D	4	11.2	2	2	128.8	115.8	117.0	99	90	
04-1	1453094.991/411768.119, Edi, NS, Lift 7, GB 10	5385.87	D	4	12.6	2	2	132.0	117.2	117.0	100	90	
05-1	1452987.308/411767.206, Edi, NS, Lift 7, GB 9	5387.79	D	4	12.4	2	2	132.2	117.6	117.0	100+	90	
06-1	1452932.077/411730.179, Edi, NS, Lift 7, GB 8	5387.26	D	4	11.0	2	2	125.0	112.6	117.0	96	90	
07-1	1452835.121/411768.504, Edi, NS, Lift 7, GB 7	5387.65	D	4	12.2	2	2	133.0	118.5	117.0	100+	90	
08-1	1452731.647/411796.384, Edi, NS, Lift 7, GB 6	5387.77	D	4	10.6	2	2	131.5	118.9	117.0	100+	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 22, 2009

Project #: 9-517-00022D
Report #: 22906
Tested By: Teri Godinez
Date Tested: 7/22/2009
Visual Description of Material: Landfill Cap

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	1452729.290/411635.888, Edi, NS, Lift 7, GB 1	5384.83	D	4	13.7	2	2	125.1	110.0	117.0	94	90	
02-1	1452807.176/411643.682, Edi, NS, Lift 7, GB 2	5385.21	D	4	13.6	2	2	127.6	112.4	117.0	96	90	
03-1	1452897.243/411705.048, Edi, NS, Lift 7, GB 3	5386.73	D	4	11.4	2	2	122.9	110.3	117.0	94	90	
04-1	1453015.327/411640.438, Edi, NS, Lift 7, GB 4	5384.72	D	4	13.0	2	2	124.8	110.4	117.0	94	90	
05-1	1453116.685/411630.254, Edi, NS, Lift 7, GB 5	5382.44	D	4	11.8	2	2	124.5	111.3	117.0	95	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

amec

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: July 28, 2009

Project #: 9-517-00022D
Report #: 22977
Tested By: Teri Godinez
Date Tested: 7/24/2009
Visual Description of Material: Landfill Cap

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	N1453086.146, E411838.368, Edi, NS, Lift 8, GB 13	5388.09	D	4	10.9	2	2	133.6	120.5	117.0	100+	90	
02-1	N1452997.104, E411841.058, Edi, NS, Lift 8, GB 12	5389.51	D	4	11.9	2	2	131.7	117.7	117.0	100+	90	
03-1	N1452957.031, E411862.485, Edi, NS, Lift 8, GB 11	5390.46	D	4	10.5	2	2	131.3	118.9	117.0	100+	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☒

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
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Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Report Date: July 29, 2009

Project #: 9-517-00022D
Report #: 23040
Tested By: Teri Godinez
Date Tested: 7/28/2009
Visual Description of Material: Landfill Cap

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

FIELD DENSITY TEST USING NUCLEAR DENSITY GUAGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max	
01-1	1453102.688/411770.575, Edi, NS, Lift 8, GB 10	5386.49	D	4	7.6	2	2	122.9	114.2	117.0	98	90		*
02-1	1453070.888/411750.471, Edi, NS, Lift 8, MW 4	5386.89	D	4	8.8	2	2	124.6	114.5	117.0	98	90		*
03-1	1453026.647/411732.295, Edi, NS, Lift 8, GB 9	5387.18	D	4	10.1	2	2	131.3	119.3	117.0	100+	90		
04-1	1452947.698/411770.476, Edi, NS, Lift 8, GB 8	5388.55	D	4	8.6	2	2	124.8	114.9	117.0	98	90		*
05-1	1452846.893/411754.156, Edi, NS, Lift 8, GB 7	5387.95	D	4	10.0	2	2	133.5	121.4	117.0	100+	90		
06-1	4152692.486/411757.965, Edi, NS, Lift 8, GB 6	5387.42	D	4	10.0	2	2	129.2	117.4	117.0	100	90		
07-1	1452706.558/411649.598, Edi, NS, Lift 8, GB 1	5385.48	D	4	10.7	2	2	136.6	123.4	117.0	100+	90		
08-1	1452812.797/411637.497, Edi, NS, Lift 8, GB 2	5385.68	D	4	11.4	2	2	128.4	115.3	117.0	99	90		
09-1	1452945.200/411608.307, Edi, NS, Lift 8, GB 3	5385.29	D	4	12.5	2	2	130.0	115.5	117.0	99	90		
10-1	1453022.769/411603.527, Edi, NS, Lift 8, GB 4	5384.74	D	4	11.4	2	2	128.5	115.3	117.0	99	90		
11-1	1453110.772/411605.064, Edi, NS, Lift 8, GB 5	5383.04	D	4	13.4	2	2	128.1	113.0	117.0	97	90		
12-1	1452947.698/411770.476, Edi, NS, Lift 8, GB 8 (Retest of #04-1, Dated Today 7/28/09)	5388.55	D	4	10.3	2	2	134.7	122.2	117.0	100+	90		
13-1	1453102.688/411770.575, Edi, NS, Lift 8, GB 10 (Retest of #01-1, Dated Today 7/28/09)	5386.49	D	4	11.2	2	2	133.8	120.2	117.0	100+	90		

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
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Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
14-1	1453070.888/411750.471, Edi, NS, Lift 8, MW 4 (Retest of #02-1, Dated Today 7/28/09)	5386.89	D	4	10.3	2	2	124.8	113.2	117.0	97	90	

Reviewed By: _____
jdr

Distribution: **Client:** ☑ **File:** ☑ **Supplier:** ☑ **Other:** Addressee (2)
Email: ☑

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371 www.amec.com

Client: Environmental Dimentions Inc
1901 Candelaria Rd NW
ABQ, NM 87107-

Attn: Chris Edgmon

Project Name: EDI SNL Mixed Waste Landfill Cover

ABQ, NM

Project Manager: Vickie Maranville

Report Date: September 09, 2009
Amended Date: December 22, 2009
Project #: 9-517-00022D
Report #: 23464
Tested By: Miguel Chavez
Date Tested: 9/3/2009
Visual Description of Material: Landfill Cover

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0734-01	118.9	9.6	ASTM D698-07 / A	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3440
Serial #: 37046

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max	
01-1	GB 12	FSG	D	4	4.7	2	2	111.4	106.4	118.9	89			*
02-1	GB 12	FSG	D	10	4.9	2	2	116.7	111.2	118.9	94			*
03-1	GB 8	FSG	D	4	3.9	2	2	93.1	89.6	118.9	75			*
04-1	GB 8	FSG	D	6	3.9	2	2	100.9	97.0	118.9	82			*
05-1	GB 2	FSG	D	4	3.8	2	2	109.5	105.5	118.9	89			*
06-1	GB 2	FSG	D	8	3.7	2	2	118.8	114.5	118.9	96			*
07-1	GB 5	FSG	D	4	5.4	2	2	110.2	104.6	118.9	88			*
08-1	GB 5	FSG	D	8	3.8	2	2	116.0	111.8	118.9	94			*

Reviewed By: _____
mbr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (2)
Email: ☐

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Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
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2009 CQA Density and Moisture Tests

Field Density Soils Result

amec

Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-
Attn: Don Lopez

Project Manager: Robert Romero

Report Date: May 25, 2009
Project #: 9-519-005363
Phase: **Task:**
Project Name: Mixed Waste Landfill 2009
Address: KAFB

Report Number: 13718
Tested By: Robert Carr
Date Tested: 2009-05-22
Visual Material Description: Landfill Cover Subgrade

FIELD DENSITY TEST (ASTM D2922-05 and ASTM D3017-05)

Moisture Density Curves Used

Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTMD698 / A	

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Compaction	% Compaction Required Min	% Compaction Required Max
1	Subgrade Surface, Grid Block 5	5384.06	D	6	10.6	2	2	129.7	117.3	120.1	98	95	
2	Subgrade Surface, Grid Block 12	5381.71	D	6	11.0	2	2	128.9	116.1	120.1	97	95	
3	Subgrade Surface, Grid Block 8	5385.04	D	6	10.0	2	2	130.8	118.9	120.1	99	95	
4	Subgrade Surface, Grid Block 1	5381.04	D	6	10.0	2	2	129.6	117.9	120.1	98	95	

BTSB=Below Top of Subbase, BTOF=Below Top of Fill, FBC=Final Base Course, FSG=Finished Subgrade, FBC=Finished Base Course, BOP Bottom of Pipe, BOB=Bottom of Base, BOF=Bottom of Footing, OGP=Original Ground Prep Test Mode=D for Direct Transmission and B for Backscatter Modes

Reviewed By: _____ AS

Distribution: Client: File: Supplier: Other: Don Lopez (email) (1)

AMEC Earth & Environmental Inc.
8519 Jefferson NE
Albuquerque, NM 87113
(505) 821-1801 FAX: (505) 821-7371

amec

Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** June 23, 2009	
Attn:	Don Lopez	**Project #:** 9-519-005363 **Report #:** 22570 **Tested By:** Robert Carr **Date Tested:** 6/19/2009	
Project Name:	Mix Waste Landfill Albuquerque, NM	**Visual Description of Material:**	Landfill Cap
Project Manager:	Robert Romero		

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
6-1811	120.1	11.6	ASTM D698-07 / a	Light Red Sandy
9-0629-04	115.8	12.3	ASTM D698-07 / A	Clayey Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Compaction	% Compaction Required Min	% Compaction Required Max	
01-1	Native Soil Lift 1, Grid Block 8	5386.80	D	4	10.7	2	2	117.0	105.7	115.8	91	90		
02-1	Native Soil Lift 1, Grid Block 11	5388.33	D	4	11.0	2	2	118.9	107.1	115.8	92	90		
03-1	East Slope Lift 6	5384.57	D	6	10.1	2	2	129.3	117.4	120.1	98	90		
04-1	East Slope Lift 5	5384.07	D	12	10.3	2	2	123.9	112.3	120.1	94	90		
05-1	West Slope Lift 6	5379.92	D	6	11.1	2	2	131.0	117.9	120.1	98	90		
06-1	West Slope Lift 5	5379.42	D	12	10.6	2	2	127.6	115.4	120.1	96	90		
07-1	Native Soil Lift 2, Grid Block 11	5388.23	D	4	11.0	2	2	120.5	108.5	115.8	94	90		
08-1	North Slope Lift 8	5382.30	D	6	15.2	2	2	118.1	102.5	115.8	89	90		*
09-1	North Slope Lift 7	5381.80	D	6	14.0	2	2	121.7	106.7	115.8	92	90		

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep

Test Mode = D for Direct Transmission and B for Backscatter Modes

*** Material did not fall within specified tolerances.**

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mix Waste Landfill

Albuquerque, NM

Project Manager: Robert Romero

Report Date: June 23, 2009

Project #: 9-519-005363
Report #: 22577
Tested By: Robert Carr
Date Tested: 6/22/2009
Visual Description of Material: Landfill Cap, North Slope

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-04	115.8	12.3	ASTM D698-07 / A	Clayey Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	North Slope Lift 8, Grid Block 13 (Retest)	5382.54	D	6	10.9	2	2	117.1	105.6	115.8	91	90	
02-1	North Slope Lift 8, Grid Block 10 (Retest)	5381.31	D	6	10.5	2	2	117.0	105.9	115.8	91	90	
03-1	North Slope Lift 8, Grid Block 5 (Retest)	5378.87	D	6	11.0	2	2	117.7	106.0	115.8	92	90	

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel 5058211801
Fax 5058217371
www.amec.com

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Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** June 25, 2009	
Attn:	Don Lopez	**Project #:** 9-519-005363 **Report #:** 22595 **Tested By:** Robert Carr **Date Tested:** 6/23/2009	
Project Name:	Mix Waste Landfill Albuquerque, NM	**Visual Description of Material:**	Landfill Cap
Project Manager:	Robert Romero		

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-04	115.8	12.3	ASTM D698-07 / A	Clayey Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 3, Grid Block 2	5383.34	D	2	10.8	2	2	124.3	112.1	115.8	97	90	

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

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Tel 5058211801
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Report Date: June 25, 2009

Project #: 9-519-005363
Report #: 22596
Tested By: Robert Carr
Date Tested: 6/24/2009
Visual Description of Material: Landfill Cap

Attn: Don Lopez
Project Name: Mix Waste Landfill
Albuquerque, NM

Project Manager: Robert Romero

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge
Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 3, Grid Block 8	5385.53	D	2	10.0	2	2	121.1	110.1	117.0	94	90	

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

BTSB=Below Top of Subbase, BTOF= Below Top of Fill, FBC= Final Base Course, FSG = Finished Subgrade, FBC = Finished Base Course, BOP = Bottom of Pipe, BOB = Bottom of Base, BOF = Bottom of Footing, OGP = Original Ground Prep
Test Mode = D for Direct Transmission and B for Backscatter Modes

AMEC Earth Environmental, Inc.
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Tel 5058211801
Fax 5058217371
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Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** June 29, 2009	
		Project #: 9-519-005363	
		Report #: 22659	
Attn:	Don Lopez	**Tested By:** Robert Carr	
Project Name:	Mix Waste Landfill	**Date Tested:** 6/26/2009	
	Albuquerque, NM	**Visual Description of Material:**	Landfill Cap
Project Manager:	Robert Romero		

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 3, Grid Block 11	5388.37	D	2	13.7	2	2	130.1	114.4	117.0	98	90	
02-1	Native Soil Lift 4, Grid Block 1	5383.83	D	4	14.0	2	2	134.2	117.7	117.0	100+	90	
03-1	Native Soil Lift 4, Grid Block 3	5383.88	D	4	13.5	2	2	125.9	110.9	117.0	95	90	
04-1	Native Soil Lift 4, Grid Block 5	5380.70	D	4	12.8	2	2	125.9	111.6	117.0	95	90	
05-1	Native Soil Lift 4, Grid Block 9	5384.69	D	4	11.5	2	2	128.3	115.0	117.0	98	90	
06-1	Native Soil Lift 4, Grid Block 7	5385.81	D	4	11.6	2	2	126.0	111.9	117.0	96	90	

Reviewed By: _____
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Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

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Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** July 02, 2009	
		Project #: 9-519-005363	
		Report #: 22719	
Attn:	Don Lopez	**Tested By:** Robert Carr	
Project Name:	Mix Waste Landfill	**Date Tested:** 6/29/2009	
	Albuquerque, NM	**Visual Description of Material:**	Landfill Cap
Project Manager:	Robert Romero		

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 4, Grid Block 13	5386.65	D	4	11.6	2	2	128.1	114.8	117.0	98	90	
02-1	Native Soil Lift 4, Grid Block 11	5387.97	D	4	10.1	2	2	124.4	113.0	117.0	97	90	

Reviewed By: _____
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Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

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Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mix Waste Landfill

Albuquerque, NM

Project Manager: Robert Romero

Report Date: July 02, 2009

Project #: 9-519-005363
Report #: 22718
Tested By: Robert Carr
Date Tested: 7/1/2009
Visual Description of Material: Landfill Cap

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 5, Grid Block 12	5388.33	D	4	10.0	2	2	118.8	108.0	117.0	92	90	

Reviewed By: jdr

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Paul Molina (email) (1)

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mix Waste Landfill

Albuquerque, NM

Project Manager: Robert Romero

Report Date: July 07, 2009

Project #: 9-519-005363
Report #: 22760
Tested By: Robert Carr
Date Tested: 7/2/2009
Visual Description of Material: Landfill Cap

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Compaction	% Compaction Required Min	% Compaction Required Max
01-1	Native Soil Lift 5, Grid Block 10	5385.29	D	4	12.3	2	2	123.4	109.9	117.0	94	90	
02-1	Native Soil Lift 5, Grid Block 8	5387.37	D	4	12.8	2	2	123.0	109.0	117.0	93	90	
03-1	Native Soil Lift 5, Grid Block 6	5386.45	D	4	13.5	2	2	128.5	113.2	117.0	97	90	

Reviewed By: _____
jdr

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mix Waste Landfill

Albuquerque, NM

Project Manager: Robert Romero

Report Date: July 15, 2009

Project #: 9-519-005363
Report #: 22828
Tested By: Robert Carr
Date Tested: 7/9/2009
Visual Description of Material: Landfill Cap

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 5, Grid Block 4	5385.02	D	4	10.0	2	2	128.7	117.0	117.0	100	90	
02-1	Native Soil Lift 5, Grid Block 2	5384.18	D	4	10.2	2	2	124.6	113.1	117.0	97	90	

Reviewed By: _____
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Test Mode = D for Direct Transmission and B for Backscatter Modes

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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Report Date: July 20, 2009

Project #: 9-519-005363
Report #: 22883
Tested By: Robert Carr
Date Tested: 7/14/2009
Visual Description of Material: Landfill Cap

Attn: Don Lopez
Project Name: Mix Waste Landfill

Albuquerque, NM

Project Manager: Robert Romero

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 6, Grid Block 11	5386.88	D	4	10.4	2	2	128.4	116.3	117.0	99	90	
02-1	Native Soil Lift 6, Grid Block 13	5388.39	D	4	12.2	2	2	131.2	116.9	117.0	100	90	

Reviewed By: _____
jdr

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Email: ☐
Don Lopez (email) (1)
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Report Date: July 21, 2009

Project #: 9-519-005363
Report #: 22895
Tested By: Robert Carr
Date Tested: 7/17/2009
Visual Description of Landfill Cap Material:

Attn: Don Lopez
Project Name: Mix Waste Landfill
Albuquerque, NM

Project Manager: Robert Romero

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge
Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 6, Grid Block 8	5386.48	D	4	12.8	2	2	132.6	117.5	117.0	100	90	
02-1	Native Soil Lift 6, Grid Block 6	5386.67	D	4	10.3	2	2	119.4	108.3	117.0	93	90	
03-1	Native Soil Lift 6, Grid Block 2	5383.91	D	4	14.0	2	2	126.7	111.1	117.0	95	90	
04-1	Native Soil Lift 6, Grid Block 4	5384.61	D	4	10.9	2	2	126.2	113.9	117.0	97	90	
05-1	Native Soil Lift 6, Grid Block 9	5386.18	D	4	11.4	2	2	132.1	118.6	117.0	100+	90	

Reviewed By: _____
jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
Email: ☐
Don Lopez (email) (1)
Paul Molina (email) (1)

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Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** July 22, 2009	
		Project #: 9-519-005363	
		Report #: 22915	
Attn:	Don Lopez	**Tested By:** Robert Carr	
Project Name:	Mix Waste Landfill	**Date Tested:** 7/21/2009	
		Visual Description of Material:	Landfill Cap
	Albuquerque, NM		
Project Manager:	Robert Romero		

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 7, Grid Block 11	5389.85	D	4	12.0	2	2	126.4	112.8	117.0	96	90	
02-1	Native Soil Lift 7, Grid Block 13	5387.14	D	4	12.8	2	2	129.1	114.4	117.0	98	90	
03-1	Native Soil Lift 7, Grid Block 9	5387.79	D	4	11.9	2	2	129.1	115.4	117.0	99	90	
04-1	Native Soil Lift 7, Grid Block 7	5387.64	D	4	12.4	2	2	131.9	117.3	117.0	100	90	

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
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Client:	URS 6501 Americas Pkwy. NE, Suite 900 Albuquerque, NM 87110-	**Report Date:** July 24, 2009	
Attn:	Don Lopez	**Project #:** 9-519-005363 **Report #:** 22946 **Tested By:** Robert Carr	
Project Name:	Mix Waste Landfill Albuquerque, NM	**Date Tested:** 7/22/2009 **Visual Description of Material:** Landfill Cap	
Project Manager:	Robert Romero		

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 7, Grid Block 1	5384.90	D	4	14.0	2	2	124.1	108.9	117.0	93	90	95
02-1	Native Soil Lift 7, Grid Block 3	5386.74	D	4	10.5	2	2	119.5	108.2	117.0	92	90	95
03-1	Native Soil Lift 7, Grid Block 5	5382.35	D	4	12.2	2	2	124.5	111.0	117.0	95	90	95

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
Email: ☐
Don Lopez (email) (1)
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Client: URS
6501 Americas Pkwy. NE, Suite 900
Albuquerque, NM 87110-

Attn: Don Lopez

Project Name: Mix Waste Landfill

Albuquerque, NM

Project Manager: Robert Romero

Report Date: July 29, 2009

Project #: 9-519-005363
Report #: 23041
Tested By: Robert Carr
Date Tested: 7/28/2009
Visual Description of Landfill Cap Material:

FIELD DENSITY TEST USING NUCLEAR DENSITY GAUGE (ASTM D6938-08)

Moisture Density Curves Used

AMEC Lab #	Maximum Density	Optimum Moisture	Test Type / Method	Description
9-0629-01	117.0	12.0	ASTM D698-07 / B	Silty Sand

Nuclear Density Gauge

Make: Troxler
Model #: 3430
Serial #: 35427

Test #	Location	Elevation	Test Mode	Probe Depth (in)	% Moisture Actual	% Moisture Required (-)	% Moisture Required (+)	Wet Density (pcf)	Dry Density (pcf)	Maximum Density (pcf)	% Com-paction	% Com-paction Required Min	% Com-paction Required Max
01-1	Native Soil Lift 8, Grid Block 12	5389.71	D	6	10.0	2	2	128.7	117.0	117.0	100	90	
02-1	Native Soil Lift 8, Grid Block 6	5387.23	D	6	10.0	2	2	127.1	115.5	117.0	99	90	
03-1	Native Soil Lift 8, Grid Block 2	5385.65	D	6	10.8	2	2	128.6	116.1	117.0	99	90	
04-1	Native Soil Lift 8, Grid Block 4	5384.78	D	6	12.1	2	2	127.0	113.3	117.0	97	90	
05-1	Native Soil Lift 8, Grid Block 8	5388.56	D	6	10.3	2	2	129.1	117.0	117.0	100	90	
06-1	Native Soil Lift 8, Grid Block 10	5386.42	D	6	11.0	2	2	129.2	116.4	117.0	99	90	

Reviewed By: jdr

Distribution: Client: ☑ File: ☑ Supplier: ☑ Other: Addressee (0)
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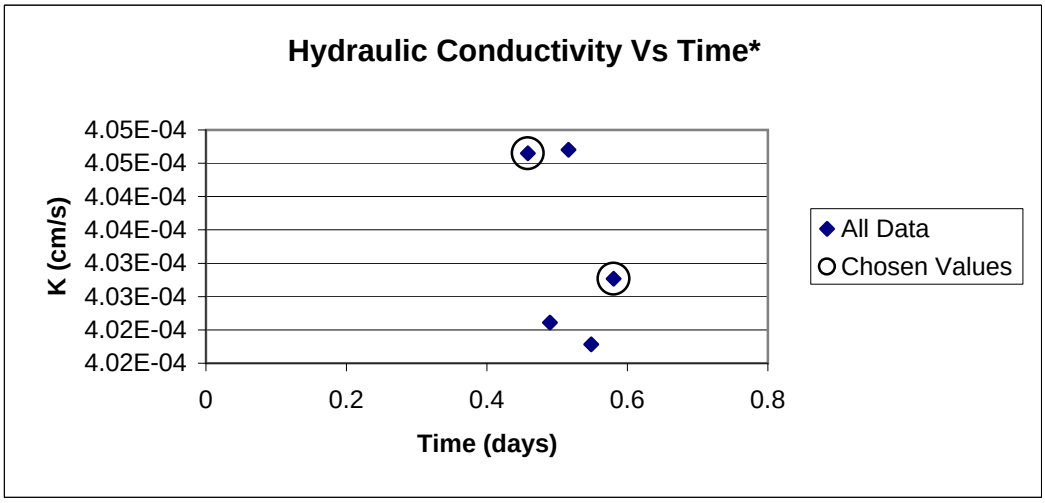
2009 Saturated Hydraulic Conductivity Tests

Client:	Environmental Dimensions, Inc. 1901 Candelaria Rd., NW Albuquerque, NM 87107	**Report Date:**	8/13/2009
		Project #:	9-517-00022D
Attn:	Chris Edgmon	**Work Order #:**	9
		Lab #:	9.0715-01
Project Name:	EDi SNL Mixed Waste Landfill Cover	**Sampled By:**	Jon Schermerhorn
		Date Sampled:	6/19/2009
		Visual Description of Material:	Silty Clayey Sand
		Sample Source:	Wedge Lift 1 GB 8

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.22	**INITIAL GRAVIMETRIC WATER CONTENT**	12.0%
INITIAL LENGTH	7.12	**INITIAL DRY BULK DENSITY**	105.3
FINAL DIAMETER	6.22	**FINAL GRAVIMETRIC WATER CONTENT**	23.4%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	90.0%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.9
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	4.03E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	4.02E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by _____

AMEC Earth Environmental, Inc.
8519 Jefferson NW
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Phone: (505) 821-1801
Fax: (505) 821-7371 www.amec.com

Client: Environmental Dimensions, Inc.
1901 Candelaria Rd, NW
Albuquerque, NM 87107

Report Date: 7/24/2009

Project #: 9-517-00022D
Work Order #: 9
Lab #: 9-0715-02
Sampled By: Jon Schermerhorn
Date Sampled: 6/22/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: Wedge Lift 2 GB 11

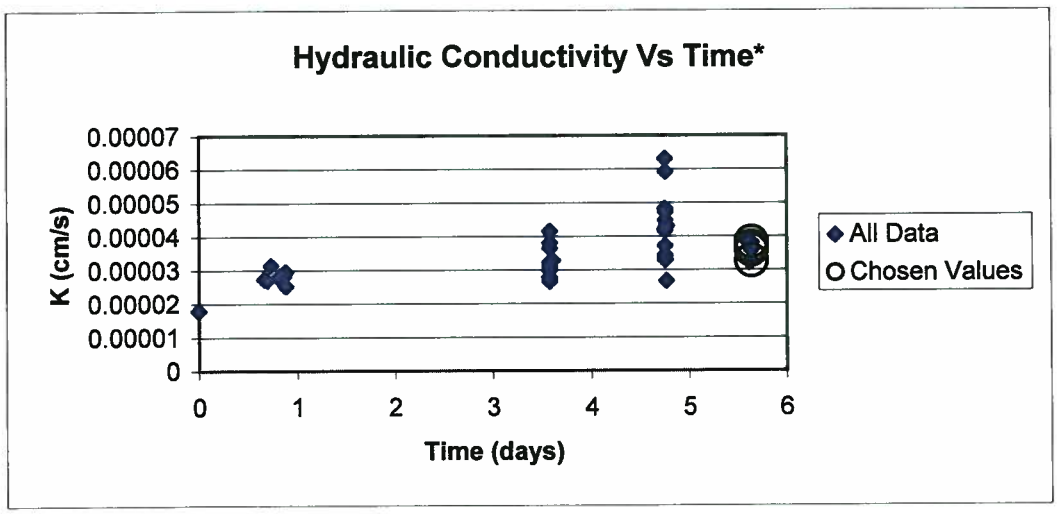
Attn: Chris Edgmon

Project Name: EDi SNL Mixed Waste Landfill Cover

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.13	**INITIAL GRAVIMETRIC WATER CONTENT**	15.6%
INITIAL LENGTH	7.62	**INITIAL DRY BULK DENSITY**	104.2
FINAL DIAMETER	6.13	**FINAL GRAVIMETRIC WATER CONTENT**	19.2%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	C: Falling Head/Rising Tail	**% OF D698 COMPACTION:**	89.0%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	87.6%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	1.2
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	3.58E-05
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	3.58E-05



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by

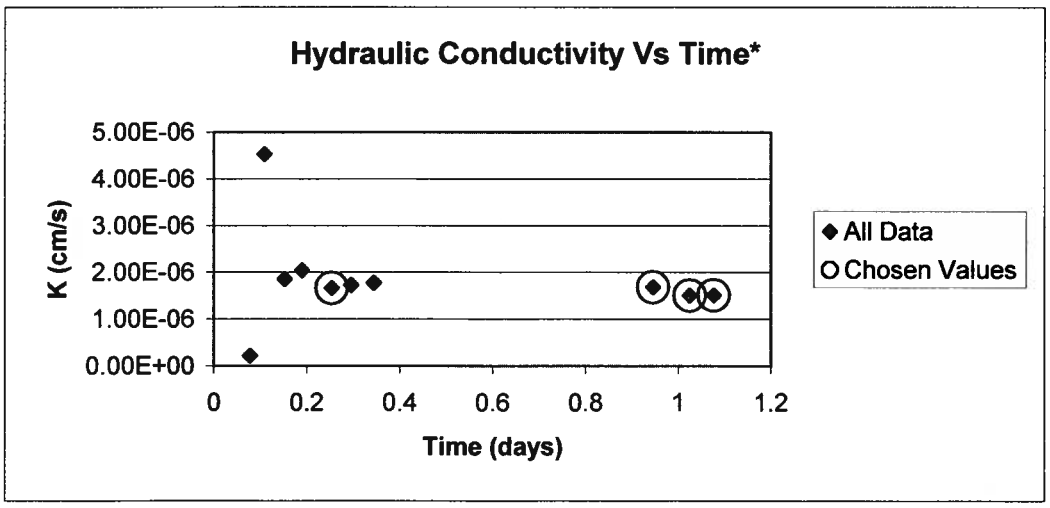
AMEC Earth Environmental, Inc.
8519 Jefferson NW
Albuquerque, NM 87113
Phone: (505) 821-1801
Fax: (505) 821-7371
www.amec.com

Client:	Environmental Dimentions Inc 1901 Candelaria Rd, NW Albuquerque, NM 87107	**Report Date:**	07/24/2009
		Project #:	9-517-00022D
Attn:	Chris Edgmon	**Work Order #:**	7
		Lab #:	9-0694-01
Project Name:	EDi SNL Mixed Waste Landfill Cover	**Sampled By:**	Client
		Date Sampled:	06/17/2009
		Visual Description of Material:	Brown Silty Sand
		Sample Source:	EDI NS Lift 3-1

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.13	**INITIAL GRAVIMETRIC WATER CONTENT**	12.2%
INITIAL LENGTH	7.63	**INITIAL DRY BULK DENSITY**	105.5
FINAL DIAMETER	6.13	**FINAL GRAVIMETRIC WATER CONTENT**	20.9%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	90.2%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	99.5%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.5
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.62E-06
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.59E-06



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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Client: Environmental Dimentions Inc
1901 Candelaria Rd, NW
Albuquerque, NM 87107

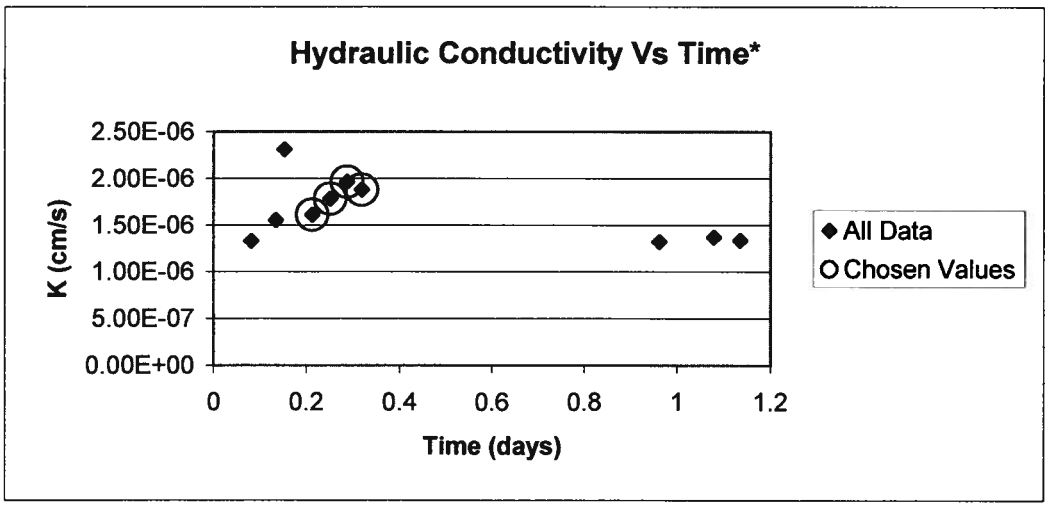
Report Date: 07/24/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 7
Lab #: 9-0694-02
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Client
Date Sampled: 06/17/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: EDI NS Lift 3-2

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.13	**INITIAL GRAVIMETRIC WATER CONTENT**	12.4%
INITIAL LENGTH	7.63	**INITIAL DRY BULK DENSITY**	105.0
FINAL DIAMETER	6.13	**FINAL GRAVIMETRIC WATER CONTENT**	20.1%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	89.7%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	94.3%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.7
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.47E-06
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.81E-06



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by

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Client: Environmental Dimentions Inc
1901 Candelaria Rd, NW
Albuquerque, NM 87107

Report Date: 07/24/2009

Project #: 9-517-00022D
Work Order #: 7
Lab #: 9-0694-03
Sampled By: Client
Date Sampled: 06/17/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: EDI NS Lift 3-3

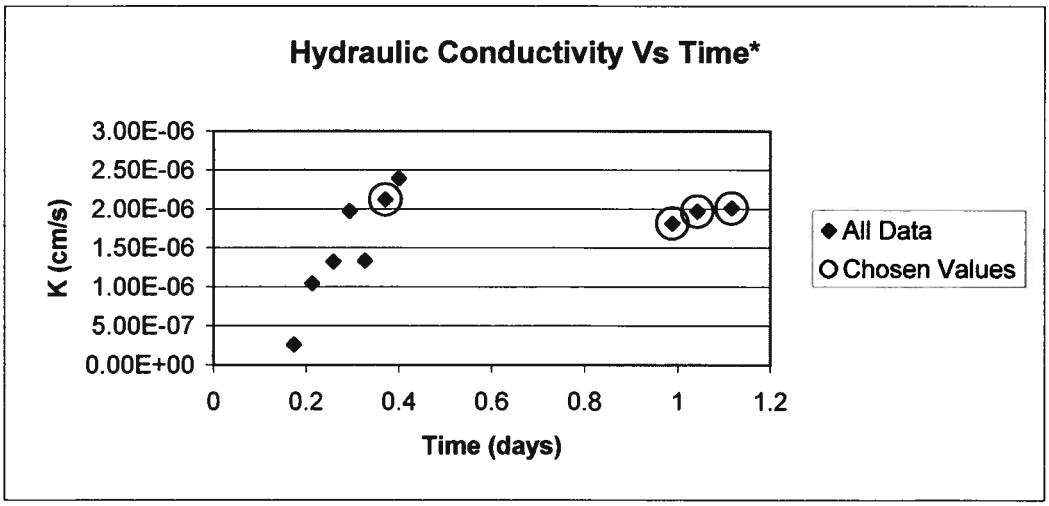
Attn: Chris Edgmon

Project Name: EDi SNL Mixed Waste Landfill Cover

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.11	**INITIAL GRAVIMETRIC WATER CONTENT**	11.1%
INITIAL LENGTH	7.60	**INITIAL DRY BULK DENSITY**	106.4
FINAL DIAMETER	6.11	**FINAL GRAVIMETRIC WATER CONTENT**	20.2%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	91.0%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	98.2%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.5
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.05E-06
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.98E-06



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by

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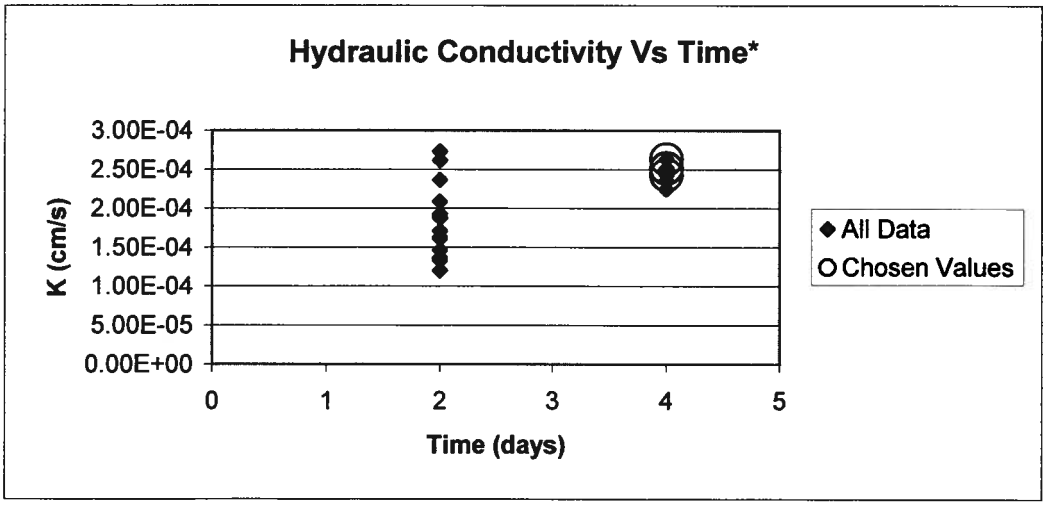
Client:	Environmental Dimensions, Inc. 1901 Candelaria Rd, NW Albuquerque, NM 87107	**Report Date:**	07/24/2009
		Project #:	9-517-00022D
Attn:	Chris Edgmon	**Work Order #:**	14
		Lab #:	9-0742-01
Project Name:	EDi SNL Mixed Waste Landfill Cover	**Sampled By:**	Jon Schermerhorn
		Date Sampled:	06/30/2009
		Visual Description of Material:	Silty Clayey Sand
		Sample Source:	EDI NS Lift 4 GB 2

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.11	**INITIAL GRAVIMETRIC WATER CONTENT**	12.0%
INITIAL LENGTH	7.60	**INITIAL DRY BULK DENSITY**	99.0
FINAL DIAMETER	6.11	**FINAL GRAVIMETRIC WATER CONTENT**	20.7%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	C: Falling Head/Rising Tail	**% OF D698 COMPACTION:**	84.6%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	83.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	1.0
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.52E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	2.52E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by _____

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Fax: (505) 821-7371 www.amec.com

Client: Environmental Dimensions, Inc.
1901 Candelaria Rd, NW
Albuquerque, NM 87107

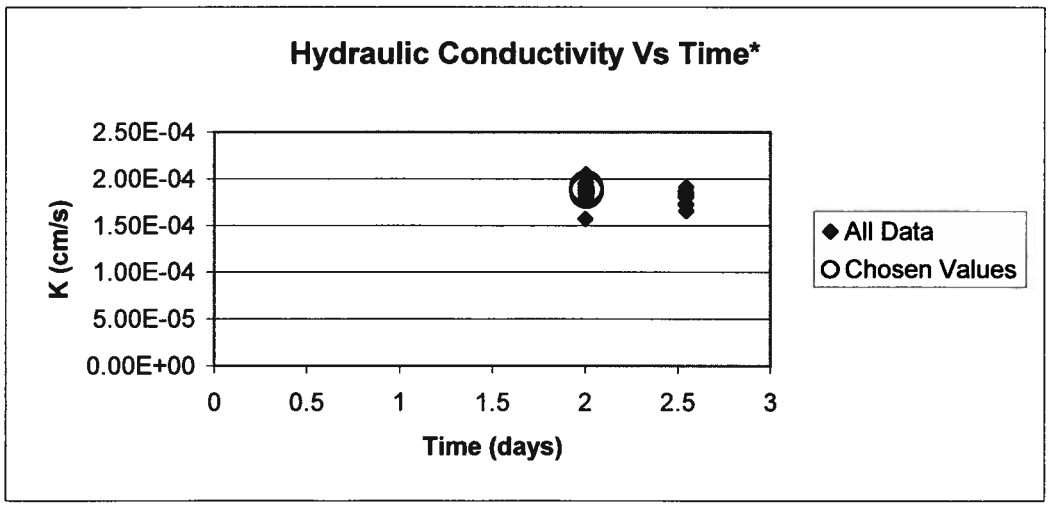
Report Date: 07/24/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 14
Lab #: 9-0742-02
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: EDI NS Lift 4 GB 6

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.10	**INITIAL GRAVIMETRIC WATER CONTENT**	10.9%
INITIAL LENGTH	7.60	**INITIAL DRY BULK DENSITY**	95.0
FINAL DIAMETER	6.10	**FINAL GRAVIMETRIC WATER CONTENT**	23.0%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	81.2%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	83.7%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.8
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.82E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.87E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by

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Fax: (505) 821-7371 www.amec.com

Client: Environmental Dimensions, Inc.
1901 Candelaria Rd., NW
Albuquerque, NM 87107

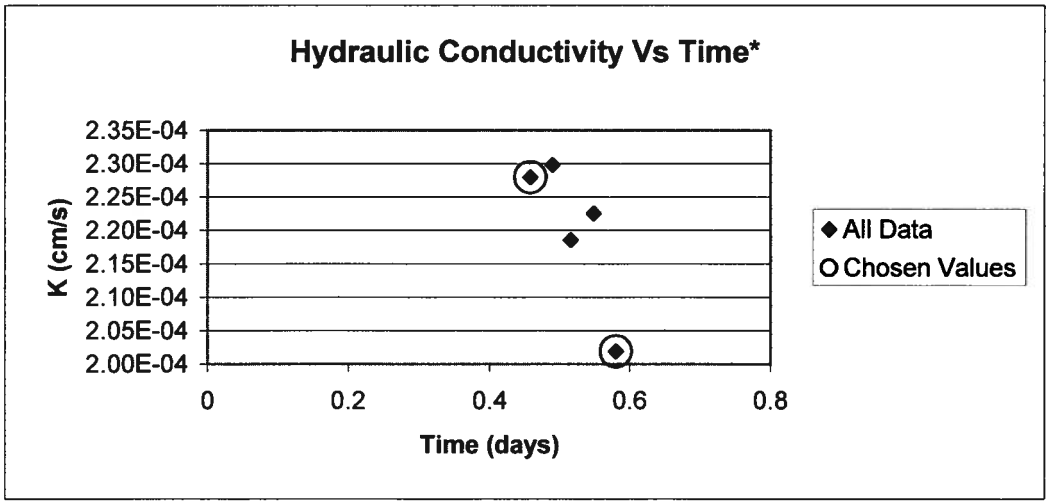
Report Date: 08/13/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 14
Lab #: 9-0742-03
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 06/30/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: EDI NS Lift 4 GB 9

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.24	**INITIAL GRAVIMETRIC WATER CONTENT**	12.2%
INITIAL LENGTH	6.63	**INITIAL DRY BULK DENSITY**	105.1
FINAL DIAMETER	6.24	**FINAL GRAVIMETRIC WATER CONTENT**	22.5%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	89.8%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.5
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.18E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	2.14E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by

AMEC Earth Environmental, Inc.
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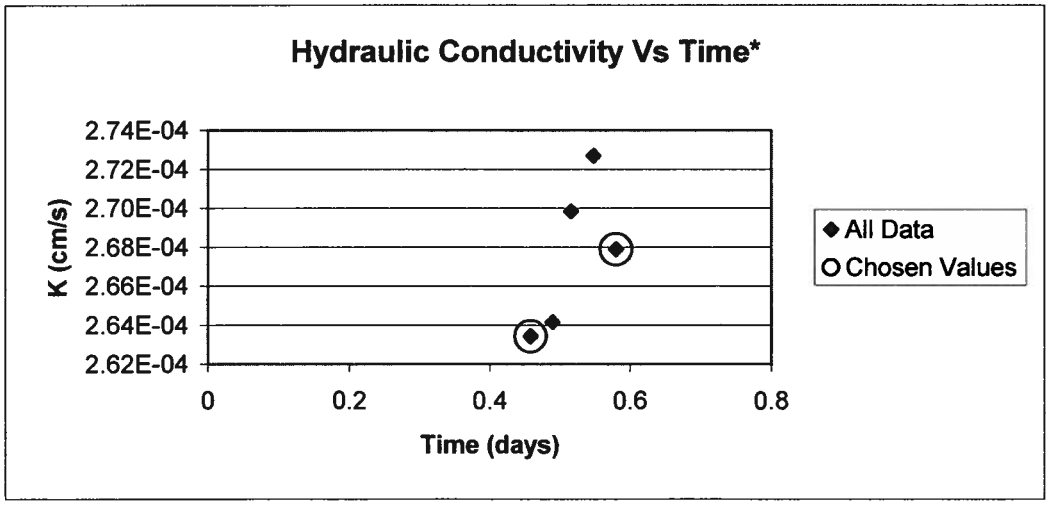
Albuquerque, NM 87113
Phone: (505) 821-1801
Fax: (505) 821-7371 www.amec.com

Client:	Environmental Dimensions, Inc. 1901 Candelaria Rd., NW Albuquerque, NM 87107	**Report Date:**	08/07/2009
		Project #:	9-517-00022D
Attn:	Chris Edgmon	**Work Order #:**	16
		Lab #:	9-0766-01
Project Name:	EDi SNL Mixed Waste Landfill Cover	**Sampled By:**	Jon Schermerhorn
		Date Sampled:	07/09/2009
		Visual Description of Material:	Silty Clayey Sand
		Sample Source:	Edi NS Lift 5 GB 1

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.13	**INITIAL GRAVIMETRIC WATER CONTENT**	12.2%
INITIAL LENGTH	7.59	**INITIAL DRY BULK DENSITY**	105.3
FINAL DIAMETER	6.13	**FINAL GRAVIMETRIC WATER CONTENT**	21.1%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	90.0%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	98.3%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.6
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.69E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	2.66E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

Reviewed by

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Client: Environmental Dimensions, Inc.
1901 Candelaria Rd., NW
Albuquerque, NM 87107

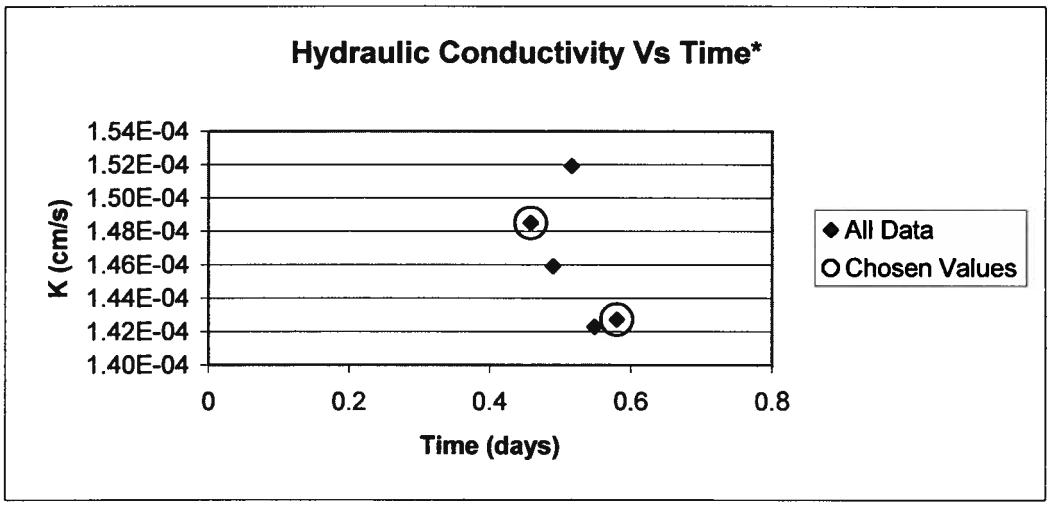
Report Date: 08/24/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 24
Lab #: 9-0968-01 "9-0766-02"
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 07/08/2009
Visual Description of Material: Brown Silty Sand
Sample Source: EDI NS Lift 5 GB 4 Retest

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.14	**INITIAL GRAVIMETRIC WATER CONTENT**	11.6%
INITIAL LENGTH	7.59	**INITIAL DRY BULK DENSITY**	111.5
FINAL DIAMETER	6.14	**FINAL GRAVIMETRIC WATER CONTENT**	18.5%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	95.3%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.3
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.46E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.43E-04



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Reviewed by

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Client: Environmental Dimensions, Inc.
1901 Candelaria Rd., NW
Albuquerque, NM 87107

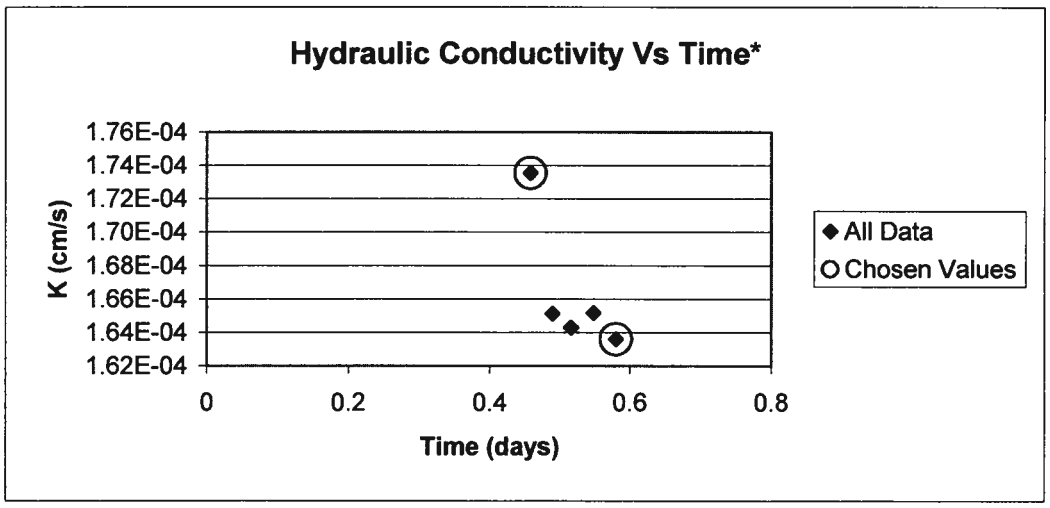
Report Date: 08/24/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 24
Lab #: 9-0968-02 "9-0766-03"
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 07/08/2009
Visual Description of Material: Brown Silty Sand
Sample Source: EDI NS Lift 5 GB 8 Retest

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.14	**INITIAL GRAVIMETRIC WATER CONTENT**	12.2%
INITIAL LENGTH	7.58	**INITIAL DRY BULK DENSITY**	110.6
FINAL DIAMETER	6.14	**FINAL GRAVIMETRIC WATER CONTENT**	19.5%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	94.6%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.4
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.65E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.63E-04



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Reviewed by

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Phone: (505) 821-1801
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Client: Environmental Dimensions, Inc.
1901Candelaria Rd., NW
Albuquerque, NM 87107

Report Date: 8/7/2009

Attn: Chris Edgmon

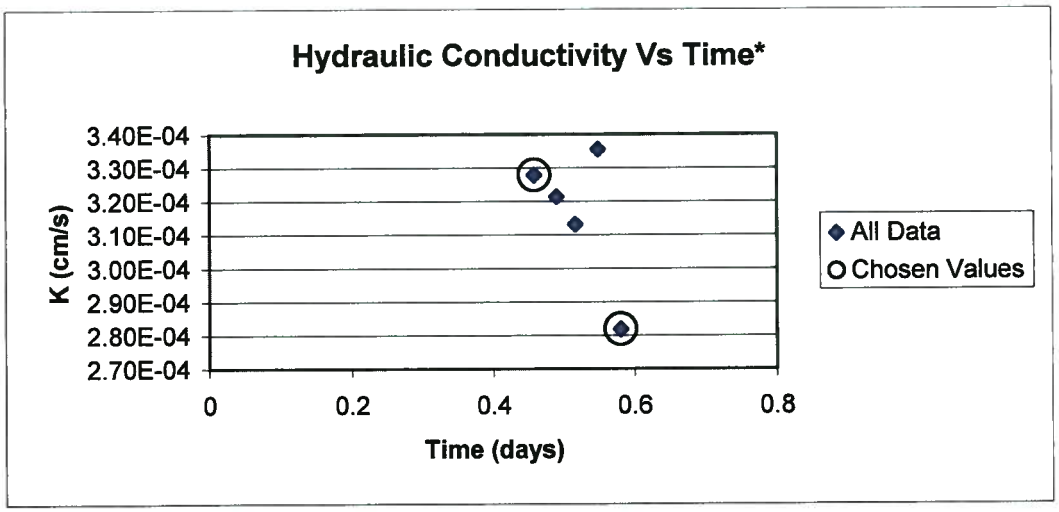
Project Name: EDi SNL Mixed Waste Landfill Cover

Project #: 9-517-00022D
Work Order #: 20
Lab #: 9-0805-02
Sampled By: Jon Schermerhorn
Date Sampled: 7/17/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: Edi NS Lift 6-1

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.13	**INITIAL GRAVIMETRIC WATER CONTENT**	11.7%
INITIAL LENGTH	7.58	**INITIAL DRY BULK DENSITY**	105.6
FINAL DIAMETER	6.13	**FINAL GRAVIMETRIC WATER CONTENT**	21.8%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	90.2%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.6
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	3.13E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	3.05E-04



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Reviewed by

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Client: Environmental Dimensions, Inc.
1901Candelaria Rd., NW
Albuquerque, NM 87107

Report Date: 8/7/2009

Project #: 9-517-00022D
Work Order #: 20
Lab #: 9-0805-03
Sampled By: Jon Schermerhorn
Date Sampled: 7/17/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: Edi NS Lift 6-2

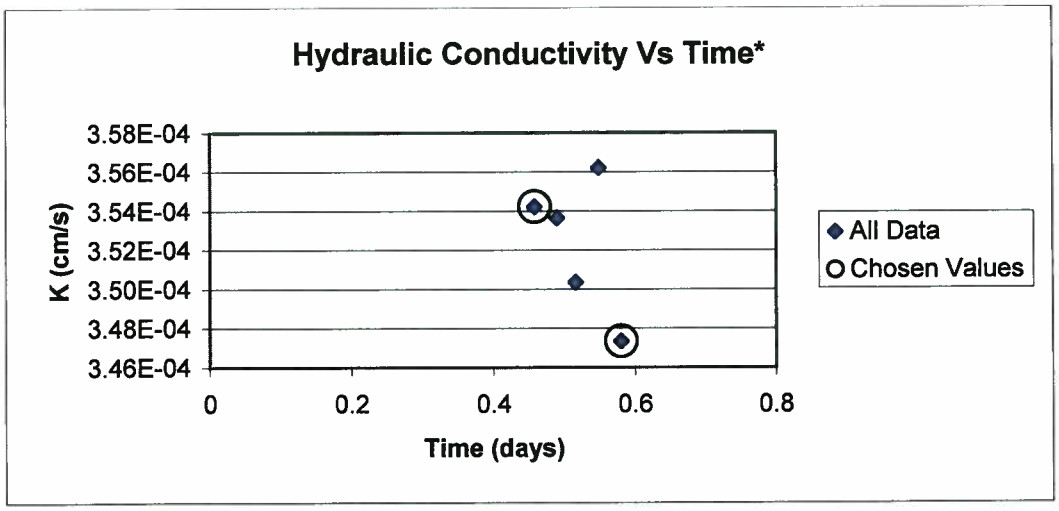
Attn: Chris Edgmon

Project Name: EDi SNL Mixed Waste Landfill Cover

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.12	**INITIAL GRAVIMETRIC WATER CONTENT**	12.2%
INITIAL LENGTH	7.58	**INITIAL DRY BULK DENSITY**	105.6
FINAL DIAMETER	6.12	**FINAL GRAVIMETRIC WATER CONTENT**	22.5%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	90.3%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.8
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	3.52E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	3.51E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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Client: Environmental Dimensions, Inc.
1901Candelaria Rd., NW
Albuquerque, NM 87107

Report Date: 8/7/2009

Project #: 9-517-00022D
Work Order #: 20
Lab #: 9-0805-04
Sampled By: Jon Schermerhorn
Date Sampled: 7/17/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: Edi NS Lift 6-3

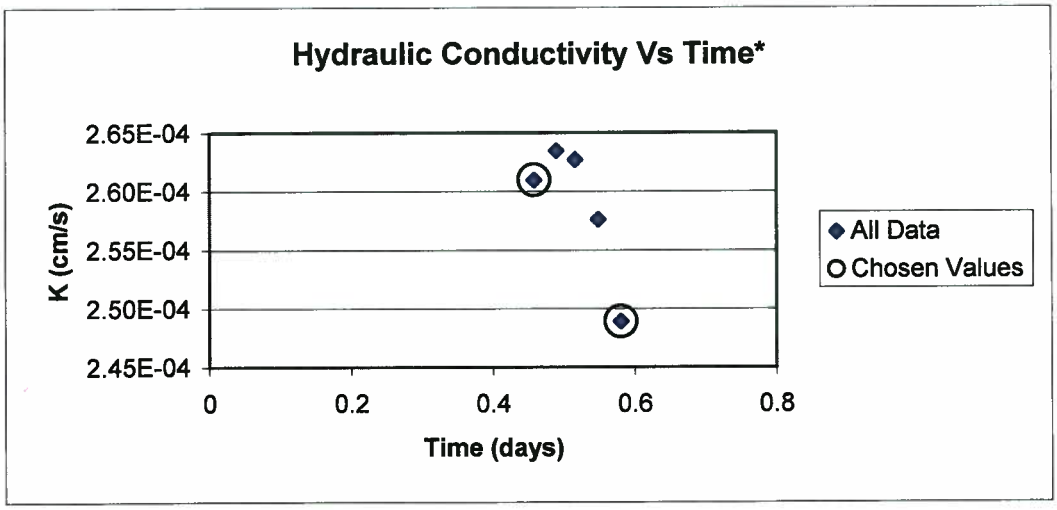
Attn: Chris Edgmon

Project Name: EDi SNL Mixed Waste Landfill Cover

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.13	**INITIAL GRAVIMETRIC WATER CONTENT**	12.7%
INITIAL LENGTH	7.58	**INITIAL DRY BULK DENSITY**	104.7
FINAL DIAMETER	6.13	**FINAL GRAVIMETRIC WATER CONTENT**	21.7%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	89.5%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	99.5%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.5
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.58E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	2.55E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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Client: Environmental Dimensions, Inc.
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Albuquerque, NM 87107

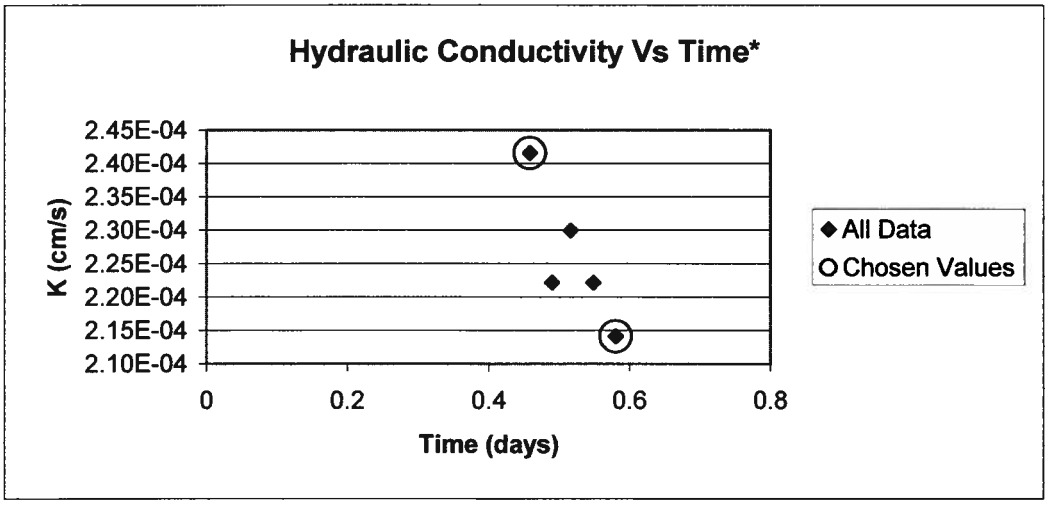
Report Date: 08/24/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 24
Lab #: 9-0968-03 "9-0817-01"
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 07/20/2009
Visual Description of Material: Brown Silty Sand
Sample Source: EDI NS Lift 7 GB 1 Retest

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.10	**INITIAL GRAVIMETRIC WATER CONTENT**	11.8%
INITIAL LENGTH	7.59	**INITIAL DRY BULK DENSITY**	111.0
FINAL DIAMETER	6.10	**FINAL GRAVIMETRIC WATER CONTENT**	19.7%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	94.8%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.5
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.22E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	2.18E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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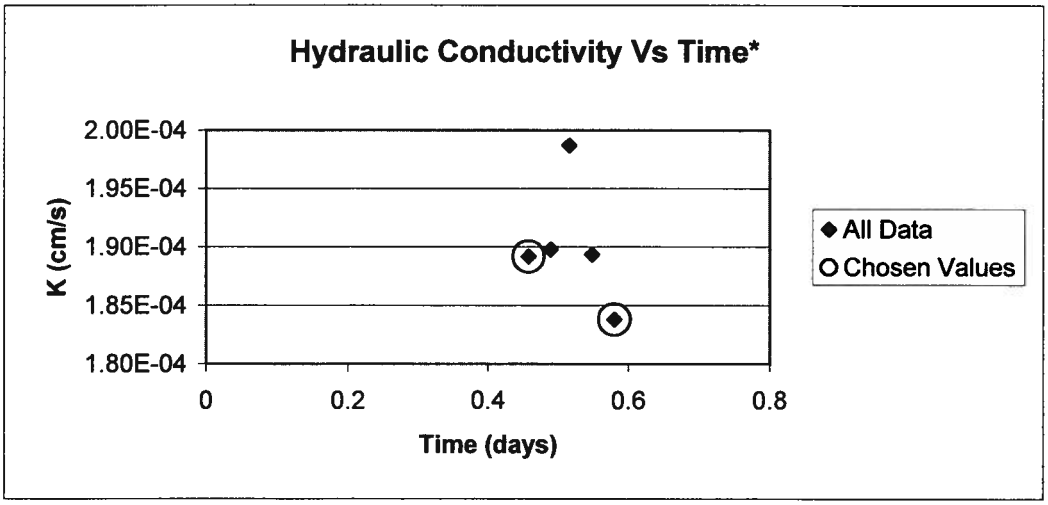
Report Date: 08/24/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 24
Lab #: 9-0968-04 "9-0817-02"
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 07/20/2009
Visual Description of Material: Brown Silty Sand
Sample Source: EDI NS Lift 7 GB 5 Retest

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.11	**INITIAL GRAVIMETRIC WATER CONTENT**	12.2%
INITIAL LENGTH	7.58	**INITIAL DRY BULK DENSITY**	111.0
FINAL DIAMETER	6.11	**FINAL GRAVIMETRIC WATER CONTENT**	20.1%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	94.8%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.4
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.90E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.87E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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1901 Candelaria Rd., NW
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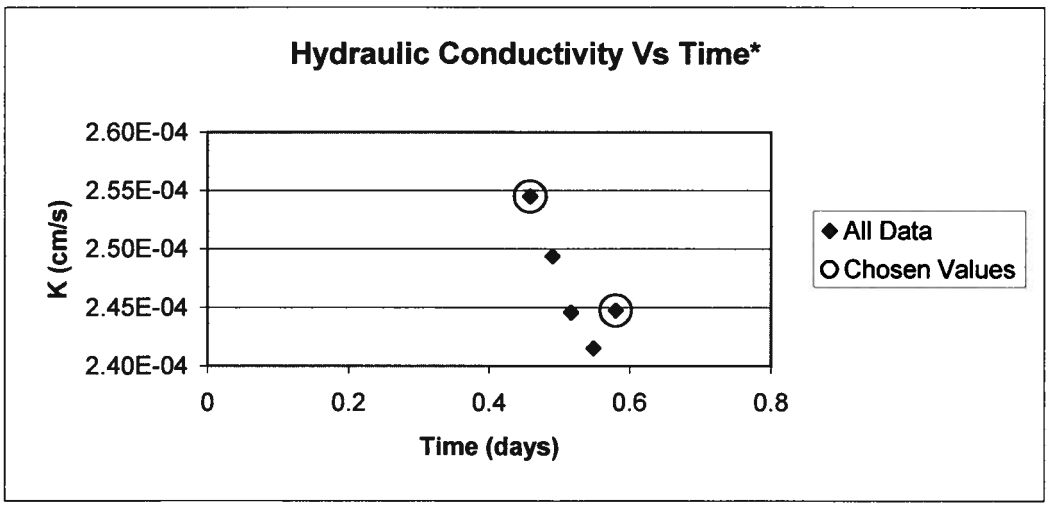
Report Date: 08/07/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 21
Lab #: 9-0817-03
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Jon Schermerhorn
Date Sampled: 07/22/2009
Visual Description of Material: Silty Clayey Sand
Sample Source: EDI NS Lift 7 GB 13

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.12	**INITIAL GRAVIMETRIC WATER CONTENT**	12.6%
INITIAL LENGTH	7.58	**INITIAL DRY BULK DENSITY**	104.7
FINAL DIAMETER	6.12	**FINAL GRAVIMETRIC WATER CONTENT**	22.3%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	A:Constant Head	**% OF D698 PROCTOR**	89.5%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.5
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	2.45E-04
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	2.50E-04



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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Client: Environmental Dimentions Inc
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Albuquerque, NM 87107

Report Date: 08/17/2009

Project #: 9-517-00022D
Work Order #: 22
Lab #: 9-0837-01
Sampled By: Client
Date Sampled: 07/27/2009
Visual Description of Material: Brown Silty Sand
Sample Source: EDI NS Lift 8 GB 2

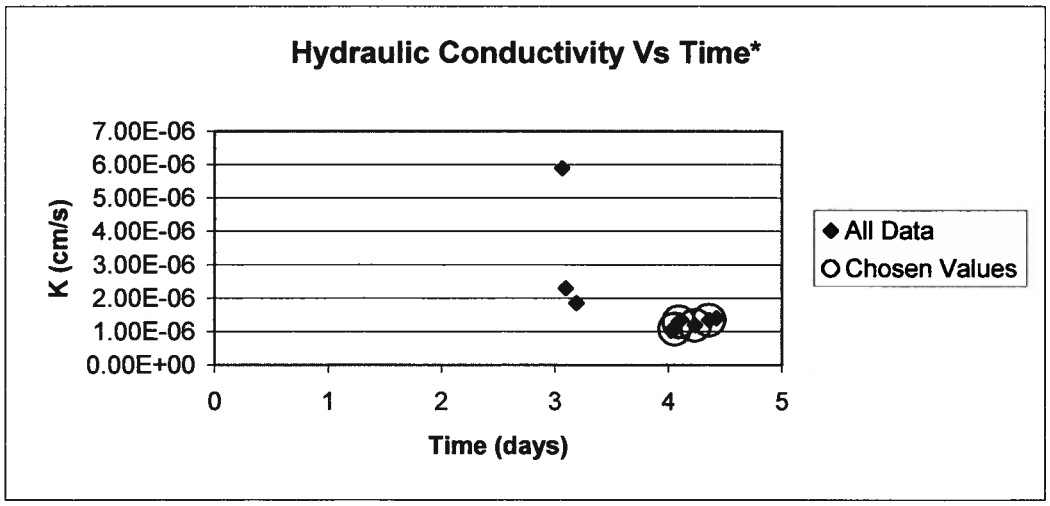
Attn: Chris Edgmon

Project Name: EDi SNL Mixed Waste Landfill Cover

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.10	**INITIAL GRAVIMETRIC WATER CONTENT**	12.1%
INITIAL LENGTH	7.60	**INITIAL DRY BULK DENSITY**	105.8
FINAL DIAMETER	6.10	**FINAL GRAVIMETRIC WATER CONTENT**	23.2%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	90.4%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.3
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.17E-06
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.22E-06



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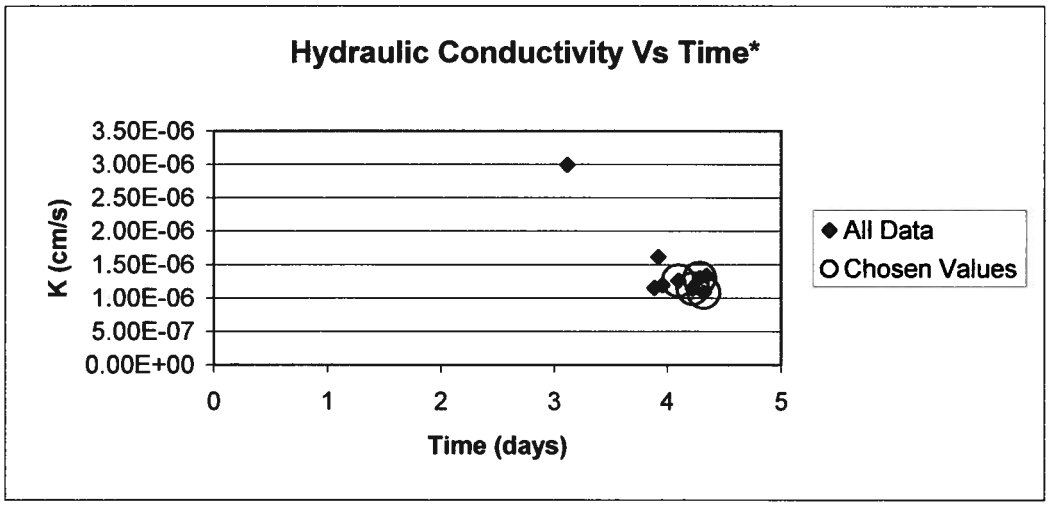
Client:	Environmental Dimentions Inc 1901 Candelaria Rd, NW Albuquerque, NM 87107	**Report Date:**	08/17/2009
		Project #:	9-517-00022D
Attn:	Chris Edgmon	**Work Order #:**	22
		Lab #:	9-0837-02
Project Name:	EDi SNL Mixed Waste Landfill Cover	**Sampled By:**	Client
		Date Sampled:	07/27/2009
		Visual Description of Material:	Brown Silty Sand
		Sample Source:	EDI NS Lift 8 GB 7

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.09	**INITIAL GRAVIMETRIC WATER CONTENT**	12.0%
INITIAL LENGTH	7.60	**INITIAL DRY BULK DENSITY**	105.3
FINAL DIAMETER	6.09	**FINAL GRAVIMETRIC WATER CONTENT**	21.4%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	90.0%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	100.0%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.3
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.10E-06
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.23E-06



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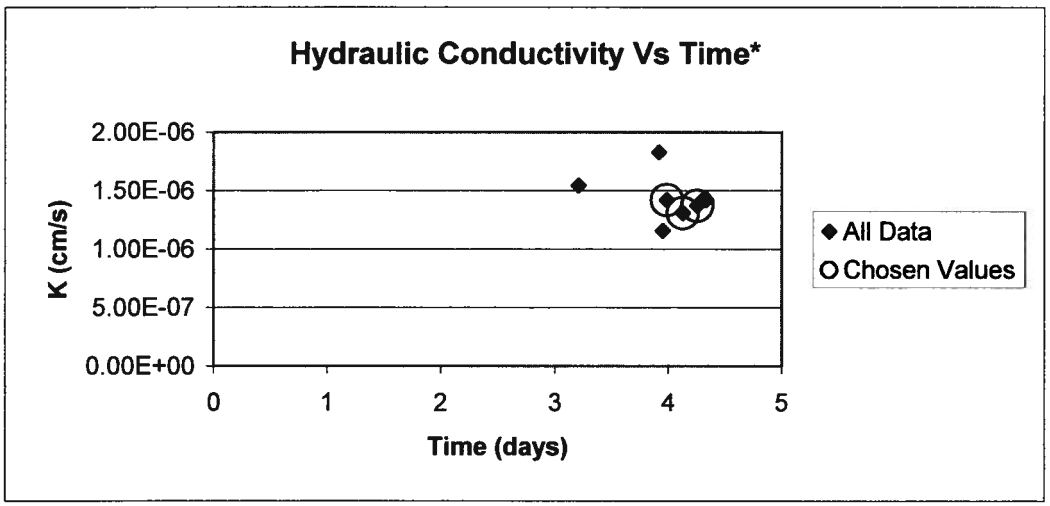
Report Date: 08/17/2009

Project #: 9-517-00022D
Attn: Chris Edgmon
Work Order #: 22
Lab #: 9-0837-03
Project Name: EDi SNL Mixed Waste Landfill Cover
Sampled By: Client
Date Sampled: 07/27/2009
Visual Description of Material: Brown Silty Sand
Sample Source: EDI NS Lift 8 GB 9

Measurement of Hydraulic Conductivity of Porous Material Using a Rigid Wall, Compaction-Mold Permeameter (ASTM D5856-95)

INITIAL DIAMETER	6.09	**INITIAL GRAVIMETRIC WATER CONTENT**	12.5%
INITIAL LENGTH	7.60	**INITIAL DRY BULK DENSITY**	105.3
FINAL DIAMETER	6.09	**FINAL GRAVIMETRIC WATER CONTENT**	18.8%
FINAL LENGTH	NO DATA	**FINAL DRY BULK DENSITY**	NO DATA
TEST METHOD USED	B:Falling Head/Constant Tail	**% OF D698 PROCTOR**	90.0%
PERMEANT LIQUID	TAP WATER	**SPECIFIC GRAVITY**	2.65
PERCENT SWELL	NA	**DEGREE OF SATURATION**	89.1%

SPECIFIC GRAVITY ASSUMED? (Y/N)	Y
PERMEAMETER TOP ALLOWS SWELLING? (Y/N)	N
CONTROLLED VERTICAL STRESS APPLIED? (Y/N)	N
TOTAL PORE VOLUMES RUN THROUGH SAMPLE	0.3
AVERAGED K_{sat} VALUE OF LAST FOUR READINGS (cm/s)*	1.38E-06
AVERAGED K_{sat} VALUE OF CHOSEN READINGS (cm/s)*	1.36E-06



* All hydraulic conductivity values normalized to a water viscosity at 20° C

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ATTACHMENT 8

Summary Report for the Extension of Monitoring Well MWL-MW4 at the Mixed Waste Landfill

Sandia National Laboratories/New Mexico Environmental Restoration Project

SUMMARY REPORT FOR THE EXTENSION OF MONITORING WELL MWL-MW4 AT THE MIXED WASTE LANDFILL

JANUARY 2010

United States Department of Energy
Sandia Site Office

Sandia is a multiprogram laboratory managed and operated by Sandia Corporation, a wholly-owned subsidiary of Lockheed Martin Corporation, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

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ACRONYMS AND ABBREVIATIONS

bgs	Below ground surface
CMIP	Corrective Measures Implementation Plan
ET	Evapotranspirative
ER	Environmental Restoration
ft	foot (feet)
KAFB	Kirtland Air Force Base
MWL	Mixed Waste Landfill
NMED	New Mexico Environment Department
OD	outside diameter
PC	protective casing
PVC	polyvinyl chloride
RCT	Radiological Control Technician
SNL/NM	Sandia National Laboratories/New Mexico
WDC	WDC Exploration and Wells

1.0 INTRODUCTION

This report documents the activities for the extension of the well and protective casing (PC) for the existing groundwater monitoring well MWL-MW4 at the Mixed Waste Landfill (MWL) at Sandia National Laboratories/New Mexico (SNL/NM). This activity was performed in May and August 2009 by the SNL/NM Environmental Restoration (ER) Project personnel and the drilling contractor WDC Exploration and Wells (WDC) as part of the MWL Evapotranspirative (ET) Cover Construction project.

1.1 Site Description and History

The MWL is located in the central part of Kirtland Air Force Base (KAFB), south of the City of Albuquerque, New Mexico. Within KAFB, the MWL is located in the north-central part of SNL/NM Technical Area 3, on federally owned land controlled by KAFB and permitted to the U.S. Department of Energy (Figure 1-1). The MWL accepted low-level radioactive waste and minor amounts of mixed waste from SNL/NM research facilities from March 1959 to December 1988. Approximately 100,000 cubic feet of low-level radioactive waste (excluding packaging, containers, demolition and construction debris, and contaminated soil) containing 6,300 curies of activity (at the time of disposal) were disposed of at the MWL.

1.2 Objective

The objective of this project was to extend the inner polyvinyl chloride (PVC) well casing and outer PC of well MWL-MW4 so that the well could be accessed and sampled after the MWL ET Cover installation was completed. The location of MWL-MW4 and the locations of former waste burial trenches and cells are shown in Figure 1-2.

The extension of MWL-MW4 was completed in accordance with specifications contained in Section 02670 of the MWL Corrective Measures Implementation Plan (CMIP) (SNL/NM November 2005, Appendix A), with three minor variances that are described in Section 3.0 of this report. The CMIP received conditional approval from the New Mexico Environment Department (NMED) in December 2008 (Bearzi December 2008), and all conditions related to construction of the ET Cover were incorporated into the CMIP through replacement pages that were submitted to the NMED in February 2009 (Davis February 2009).

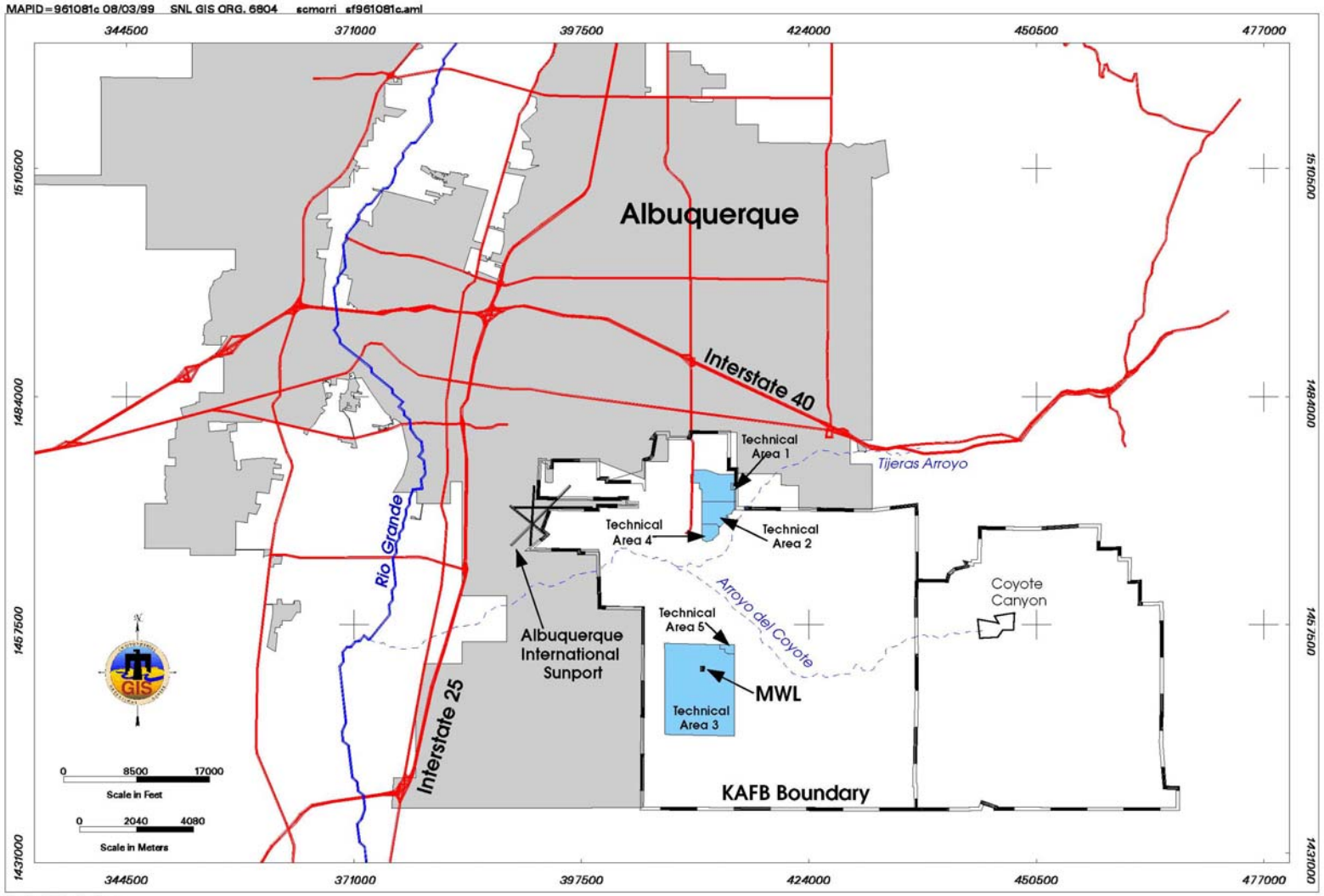

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Figure 1-1
Location of Kirtland Air Force Base and Sandia National Laboratories, New Mexico

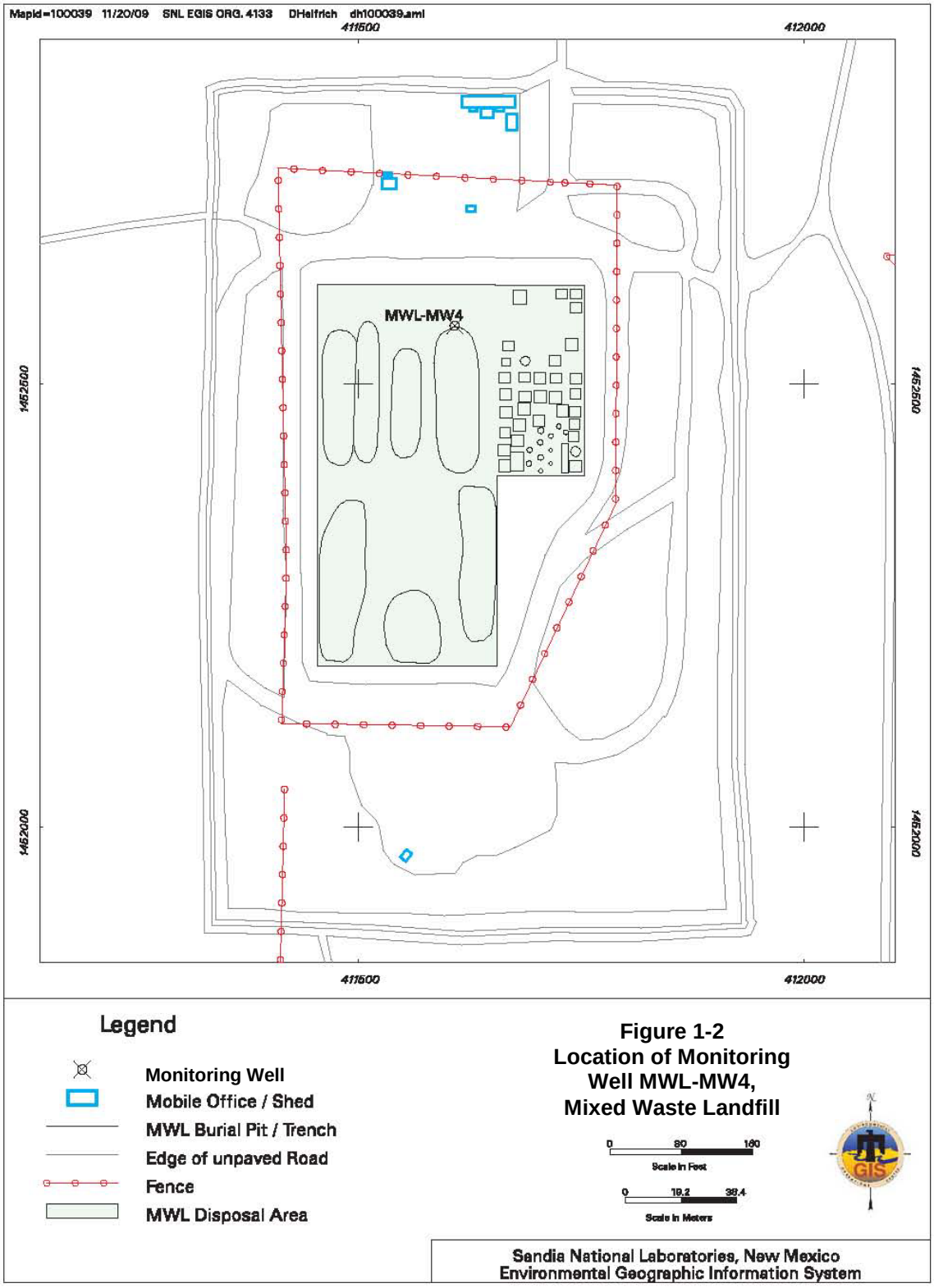


Figure 1-2
Location of Monitoring Well MWL-MW4, Mixed Waste Landfill

2.0 WELL MWL-MW4 CASING EXTENSION

Monitoring well MWL-MW4 was installed in February 1993, and groundwater samples are currently collected from the well on an annual basis. The added thickness of the MWL ET Cover required that the inner PVC well casing and the outer steel PC be extended above the final grade of the ET Cover in order for the well to remain accessible for sampling.

MWL-MW4 was installed at an angle of 6 degrees from vertical, and the well contains two 20-foot-long well screens. Relative to the original MWL ground surface, the upper screen was placed at 482.5 to 502.5 feet (ft) below ground surface (bgs), and the lower screen was placed at 522.5 to 542.5 ft bgs, with 20 ft of blank casing that separates the upper and lower screens. A Baski™ inflatable packer was installed in the well at a depth of approximately 510 ft below the original MWL surface to prevent cross-connection and mixing of groundwater that enters the well through the two well screens. The packer is attached to approximately 510 ft of 2-inch-diameter, galvanized pipe, which is used to remove the packer and reinstall it in the well when maintenance of the unit is required.

As part of the preparation for ET Cover construction, the Subgrade was installed on top of the original MWL surface from October through December 2006. As part the Subgrade Construction phase, the MWL-MW4 protective bollards were removed, and the original concrete well pad was buried under the Subgrade layer. No other modifications to the original MWL-MW4 well completion were made during Subgrade Construction activities.

The MWL-MW4 well extension task consisted of removing the packer and then extending both the inner PVC well casing and the outer steel PC. On May 27, 2009, personnel and a monitoring well development rig provided by WDC were mobilized to the MWL. The development rig was positioned next to MWL-MW4 so that the packer could be pulled from the well. SNL/NM personnel from the ER Field Office assisted in the packer removal operation. The packer bladder was deflated, and the packer and pipe were removed from the well. The packer removal operation is shown in Figure 2-1. An SNL/NM Radiological Control Technician (RCT) also completed a radiological screening survey of the packer and pipe to verify the absence of radiological contamination as the equipment was removed from the well (Figure 2-2). The screening survey confirmed there was no radiological contamination on the packer or pipe.

Following packer removal, preparations to extend the PVC well casing and PC commenced. At the time the extension work was completed, the existing 10.75-inch outside diameter (OD) steel PC for the well extended approximately 1.7 ft above the existing Subgrade surface, and the 5.5-inch OD, Schedule 80 PVC casing extended approximately 0.8 ft above the Subgrade surface. A cutting torch was used to cut the PC to approximately 0.5 ft above the Subgrade. This was done so the top of the PVC well casing could be accessed and extended. Once the height of the PC was reduced and the PVC casing exposed, a 5.5-inch inside diameter by 8-inch-long PVC slip coupling was placed over the existing PVC casing. A new piece of 5.57-ft-long, 5.5-inch OD, Schedule 80 PVC casing was then placed into the slip coupling, and the coupling was secured to the existing and new PVC casing with stainless steel screws (Figure 2-3). No adhesive or glue was used to extend the well casing. The final height of the extended PVC casing is 7.42 ft above the original MWL surface, and 1.53 ft above the completed ET Cover surface.

Figure 2-1
Removing the packer assembly from well MWL-MW4,
May 27, 2009. View to the east.

Figure 2-2
Screening the MWL-MW4 packer for radiological contamination by an RCT,
May 27, 2009. View to the south.

Figure 2-3
Extending the MWL-MW4 PVC well casing, attached to the existing PVC casing with a PVC slip coupling and stainless steel screws, May 27, 2009.
View to the east.

The final well extension step consisted of extending the steel PC above the top of the extended PVC casing. This was accomplished by lowering an approximate 8-ft-length of 10.75-inch OD steel PC over the extended PVC and welding it to the top of the PC (Figure 2-4). The final height of the extended PC is 8.39 ft above the original MWL surface, 2.50 ft above the completed ET Cover surface, and approximately 1 ft above the top of the extended PVC casing. The length of the extended PC was planned such that the new top of the PC would end up at approximately 3 ft above the final finished grade of the ET Cover. A well cap was installed to seal the PVC casing, and the outer locking well cap that was attached to the original well PC was reattached and locked with a keyed padlock.

Construction of the ET Cover commenced on May 20, 2009, and was completed on August 12, 2009. In order to avoid damaging the extended well, the various lifts of the ET Cover Native Soil Layer were compacted using a manually operated compactor within a 3-ft perimeter established around MWL-MW4.

On August 13, 2009, WDC personnel returned to the site and completed the final protective measures around the extended MWL-MW4. This was accomplished after completion of the final ET Cover layer (i.e., the Topsoil Layer) on August 12, 2009, but prior to tilling, seeding, and mulching of the Topsoil Layer. A new 4- by 4-ft by 4-inch-thick concrete well pad was constructed around the PC, and a new brass cap stamped with the well name was placed in the concrete while it was still wet. Three 5-inch-diameter by 5-ft-long protective bollards were installed around the well pad to a depth of 2 ft below the final ET Cover surface. The bollards were anchored by filling the surrounding hole with concrete. The concrete well seal was extended in the well annulus from the top of the preexisting seal up to the approximate final finished ET Cover surface grade. The bollards and surface casing were then painted with high-visibility yellow paint.

On November 12, 2009, a New Mexico-Registered Professional Surveyor with Surveying Control, Inc. established new northing and easting coordinates and elevations for the extended MWL-MW4 well. The new northing and easting coordinates were established for the center of the removable sealing cap placed in the top of the extended PVC casing. Because MWL-MW4 is an angle well, new northing and easting coordinates are slightly different from the original coordinates that were established for this well in 1993. The new elevations were established for the following points:

- Ground surface on the north side of the well pad
- Well pad (measurement taken on the brass cap)
- North side of the extended PVC well casing
- North side of the extended PC, with the locking cover removed

Table 2-1 summarizes the changes to the ground surface and top of well PVC elevations and provides screen depths, total depths, and depths to the groundwater pump inlet resulting from the ET Cover construction and extension of MWL-MW4.

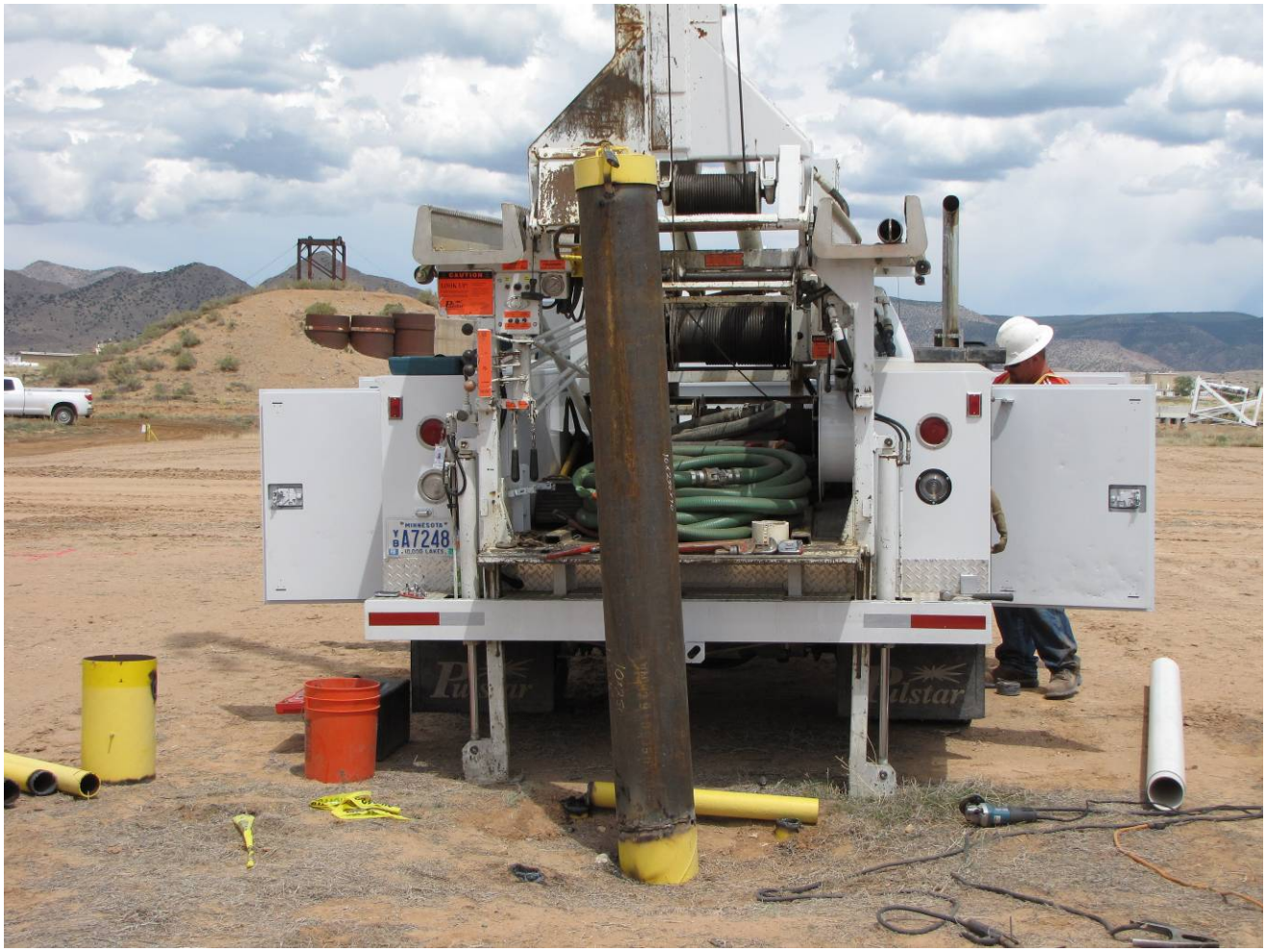


Figure 2-4
MWL-MW4 protective surface casing extension, welded to the existing protective surface casing, May 27, 2009. View to the east.

Table 2-1
Summary of Elevation and Depths Below Ground Surface Changes for the Original and Extended MWL-MW4 Well, Mixed Waste Landfill

	Ground Surface Elevation (famsl)	Top of PVC Casing Elevation (famsl)	Depth to Tops and Bottoms of Screens (ft bgs)	Total Depth of Well (bottom of sump) (ft bgs)	Depth of groundwater sampling pump inlet (set at bottom of upper screen)
MWL-MW4 (original well)	5381.61	5383.46	482.5–502.5, 522.5–542.5	548	502.5 ft bgs, 504.35 ft btoc
MWL-MW4 (extended well)	5387.5 (5.89 ft above original MWL surface)	5389.03 (5.57 ft above top of original PVC well casing)	488.39–508.39, 528.39–548.39	553.89	508.39 ft bgs, 509.92 ft btoc

Note: Depths bgs in this table are measured along the hypotenuse of this 6-degree angled well, and are not converted to vertical distances.
bgs = Below ground surface.
btoc = Below top of (PVC) casing.
famsl = Feet above mean sea level.
ft = Feet.
MWL = Mixed Waste Landfill.
PVC = Polyvinyl chloride.

A schematic profile diagram showing both the constructed configuration of MWL-MW4 when it was installed in 1993 and the well configuration after the PVC casing and PC were extended is provided in Figure 2-5, and a revised well construction diagram that contains the new survey coordinates and elevations is presented in Figure 2-6.

The packer will be reinstalled in MWL-MW4 by WDC in early 2010, after vegetation has been reestablished on the finished ET Cover surface, and the packer has been refurbished by the manufacturer.

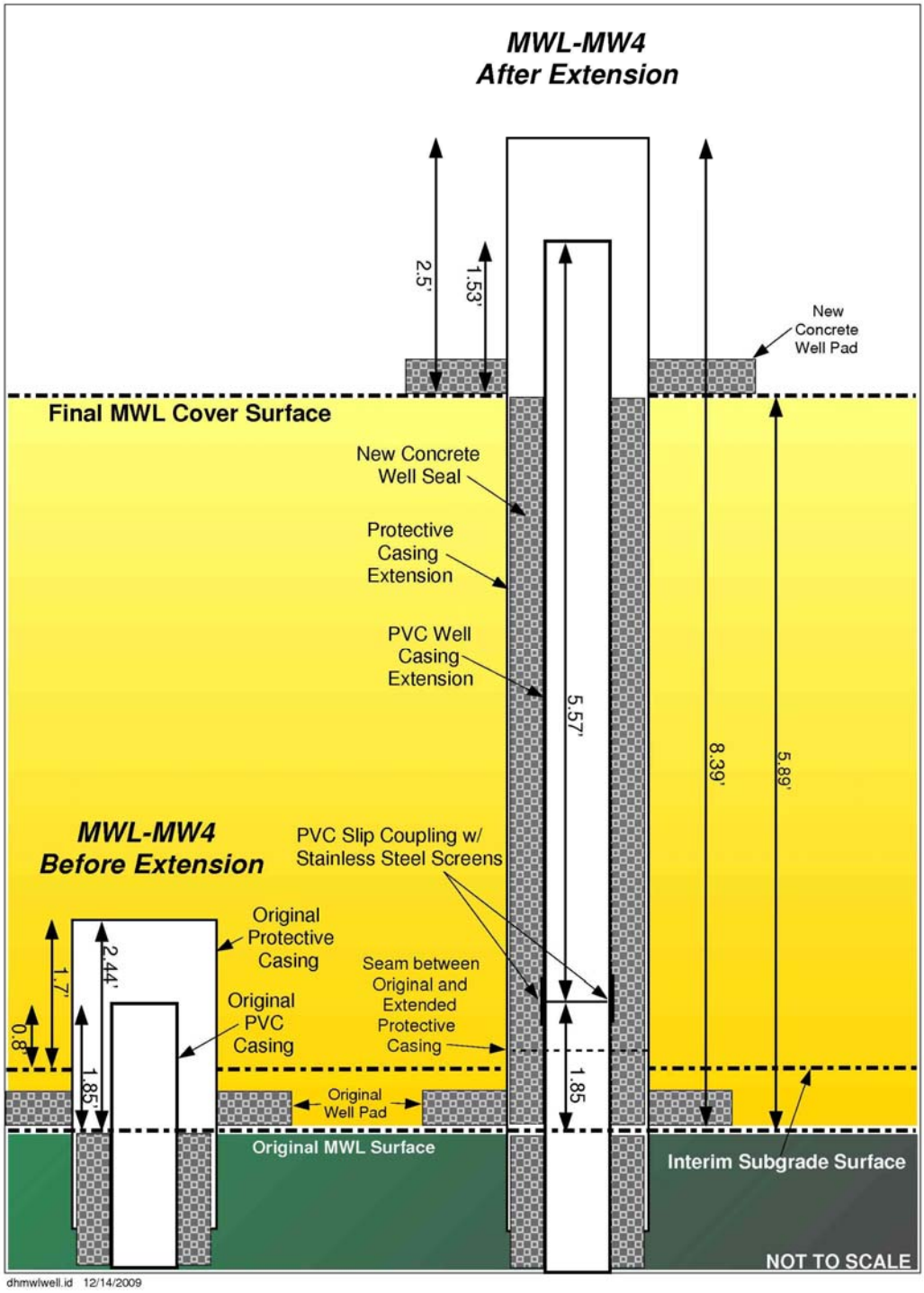


Figure 2-5
Schematic MWL-MW4 PVC Well Casing and Protective Surface Casing Extension Diagram

WELL DATABASE SUMMARY SHEET

Project Name:	MIXED WASTE LANDFILL	**Geo Location:**	TA III
ER ADS #:	1289	**Well Completion Date:**	10-FEB-1993
Well Name:	MWL-MW4	**Completion Zone:**	FINE MEDIUM SAND/GRAVELLY SAND
Owner Name:	SNL/NM	**Formation of Completion:**	SANTA FE GROUP
Date Drilling Started:	16-DEC-1992	**Well Comment:**	MWL-MW4 IS AN ANGLE WELL, INSTALLED AT A 6-DEGREE ANGLE FROM VERTICAL. 2 SCREENED INTERVALS EXIST.
Drilling Contractor:	WATER DEVELOPMENT CORP.		
Drilling Method:	SONIC/DRY		
Borehole Depth:	552.5 FBGS		WELL PVC & PROTECTIVE CASING EXTENDED ON 5/27/09 AND RE-SURVEYED 11/12/09. NEW N, E IS TOP CENTER OF PVC CASING.
Casing Depth:	548 FBGS		

Survey Data

Survey Date: 12-NOV-2009

Surveyed By: SURVEYING CONTROL, INC.

State Plane Coordinates

(X) Easting: 411607.97

(Y) Northing: 1452565.72

Surveyed Elevations (FAMSL)

Protective Casing:	5390
Top of Inner Well Casing:	5389.03
Concrete Pad:	5388.1
Ground Surface:	5387.5

Calculated Depths and Elevations

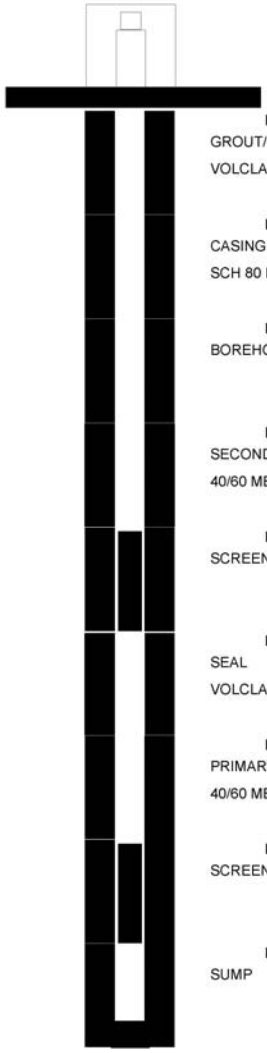
Initial Water Elevation: (FAMSL)	4896.46
Initial Depth To Water: (FBGS)	487

Last measured water level was 4888.67 **FAMSL**

measured on 07-APR-2009

Date Updated: 19-NOV-2009

Date Printed: 19-NOV-2009



Completion Data Measured Depths (FBGS)

Casing Stickup: .93

Interval	Start	Stop
GROUT/BACKFILL	0'	473'
VOLCLAY		

Interval	Start	Stop		
CASING	0'	548'		
SCH 80 PVC	I.D. 4.768"		O.D. 5.563"	

Interval	Start	Stop		
BOREHOLE	0'	552.5'		
			O.D.	11"

Interval	Start	Stop
SECONDARY PACK	473'	508'
40/60 MESH		

Interval	Start	Stop
SCREEN	482.5'	502.5'
	Slot Size	.01"

Interval	Start	Stop
SEAL	503'	520'
VOLCLAY/BENTONITE		

Interval	Start	Stop
PRIMARY PACK	520'	552.5'
40/60 MESH		

Interval	Start	Stop
SCREEN	522.5'	542.5'
	Slot Size	.01"

Interval	Start	Stop
SUMP	542.5'	548'

Figure 2-6
MWL-MW4 Construction Diagram

3.0 VARIANCES

The scope of work for the extension of well MWL-MW4 was provided in Section 02670 of the MWL CMIP (SNL/NM November 2005, Appendix A). There were three minor variances from specifications in Part 3 (Execution) of Section 02670 of the CMIP, as follows:

- Item 1 of Section 3.1 specifies that the Contractor shall remove the existing MWL-MW4 concrete pad, stanchions, protective surface casing, and locking top cap prior to initiation of construction activities. However, when the well extension work commenced, the original concrete well pad had already been covered by the MWL ET Cover Subgrade to create a double anchor for greater stability. In addition, the original protective surface casing was not removed, rather, it was extended as described in Section 2.0 of this report. The original stanchions (bollards) were removed and recycled, and the original locking top cap was removed and reused on the extended protective surface casing. A new concrete well pad was constructed around the extended PC after the ET Cover was completed. The final result is a more stable, double-anchored configuration, with the double anchor formed by the two concrete well pads.

- Item 3 of Section 3.1 specifies that the existing MWL-MW4 Schedule 80 PVC well casing was to be extended such that the top of the PVC well casing is located a minimum of 2.5 ft above the final grade of the constructed ET Cover. As shown in Figure 2-5, the finished height of the extended PVC casing above the finished ET Cover surface is approximately 1.5 ft because the elevation of the finished ET Cover was slightly higher than originally planned (average ET cover thickness is approximately 1.2 ft greater than the minimum cover thickness specifications in the CMIP). MWL-MW4 is still fully functional, and the slightly reduced final height of the extended PVC casing above the ET Cover surface in no way hinders access to the well for future sampling.

- Item 6 of Section 3.1 specifies that the four corners of the new MWL-MW4 concrete well pad will be surveyed. However, in accordance with long-established SNL/NM monitoring well surveying procedures, and as described in Attachment B of SNL/NM FOP [Field Operating Procedure] 94-71 (SNL/NM May 1994), the elevation of the concrete pad was determined by surveying the pad at one point (on the brass cap embedded into the concrete pad), rather than at each of the four corners of the pad.

4.0 REFERENCES

Bearzi, J.P. (New Mexico Environment Department), December 2008. Letter to K. Davis (U.S. Department of Energy) and F. Nimick (Sandia Corporation), "Conditional Approval, Mixed Waste Landfill Corrective Measures Implementation Plan, November 2005, Sandia National Laboratories NM5890110518, SNL-05-025." December 22, 2008.

Davis, K. (U.S. Department of Energy), February 2009. Letter to J. Bearzi (New Mexico Environment Department), submitting requested changes in the form of replacement pages in response to the Mixed Waste Landfill Conditional Approval letter from the New Mexico Environment Department dated December 22, 2008. February 12, 2009.

Sandia National Laboratories/New Mexico, May 1994. "Land Surveying," FOP 94-71, Sandia National Laboratories, Albuquerque, New Mexico.

Sandia National Laboratories/New Mexico (SNL/NM), November 2005. "Mixed Waste Landfill Corrective Measures Implementation Plan," Environmental Restoration Project, Sandia National Laboratories, Albuquerque, New Mexico.