

GALLUP

March 10, 2015

Via Email and Certified Mail 7011 2970 0003 9281 8718, Return Receipt Requested

Mr. Carl Chavez
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED

MAR 13 2015

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

**NMED
Hazardous Waste Bureau****RE: MARCH 9, 2014 EVAPORATION POND 7 DIKE BREACH
REMEDATION COMPLETED**

Dear Mr. Chavez and Mr. Kieling:

On March 19, 2014, Western Refining Southwest, Inc., Gallup refinery ("Western") orally and by email notified the New Mexico Environment Department ("NMED") and the New Mexico Oil Conservation Division ("NMOCD") of a minor release of treated wastewater from Evaporation Pond 7 due to a breach in the dike (Figure 1). Without making any admissions, and reserving all applicable rights and defenses, including the right to dispute whether the release is subject to corrective action under the Permit, Western provides this letter in response to the inquiries of both NMED and NMOCD.

Western's earlier correspondence on April 16, 2014 and September 12, 2014, provided additional information on the spill and initial characterization efforts. It was estimated that 17.4 bbls of wastewater left the pond with possibly half crossing the fence line west of the dike. The small volume of water was absorbed by the dry soil and the release did not reach a watercourse or waters of the U.S. Western collected a sample of the water, which flowed through the breach, and six soil samples from the impacted area on March 20, 2014. These samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Gasoline, Diesel, and Motor Oil Range Organics, New Mexico Water Quality Control Criteria metals, and major cation/anions. The soil samples collected from within the known area of the release did not contain detectable concentrations of petroleum hydrocarbons (Gasoline, Diesel, or Motor Oil range), VOCs, or SVOCs, nor did the soil samples indicate contamination from any other hazardous waste or hazardous constituents.

The results of these analyses determined that chloride was the primary constituent of concern.

In dealing with earlier minor seepage along a portion of the dike, Western had sought concurrence from NMOCD on chloride action levels. Western received an email from NMOCD on February 7, 2014 agreeing with the chloride action levels proposed by Western in a letter dated October 14, 2013, which proposed the use of the chloride standards in Table 1 of New Mexico Administrative Code Title 19, Chapter 15, Part 17, Section 13. Conservatively assuming a depth to groundwater of 51 to 100 feet, the required limit for chloride is 10,000 mg/kg. Subsequently, Western conducted additional sampling to better define the volume of soil to be excavated.

As the spill flowed a short distance onto the adjacent off-site property, it was necessary for Western to obtain access from the adjacent property owner (i.e., State of New Mexico) prior to conducting remediation. A Right-of-Entry Permit was granted to Western on October 29, 2014 by the New Mexico State Land Office, Commissioner of Public Lands. Subsequently, Western excavated the surface soils in both areas where water from the breach at Pond 7 had flowed off-site. The areas of interest were surveyed by a registered surveyor and the northern area is referred to as Site 1, while the southern area is referred to as Site 2 (see enclosed survey).

Excavation began during the week November 24, 2014, with the upper 12 to 14 inches of soils removed from Site 1 and Site 2. The soils were staged on plastic sheeting in a protected location on-site to the east of the Land Treatment Unit pending off-site disposal. An estimated volume of 350 cubic yards of soils was excavated from the off-site areas and the narrow strip of affected property along the western edge of Pond 7.

The areas where excavation was conducted are indicated on Figure 2 and the enclosed survey of the area. Upon completion of excavation, four confirmation soil samples were collected from each area and analyzed for anions (e.g., chloride), Gasoline, Diesel, and Motor Oil Range Organics, RCRA metals, VOCs, and SVOCs (Figure 2). The soil samples were collected as discrete grab samples from the upper one foot. A decontaminated hand auger was used to collect each soil sample, which was placed directly into 9 ounce jars and immediately placed on ice. The analytical report is enclosed.

All of the organic analyses (Gasoline, Diesel, and Motor Oil Range Organics, VOCs, and SVOCs) and RCRA metals were non-detect. All of the chloride results are less than the NMOCD limit of 10,000 mg/kg and are summarized below.

Sample ID	Chloride Concentration (mg/kg)
Pond 7-Site 1-A	6,200
Pond 7-Site 1-B	7,300
Pond 7-Site 1-C	7,500
Pond 7-Site 1-D	6,400

Pond 7-Site 2-A	4,300
Pond 7-Site 2-B	8,000
Pond 7-Site 2-C	8,000
Pond 7-Site 2-D	7,300

The confirmation sample results demonstrate the spill of treated wastewater from Pond 7 has been successfully remediated and no further remedial action is required. Western will backfill the excavations using clean fill from the on-site borrow pit and seed the affected area immediately upon approval of NMOCD. The Right-of-Entry Permit issued by the State of New Mexico is only valid through April 19, 2015. Therefore, Western requests NMOCD approval of the removal action as soon as possible. If there are any questions, then please contact Ed Riege at 505-722-0217.

Sincerely,  J.R. McDevic for Billy McClain

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc Anthony Vigil, State of New Mexico
A. Allen, Western El Paso
Ed Riege, Western Gallup
Allen Hains, Western El Paso



Ray Powell, M.S., D.V.M.
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

October 29, 2014

Western Refining S.W., Inc.
92 Giant Crossing Road
Gallup, New Mexico 87301

Attn: Ed Riege

Re: Right-of-Entry Application No. ROE-2602

Dear, Mr. Riege

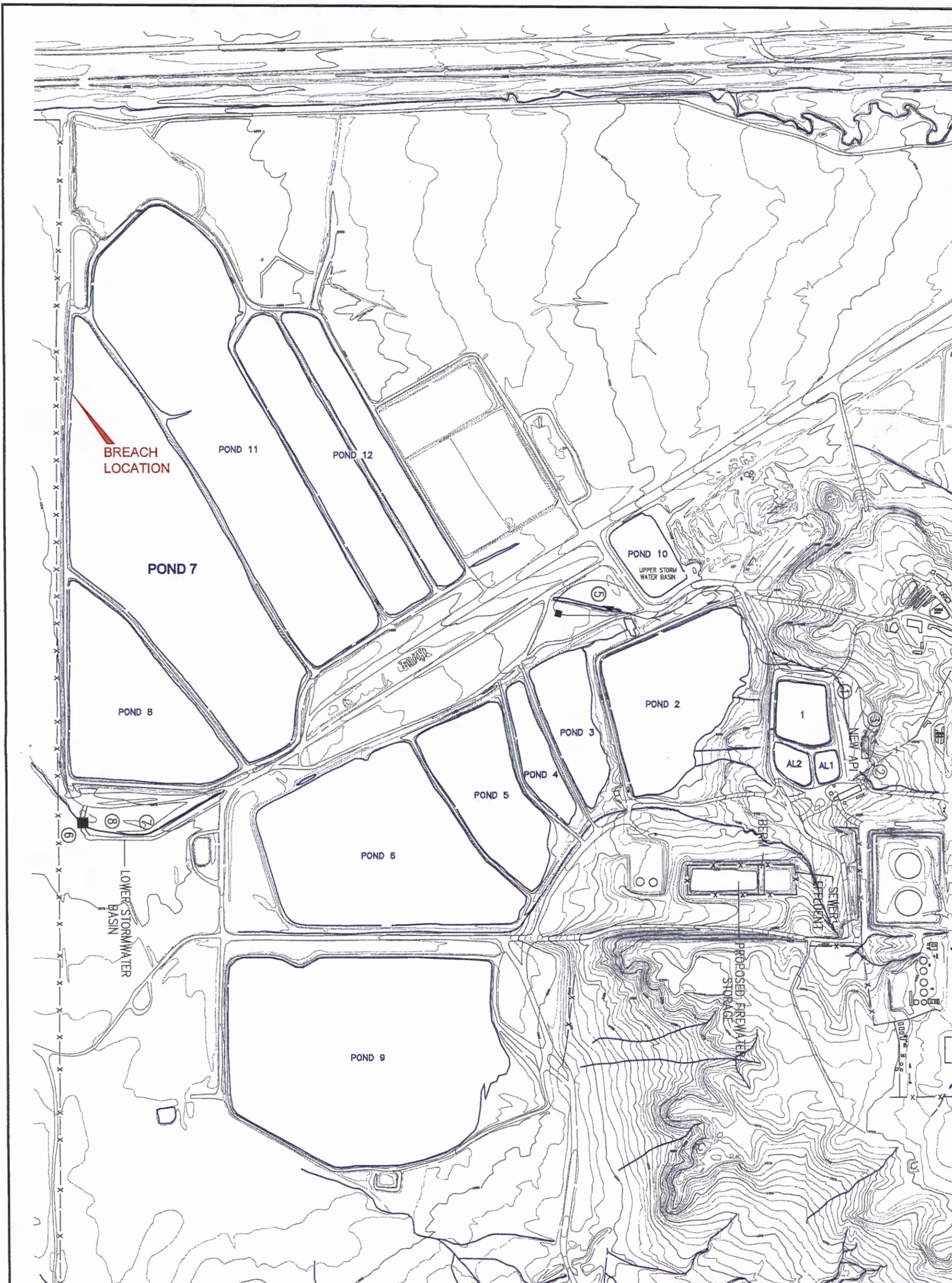
Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this lease as necessary.

If you have any questions, please feel free to contact this office at the above address or for Ken Baca, Bureau Manager @ (505) 827-5789 or myself @ 827-5710.

Sincerely,

A handwritten signature in black ink, appearing to read "Anthony Vigil", is written over a horizontal line.

Anthony Vigil, Management Analyst
Right of Way Section
Surface Resource Management Division

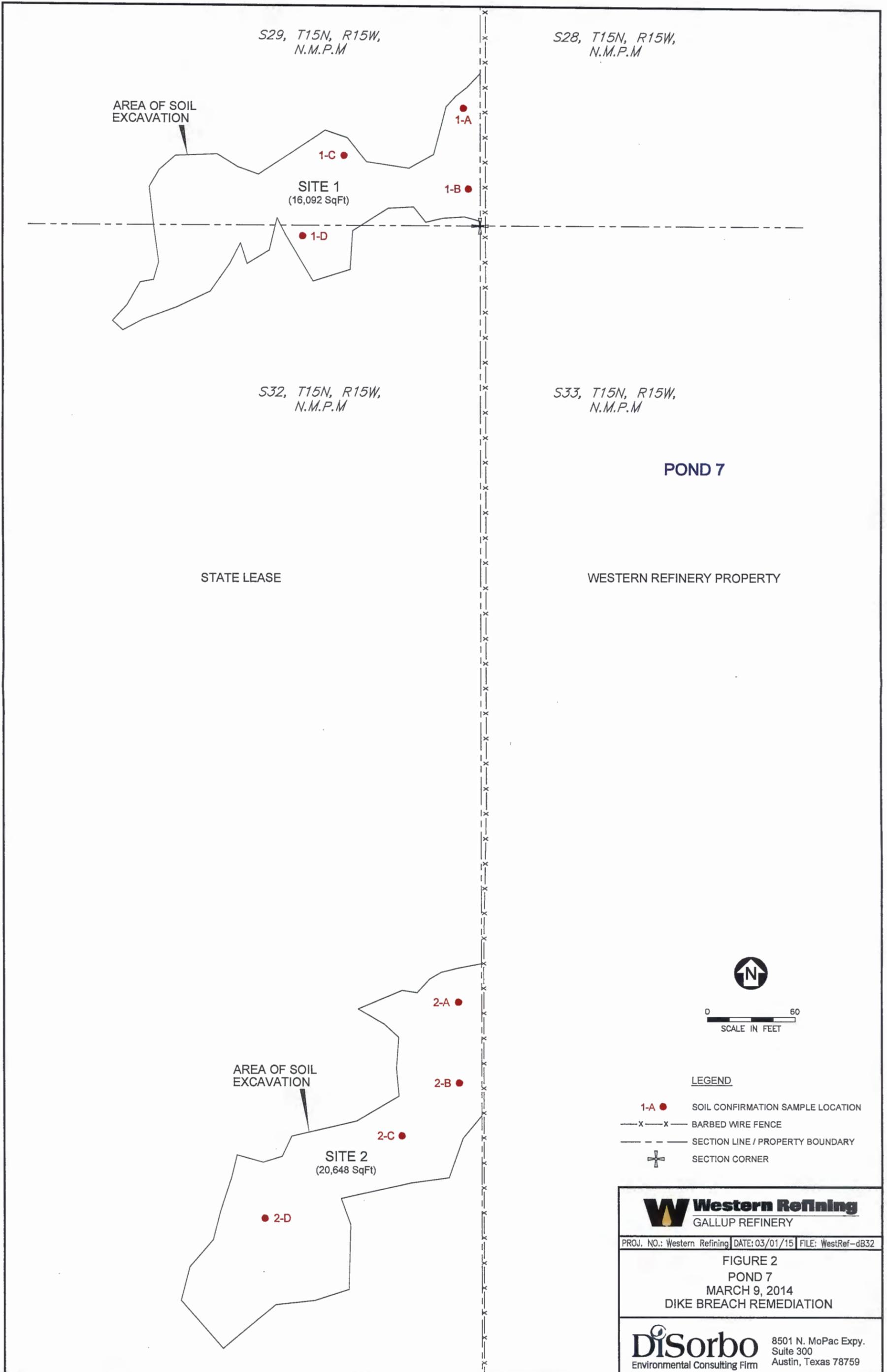


Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 03/01/15 | FILE: WestRef-dB31

FIGURE 1
POND 7 BREACH LOCATION

DiSorbo Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 03/01/15 | FILE: WestRef-dB32

FIGURE 2
POND 7
MARCH 9, 2014
DIKE BREACH REMEDIATION

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



NEW MEXICO
STATE LAND OFFICE
When we Take Care of our Land, the Land Takes Care of us!

NEW MEXICO STATE LAND OFFICE
Commissioner of Public Lands
Ray Powell, M.S., D.V.M.
New Mexico State Land Office Building
P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT
CONTRACT NO. ROE-2602
Remediation

1. RIGHT OF ENTRY PERMIT

This permit is issued under the authority of NMSA 1978, Section 19-1-2. Therefore, and in consideration of and subject to the terms, covenants, conditions, agreements, obligations and reservations contained in the permit and all other existing rights, the Commissioner of Public Lands, New Mexico State Land Office, State Of New Mexico, hereinafter called "COMMISSIONER," grants to **Western Refining S.W., Inc.** State of Incorporation (if applicable) , whose address is **92 Giant Crossing Road, Gallup, New Mexico 87301, hereinafter** called "PERMITTEE," authorized use of a specific tract(s) of State Trust Land only for the term, and only for the permitted use, described in this permit.

2. TERM AND LAND DESCRIPTION

Right of entry is granted for a term of **180 days**, commencing, **October 21, 2014**, and ending **April 19, 2015** to the following State Trust Lands.

Section 32, Township 15 North, Range 15 West. NE ¼ NE ¼ McKinley County

3. APPLICATION and PROCESSING FEE

\$530.00

4. PERMITTED USE, PERSONNEL, EQUIPMENT AND MATERIALS

Permitted use is for the purpose of: **clean-up soil affected by evaporation pond water**

breach

Personnel present on State Trust Land: **Western Refining Employees**
Equipment & Materials present on State Trust Land: **Excavation equipment, roll-off and clean soil**

Prior to execution of project company must identify and contact the Grazing Lessee.

The granting of this permit does not allow access across private lands.

5. IMPROVEMENTS

No improvements shall be placed on the premises without the prior written consent of the Commissioner.

6. RESERVATIONS

Commissioner reserves the right to execute leases, rights of way, easements, permits, exchange agreements, sale agreements, permits and other lawful rights on or across the land covered by this permit, including but not limited to any such rights for mining purposes and for the extraction of oil, gas, salt, geothermal resources, and other mineral deposits there from and the right to go upon, explore for, mine, remove and sell same.

7. COMPLIANCE WITH LAWS

Permittee shall at its own expense comply fully with and be subject to all applicable regulations, rules, ordinances, and requirements of law or of the Commissioner, including but not limited to the regulations of the State Land Office; Chapter 19 NMSA governing State Trust Lands; federal and state environmental laws and regulations; and the New Mexico Cultural Properties Act, NMSA 1978 Sections 18-6-1 through 18-6-23. It is illegal for any person or his agent to appropriate, excavate, injure, or destroy any historic, or prehistoric ruin or monument, or any object of historical, archaeological, architectural, or scientific value situated on lands owned or controlled by the State Land Office without a valid permit issued by the Cultural Properties Review Committee and approved by the Commissioner of Public Lands.

8. HOLD HARMLESS AND INDEMNIFICATION

Permittee shall save, hold harmless, indemnify and defend Commissioner, the State Land Office, the State of New Mexico, and any of their officers, employees or agents, in their official and individual capacities, of and from any and all liability, claims, losses, damages, costs, and fees arising out of or alleged to arise out of, or directly or indirectly connected with, the operations of Permittee under this permit on or off State Trust Lands or arising out of the presence on State Trust Lands of any equipment, material, agent, invitee, contractor or subcontractor of Permittee. This Hold Harmless and Indemnification clause covers any claim, including any brought in any court or before

any administrative agency, of any loss or alleged loss, and any damages or alleged damages asserted with respect to any violation or alleged violation of any state, federal or local law or regulation, including but not limited to any environmental law or regulation, any cultural properties law (including the New Mexico Cultural Properties Act, cited above) or regulation, and any alleged damage to the property, rights or interests of any State Land Office lessee, right-of-way holder, or other permittee.

9. AMENDMENT

This permit shall not be altered, changed, or amended except by an instrument in writing executed by Commissioner and Permittee.

10. WITHDRAWAL

Commissioner reserves the right to withdraw any or all of the land authorized for use under this permit. If applicable, Permittee shall vacate the acreage specified within 30 days after receipt of written notification of withdrawal from the Commissioner.

11. CANCELLATION

The violation by Permittee of any of the terms, conditions, or covenants of this permit or the nonpayment by Permittee of the fees due under this permit shall at the option of the Commissioner be considered a default and shall cause the cancellation of this permit 30 days after Permittee has been sent written notice of such.

12. PRESERVE AND PROTECT

The Permittee agrees to preserve and protect the natural environmental conditions of the land encompassed in this permit, and to take those reclamation or corrective actions that are accepted soil and water conservation practices and that are deemed necessary by the Commissioner to protect the land from pollution, erosion, or other environmental degradation. The Permittee further agrees not to injure the property of, or interfere with the operations or rights of, any State Land Office lessee, right-of-way holder, easement holder or other permittee who has rights to use the State Trust Land subject to this permit.

13. RECLAMATION, REMOVAL OF EQUIPMENT, MATERIALS, AND WASTE

The Permittee agrees to reclaim those areas that may be damaged by activities conducted thereon.

The Permittee agrees to remove from the State Trust Lands, no later than the end of the term of this permit, all equipment, and materials it has placed or brought upon the land and to clean up and remove from the land any trash, waste, effluent, or other products used or brought upon the land in connection with this permit.

14. SPECIAL INSTRUCTIONS AND/OR RESTRICTIONS

- 1.** No off road traffic allowed.

2. No wood collection or tree cutting allowed.

3. Disturbing, dislodging, damaging, defacing, destroying or removing historical archaeological, paleontological or cultural sites or artifacts is prohibited.

4. Disturbing, dislodging, damaging, defacing, destroying any improvement, fixture, item, object or thing placed or located in, under or upon the land is prohibited.

5. This permit does not grant a right to enter State Trust Lands to which there is no public access.

6. Any uses or activities not within the scope of this permit are not allowed unless prior written approval from the Commissioner of Public Lands is granted.

7. OTHER

WITNESS the hands and seals of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

[Signature]
PERMITTEE

Telephone: 505-722-0217

ACKNOWLEDGMENT

STATE OF NEW MEXICO)

COUNTY OF CIBOLA)

The foregoing instrument was acknowledged before me this 23rd day of OCTOBER, 20 14.

My Commission Expires: AUGUST 30, 2016

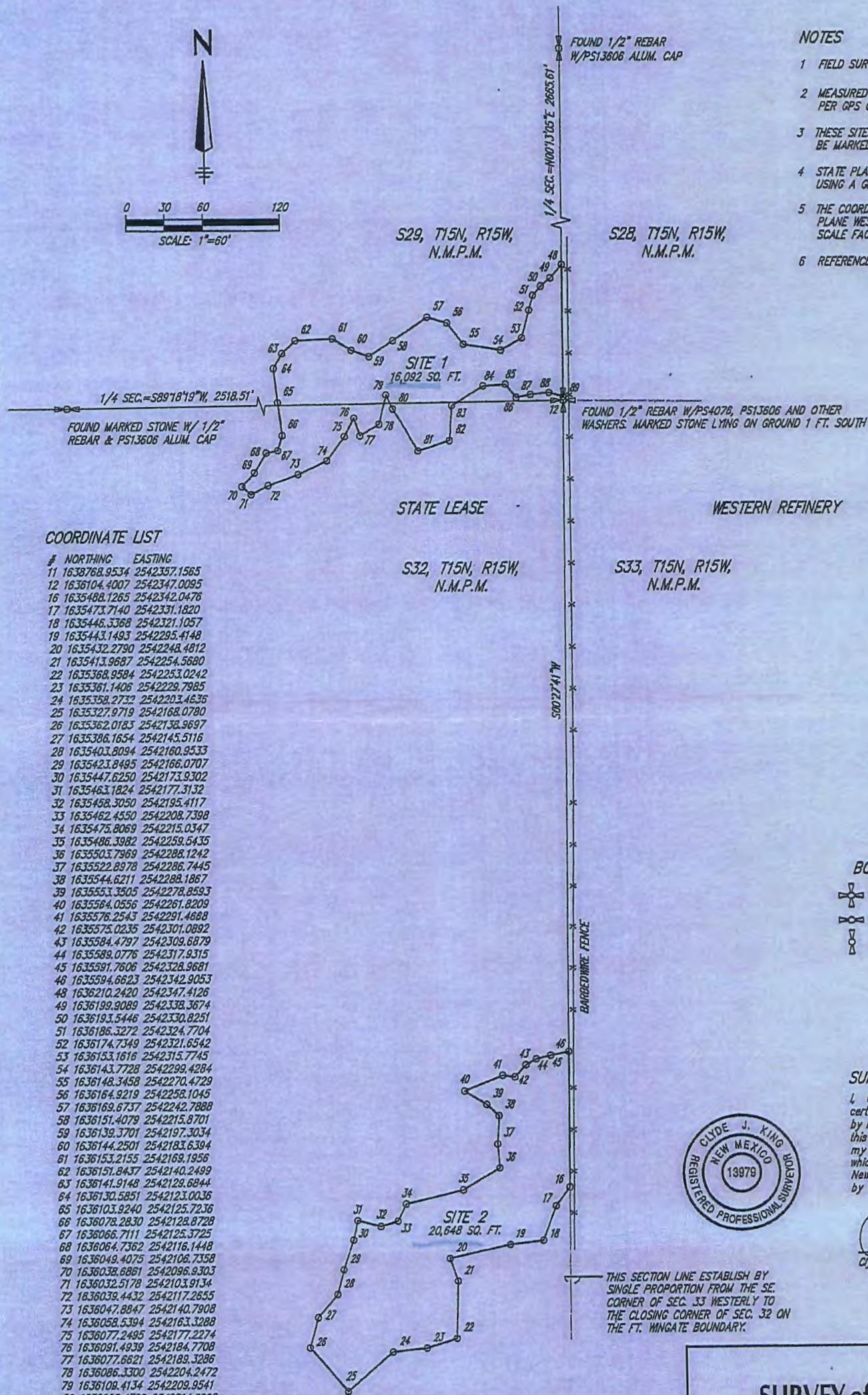
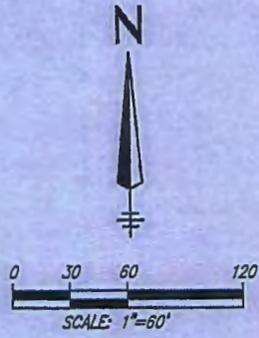
Alvin Dorsey
NOTARY PUBLIC



OFFICIAL SEAL -
ALVIN DORSEY
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 08-30-2016

COMMISSIONER OF PUBLIC LANDS

DATE: _____



NOTES

- 1 FIELD SURVEY PERFORMED SEPTEMBER 15, 2014.
- 2 MEASURED BEARINGS ARE REFERENCED TO N.M.S.P. WEST ZONE GRID PER GPS OBSERVATIONS PERFORMED ON SITE AT THE TIME OF SURVEY.
- 3 THESE SITES WERE IDENTIFIED BY REFINERY PERSONNEL AND FOUND TO BE MARKED ON THE GROUND WITH WIRE FLAGS AT THE TIME OF SURVEY.
- 4 STATE PLANE COORDINATES BASED ON THE BRASS CAP I-040-105 USING A GPS DERIVED COMBINED SCALE FACTOR OF 0.9996094928.
- 5 THE COORDINATE LIST SHOWING LOCATED POINTS ARE N.M. STATE PLANE WEST ZONE GRID COORDINATES AND MUST BE DIVIDED BY THE SCALE FACTOR SHOWN ABOVE TO REACH GROUND VALUES.
- 6 REFERENCE THE 1881 G.L.O. TOWNSHIP PLAT OF T15N, R15W, N.M.P.M.

COORDINATE LIST

#	NORTHING	EASTING
11	1638768.9534	2542357.1565
12	1636104.4007	2542347.0095
16	1635488.1265	2542342.0476
17	1635473.7140	2542331.1820
18	1635446.3368	2542321.1057
19	1635443.1493	2542295.4148
20	1635432.2790	2542248.4812
21	1635413.9687	2542254.5680
22	1635368.9584	2542253.0242
23	1635361.1406	2542229.7985
24	1635358.2732	2542203.4636
25	1635327.9719	2542168.0780
26	1635362.0183	2542138.9697
27	1635386.1654	2542145.5116
28	1635403.8094	2542160.9533
29	1635423.8495	2542166.0707
30	1635447.6250	2542173.9302
31	1635463.1824	2542177.3132
32	1635458.3050	2542195.4117
33	1635462.4550	2542208.7398
34	1635475.8069	2542215.0347
35	1635486.3982	2542259.6435
36	1635503.7969	2542288.1242
37	1635522.8978	2542286.7445
38	1635544.6211	2542288.1867
39	1635553.3505	2542278.8593
40	1635564.0556	2542261.8209
41	1635576.2543	2542291.4668
42	1635575.0235	2542301.0892
43	1635584.4797	2542309.6879
44	1635589.0776	2542317.9315
45	1635591.7606	2542328.9681
46	1635594.6623	2542342.9053
48	1636210.2420	2542347.4126
49	1636199.9089	2542338.3674
50	1636193.5446	2542330.8251
51	1636186.3272	2542324.7704
52	1636174.7349	2542321.6542
53	1636153.1616	2542315.7745
54	1636143.7728	2542299.4284
55	1636148.3458	2542270.4729
56	1636164.9219	2542258.1045
57	1636169.6737	2542242.7888
58	1636151.4079	2542215.8701
59	1636139.3701	2542197.3034
60	1636144.2501	2542183.6394
61	1636153.2155	2542169.1956
62	1636151.8437	2542140.2499
63	1636141.9148	2542129.6844
64	1636130.5851	2542123.0036
65	1636103.9240	2542125.7236
66	1636078.2830	2542128.8728
67	1636066.7111	2542125.3725
68	1636064.7362	2542116.1448
69	1636049.4075	2542106.7358
70	1636038.6861	2542096.9303
71	1636032.5178	2542103.9134
72	1636039.4432	2542117.2655
73	1636047.8847	2542140.7908
74	1636058.5394	2542163.3288
75	1636077.2495	2542177.2274
76	1636091.4939	2542184.7708
77	1636077.6621	2542189.3286
78	1636086.3300	2542204.2472
79	1636108.4134	2542209.9541
80	1636098.4322	2542214.8968
81	1636085.6728	2542234.1248
82	1636073.5650	2542258.6803
83	1636100.7028	2542260.6073
84	1636116.0408	2542285.2207
85	1636117.3491	2542302.5946
86	1636106.8577	2542310.7095
87	1636109.2469	2542321.8393
88	1636110.5733	2542336.1329
89	1636107.3472	2542347.0207

BOUNDARY LEGEND

- SECTION CORNER
- NORTH OR SOUTH 1/4 SECTION CORNER
- EAST OR WEST 1/4 SECTION CORNER

SURVEYOR'S CERTIFICATE

I, Clyde J. King, a New Mexico Professional Surveyor do hereby certify that this plat was prepared from a field survey performed by me or under my direct supervision, that I am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, that this plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and that this survey is not a subdivision as defined by the New Mexico Subdivision Act.



Clyde J. King
Clyde J. King, PS13979

9-20-14
Date

THIS SECTION LINE ESTABLISH BY SINGLE PROPORTION FROM THE SE CORNER OF SEC. 33 WESTERLY TO THE CLOSING CORNER OF SEC. 32 ON THE FT. WINGATE BOUNDARY.

SURVEY of the SITE 1 in Sections 29 & 32, and SITE 2 in Section 32, T15N, R15W, N.M.P.M., McKinley County, New Mexico, U.S.A.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Ed Riege	
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217	
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery	
Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section 29 and 32	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County
-------------	-------------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------

Latitude 35° 29' 22" Longitude 108° 25' 24"

NATURE OF RELEASE

Type of Release Pond Water	Volume of Release 17.4 bbls	Volume Recovered None
Source of Release Evaporation Pond #7	Date and Hour of Occurrence 03-19-2014 1500 hr	Date and Hour of Discovery 03-19-2014 1515 hr
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Message Brandon Powell phone / email Carl Chavez phone / email Kristen Van Horn phone / email	
By Whom? Ed Riege	Date and Hour 03-19-2014 1805 hr 03-19-2014 1810 hr 03-19-2014 1815 hr	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

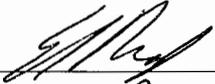
Describe Cause of Problem and Remedial Action Taken.*

A Western employee observed a breach in the pond 7 dike. Western was in the process of improving the pond dikes and earth moving equipment, which was operating nearby, immediately responded to make repairs and stopped the release at 1630Hr. As described in the initial C-141 submitted on April 1, 2014, Western has completed actions to improve the pond dikes.

Describe Area Affected and Cleanup Action Taken.*

The land where the release left Western's property is owned by State of New Mexico and Western obtained a temporary Right-of-Entry Permit to conducted remedial actions on the off-site property. The affected area covered approximately 0.84 acres. These response actions are described in the attached letter, which documents the affected property was successfully remediated. Western has completed all required response actions. To address the requirements of the land owner, Western will backfill the excavations and seed the area with native plants.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: <i>Ed Riege</i>		Approved by Environmental Specialist:	
Title: Environmental Manager		Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: <i>3-11-15</i>	Phone: 505-722-0217		

* Attach Additional Sheets If Necessary



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 19, 2014

Cheryl Johnson
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Pond 7 Breach clean up (soil)

OrderNo.: 1412646

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 12/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 1-A

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/3/2014 1:00:00 PM

Lab ID: 1412646-001

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							
Analyst: JME							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 10:09:47 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 10:09:47 AM	16830
Surr: DNOP	79.6	63.5-128		%REC	1	12/16/2014 10:09:47 AM	16830
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 2:52:58 PM	16827
Surr: BFB	92.1	80-120		%REC	1	12/16/2014 2:52:58 PM	16827
EPA METHOD 300.0: ANIONS							
Analyst: Igp							
Fluoride	3.1	0.30		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Chloride	6200	750		mg/Kg	500	12/18/2014 1:23:34 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 11:56:59 AM	16851
Bromide	2.6	0.30		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Nitrogen, Nitrate (As N)	11	0.30		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Sulfate	1000	30		mg/Kg	20	12/16/2014 11:56:59 AM	16851
MERCURY, TCLP							
Analyst: MMD							
Mercury	ND	0.020		mg/L	1	12/17/2014 10:07:39 AM	16858
EPA METHOD 6010B: SOIL METALS							
Analyst: ELS							
Calcium	18000	130		mg/Kg	5	12/17/2014 11:16:12 AM	16861
Manganese	350	0.20		mg/Kg	2	12/17/2014 11:14:42 AM	16861
Potassium	3900	100		mg/Kg	2	12/17/2014 11:14:42 AM	16861
Sodium	5300	51		mg/Kg	2	12/17/2014 11:14:42 AM	16861
EPA METHOD 6010B: TCLP METALS							
Analyst: ELS							
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:12:12 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
EPA METHOD 8270C TCLP							
Analyst: DAM							
2-Methylphenol	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 1:31:52 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 1:31:52 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 1:31:52 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Pond 7-Site 1-A**Project:** Pond 7 Breach clean up (soil)**Collection Date:** 12/3/2014 1:00:00 PM**Lab ID:** 1412646-001**Matrix:** SOIL**Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 1:31:52 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 1:31:52 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 1:31:52 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 1:31:52 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 1:31:52 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 1:31:52 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
Surr: 2-Fluorophenol	50.2	25-105		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: Phenol-d5	50.0	22.3-70.3		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: 2,4,6-Tribromophenol	57.4	30.4-134		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: Nitrobenzene-d5	81.0	54.8-128		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: 2-Fluorobiphenyl	76.3	53.3-122		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: 4-Terphenyl-d14	66.6	51.8-133		%REC	1	12/16/2014 1:31:52 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 12:41:35 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 12:41:35 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 12:41:35 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 12:41:35 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 12:41:35 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 12:41:35 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 12:41:35 PM	16827
Surr: 1,2-Dichloroethane-d4	85.3	70-130		%REC	10	12/17/2014 12:41:35 PM	16827
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	10	12/17/2014 12:41:35 PM	16827
Surr: Dibromofluoromethane	104	70-130		%REC	10	12/17/2014 12:41:35 PM	16827
Surr: Toluene-d8	94.4	70-130		%REC	10	12/17/2014 12:41:35 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 27
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Pond 7-Site 1-B**Project:** Pond 7 Breach clean up (soil)**Collection Date:** 12/3/2014 1:15:00 PM**Lab ID:** 1412646-002**Matrix:** SOIL**Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS Analyst: JME							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 10:39:49 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 10:39:49 AM	16830
Surr: DNOP	82.6	63.5-128		%REC	1	12/16/2014 10:39:49 AM	16830
EPA METHOD 8015D: GASOLINE RANGE Analyst: NSB							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 4:18:50 PM	16827
Surr: BFB	92.7	80-120		%REC	1	12/16/2014 4:18:50 PM	16827
EPA METHOD 300.0: ANIONS Analyst: lgp							
Fluoride	2.7	0.30		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Chloride	7300	1500		mg/Kg	1E	12/18/2014 1:35:58 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 12:21:48 PM	16851
Bromide	3.4	0.30		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Nitrogen, Nitrate (As N)	17	0.30		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Sulfate	1000	30		mg/Kg	20	12/16/2014 12:21:48 PM	16851
MERCURY, TCLP Analyst: MMD							
Mercury	ND	0.020		mg/L	1	12/17/2014 10:09:27 AM	16858
EPA METHOD 6010B: SOIL METALS Analyst: ELS							
Calcium	16000	130		mg/Kg	5	12/17/2014 11:24:31 AM	16861
Manganese	330	0.21		mg/Kg	2	12/17/2014 11:22:58 AM	16861
Potassium	3600	100		mg/Kg	2	12/17/2014 11:22:58 AM	16861
Sodium	5500	52		mg/Kg	2	12/17/2014 11:22:58 AM	16861
EPA METHOD 6010B: TCLP METALS Analyst: ELS							
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:13:41 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
EPA METHOD 8270C TCLP Analyst: DAM							
2-Methylphenol	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 2:53:46 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 2:53:46 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 2:53:46 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Pond 7-Site 1-B**Project:** Pond 7 Breach clean up (soil)**Collection Date:** 12/3/2014 1:15:00 PM**Lab ID:** 1412646-002**Matrix:** SOIL**Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 2:53:46 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 2:53:46 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 2:53:46 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 2:53:46 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 2:53:46 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 2:53:46 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
Surr: 2-Fluorophenol	52.3	25-105		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: Phenol-d5	48.3	22.3-70.3		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: 2,4,6-Tribromophenol	58.7	30.4-134		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: Nitrobenzene-d5	90.3	54.8-128		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: 2-Fluorobiphenyl	85.3	53.3-122		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: 4-Terphenyl-d14	73.5	51.8-133		%REC	1	12/16/2014 2:53:46 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 1:08:58 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 1:08:58 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 1:08:58 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 1:08:58 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 1:08:58 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 1:08:58 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 1:08:58 PM	16827
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%REC	10	12/17/2014 1:08:58 PM	16827
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	10	12/17/2014 1:08:58 PM	16827
Surr: Dibromofluoromethane	102	70-130		%REC	10	12/17/2014 1:08:58 PM	16827
Surr: Toluene-d8	90.8	70-130		%REC	10	12/17/2014 1:08:58 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 1-C

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/3/2014 1:30:00 PM

Lab ID: 1412646-003

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							
Analyst: JME							
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/16/2014 11:09:48 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 11:09:48 AM	16830
Surr: DNOP	84.6	63.5-128		%REC	1	12/16/2014 11:09:48 AM	16830
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 4:47:34 PM	16827
Surr: BFB	94.1	80-120		%REC	1	12/16/2014 4:47:34 PM	16827
EPA METHOD 300.0: ANIONS							
Analyst: Igp							
Fluoride	7.7	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Chloride	7500	1500		mg/Kg	1E	12/18/2014 1:48:23 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Bromide	6.9	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Nitrogen, Nitrate (As N)	23	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 12:34:13 PM	16851
Sulfate	1900	30		mg/Kg	20	12/16/2014 12:46:37 PM	16851
MERCURY, TCLP							
Analyst: MMD							
Mercury	ND	0.020		mg/L	1	12/17/2014 10:11:15 AM	16858
EPA METHOD 6010B: SOIL METALS							
Analyst: ELS							
Calcium	16000	130		mg/Kg	5	12/17/2014 11:27:22 AM	16861
Manganese	330	0.20		mg/Kg	2	12/17/2014 11:25:52 AM	16861
Potassium	3700	100		mg/Kg	2	12/17/2014 11:25:52 AM	16861
Sodium	6200	51		mg/Kg	2	12/17/2014 11:25:52 AM	16861
EPA METHOD 6010B: TCLP METALS							
Analyst: ELS							
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:15:09 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
EPA METHOD 8270C TCLP							
Analyst: DAM							
2-Methylphenol	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 3:21:07 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 3:21:07 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 3:21:07 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Pond 7-Site 1-C**Project:** Pond 7 Breach clean up (soil)**Collection Date:** 12/3/2014 1:30:00 PM**Lab ID:** 1412646-003**Matrix:** SOIL**Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 3:21:07 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 3:21:07 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 3:21:07 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 3:21:07 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 3:21:07 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 3:21:07 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
Surr: 2-Fluorophenol	63.2	25-105		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: Phenol-d5	62.7	22.3-70.3		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: 2,4,6-Tribromophenol	67.5	30.4-134		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: Nitrobenzene-d5	90.6	54.8-128		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: 2-Fluorobiphenyl	86.8	53.3-122		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: 4-Terphenyl-d14	80.4	51.8-133		%REC	1	12/16/2014 3:21:07 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 2:31:25 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 2:31:25 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 2:31:25 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 2:31:25 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 2:31:25 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 2:31:25 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 2:31:25 PM	16827
Surr: 1,2-Dichloroethane-d4	87.7	70-130		%REC	10	12/17/2014 2:31:25 PM	16827
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	10	12/17/2014 2:31:25 PM	16827
Surr: Dibromofluoromethane	104	70-130		%REC	10	12/17/2014 2:31:25 PM	16827
Surr: Toluene-d8	89.0	70-130		%REC	10	12/17/2014 2:31:25 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 1-D

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/3/2014 1:45:00 PM

Lab ID: 1412646-004

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 11:39:54 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 11:39:54 AM	16830
Surr: DNOP	77.0	63.5-128		%REC	1	12/16/2014 11:39:54 AM	16830
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 5:16:15 PM	16827
Surr: BFB	93.5	80-120		%REC	1	12/16/2014 5:16:15 PM	16827
EPA METHOD 300.0: ANIONS							Analyst: lgp
Fluoride	7.3	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Chloride	6400	750		mg/Kg	500	12/18/2014 2:00:47 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Bromide	7.4	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Nitrogen, Nitrate (As N)	15	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 1:23:51 PM	16851
Sulfate	2400	30		mg/Kg	20	12/16/2014 1:36:15 PM	16851
MERCURY, TCLP							Analyst: MMD
Mercury	ND	0.020		mg/L	1	12/17/2014 10:13:03 AM	16858
EPA METHOD 6010B: SOIL METALS							Analyst: ELS
Calcium	15000	120		mg/Kg	5	12/17/2014 11:30:23 AM	16861
Manganese	330	0.20		mg/Kg	2	12/17/2014 11:28:53 AM	16861
Potassium	4200	98		mg/Kg	2	12/17/2014 11:28:53 AM	16861
Sodium	5700	49		mg/Kg	2	12/17/2014 11:28:53 AM	16861
EPA METHOD 6010B: TCLP METALS							Analyst: ELS
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:16:39 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 3:48:29 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 3:48:29 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 3:48:29 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Pond 7-Site 1-D**Project:** Pond 7 Breach clean up (soil)**Collection Date:** 12/3/2014 1:45:00 PM**Lab ID:** 1412646-004**Matrix:** SOIL**Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 3:48:29 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 3:48:29 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 3:48:29 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 3:48:29 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 3:48:29 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 3:48:29 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
Surr: 2-Fluorophenol	62.2	25-105		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: Phenol-d5	62.0	22.3-70.3		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: 2,4,6-Tribromophenol	68.1	30.4-134		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: Nitrobenzene-d5	98.8	54.8-128		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: 2-Fluorobiphenyl	86.8	53.3-122		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: 4-Terphenyl-d14	84.7	51.8-133		%REC	1	12/16/2014 3:48:29 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 2:58:54 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 2:58:54 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 2:58:54 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 2:58:54 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 2:58:54 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 2:58:54 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 2:58:54 PM	16827
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%REC	10	12/17/2014 2:58:54 PM	16827
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	10	12/17/2014 2:58:54 PM	16827
Surr: Dibromofluoromethane	104	70-130		%REC	10	12/17/2014 2:58:54 PM	16827
Surr: Toluene-d8	91.8	70-130		%REC	10	12/17/2014 2:58:54 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-A

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 11:00:00 AM

Lab ID: 1412646-005

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 12:09:57 PM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 12:09:57 PM	16830
Surr: DNOP	81.1	63.5-128		%REC	1	12/16/2014 12:09:57 PM	16830
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 5:44:57 PM	16827
Surr: BFB	93.7	80-120		%REC	1	12/16/2014 5:44:57 PM	16827
EPA METHOD 300.0: ANIONS							Analyst: lgp
Fluoride	3.5	0.30		mg/Kg	1	12/16/2014 1:48:40 PM	16851
Chloride	4300	750		mg/Kg	500	12/18/2014 2:13:11 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 2:01:04 PM	16851
Bromide	2.0	0.30		mg/Kg	1	12/16/2014 1:48:40 PM	16851
Nitrogen, Nitrate (As N)	22	6.0		mg/Kg	20	12/16/2014 2:01:04 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 1:48:40 PM	16851
Sulfate	960	30		mg/Kg	20	12/16/2014 2:01:04 PM	16851
MERCURY, TCLP							Analyst: MMD
Mercury	ND	0.020		mg/L	1	12/17/2014 10:14:52 AM	16858
EPA METHOD 6010B: SOIL METALS							Analyst: ELS
Calcium	16000	120		mg/Kg	5	12/17/2014 11:33:23 AM	16861
Manganese	330	0.19		mg/Kg	2	12/17/2014 11:31:51 AM	16861
Potassium	4000	96		mg/Kg	2	12/17/2014 11:31:51 AM	16861
Sodium	5000	48		mg/Kg	2	12/17/2014 11:31:51 AM	16861
EPA METHOD 6010B: TCLP METALS							Analyst: ELS
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:23:09 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 4:15:51 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 4:15:51 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 4:15:51 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-A

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 11:00:00 AM

Lab ID: 1412646-005

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 4:15:51 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 4:15:51 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 4:15:51 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 4:15:51 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 4:15:51 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 4:15:51 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
Surr: 2-Fluorophenol	59.8	25-105		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: Phenol-d5	63.3	22.3-70.3		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: 2,4,6-Tribromophenol	71.3	30.4-134		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: Nitrobenzene-d5	99.4	54.8-128		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: 2-Fluorobiphenyl	92.9	53.3-122		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: 4-Terphenyl-d14	85.0	51.8-133		%REC	1	12/16/2014 4:15:51 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 3:26:12 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 3:26:12 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 3:26:12 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 3:26:12 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 3:26:12 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 3:26:12 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 3:26:12 PM	16827
Surr: 1,2-Dichloroethane-d4	86.6	70-130		%REC	10	12/17/2014 3:26:12 PM	16827
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	10	12/17/2014 3:26:12 PM	16827
Surr: Dibromofluoromethane	99.3	70-130		%REC	10	12/17/2014 3:26:12 PM	16827
Surr: Toluene-d8	90.3	70-130		%REC	10	12/17/2014 3:26:12 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-B

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 11:15:00 AM

Lab ID: 1412646-006

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							
Analyst: JME							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/16/2014 12:39:59 PM	16830
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/16/2014 12:39:59 PM	16830
Surr: DNOP	85.0	63.5-128		%REC	1	12/16/2014 12:39:59 PM	16830
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 6:13:36 PM	16827
Surr: BFB	93.5	80-120		%REC	1	12/16/2014 6:13:36 PM	16827
EPA METHOD 300.0: ANIONS							
Analyst: Igp							
Fluoride	ND	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Chloride	8000	1500		mg/Kg	1E	12/18/2014 2:25:35 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Bromide	10	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Nitrogen, Nitrate (As N)	100	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 2:13:29 PM	16851
Sulfate	1300	30		mg/Kg	20	12/16/2014 2:25:54 PM	16851
MERCURY, TCLP							
Analyst: MMD							
Mercury	ND	0.020		mg/L	1	12/17/2014 10:20:28 AM	16858
EPA METHOD 6010B: SOIL METALS							
Analyst: ELS							
Calcium	23000	120		mg/Kg	5	12/17/2014 11:36:25 AM	16861
Manganese	390	0.19		mg/Kg	2	12/17/2014 11:34:58 AM	16861
Potassium	3200	96		mg/Kg	2	12/17/2014 11:34:58 AM	16861
Sodium	4900	48		mg/Kg	2	12/17/2014 11:34:58 AM	16861
EPA METHOD 6010B: TCLP METALS							
Analyst: ELS							
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:24:43 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
EPA METHOD 8270C TCLP							
Analyst: DAM							
2-Methylphenol	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 4:43:10 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 4:43:10 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 4:43:10 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-B

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 11:15:00 AM

Lab ID: 1412646-006

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 4:43:10 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 4:43:10 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 4:43:10 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 4:43:10 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 4:43:10 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 4:43:10 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
Surr: 2-Fluorophenol	88.8	25-105		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: Phenol-d5	75.4	22.3-70.3	S	%REC	1	12/16/2014 4:43:10 PM	16852
Surr: 2,4,6-Tribromophenol	91.8	30.4-134		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: Nitrobenzene-d5	98.9	54.8-128		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: 2-Fluorobiphenyl	96.3	53.3-122		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: 4-Terphenyl-d14	78.9	51.8-133		%REC	1	12/16/2014 4:43:10 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 3:53:44 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 3:53:44 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 3:53:44 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 3:53:44 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 3:53:44 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 3:53:44 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 3:53:44 PM	16827
Surr: 1,2-Dichloroethane-d4	86.0	70-130		%REC	10	12/17/2014 3:53:44 PM	16827
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	10	12/17/2014 3:53:44 PM	16827
Surr: Dibromofluoromethane	100	70-130		%REC	10	12/17/2014 3:53:44 PM	16827
Surr: Toluene-d8	89.7	70-130		%REC	10	12/17/2014 3:53:44 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** Pond 7-Site 2-C
Project: Pond 7 Breach clean up (soil) **Collection Date:** 12/12/2014 12:35:00 PM
Lab ID: 1412646-007 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 1:10:06 PM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 1:10:06 PM	16830
Surr: DNOP	80.3	63.5-128		%REC	1	12/16/2014 1:10:06 PM	16830
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 6:42:16 PM	16827
Surr: BFB	93.3	80-120		%REC	1	12/16/2014 6:42:16 PM	16827
EPA METHOD 300.0: ANIONS							Analyst: lgp
Fluoride	7.7	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Chloride	8000	1500		mg/Kg	1E	12/18/2014 2:38:00 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Bromide	9.4	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Nitrogen, Nitrate (As N)	15	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 2:38:19 PM	16851
Sulfate	1600	30		mg/Kg	20	12/16/2014 2:50:44 PM	16851
MERCURY, TCLP							Analyst: MMD
Mercury	ND	0.020		mg/L	1	12/17/2014 10:22:18 AM	16858
EPA METHOD 6010B: SOIL METALS							Analyst: ELS
Calcium	15000	120		mg/Kg	5	12/17/2014 11:44:47 AM	16861
Manganese	320	0.20		mg/Kg	2	12/17/2014 11:43:16 AM	16861
Potassium	4200	98		mg/Kg	2	12/17/2014 11:43:16 AM	16861
Sodium	6900	49		mg/Kg	2	12/17/2014 11:43:16 AM	16861
EPA METHOD 6010B: TCLP METALS							Analyst: ELS
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:26:11 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 5:10:31 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 5:10:31 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 5:10:31 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-C

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 12:35:00 PM

Lab ID: 1412646-007

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 5:10:31 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 5:10:31 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 5:10:31 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 5:10:31 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 5:10:31 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 5:10:31 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
Surr: 2-Fluorophenol	76.3	25-105		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: Phenol-d5	68.5	22.3-70.3		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: 2,4,6-Tribromophenol	80.2	30.4-134		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: Nitrobenzene-d5	97.2	54.8-128		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: 2-Fluorobiphenyl	91.3	53.3-122		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: 4-Terphenyl-d14	78.0	51.8-133		%REC	1	12/16/2014 5:10:31 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 4:21:11 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 4:21:11 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 4:21:11 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 4:21:11 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 4:21:11 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 4:21:11 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 4:21:11 PM	16827
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	10	12/17/2014 4:21:11 PM	16827
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	10	12/17/2014 4:21:11 PM	16827
Surr: Dibromofluoromethane	102	70-130		%REC	10	12/17/2014 4:21:11 PM	16827
Surr: Toluene-d8	87.2	70-130		%REC	10	12/17/2014 4:21:11 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-D

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 1:00:00 PM

Lab ID: 1412646-008

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/16/2014 1:40:25 PM	16830
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/16/2014 1:40:25 PM	16830
Surr: DNOP	84.1	63.5-128		%REC	1	12/16/2014 1:40:25 PM	16830
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 7:10:53 PM	16827
Surr: BFB	92.8	80-120		%REC	1	12/16/2014 7:10:53 PM	16827
EPA METHOD 300.0: ANIONS							Analyst: Igp
Fluoride	1.6	0.30		mg/Kg	1	12/16/2014 4:17:36 PM	16851
Chloride	7300	1500		mg/Kg	1E	12/18/2014 2:50:25 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 4:30:00 PM	16851
Bromide	6.7	6.0		mg/Kg	20	12/16/2014 4:30:00 PM	16851
Nitrogen, Nitrate (As N)	20	0.30		mg/Kg	1	12/16/2014 4:17:36 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 4:17:36 PM	16851
Sulfate	1700	30		mg/Kg	20	12/16/2014 4:30:00 PM	16851
MERCURY, TCLP							Analyst: MMD
Mercury	ND	0.020		mg/L	1	12/17/2014 10:24:08 AM	16858
EPA METHOD 6010B: SOIL METALS							Analyst: ELS
Calcium	13000	120		mg/Kg	5	12/17/2014 11:47:50 AM	16861
Manganese	320	0.19		mg/Kg	2	12/17/2014 11:46:23 AM	16861
Potassium	3800	97		mg/Kg	2	12/17/2014 11:46:23 AM	16861
Sodium	5700	49		mg/Kg	2	12/17/2014 11:46:23 AM	16861
EPA METHOD 6010B: TCLP METALS							Analyst: ELS
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:27:48 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 5:37:49 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 5:37:49 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 5:37:49 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1412646

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pond 7-Site 2-D

Project: Pond 7 Breach clean up (soil)

Collection Date: 12/12/2014 1:00:00 PM

Lab ID: 1412646-008

Matrix: SOIL

Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP							Analyst: DAM
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 5:37:49 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 5:37:49 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 5:37:49 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 5:37:49 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 5:37:49 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 5:37:49 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
Surr: 2-Fluorophenol	58.3	25-105		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: Phenol-d5	61.9	22.3-70.3		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: 2,4,6-Tribromophenol	59.9	30.4-134		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: Nitrobenzene-d5	90.0	54.8-128		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: 2-Fluorobiphenyl	76.6	53.3-122		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: 4-Terphenyl-d14	71.8	51.8-133		%REC	1	12/16/2014 5:37:49 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 4:48:41 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 4:48:41 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 4:48:41 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 4:48:41 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 4:48:41 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 4:48:41 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 4:48:41 PM	16827
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%REC	10	12/17/2014 4:48:41 PM	16827
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	10	12/17/2014 4:48:41 PM	16827
Surr: Dibromofluoromethane	103	70-130		%REC	10	12/17/2014 4:48:41 PM	16827
Surr: Toluene-d8	90.4	70-130		%REC	10	12/17/2014 4:48:41 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 16 of 27
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		



YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : December 17, 2014
Description :
Sample ID : 1412646-001B POND 7-SITE 1-A
Collected By :
Collection Date : 12/03/14 13:00

ESC Sample # : L739297-01
Site ID :
Project # :

Table with 7 columns: Parameter, Result, Det. Limit, Units, Method, Date, Dil. Rows include Corrosivity, Ignitability, Reactive CN, and Reactive Sulf.

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 12/18/14 14:00 Printed: 12/18/14 14:00
L739297-01 (IGNITABILITY) - Did Not Ignite @ 170 F



YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : December 17, 2014
Description :
Sample ID : 1412646-002B 7-SITE 1-B
Collected By :
Collection Date : 12/03/14 13:15

ESC Sample # : L739297-02
Site ID :
Project # :

Table with 7 columns: Parameter, Result, Det. Limit, Units, Method, Date, Dil. Rows include Corrosivity, Ignitability, Reactive CN, and Reactive Sulf.

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit (PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 12/18/14 14:00 Printed: 12/18/14 14:00
L739297-02 (IGNITABILITY) - Did Not Ignite @ 170 F



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
 4901 Hawkins NE
 Albuquerque, NM 87109

Date Received : December 17, 2014
 Description :
 Sample ID : 1412646-003B 7-SITE 1-C
 Collected By :
 Collection Date : 12/03/14 13:30

ESC Sample # : L739297-03
 Site ID :
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
 Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/18/14 14:00 Printed: 12/18/14 14:00
 L739297-03 (IGNITABILITY) - Did Not Ignite @ 170 F



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
 4901 Hawkins NE
 Albuquerque, NM 87109

Date Received : December 17, 2014
 Description :
 Sample ID : 1412646-004B 7-SITE 1-D
 Collected By :
 Collection Date : 12/03/14 13:45

ESC Sample # : L739297-04
 Site ID :
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
 Det. Limit - Practical Quantitation Limit (PQL)
 Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.
 Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
 L739297-04 (IGNITABILITY) - Did Not Ignite @ 170 F



YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : December 17, 2014
Description :
Sample ID : 1412646-005B 7-SITE 2-A
Collected By :
Collection Date : 12/12/14 11:00

ESC Sample # : L739297-05

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-05 (IGNITABILITY) - Did Not Ignite @ 170 F



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : December 17, 2014
Description :
Sample ID : 1412646-006B 7-SITE 2-B
Collected By :
Collection Date : 12/12/14 11:15

ESC Sample # : L739297-06
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit (PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-06 (IGNITABILITY) - Did Not Ignite @ 170 F



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289
Est. 1970

YOUR LAB OF CHOICE

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : December 17, 2014
Description :
Sample ID : 1412646-007B 7-SITE 2-C
Collected By :
Collection Date : 12/12/14 12:35

ESC Sample # : L739297-07
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit (PQL)

Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-07 (IGNITABILITY) - Did Not Ignite @ 170 F



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : December 17, 2014
Description :
Sample ID : 1412646-008B 7-SITE 2-D
Collected By :
Collection Date : 12/12/14 13:00

ESC Sample # : L739297-08
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-08 (IGNITABILITY) - Did Not Ignite @ 170 F



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE
Albuquerque, NM 87109

Quality Assurance Report
Level II

L739297

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

December 18, 2014

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Reactive CN (SW846 7.3.3.2)	< .125	mg/kg			WG760461	12/17/14 16:38
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/kg			WG760460	12/18/14 07:35

Analyte	Units	Result	Duplicate		Limit	Ref Samp	Batch
			Duplicate	RPD			
Ignitability	Deg. F	0.00	0.00	0.00	10	L739297-01	WG760466
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0	0.0	0.0	20	L739297-01	WG760461
Corrosivity		0.0	0.0	0.0	10	L739297-01	WG760514
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	0.0	0.0	0.0	20	L739297-01	WG760460

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Ignitability	Deg. F	82	83.0	101.	93-107	WG760466
Reactive CN (SW846 7.3.3.2)	mg/kg	.1	0.109	109.	50-150	WG760461
Corrosivity		5.9	5.90	100.	98.3-101.7	WG760514
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	100	94.0	94.0	70-130	WG760460

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Ignitability	Deg. F	83.0	83.0	101.	93-107	0.00	20	WG760466
Reactive CN (SW846 7.3.3.2)	mg/kg	0.106	0.109	106.	50-150	2.79	20	WG760461
Corrosivity		5.90	5.90	100.	98.3-101.7	0.0	10	WG760514
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	89.0	94.0	89.0	70-130	5.46	20	WG760460

Batch number /Run number / Sample number cross reference

WG760466: R3010471: L739297-01 02 03 04 05 06 07 08
 WG760461: R3010523: L739297-01 02 03 04 05 06 07 08
 WG760514: R3010606: L739297-01 02 03 04 05 06 07 08
 WG760460: R3010692: L739297-01 02 03 04 05 06 07 08

* * Calculations are performed prior to rounding of reported values.
 * Performance of this Analyte is outside of established criteria.
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646
19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Sample ID	MB-16851	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	16851	RunNo:	23185					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684796	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P)	ND	1.5								
Sulfate	ND	1.5								

Sample ID	LCS-16851	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	16851	RunNo:	23185					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684797	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.30	1.500	0	95.6	90	110			
Chloride	14	1.5	15.00	0	91.5	90	110			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	95.1	90	110			
Bromide	7.1	0.30	7.500	0	94.9	90	110			
Nitrogen, Nitrate (As N)	7.2	0.30	7.500	0	95.4	90	110			
Phosphorus, Orthophosphate (As P)	14	1.5	15.00	0	92.2	90	110			
Sulfate	28	1.5	30.00	0	93.4	90	110			

Sample ID	1412646-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	Pond 7-Site 1-A	Batch ID:	16851	RunNo:	23185					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684799	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.3	0.30	1.500	3.117	10.7	13.6	100			S
Bromide	9.7	0.30	7.500	2.633	93.7	87	105			
Nitrogen, Nitrate (As N)	20	0.30	7.500	11.17	112	85.3	110			S

Sample ID	1412646-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	Pond 7-Site 1-A	Batch ID:	16851	RunNo:	23185					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684800	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.6	0.30	1.500	3.117	29.0	13.6	100	8.02	20	
Bromide	9.7	0.30	7.500	2.633	94.8	87	105	0.885	20	
Nitrogen, Nitrate (As N)	20	0.30	7.500	11.17	114	85.3	110	0.965	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646
 19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Sample ID MB-16830	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 16830		RunNo: 23158							
Prep Date: 12/15/2014	Analysis Date: 12/16/2014		SeqNo: 684058				Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		83.7	63.5	128			

Sample ID LCS-16830	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 16830		RunNo: 23158							
Prep Date: 12/15/2014	Analysis Date: 12/16/2014		SeqNo: 684059				Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	68.6	130			
Surr: DNOP	4.9		5.000		97.4	63.5	128			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID	MB-16827	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	16827	RunNo:	23167					
Prep Date:	12/15/2014	Analysis Date:	12/16/2014	SeqNo:	684613	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.6	80	120			

Sample ID	LCS-16827	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	16827	RunNo:	23167					
Prep Date:	12/15/2014	Analysis Date:	12/16/2014	SeqNo:	684614	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.8	65.8	139			
Surr: BFB	990		1000		99.3	80	120			

Sample ID	1412646-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Pond 7-Site 1-A	Batch ID:	16827	RunNo:	23167					
Prep Date:	12/15/2014	Analysis Date:	12/16/2014	SeqNo:	684621	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.90	0	91.9	47.9	144			
Surr: BFB	1000		996.0		104	80	120			

Sample ID	1412646-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Pond 7-Site 1-A	Batch ID:	16827	RunNo:	23167					
Prep Date:	12/15/2014	Analysis Date:	12/16/2014	SeqNo:	684622	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.93	0	103	47.9	144	11.0	29.9	
Surr: BFB	1000		997.0		103	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646

19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Sample ID	1412646-002ams	SampType:	MS	TestCode:	EPA Method 8260B: TCLP Compounds						
Client ID:	Pond 7-Site 1-B	Batch ID:	16827	RunNo:	23207						
Prep Date:	12/15/2014	Analysis Date:	12/17/2014	SeqNo:	685607	Units:	ppm				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.99	0.50	0.9960	0	99.9	32.2	145				
Chlorobenzene	ND	100	0.9960	0	115	32.4	142				
1,1-Dichloroethene	0.96	0.70	0.9960	0	96.7	32.6	155				
Trichloroethene (TCE)	0.98	0.50	0.9960	0	98.0	29.2	150				
Surr: 1,2-Dichloroethane-d4	4.3		4.980		85.4	70	130				
Surr: 4-Bromofluorobenzene	4.6		4.980		91.9	70	130				
Surr: Dibromofluoromethane	4.9		4.980		99.3	70	130				
Surr: Toluene-d8	4.6		4.980		91.4	70	130				

Sample ID	1412646-002amsd	SampType:	MSD	TestCode:	EPA Method 8260B: TCLP Compounds						
Client ID:	Pond 7-Site 1-B	Batch ID:	16827	RunNo:	23207						
Prep Date:	12/15/2014	Analysis Date:	12/17/2014	SeqNo:	685608	Units:	ppm				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.90	0.50	0.9960	0	90.4	32.2	145	9.91	20		
Chlorobenzene	ND	100	0.9960	0	100	32.4	142	0	20		
1,1-Dichloroethene	0.92	0.70	0.9960	0	92.1	32.6	155	4.97	20		
Trichloroethene (TCE)	0.91	0.50	0.9960	0	91.3	29.2	150	7.09	20		
Surr: 1,2-Dichloroethane-d4	4.3		4.980		86.9	70	130	0	0		
Surr: 4-Bromofluorobenzene	4.6		4.980		92.0	70	130	0	0		
Surr: Dibromofluoromethane	5.0		4.980		100	70	130	0	0		
Surr: Toluene-d8	4.5		4.980		90.2	70	130	0	0		

Sample ID	mb-16827	SampType:	MBLK	TestCode:	EPA Method 8260B: TCLP Compounds						
Client ID:	PBS	Batch ID:	16827	RunNo:	23207						
Prep Date:	12/15/2014	Analysis Date:	12/17/2014	SeqNo:	685615	Units:	ppm				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.050									
1,2-Dichloroethane (EDC)	ND	0.050									
2-Butanone	ND	20									
Carbon tetrachloride	ND	0.050									
Chlorobenzene	ND	10									
Chloroform	ND	0.60									
1,4-Dichlorobenzene	ND	0.75									
1,1-Dichloroethene	ND	0.070									
Tetrachloroethene (PCE)	ND	0.070									
Trichloroethene (TCE)	ND	0.050									
Vinyl chloride	ND	0.020									
Surr: 1,2-Dichloroethane-d4	0.40		0.5000		80.8	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646
19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Sample ID	mb-16827	SampType:	MBLK	TestCode:	EPA Method 8260B: TCLP Compounds					
Client ID:	PBS	Batch ID:	16827	RunNo:	23207					
Prep Date:	12/15/2014	Analysis Date:	12/17/2014	SeqNo:	685615	Units:	ppm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.2	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.6	70	130			
Surr: Toluene-d8	0.47		0.5000		93.7	70	130			

Sample ID	ics-16827	SampType:	LCS	TestCode:	EPA Method 8260B: TCLP Compounds					
Client ID:	LCSS	Batch ID:	16827	RunNo:	23207					
Prep Date:	12/15/2014	Analysis Date:	12/17/2014	SeqNo:	685616	Units:	ppm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.050	1.000	0	85.1	70	130			
Chlorobenzene	ND	10	1.000	0	96.1	70	130			
1,1-Dichloroethene	0.95	0.070	1.000	0	95.2	60.5	160			
Trichloroethene (TCE)	0.82	0.050	1.000	0	81.8	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.8	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		87.3	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.45		0.5000		90.2	70	130			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID	mb-16852	SampType:	MBLK	TestCode:	EPA Method 8270C TCLP					
Client ID:	PBS	Batch ID:	16852	RunNo:	23166					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684892	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.13		0.2000		64.4	25	105			
Surr: Phenol-d5	0.11		0.2000		54.0	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.18		0.2000		89.8	30.4	134			
Surr: Nitrobenzene-d5	0.084		0.1000		83.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.069		0.1000		68.9	53.3	122			
Surr: 4-Terphenyl-d14	0.072		0.1000		71.9	51.8	133			

Sample ID	lcs-16852	SampType:	LCS	TestCode:	EPA Method 8270C TCLP					
Client ID:	LCSS	Batch ID:	16852	RunNo:	23166					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684893	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.062	0.010	0.1000	0	61.9	52.2	95.7			
3+4-Methylphenol	0.18	0.010	0.2000	0	87.6	52.4	142			
2,4-Dinitrotoluene	0.058	0.010	0.1000	0	58.3	43.4	110			
Hexachlorobenzene	0.072	0.010	0.1000	0	71.9	43.6	88.4			
Hexachlorobutadiene	0.057	0.010	0.1000	0	57.2	38.6	88.4			
Hexachloroethane	0.058	0.010	0.1000	0	57.7	45.7	83.6			
Nitrobenzene	0.065	0.010	0.1000	0	64.6	51.9	112			
Pentachlorophenol	0.050	0.010	0.1000	0	50.5	15.2	81.5			
Pyridine	0.058	0.010	0.1000	0	57.8	11.2	95.1			
2,4,5-Trichlorophenol	0.069	0.010	0.1000	0	69.2	46.9	110			
2,4,6-Trichlorophenol	0.066	0.010	0.1000	0	65.8	36.1	111			
Cresols, Total	0.24	0.010	0.3000	0	79.0	30	136			
Surr: 2-Fluorophenol	0.12		0.2000		59.2	25	105			
Surr: Phenol-d5	0.12		0.2000		61.6	22.3	70.3			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID	Ics-16852	SampType:	LCS	TestCode:	EPA Method 8270C TCLP					
Client ID:	LCSS	Batch ID:	16852	RunNo:	23166					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684893	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.13		0.2000		66.5	30.4	134			
Surr: Nitrobenzene-d5	0.068		0.1000		67.9	54.8	128			
Surr: 2-Fluorobiphenyl	0.066		0.1000		65.9	53.3	122			
Surr: 4-Terphenyl-d14	0.058		0.1000		58.0	51.8	133			

Sample ID	1412646-001ams	SampType:	MS	TestCode:	EPA Method 8270C TCLP					
Client ID:	Pond 7-Site 1-A	Batch ID:	16852	RunNo:	23166					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684902	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.082	0.010	0.1000	0	82.5	43.1	114			
3+4-Methylphenol	0.24	0.010	0.2000	0	120	37.8	128			
2,4-Dinitrotoluene	0.080	0.010	0.1000	0	80.3	36.5	125			
Hexachlorobenzene	0.096	0.010	0.1000	0	96.4	41.4	108			
Hexachlorobutadiene	0.069	0.010	0.1000	0	69.2	30.4	101			
Hexachloroethane	0.073	0.010	0.1000	0	73.4	37.3	115			
Nitrobenzene	0.091	0.010	0.1000	0	90.8	40.2	132			
Pentachlorophenol	0.056	0.010	0.1000	0	56.5	8.72	103			
Pyridine	0.073	0.010	0.1000	0	73.1	9.36	106			
2,4,5-Trichlorophenol	0.075	0.010	0.1000	0	74.8	16.5	123			
2,4,6-Trichlorophenol	0.070	0.010	0.1000	0	69.6	11.3	117			
Cresols, Total	0.32	0.010	0.3000	0	107	23.2	151			
Surr: 2-Fluorophenol	0.12		0.2000		62.0	25	105			
Surr: Phenol-d5	0.12		0.2000		58.5	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		78.5	30.4	134			
Surr: Nitrobenzene-d5	0.098		0.1000		97.7	54.8	128			
Surr: 2-Fluorobiphenyl	0.090		0.1000		90.3	53.3	122			
Surr: 4-Terphenyl-d14	0.083		0.1000		82.6	51.8	133			

Sample ID	1412646-001amsd	SampType:	MSD	TestCode:	EPA Method 8270C TCLP					
Client ID:	Pond 7-Site 1-A	Batch ID:	16852	RunNo:	23166					
Prep Date:	12/16/2014	Analysis Date:	12/16/2014	SeqNo:	684903	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.085	0.010	0.1000	0	85.4	43.1	114	3.43	28.4	
3+4-Methylphenol	0.28	0.010	0.2000	0	140	37.8	128	15.3	29.4	S
2,4-Dinitrotoluene	0.075	0.010	0.1000	0	74.9	36.5	125	6.94	24.7	
Hexachlorobenzene	0.094	0.010	0.1000	0	94.4	41.4	108	2.01	20	
Hexachlorobutadiene	0.068	0.010	0.1000	0	68.4	30.4	101	1.22	29	
Hexachloroethane	0.072	0.010	0.1000	0	72.3	37.3	115	1.51	25.2	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646
 19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.089	0.010	0.1000	0	88.7	40.2	132	2.32	26.9	
Pentachlorophenol	0.050	0.010	0.1000	0	50.3	8.72	103	11.6	59.2	
Pyridine	0.073	0.010	0.1000	0	73.4	9.36	106	0.519	48	
2,4,5-Trichlorophenol	0.070	0.010	0.1000	0	70.3	16.5	123	6.31	70.8	
2,4,6-Trichlorophenol	0.067	0.010	0.1000	0	67.2	11.3	117	3.54	78	
Cresols, Total	0.37	0.010	0.3000	0	122	23.2	151	12.4	30.8	
Surr: 2-Fluorophenol	0.12		0.2000		62.4	25	105	0	0	
Surr: Phenol-d5	0.12		0.2000		61.4	22.3	70.3	0	0	
Surr: 2,4,6-Tribromophenol	0.16		0.2000		78.1	30.4	134	0	0	
Surr: Nitrobenzene-d5	0.095		0.1000		94.7	54.8	128	0	0	
Surr: 2-Fluorobiphenyl	0.088		0.1000		88.4	53.3	122	0	0	
Surr: 4-Terphenyl-d14	0.081		0.1000		80.6	51.8	133	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646
19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Sample ID	MB-16858	SampType:	MBLK	TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	16858	RunNo:	23189					
Prep Date:	12/16/2014	Analysis Date:	12/17/2014	SeqNo:	684937	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	LCS-16858	SampType:	LCS	TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	16858	RunNo:	23189					
Prep Date:	12/16/2014	Analysis Date:	12/17/2014	SeqNo:	684938	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646
 19-Dec-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)

Sample ID MB-16861	SampType: MBLK		TestCode: EPA Method 6010B: Soil Metals							
Client ID: PBS	Batch ID: 16861		RunNo: 23194							
Prep Date: 12/16/2014	Analysis Date: 12/17/2014		SeqNo: 685011		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Manganese	ND	0.10								
Potassium	ND	50								
Sodium	ND	25								

Sample ID LCS-16861	SampType: LCS		TestCode: EPA Method 6010B: Soil Metals							
Client ID: LCSS	Batch ID: 16861		RunNo: 23194							
Prep Date: 12/16/2014	Analysis Date: 12/17/2014		SeqNo: 685012		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2500	25	2500	0	100	80	120			
Manganese	24	0.10	25.00	0	94.6	80	120			
Potassium	2400	50	2500	0	95.4	80	120			
Sodium	2400	25	2500	0	96.9	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412646

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID	MB-16859	SampType:	MBLK	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	PBW	Batch ID:	16859	RunNo:	23194					
Prep Date:	12/16/2014	Analysis Date:	12/17/2014	SeqNo:	685037	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID	LCS-16859	SampType:	LCS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	LCSW	Batch ID:	16859	RunNo:	23194					
Prep Date:	12/16/2014	Analysis Date:	12/17/2014	SeqNo:	685038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	107	80	120			
Barium	ND	100	0.5000	0	97.2	80	120			
Cadmium	ND	1.0	0.5000	0	101	80	120			
Chromium	ND	5.0	0.5000	0	95.5	80	120			
Lead	ND	5.0	0.5000	0	97.6	80	120			
Selenium	ND	1.0	0.5000	0	99.8	80	120			
Silver	ND	5.0	0.1000	0	111	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1412646**

RcptNo: **1**

Received by/date:

CS

12/12/14

Logged By: **Lindsay Mangin**

12/12/2014 4:09:00 PM

[Signature]

Completed By: **Lindsay Mangin**

12/15/2014 9:22:46 AM

[Signature]

Reviewed By:

IO

12/15/2014

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes No NA
5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
6. Sample(s) in proper container(s)? Yes No
7. Sufficient sample volume for indicated test(s)? Yes No
8. Are samples (except VOA and ONG) properly preserved? Yes No
9. Was preservative added to bottles? Yes No NA
10. VOA vials have zero headspace? Yes No No VOA Vials
11. Were any sample containers received broken? Yes No
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? _____
14. Is it clear what analyses were requested? Yes No
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____

Date: _____

By Whom: _____

Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Not Present			

Chain-of-Custody Record				Turn-Around Time:															
Client: WESTERN REFINING				<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush, ASAP															
GALLUP REFINERY				Project Name:															
Mailing Address: 92 GIANT CROSSING ROAD				Pond 7 Breach clean up (soil)															
Gallup, NM 87301				Project #:															
Phone #: 505 - 722-3833				Clean up - Sites 1 and 2															
Email or Fax#: 505-863-0930				Project Manager:															
QA/QC Package:				Cheryl Johnson															
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)				Cheryl.johnson@wnr.com															
Accreditation:				Sampler: C. Johnson															
<input type="checkbox"/> NELAP <input type="checkbox"/> Other				On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															
<input type="checkbox"/> EDD (Type)				Sample Temperature: 5.5°C															
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	8015B (DRO/GROMRO) Extended	CATIONS/ANIONS	8260B - TCLP	8270 - TCLP	RCRA 8 METALS - TCLP	RCI	8260B +MTBE	8270 + PHENOLS	CATIONS/ANIONS	8015B EXTENDED	WQCC METALS including RCRA 8 Metals (TOTAL & DISSOLVED)	Air Bubbles (Y or N)	
12-3-14	100	Soil	Pond 7-Site1- A	2-9 oz Jar	None	-001	X	X	X	X	X	X							
12-3-14	1:15	Soil	Pond 7-Site1- B	2-9 oz Jar	None	-002	X	X	X	X	X	X							
12-3-14	1:30	Soil	Pond 7-Site1- C	2-9 oz Jar	None	-003	X	X	X	X	X	X							
12-3-14	1:45	Soil	Pond 7-Site1- D	2-9 oz Jar	None	-004	X	X	X	X	X	X							
12-12-14	11:00	Soil	Pond 7-Site2- A	2-9 oz Jar	None	-005	X	X	X	X	X	X							
12-12-14	11:15	Soil	Pond 7-Site2- B	2-9 oz Jar	None	-006	X	X	X	X	X	X							
12-12-14	12:35	Soil	Pond 7-Site2- C	2-9 oz Jar	None	-007	X	X	X	X	X	X							
12-12-14	1:00	Soil	Pond 7-Site2- D	2-9 oz Jar	None	-008	X	X	X	X	X	X							
							AT 2/15/14												
Date:	Time:	Relinquished by:		Received by:		Date	Time	Remarks:											
12-12-14	1:00	<i>[Signature]</i>		<i>[Signature]</i>		12/12/14	1609	SITE 2 SITE 1 <i>[Site Diagram]</i>											
Date:	Time:	Relinquished by:		Received by:		Date	Time												



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Survey of the Site 1 in Sections 29+32 and Site 2 in Section 32 T15N R15W N.M.P.M. McKinley County N.M U.S.A
 per BL analyze all samples / AT 12/15/14