TA-15

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NATIONAL LABORATORY
EST. 1943

Environmental Programs
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ENTERED

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 606-2132

Date: JANUARY 21, 2010
Refer To: EP2010-0011

James Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Notification of Completion and Submittal of the Well Completion Summary Fact Sheets for CdV-37-1i

Dear Mr. Bearzi:

Intermediate perched aquifer well CdV-37-1i was complete per the Compliance Order on Consent (IV.A.3.e.iv) on December 2, 2009. Completion of this well meets the date of December 15, 2009, set forth in the New Mexico Environment Department letter of August 24, 2009, entitled, "Approval with Direction of Drilling Work Plan for Intermediate Aquifer Well CdV-37-1i."

Additionally, enclosed, please find the Well Completion Summary Fact Sheets for Well CdV-37-1i along with electronic files.

If you have any questions, please contact John McCann at (505) 665-1091 (jmccann@lanl.gov) or Woody Woodworth at (505) 665-5820 (lwoodworth@doeal.gov).

Sincerely,

Michael J. Graham, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

32414

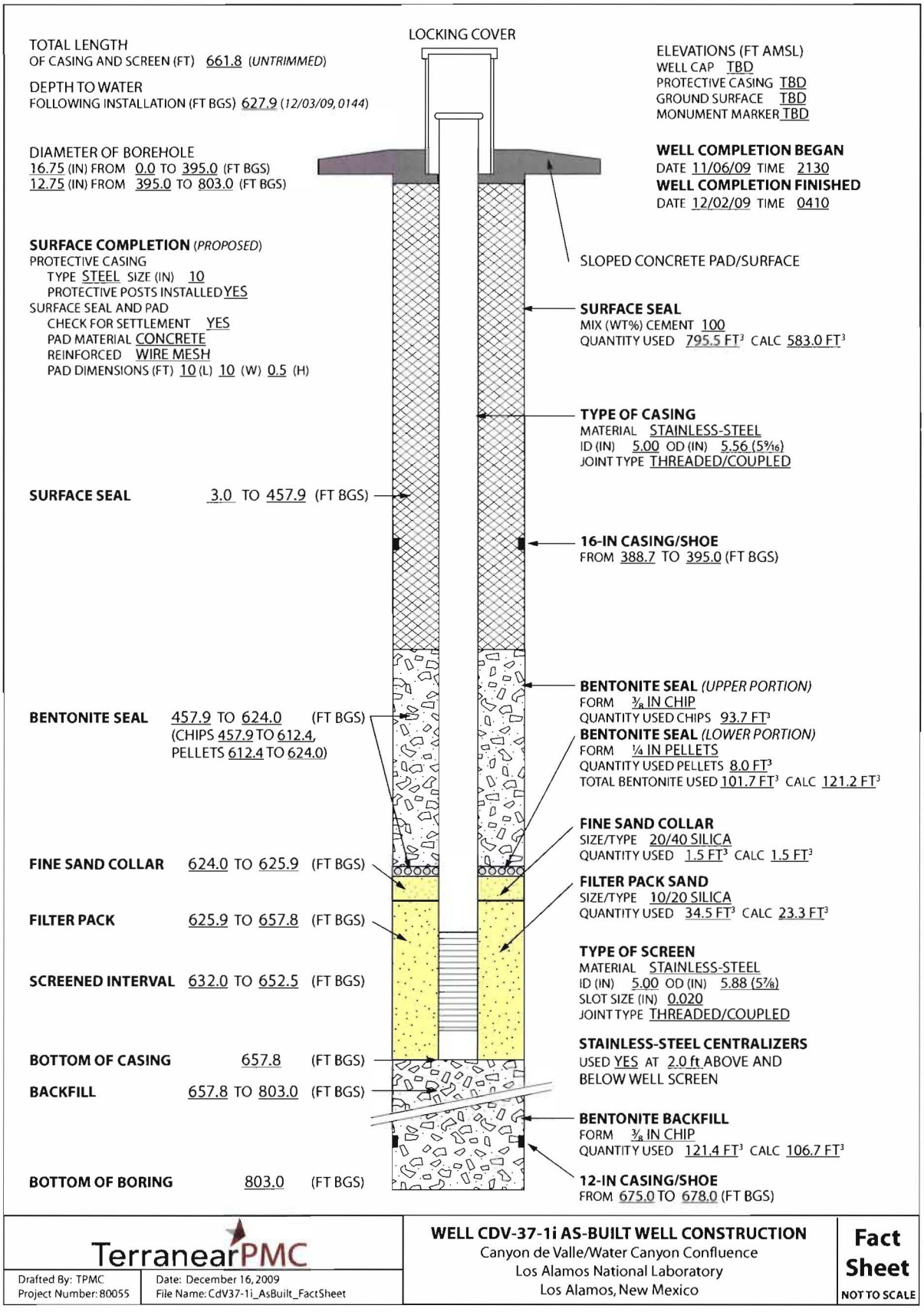
MG/DG/DM/ME:sm

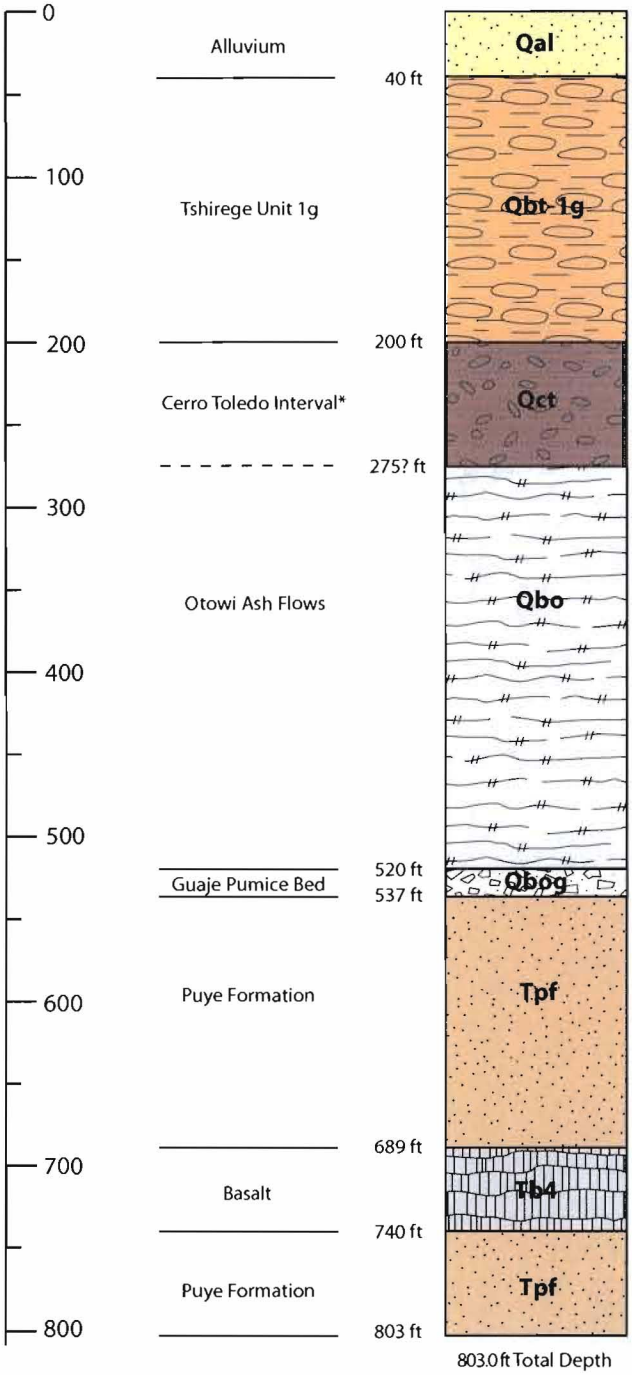
Enclosures: Two hard copies with electronic files – Well Summary Data Sheet CdV-37-1i Borehole Stratigraphy and CdV-37-1i As-Built Well Construction Diagram (LA-UR-10-0193)

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Woody Woodworth, DOE-LASO, MS A316
Hai Shen, DOE-LASO, MS A316
Mark Everett, EP-LWSP, MS M992
RPF, MS M707 (with two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
Steve White, TerranearPMC, Los Alamos, NM
Kristine Smeltz, EP-WES, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Annette Russell, DOE-LASO (date-stamped letter emailed)
Dave McInroy, EP-CAP, MS M992
Michael J. Graham, ADEP, MS M991
IRM-RMMSO, MS A150 (date-stamped letter emailed)


TOTAL LENGTH
OF CASING AND SCREEN (FT) 661.8 (UNTRIMMED)
DEPTH TO WATER
FOLLOWING INSTALLATION (FT BGS) 627.9 (12/03/09, 0144)
DIAMETER OF BOREHOLE
16.75 (IN) FROM 0.0 TO 395.0 (FT BGS)
12.75 (IN) FROM 395.0 TO 803.0 (FT BGS)
SURFACE COMPLETION (PROPOSED)
PROTECTIVE CASING
TYPE STEEL SIZE (IN) 10
PROTECTIVE POSTS INSTALLED YES
SURFACE SEAL AND PAD
CHECK FOR SETTLEMENT YES
PAD MATERIAL CONCRETE
REINFORCED WIRE MESH
PAD DIMENSIONS (FT) 10 (L) 10 (W) 0.5 (H)
SURFACE SEAL 3.0 TO 457.9 (FT BGS)
BENTONITE SEAL 457.9 TO 624.0 (FT BGS)
(CHIPS 457.9 TO 612.4,
PELLETS 612.4 TO 624.0)
FINE SAND COLLAR 624.0 TO 625.9 (FT BGS)
FILTER PACK 625.9 TO 657.8 (FT BGS)
SCREENED INTERVAL 632.0 TO 652.5 (FT BGS)
BOTTOM OF CASING 657.8 (FT BGS)
BACKFILL 657.8 TO 803.0 (FT BGS)
BOTTOM OF BORING 803.0 (FT BGS)
LOCKING COVER
ELEVATIONS (FT AMSL)
WELL CAP TBD
PROTECTIVE CASING TBD
GROUND SURFACE TBD
MONUMENT MARKER TBD
WELL COMPLETION BEGAN
DATE 11/06/09 TIME 2130
WELL COMPLETION FINISHED
DATE 12/02/09 TIME 0410
SLOPED CONCRETE PAD/SURFACE
SURFACE SEAL
MIX (WT%) CEMENT 100
QUANTITY USED 795.5 FT³ CALC 583.0 FT³
TYPE OF CASING
MATERIAL STAINLESS-STEEL
ID (IN) 5.00 OD (IN) 5.56 (5 5/16)
JOINT TYPE THREADED/COUPLED
16-IN CASING/SHOE
FROM 388.7 TO 395.0 (FT BGS)
BENTONITE SEAL (UPPER PORTION)
FORM 3/8 IN CHIP
QUANTITY USED CHIPS 93.7 FT³
BENTONITE SEAL (LOWER PORTION)
FORM 1/4 IN PELLETS
QUANTITY USED PELLETS 8.0 FT³
TOTAL BENTONITE USED 101.7 FT³ CALC 121.2 FT³
FINE SAND COLLAR
SIZE/TYPE 20/40 SILICA
QUANTITY USED 1.5 FT³ CALC 1.5 FT³
FILTER PACK SAND
SIZE/TYPE 10/20 SILICA
QUANTITY USED 34.5 FT³ CALC 23.3 FT³
TYPE OF SCREEN
MATERIAL STAINLESS-STEEL
ID (IN) 5.00 OD (IN) 5.88 (5 7/8)
SLOT SIZE (IN) 0.020
JOINT TYPE THREADED/COUPLED
STAINLESS-STEEL CENTRALIZERS
USED YES AT 2.0 ft ABOVE AND
BELOW WELL SCREEN
BENTONITE BACKFILL
FORM 3/8 IN CHIP
QUANTITY USED 121.4 FT³ CALC 106.7 FT³
12-IN CASING/SHOE
FROM 675.0 TO 678.0 (FT BGS)
TerranearPMC
Drafted By: TPMC
Project Number: 80055
Date: December 16, 2009
File Name: CdV37-1i_AsBuilt_FactSheet
WELL CDV-37-1i AS-BUILT WELL CONSTRUCTION
Canyon de Valle/Water Canyon Confluence
Los Alamos National Laboratory
Los Alamos, New Mexico
Fact Sheet
NOT TO SCALE



DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL:
Boart Longyear
G. Burton, M. Cross (Drillers)

DRILL RIG: Foremost DR-24HD

DRILLING METHOD:
☒ DUAL ROTARY

DRILLING FLUID TYPE:

0–490 ft bgs	490–803 ft bgs
☒ WATER	☒ WATER
☒ AIR	☒ AIR
☒ AQF-2 FOAMING AGENT	

DRILLING START/FINISH:
DATE: 10/09/2009 TIME: 0440
DATE: 10/27/2009 TIME: 0022

▼ 627.9 ft bgs 12/03/09 after well installation

* Basal contact of Qct is based on an abrupt increase in gamma ray (log) response and a zone of oxidation from 265-275 ft; however, this contact is uncertain and further work is underway to better characterize it.

TerranearPMC

Drafted By: TPMC
Project Number: 80055

Date: December 16, 2009
Filename: CdV37-1i_Lithology_FactSheet

CdV-37-1i BOREHOLE STRATIGRAPHY
Canyon de Valle/Water Canyon Confluence (TA-15)
Los Alamos National Laboratory
Los Alamos, New Mexico

FACT SHEET
NOT TO SCALE