



Environmental Programs
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National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
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Date: April 18, 2009
Refer To: EP2009-0207

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

Subject: Submittal of the Well Completion Summary Fact Sheets for R-41

Dear Mr. Bearzi:

In accordance with the March 1, 2005, Compliance Order on Consent Schedule of Deliverables (Table XII-4), the U.S. Department of Energy and Los Alamos National Laboratory are submitting the attached Well Completion Summary Fact Sheets for Regional Well R-41 along with electronic files.

If you have any questions, please contact Mark Everett at (505) 667-5931 (meverett@lanl.gov) or Ed Worth at (505) 606-0398 (eworth@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

MG/DG/PH/ME:sm

Enclosures: Two hard copies with electronic files – Well Summary Data Sheet R-41 Borehole Stratigraphy and R-41 As-Built Well Construction Diagram (LA-UR-09-2346)

Cy: (w/enc.)

Neil Weber, San Ildefonso Pueblo
Ed Worth, 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

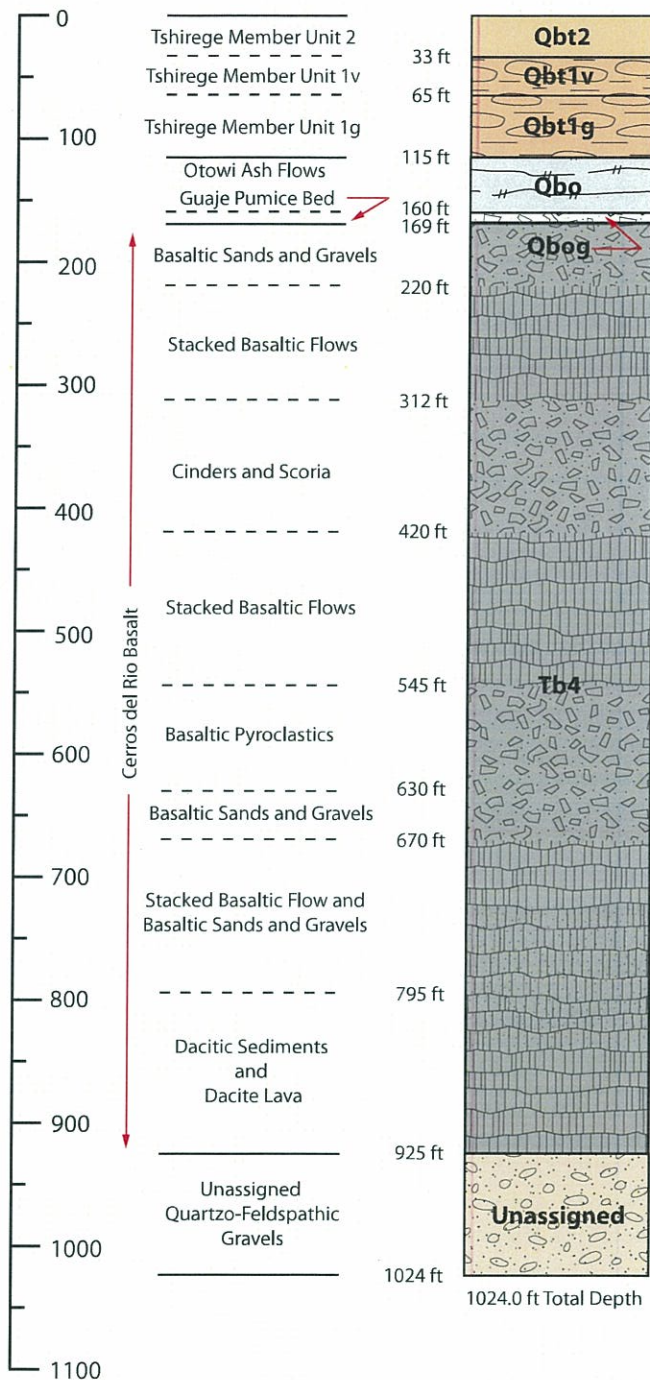
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Steve Yanicak, NMED-OB, White Rock, NM
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Paul Huber, EP-LWSP, MS M992
IRM-RMMSO, MS A150 (date-stamped letter emailed)

DEPTH (FT BGS)



DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL:

Boart Longyear
J. Staloch, E. Johnson

DRILL RIG: Foremost DR-24HD

DRILLING METHOD:

☒ DUAL ROTARY

DRILLING FLUID TYPE:

0-775 ft bgs 775-1024 ft bgs

☒ WATER

☒ WATER

☒ AIR

☒ AIR

☒ AQF-2 FOAMING AGENT

DRILLING START/FINISH:

DATE: 02/10/2009 TIME: 0130

DATE: 02/21/2009 TIME: 1830

▼ 960.4 ft bgs (03/22/09)
(post well installation)

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Drafted By: TPMC
Project Number: 88100

Date: March 10, 2009
Filename: R41_Lithology_FactSheet

WELL SUMMARY DATA SHEET
R-41 Borehole Stratigraphy
Mesita del Buey (TA-54)
Los Alamos National Laboratory
Los Alamos, New Mexico

FACT
SHEET
NOT TO SCALE

TOTAL LENGTH
OF CASING AND SCREEN (FT) 1000.0

DEPTH TO WATER
FOLLOWING INSTALLATION (FT BGS) 960.4

DIAMETER OF BOREHOLE
16.75 (IN) FROM 0.0 TO 169.0 (FT BGS)
15.00 (IN) FROM 169.0 TO 649.0 (FT BGS)
12.75 (IN) FROM 649.0 TO 857.0 (FT BGS)
10.75 (IN) FROM 857.0 TO 1024.0 (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 300.6 (FT BGS)

HYDRATED BENTONITE CHIP SEAL 300.6 TO 918.4 (FT BGS)

FINE SAND COLLAR 918.4 TO 922.5 (FT BGS)

FILTER PACK 922.5 TO 941.5 (FT BGS)

SCREENED INTERVAL 928.0 TO 937.7 (FT BGS)

FINE SAND COLLAR 941.5 TO 943.9 (FT BGS)

BENTONITE SEAL 943.9 TO 957.4 (FT BGS)

FINE SAND COLLAR 957.4 TO 960.1 (FT BGS)

FILTER PACK 960.1 TO 980.2 (FT BGS)

SCREENED INTERVAL 965.3 TO 975.0 (FT BGS)

FINE SAND COLLAR 980.2 TO 982.2 (FT BGS)

BOTTOM OF CASING 997.1 (FT BGS)

BENTONITE SEAL 982.2 TO 1002.4 (FT BGS)

SLOUGH 1002.4 TO 1024.0 (FT BGS)

BOTTOM OF BORING 1024.0 (FT BGS)

LOCKING COVER

ELEVATIONS (FT AMSL)
WELL CAP TBD
PROTECTIVE CASING TBD
GROUND SURFACE TBD
MONUMENT MARKER TBD

SLOPED CONCRETE PAD/SURFACE

16 IN CASING/SHOE
154.0 TO 169.0 FT BGS

SURFACE SEAL
MIX (WT%) CEMENT 97-98 BENTONITE 2-3
QUANTITY USED 454.2 FT³ CALCULATED 367.6 FT³

TYPE OF CASING
MATERIAL STAINLESS-STEEL
ID (IN) 5.00 OD (IN) 5.56 (5%)
JOINT TYPE FLUSH WELDED

HYDRATED BENTONITE SEAL
FORM 3/8 IN CHIP
QUANTITY USED 659.9 FT³ CALCULATED 552.2 FT³

12 IN CASING/SHOE
850.0 TO 857.0 FT BGS

FINE SAND COLLAR
SIZE/TYPE 20/40 SILICA
QUANTITY USED 2.5 FT³ CALCULATED 2.0 FT³

FILTER PACK SAND
SIZE/TYPE 10/20 SILICA
QUANTITY USED 47.0 FT³ CALCULATED 8.9 FT³

FINE SAND COLLAR
SIZE/TYPE 20/40 SILICA
QUANTITY USED 0.8 FT³ CALCULATED 1.1 FT³

TYPE OF SCREEN(S)
MATERIAL STAINLESS-STEEL
ID (IN) 5.00 OD (IN) 5.88 (5%)
SLOT SIZE (IN) 0.020 JOINT TYPE WELDED

BENTONITE SEAL
FORM 3/8 IN CHIP
QUANTITY USED 3.6 FT³ CALCULATED 5.4 FT³

FINE SAND COLLAR
SIZE/TYPE 20/40 SILICA
QUANTITY USED 2.8 FT³ CALCULATED 2.3 FT³

FILTER PACK SAND
SIZE/TYPE 10/20 SILICA
QUANTITY USED 52.8 FT³ CALCULATED 9.4 FT³

FINE SAND COLLAR
SIZE/TYPE 20/40 SILICA
QUANTITY USED 1.0 FT³ CALCULATED 1.0 FT³

BENTONITE SEAL
FORM 1/4 IN PELLET
QUANTITY USED 10.2 FT³ CALCULATED 10.4 FT³

STAINLESS-STEEL CENTRALIZERS
USED YES AT 2.0 FT ABOVE AND
BELOW WELL SCREENS

WELL COMPLETION BEGAN
DATE 03/08/09 TIME 0945
WELL COMPLETION FINISHED
DATE 03/19/09 TIME 1800

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Drafted By: TPMC
Project Number: 88100

Date: April 06, 2009
File Name: R-41_WellConstruction_FactSheet

R-41 As-Built Well Construction Diagram
Mesita del Buey (TA-54)
Los Alamos National Laboratory
Los Alamos, New Mexico

FACT SHEET
NOT TO SCALE