DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

JAN 0 3 2005

CERTIFIED MAIL/RETURN RECEIPT

RECEIVED
JAN 2005
NMED Hazardous
Waste Bureau

Mr. John Young
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East,
Building 1
Santa Fe, NM 87505-6303

Dear Mr. Young:

Subject: Fact Sheet for Well R-6

Enclosed is the fact sheet for Well R-6, which was recently completed by the Department of Energy. If you have any questions regarding this matter, I can be reached at (505) 665-5046.

Sincerely,

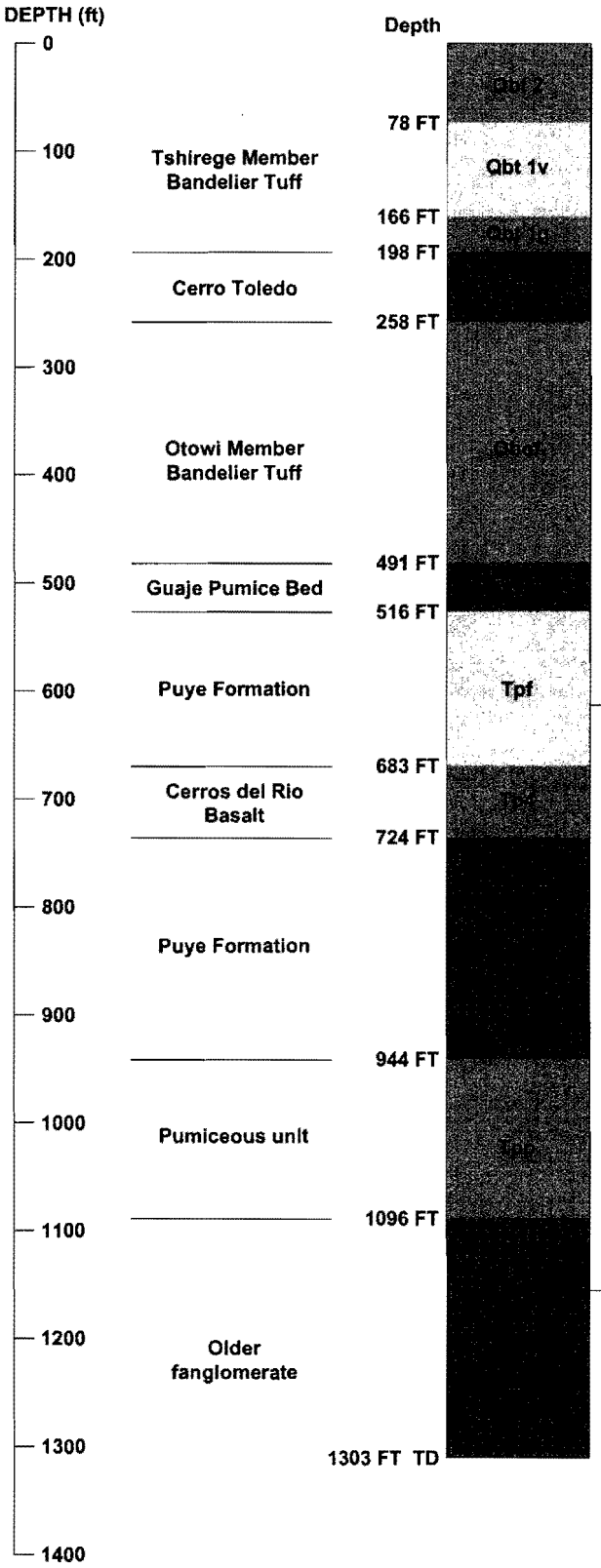
Mat Johansen
Project Manager
Program Compliance Manager

ES:5BE-003

Enclosure: R-6 Fact Sheets

cc w/enclosures:
John Kieling
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East,
Building 1
Santa Fe, NM 87505-6303
Neil Weber
Pueblo of San Ildefonso
Environmental Department
Route 5, Box 315-A
Santa Fe, NM 87506
B. Enz, OPM, LASO
M. Johansen, OPM, LASO
T. Whitacre, OPM, LASO
T. Taylor, OOM, LASO

S. Yanicak, NMED-DOE OB, MS-J993
K. Hargis, RRES-DO, LANL, MS-J591
J. McCann, RRES-WQH, LANL, MS-M992
C. Nylander, RRES, LANL, MS-J591
N. Quintana, RRES-R, LANL, MS-M992
S. Rae, LANL, RRES-WQH, LANL, MS-K497
B. Ramsey, LANL, RRES-DO, LANL, MS-J591
M. Reed, RRES-DO, LANL, MS-J556
B. Robinson, EES-6, LANL, MS-T003
D. Stavert, RRES-D, LANL, MS-J591



603 FT (10/22/04)

1158 FT (12/13/04)

DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL
WDC Exploration & Wells
Steve Odom, S. Ward, H. Endito, M. Daniels

DRILL RIG Speedstar 50K, 90K

DRILLING METHOD
☐ HOLLOW-STEM AUGER
☒ AIR ROTARY
☒ MUD/WATER ROTARY
☒ Water, QUIK-FOAM®, and EZ-MUD®

DRILLING
START 10/15/04 09:32 END 11/11/04 16:30

DRILLING FLUID TYPE
☒ BENTONITE ☒ WATER
☒ POLYMER ☒ Air

▽ = Perched water entering borehole from video log

▼ = Static regional water level after well installation

Notes:
1. Geologic contacts are preliminary and subject to change.

KLEINFELDER

Drawn By: C. Landon
Project No.: 37151

Date: December 2004
Filename: Figure 1.dwg

BOREHOLE SUMMARY DATA SHEET
Characterization Well R-6
DP Canyon
Los Alamos National Laboratory
Los Alamos, New Mexico

FIGURE
1

G:\Environ\37151 - DOE Deep Wells\R-6\Fact Sheets\Figure 1.dwg

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TOTAL LENGTH OF CASING AND SCREEN 1257.58 FT

MONUMENT MARKER - Pending Survey

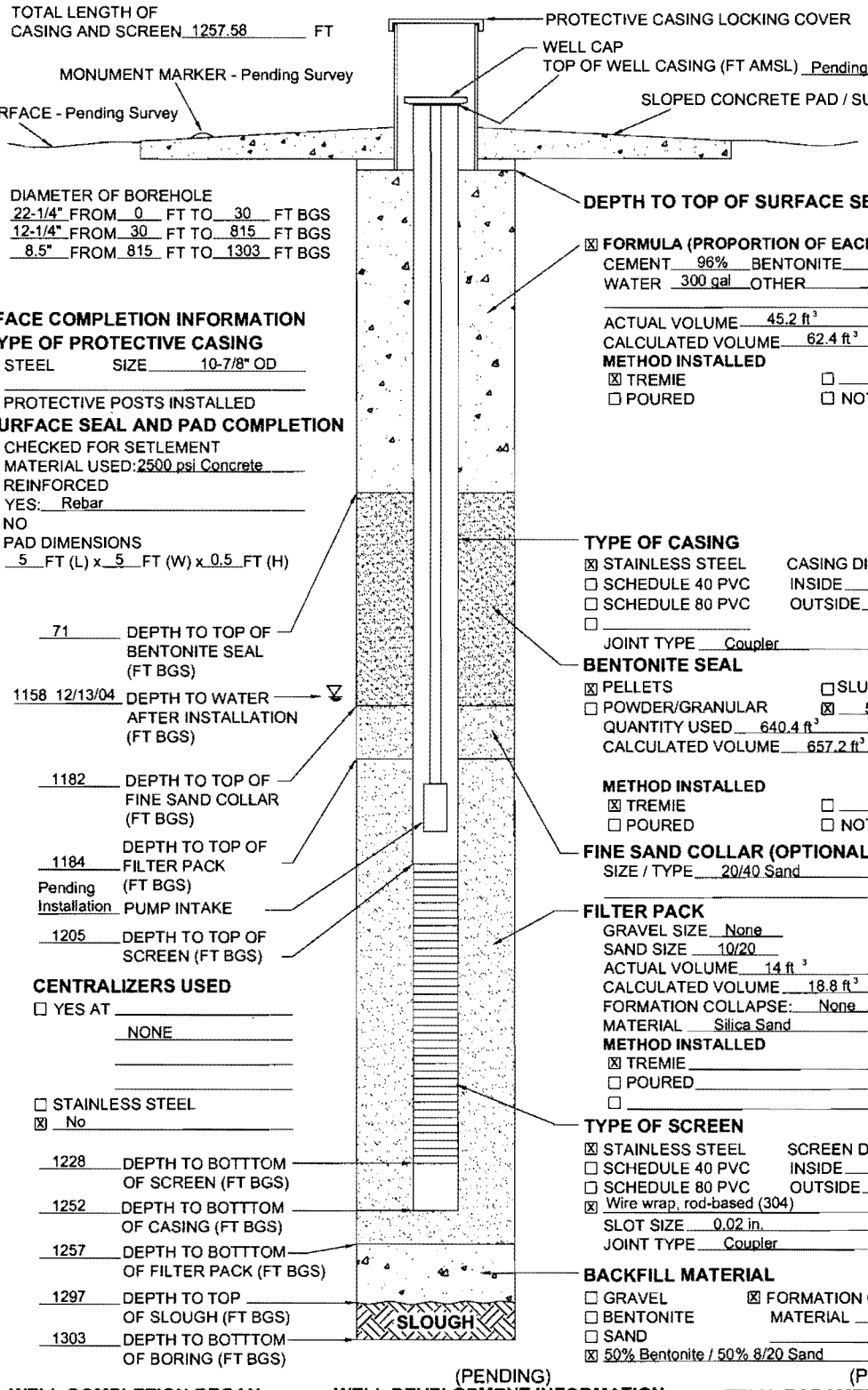
GROUND SURFACE - Pending Survey

PROTECTIVE CASING LOCKING COVER

WELL CAP

TOP OF WELL CASING (FT AMSL) Pending Survey

SLOPED CONCRETE PAD / SURFACE SEAL



DIAMETER OF BOREHOLE
22-1/4" FROM 0 FT TO 30 FT BGS
12-1/4" FROM 30 FT TO 815 FT BGS
8.5" FROM 815 FT TO 1303 FT BGS

SURFACE COMPLETION INFORMATION

TYPE OF PROTECTIVE CASING

☒ STEEL SIZE 10-7/8" OD

☐

☒ PROTECTIVE POSTS INSTALLED

SURFACE SEAL AND PAD COMPLETION

☒ CHECKED FOR SETLEMENT

MATERIAL USED: 2500 psi Concrete

REINFORCED

☒ YES: Rebar

☐ NO

PAD DIMENSIONS

5 FT (L) x 5 FT (W) x 0.5 FT (H)

71 DEPTH TO TOP OF BENTONITE SEAL (FT BGS)

1158 12/13/04 DEPTH TO WATER AFTER INSTALLATION (FT BGS)

1182 DEPTH TO TOP OF FINE SAND COLLAR (FT BGS)

1184 DEPTH TO TOP OF FILTER PACK (FT BGS)

Pending Installation PUMP INTAKE

1205 DEPTH TO TOP OF SCREEN (FT BGS)

CENTRALIZERS USED

☐ YES AT

NONE

☐ STAINLESS STEEL

☒ No

1228 DEPTH TO BOTTTOM OF SCREEN (FT BGS)

1252 DEPTH TO BOTTTOM OF CASING (FT BGS)

1257 DEPTH TO BOTTTOM OF FILTER PACK (FT BGS)

1297 DEPTH TO TOP OF SLOUGH (FT BGS)

1303 DEPTH TO BOTTTOM OF BORING (FT BGS)

DEPTH TO TOP OF SURFACE SEAL (FT BGS) 3

☒ **FORMULA (PROPORTION OF EACH)**

CEMENT 96% BENTONITE 4%

WATER 300 gal OTHER

ACTUAL VOLUME 45.2 ft^3

CALCULATED VOLUME 62.4 ft^3

METHOD INSTALLED

☒ TREMIE ☐

☐ POURED ☐ NOT USED

TYPE OF CASING

☒ STAINLESS STEEL CASING DIAMETER

☐ SCHEDULE 40 PVC INSIDE 4.5 in.

☐ SCHEDULE 80 PVC OUTSIDE 5.0 in.

☐

JOINT TYPE Coupler

BENTONITE SEAL

☒ PELLETS ☐ SLURRY

☐ POWDER/GRANULAR ☒ 50% 10/20 Sand

QUANTITY USED 640.4 ft^3

CALCULATED VOLUME 657.2 ft^3

METHOD INSTALLED

☒ TREMIE ☐

☐ POURED ☐ NOT USED

FINE SAND COLLAR (OPTIONAL)

SIZE / TYPE 20/40 Sand

FILTER PACK

GRAVEL SIZE None

SAND SIZE 10/20

ACTUAL VOLUME 14 ft^3

CALCULATED VOLUME 18.8 ft^3

FORMATION COLLAPSE: None TO FT BGS

MATERIAL Silica Sand

METHOD INSTALLED

☒ TREMIE

☐ POURED

☐

TYPE OF SCREEN

☒ STAINLESS STEEL SCREEN DIAMETER

☐ SCHEDULE 40 PVC INSIDE 4.46 in.

☐ SCHEDULE 80 PVC OUTSIDE 5.27 in.

☒ Wire wrap, rod-based (304)

SLOT SIZE 0.02 in.

JOINT TYPE Coupler

BACKFILL MATERIAL

☐ GRAVEL ☒ FORMATION COLLAPSE (1297 - 1303 ft bgs)

☐ BENTONITE MATERIAL

☐ SAND

☒ 50% Bentonite / 50% 8/20 Sand

WELL COMPLETION BEGAN

DATE 11/15/04 TIME 11:30

WELL COMPLETION FINISHED

DATE 12/04/04 TIME 10:30

(PENDING)

WELL DEVELOPMENT INFORMATION

DEVELOPMENT METHOD

☐ SWABBING ☐ BAILING

☐ PUMPING

TOTAL PURGE VOLUME GALLONS

(PENDING)

FINAL PARAMETER MEASUREMENTS

pH

TEMPERATURE °C

SPECIFIC CONDUCTANCE µS

TURBIDITY NTU

KLEINFELDER

Scale: Not-To-Scale

Drawn By: C. Landon

Project No.: 37151

Date: December 2004

Filename: Figure 2.dwg

WELL SCHEMATIC

Characterization Well R-6

DP Canyon

Los Alamos National Laboratory

Los Alamos, New Mexico

FIGURE

2

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