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

SEP 1 3 2005

Certified Mail/Return Receipt

Mr. James P. Bearzi, Chief
NMED-Hazardous Waste Bureau
2905 Rodeo Park Drive East,
Building 1
Santa Fe, NM 87505-6303

RECEIVED
SEP 2005

Dear Mr. Bearzi:

Subject: Final Fact Sheet for Regional Well R-10A

Enclosed are two copies of the Fact Sheet for Regional Well R-10A, which was recently completed by Kleinfelder and Associates for the Department of Energy. If you have any questions regarding this report, please contact me at (505)606-0397, or Tom Whitacre at (505)665-5042.

Sincerely,

for

John C. Ordaz, P.E.
Assistant Manager
Office of Environmental Stewardship

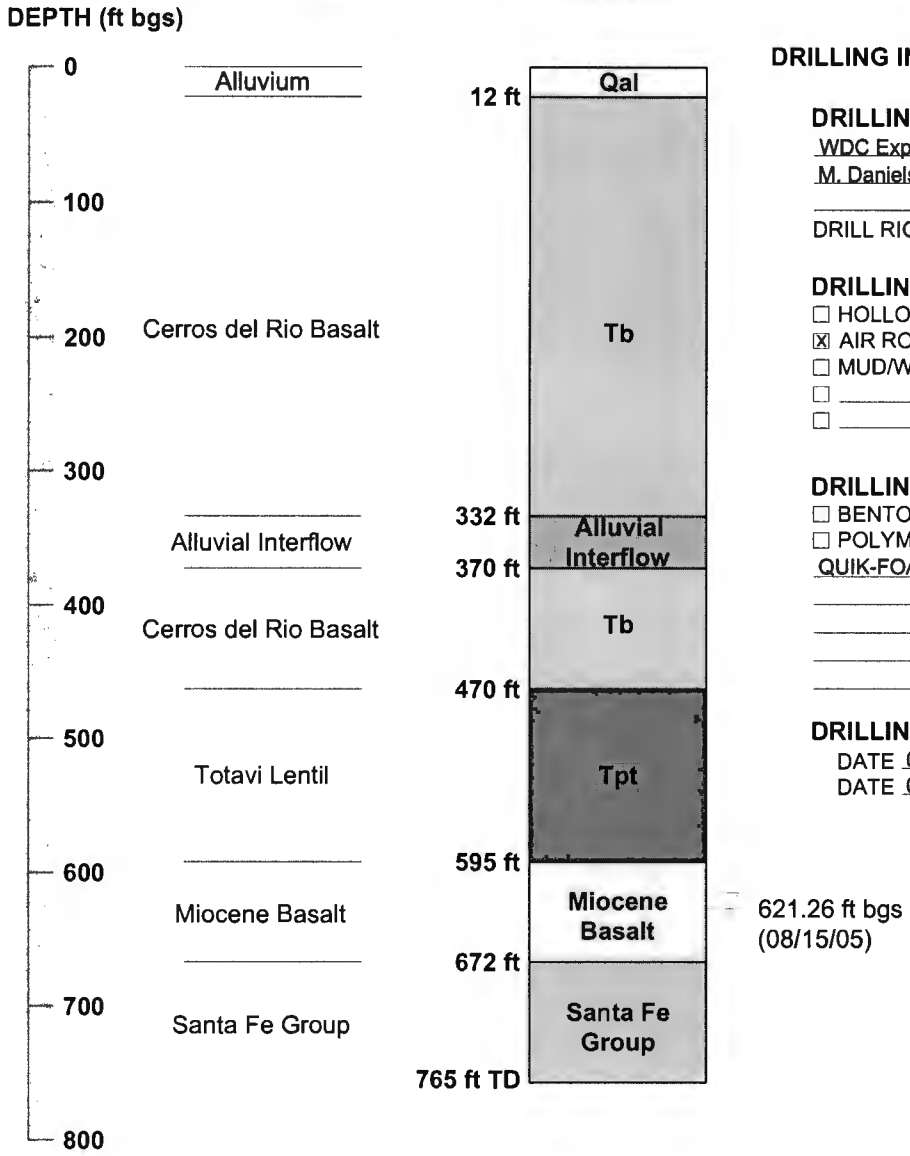
ES: 2TW-008

Enclosures

cc w/enclosures:
John Young
NMED-Hazardous Waste Bureau
2905 Rodeo Park Drive East,
Building 1
Santa Fe, NM 87505-6303

Tom Whitacre, ES, LASO
Mat Johansen, ES. LASO
David Gregory, ES, LASO
Jean Dewart, ENV-GP, LANL, MS-M992
David McInroy, ENV-RS, LANL, MS-M992
File

4158



DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL

WDC Exploration & Wells
M. Daniels, J. Ward, A. Strain

DRILL RIG Speedstar 50k

DRILLING METHOD

- ☐ HOLLOW-STEM AUGER
- ☒ AIR ROTARY
- ☐ MUD/WATER ROTARY
- ☐
- ☐

DRILLING FLUID TYPE

- ☐ BENTONITE
- ☒ WATER
- ☐ POLYMER
- ☒ AIR

QUIK-FOAM®, EZ-MUD®

DRILLING START / FINISH

DATE 07/12/05 TIME 17:35
DATE 07/29/05 TIME 16:00

Note:
Geologic contacts are preliminary and subject to change.

KLEINFELDER		WELL SUMMARY DATA SHEET **Characterization Well R-10a** Sandia Canyon / San Ildefonso Pueblo Los Alamos, New Mexico	FIGURE **1**
Drawn By: C. Landon	Date: September 2005		
Project No.: 49436	Filename: 49436_01_0.dwg		
Scale: not-to-scale	Revision: –		

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TOTAL LENGTH OF CASING AND SCREEN 709.93 FT

DEPTH TO WATER FOLLOWING INSTALLATION 624.83 (08/15/05) BTOC 621.26 (08/15/05) FT BGS

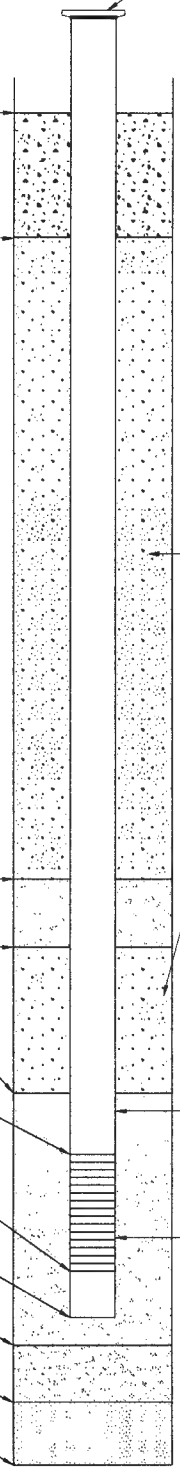
MONUMENT MARKER

PROTECTIVE CASING LOCKING COVER

WELL CAP
ELEVATION OF PROTECTIVE CASING (FT AMSL)
ELEVATION OF TOP WELL CASING (FT AMSL)
GROUND SURFACE ELEVATION (FT AMSL)
MONUMENT MARKER ELEVATION (FT AMSL)

PENDING

GROUND SURFACE



1.1 DEPTH TO TOP OF GROUT SEAL (FT BGS)

63.0 DEPTH TO TOP OF BENTONITE SEAL (FT BGS)

515.0 DEPTH TO TOP OF FORMATION COLLAPSE (FT BGS)

599.0 DEPTH TO TOP OF BENTONITE SEAL (FT BGS)

682.0 DEPTH TO TOP OF FILTER PACK (FT BGS)

690.03 DEPTH TO TOP OF SCREEN (FT BGS)

699.98 DEPTH TO BOTTOM OF SCREEN (FT BGS)

706.36 DEPTH TO BOTTOM OF CASING (FT BGS)

711.0 DEPTH TO TOP OF BACKFILL MATERIAL (FT BGS)

721.0 DEPTH TO TOP OF FORMATION COLLAPSE (FT BGS)

765.0 DEPTH TO BOTTOM OF BORING (FT BGS)

DIAMETER OF BOREHOLE

24"	FROM 0	FT TO	11.3	FT BGS
14-3/4"	FROM 11.3	FT TO	13.8	FT BGS
12-1/4"	FROM 13.8	FT TO	39.3	FT BGS
14-3/4"	FROM 39.3	FT TO	40.0	FT BGS
12-1/4"	FROM 40.0	FT TO	590.0	FT BGS
8-1/2"	FROM 590.0	FT TO	765.0	FT BGS

SURFACE COMPLETION INFORMATION
TYPE OF PROTECTIVE CASING
STEEL SIZE

PROTECTIVE POSTS INSTALLED
SURFACE SEAL AND PAD COMPLETION
CHECKED FOR SETTLEMENT
MATERIAL USED
REINFORCED
YES
NO
PAD DIMENSIONS
FT (L) x FT (W) x FT (H)

PENDING

CENTRALIZERS USED
☐ YES AT:
☐ STAINLESS STEEL
☒ NO: not enough diameter in casing

GROUT FORMULA (1.1 - 40 FT BGS)
☒ CEMENT 12.6% ☒ BENTONITE 0.4%
☒ WATER 8.6% ☐ OTHER
☒ AGGREGATE 78.3%
ACTUAL VOLUME: 81.0 FT^3
CALCULATED VOLUME: 33.3 FT^3
METHOD INSTALLED
☐ TREMIE
☒ POURED
☐ NOT USED

GROUT FORMULA (40 - 63 FT BGS)
☒ CEMENT 33.8% ☒ BENTONITE 1.5%
☒ WATER 64.8% ☐ OTHER
ACTUAL VOLUME: 107.0 FT^3
CALCULATED VOLUME: 15.6 FT^3
METHOD INSTALLED
☐ TREMIE
☒ POURED
☐ NOT USED
☒ Two grout pours made due to presence of large void

BENTONITE SEAL (63 - 515 FT BGS)
☒ PELLETS ☐ SLURRY
☐ POWDER/GRANULAR ☒ 10-20 Silica Sand
ACTUAL VOLUME: 331.75 FT^3
CALCULATED VOLUME: 307.2 FT^3
METHOD INSTALLED
☒ TREMIE
☐ POURED
☐ NOT USED
☒ 75% 3/8" Bentonite chips/25%10-20 Silica Sand

BENTONITE SEAL (599 - 682 FT BGS)
☒ PELLETS ☐ SLURRY
☐ POWDER/GRANULAR
ACTUAL VOLUME: 162.1 FT^3
CALCULATED VOLUME: 20.8 FT^3
METHOD INSTALLED
☒ TREMIE
☐ POURED
☐ NOT USED
☒ 50% 3/8" Bentonite chips/50% 10-20 Silica Sand
Discrepancy in actual versus calculated volumes due to large void below Basalt

FILTER PACK
SAND SIZE: 10-20 Silica Sand
ACTUAL VOLUME: 10.0 FT^3
CALCULATED VOLUME: 8.06 FT^3
METHOD INSTALLED
☒ TREMIE ☐ POURED

TYPE OF CASING
☒ STAINLESS STEEL CASING DIAMETER
☐ SCHEDULE 40 PVC INSIDE: 4.5
☐ SCHEDULE 80 PVC OUTSIDE: 5.0
JOINT TYPE: API/LT

TYPE OF SCREEN
☒ STAINLESS STEEL CASING DIAMETER
☐ SCHEDULE 40 PVC INSIDE: 4.5
☐ SCHEDULE 80 PVC OUTSIDE: 5.2
JOINT TYPE: API/LT
SLOT TYPE: 0.02", wire-wrap, rod-based

BACKFILL MATERIAL
☐ GRAVEL:
☐ BENTONITE:
☐ SAND:
☐ MATERIAL: Formation Collapse (765 - 721 FT BGS)
☒ 63.5% 10-20 Silica Sand/ 36.5% Bentonite (721 - 711 FT BGS)

Notes:
1. A fine sand (20/40) collar was not placed due to the thickness of the formation fluids.
2. BTOC - below top of casing

WELL DEVELOPMENT INFORMATION

WELL COMPLETION BEGAN
DATE 08/04/05 TIME 08:35
WELL COMPLETION FINISHED
DATE 08/19/05 TIME 11:42

WELL DEVELOPMENT BEGAN
DATE 08/15/05 TIME 16:25
WELL DEVELOPMENT FINISHED
DATE 09/07/05 TIME 16:12

DEVELOPMENT METHOD
x SWABBING x BAILING
x PUMPING
TOTAL PURGE VOLUME 37.823 GALLONS

PARAMETER MEASUREMENTS (ONGOING)
pH 7.87
TEMPERATURE 24.0 °C
SPECIFIC CONDUCTANCE 259 µS
TURBIDITY 1.59 NTU

KLEINFELDER

Drawn By: C. Landon	Date: August 2005
Project No.: 49436	Filename: 49436_02_0.dwg
Scale: not-to-scale	Revision: –

WELL SUMMARY DATA SHEET
Characterization Well R-10a
Sandia Canyon / San Ildefonso Pueblo
Los Alamos, New Mexico

FIGURE **2**

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