TA 16

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

SEP - 1 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 Intermediate Well CdV-16-2(i)r.

Enclosed are two copies of the Fact Sheet for Intermediate Well CdV-16-2(i)r, 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,

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

ES: 2TW-007

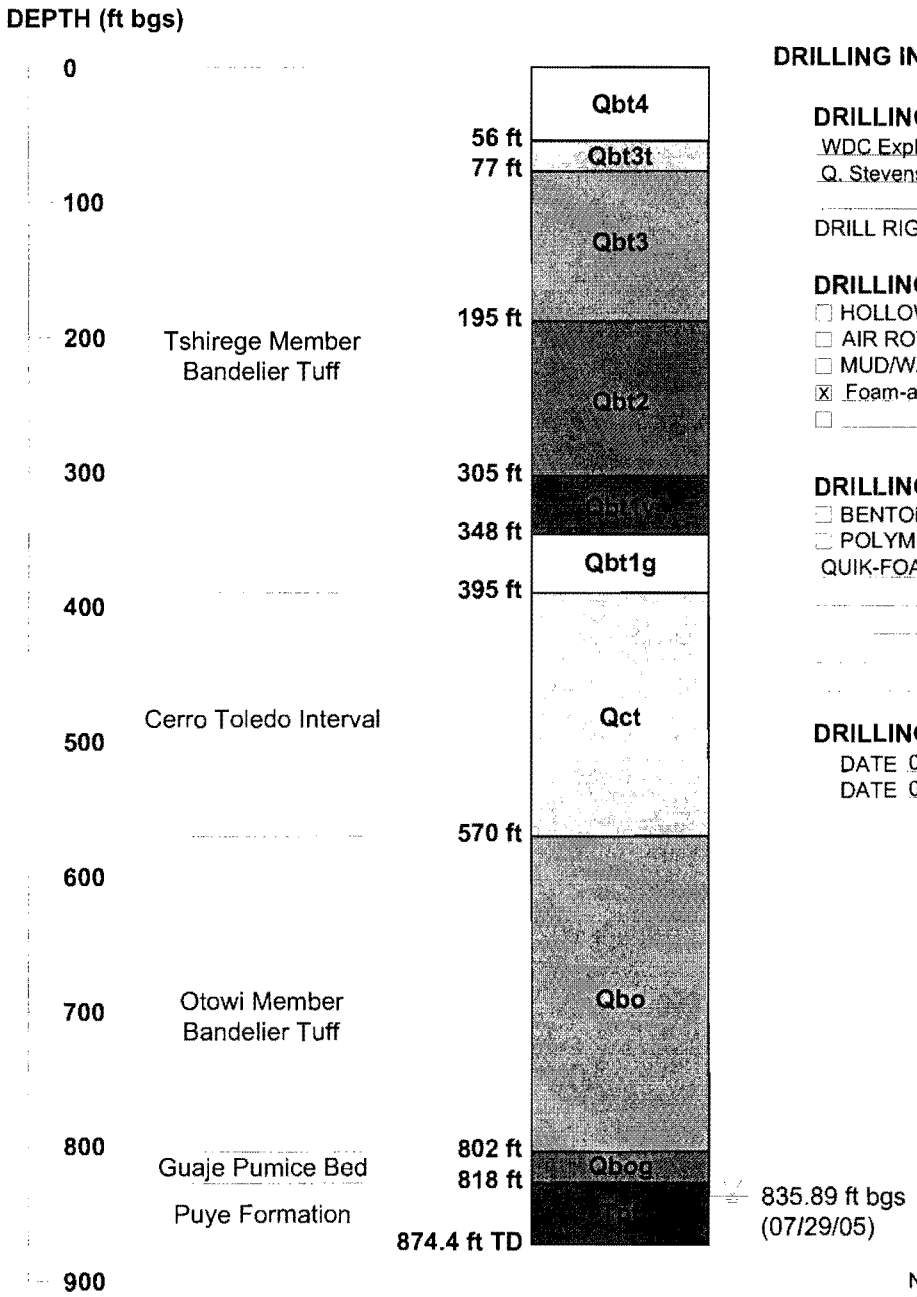
Enclosures

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



6565




## DRILLING INFORMATION

### DRILLING COMPANY/PERSONNEL

WDC Exploration & Wells
Q. Stevens, J. Aguilar, D. Mathews

DRILL RIG Speedstar 50k

### DRILLING METHOD

- ☐ HOLLOW-STEM AUGER
- ☐ AIR ROTARY
- ☐ MUD/WATER ROTARY
- ☒ Foam-assisted air rotary
- ☐

### DRILLING FLUID TYPE

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

QUIK-FOAM®, EZ-MUD®

### DRILLING START / FINISH

DATE 07/12/05 TIME 14:25
DATE 07/24/05 TIME 14:22

Note:
Geologic contacts are preliminary and subject to change.

| KLEINFELDER | | WELL SUMMARY DATA SHEET<br>**Characterization Well CdV-16-2(i)r**<br>Cañon de Valle<br>Los Alamos, New Mexico | FIGURE<br>**1** |
|---|---|---|---|
| Drawn By: C. Landon | Date: August 2005 | | |
| Project No.: 49436 | Filename: 49436_01_0.dwg | | |
| Scale: not-to-scale | Revision: -- | | |

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TOTAL LENGTH OF CASING AND SCREEN 865.8 FT

DEPTH TO WATER FOLLOWING INSTALLATION 835.89 FT (07/29/05)

MONUMENT MARKER

PROTECTIVE CASING LOCKING COVER

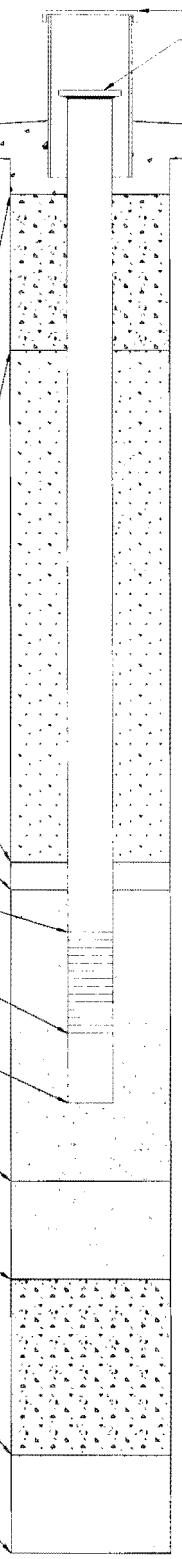
WELL CAP

PENDING

GROUND SURFACE

**DIAMETER OF BOREHOLE**
12-1/4 FROM 0 FT TO 874.4 FT BGS
FROM FT TO FT BGS
FROM FT TO FT BGS

PENDING



12.0 DEPTH TO TOP OF BACKFILL MATERIAL (FT BGS)

75.0 DEPTH TO TOP OF BENTONITE SEAL (FT BGS)

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

841.0 DEPTH TO TOP OF PRIMARY FILTER PACK (FT BGS)

850.0 DEPTH TO TOP OF SCREEN (FT BGS)

859.7 DEPTH TO BOTTOM OF SCREEN (FT BGS)

863.2 DEPTH TO BOTTOM OF CASING (FT BGS)

865.5 DEPTH TO TOP OF TRANSITION FILTER PACK (FT BGS)

867.5 DEPTH TO TOP OF BACKFILL (FT BGS)

872.6 DEPTH TO TOP OF FORMATION COLLAPSE (FT BGS)

874.4 DEPTH TO BOTTOM OF BORING (FT BGS)

**GROUT FORMULA (PROPORTION OF EACH)**
☐ CEMENT 35% ☐ BENTONITE 2%
☐ WATER 63% ☐ OTHER
ACTUAL VOLUME: 59.0 $FT^3$
CALCULATED VOLUME: 48.3 $FT^3$
**METHOD INSTALLED**
☒ TREMIE (75.0 - 28.0 FT BGS)
☒ POURED (28.0 - 12.0 FT BGS)
☐ NOT USED

**BENTONITE SEAL**
☐ PELLETS ☐ SLURRY
☐ POWDER/GRANULAR ☒ Chips
☐ QUANTITY USED: 646.7 $FT^3$
CALCULATED VOLUME: 519.5 $FT^3$
**METHOD INSTALLED**
☒ TREMIE (839.0-714.0 FT BGS)
☒ POURED (714.0-75.0 FT BGS)
☐ NOT USED

**FINE SAND COLLAR**
SIZE / TYPE: 20-40 Silica Sand

**FILTER PACK**
SAND SIZE
TRANSITION FILTER PACK: 20-40 Silica Sand
PRIMARY FILTER PACK: 10-20 Silica Sand
ACTUAL VOLUME
TRANSITION FILTER PACK: 1.6 $FT^3$
PRIMARY FILTER PACK: 32.0 $FT^3$
CALCULATED VOLUME
TRANSITION FILTER PACK: 1.6 $FT^3$
PRIMARY FILTER PACK: 16.3 $FT^3$
**METHOD INSTALLED**
☒ TREMIE ☐ POURED

**BACKFILL MATERIAL**
☐ GRAVEL
☐ BENTONITE
☐ SAND
☐ MATERIAL:
☒ 75% 10-20 Silica Sand/ 25% Bentonite

**FORMATION COLLAPSE**
☒ Slough

**CENTRALIZERS USED**
☒ YES AT: 859.8
848.9
737.0
☒ STAINLESS STEEL

**TYPE OF CASING**
☒ STAINLESS STEEL CASING DIAMETER
☐ SCHEDULE 40 PVC INSIDE: 4.7
☐ SCHEDULE 80 PVC OUTSIDE: 5.2
JOINT TYPE: API/LT

**TYPE OF SCREEN**
☒ STAINLESS STEEL CASING DIAMETER
☐ SCHEDULE 40 PVC INSIDE: 4.7
☐ SCHEDULE 80 PVC OUTSIDE: 5.2
JOINT TYPE: API/LT
SLOT TYPE: 0.02", wire-wrap, rod-based

**WELL DEVELOPMENT INFORMATION**

**WELL COMPLETION BEGAN**
DATE 7/25/05 TIME 11:42
**WELL COMPLETION FINISHED**
DATE 7/30/05 TIME 18:00

**WELL DEVELOPMENT BEGAN**
DATE 08/02/05 TIME 11:42
**WELL DEVELOPMENT FINISHED**
DATE 08/22/05 TIME 17:25

**DEVELOPMENT METHOD**
☒ SWABBING ☒ BAILING
☒ PUMPING
TOTAL PURGE VOLUME 11,276 GALLONS

**PARAMETER MEASUREMENTS (ONGOING)**
pH 7.40
TEMPERATURE 19.15 °C
SPECIFIC CONDUCTANCE 132.2 µS
TURBIDITY 10.5 NTU

KLEINFELDER

| | |
|---|---|
| Drawn By: C. Landon | Date: August 2005 |
| Project No.: 49436 | Filename: 49436_02_1.dwg |
| Scale: not-to-scale | Revision: 1 |

**WELL SUMMARY DATA SHEET**
**Characterization Well CdV-16-2(i)r**
Cañon de Valle
Los Alamos, New Mexico

FIGURE
**2**

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