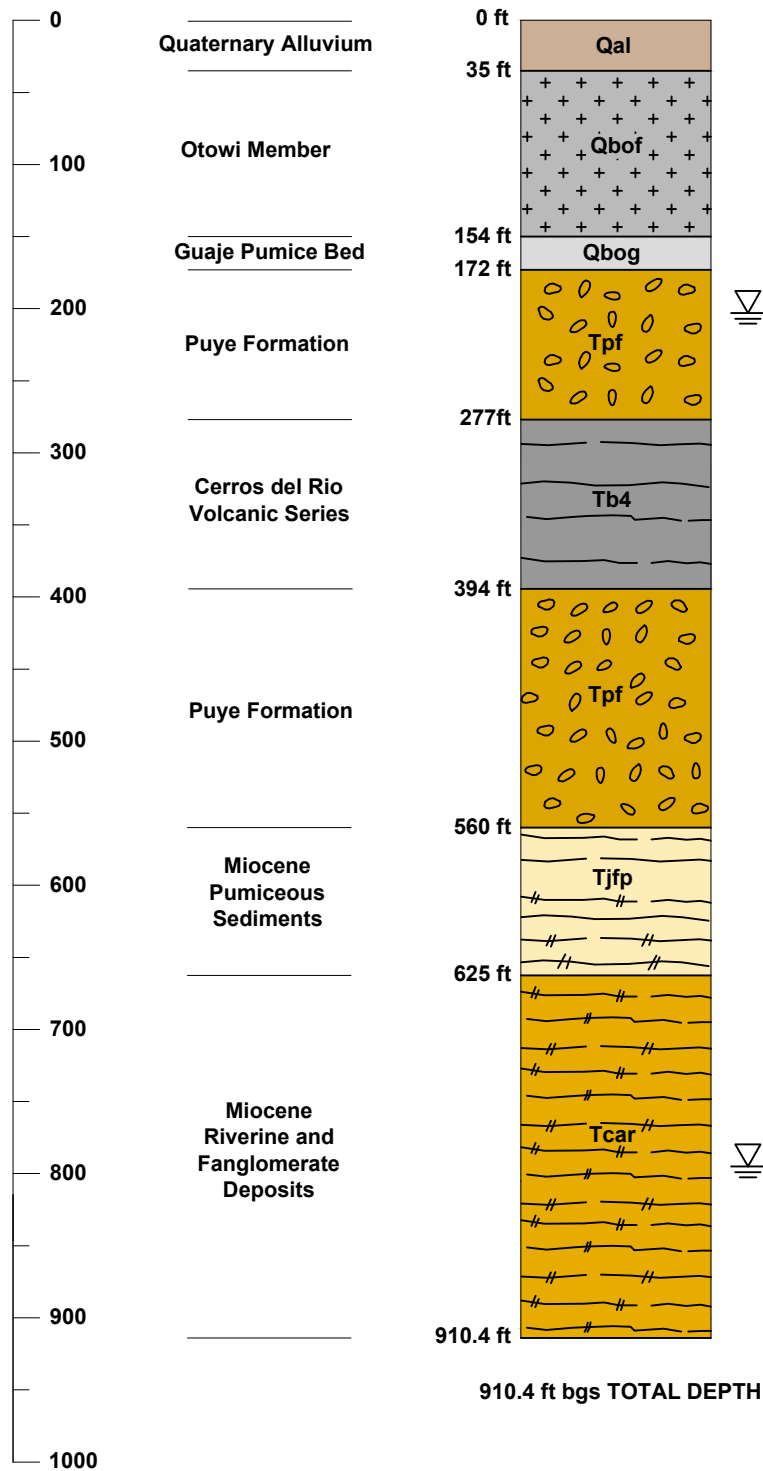


DEPTH (FT BGS)



DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL:

YELLOW JACKET DRILLING
 S. EDWARDS
 Q. STEVENS
 J. SALDANA
 A. LAMON
 M. PHILLIPS

PERCHED WATER DEPTH 203.6 ft DATE: 10/18/2011

DRILL RIG:

FOREMOST DR-24 HD

DRILLING METHOD:

- FLUID ASSISTED AIR ROTARY
- FLUID ASSISTED DUAL ROTARY

DRILLING FLUID TYPE:

- WATER
 - AIR
 - AQF-2 FOAM
 - EZ-MUD (POTABLE WATER)
- 0 ft bgs 910.4 ft bgs
 215 ft bgs 696 ft bgs
 575 ft bgs 696 ft bgs

DRILLING START / FINISH:

DATE: 10/15/11 TIME: 15:25
 DATE: 11/05/11 TIME: 18:00

Groundwater Depth: 794.6 ft Date: 11/5/2011

GEOLOGISTS:

EBERLINE SERVICES
 J. MARIN

KLEINFELDER

C. VALLEJO
 D. KRUPICKA
 D. NEIDIGH
 L. FLEISCHHAUER

910.4 ft bgs TOTAL DEPTH

CAD FILE: G:\ENVIRON\120764-Eberline-LANL Wells\2.0 Tech Info\2.8 - Technical-CADD Figures\R-66\R-66_4-23\ LAYOUT: Lithology

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ATTACHED IMAGES:
 ATTACHED XREFS:
 ALBUQUERQUE, NM



PROJECT NO.	120764
DRAWN:	4/23/12
DRAWN BY:	PD
CHECKED BY:	BB
FILE NAME:	120764 R-66_03.dwg

R-66 WELL SUMMARY DATA SHEET		FIGURE
BOREHOLE STRATIGRAPHY		
TA-21 LOS ALAMOS NATIONAL LABORATORY LOS ALAMOS, NEW MEXICO		FACT SHEET
ORIGINATOR:	C. VALLEJO	
APPROVED BY:	B. EVERETT	
DRAWING CATEGORY: 2		

CAD FILE: G:\ENVIRON\120764-Eberline-LANL Wells\2.0 Tech Info\2.8 - Technical-CADD Figures\R-66R-66_4-231 LAYOUT: Well Schematic

TOTAL LENGTH
CASING AND SCREEN (ft) 852.8

DEPTH TO WATER
AFTER WELL DEVELOPMENT &
AQUIFER TESTING (ft bgs) 792.8 (1/20/2012)

DIAMETER OF BOREHOLE

<u>20.75</u> (in.)	FROM <u>0</u>	TO <u>53</u>	(ft bgs)
<u>16.93</u> (in.)	FROM <u>53</u>	TO <u>279.6</u>	(ft bgs)
<u>14.75</u> (in.)	FROM <u>279.6</u>	TO <u>429</u>	(ft bgs)
<u>13.25</u> (in.)	FROM <u>429</u>	TO <u>507</u>	(ft bgs)
<u>13.41</u> (in.)	FROM <u>507</u>	TO <u>673</u>	(ft bgs)
<u>13.25</u> (in.)	FROM <u>673</u>	TO <u>695</u>	(ft bgs)
<u>11.63</u> (in.)	FROM <u>695</u>	TO <u>715</u>	(ft bgs)
<u>11.25</u> (in.)	FROM <u>715</u>	TO <u>907.6</u>	(ft bgs)
<u>9.88</u> (in.)	FROM <u>907.6</u>	TO <u>910.4</u>	(ft bgs)

SURFACE COMPLETION
PROTECTIVE CASING
TYPE STEEL SIZE 16 (in) OD
PAD AND PROTECTIVE POSTS INSTALLED 1/27/12 (pad) 2/6/12 (posts)

SURFACE SEAL AND PAD
CHECK FOR SETTLEMENT 2/6/12
PAD MATERIAL 4,000 psi CONCRETE
REINFORCED WITH #4 rebar
PAD DIMENSIONS (ft) 10 (L) 10 (W) 0.5 (H)

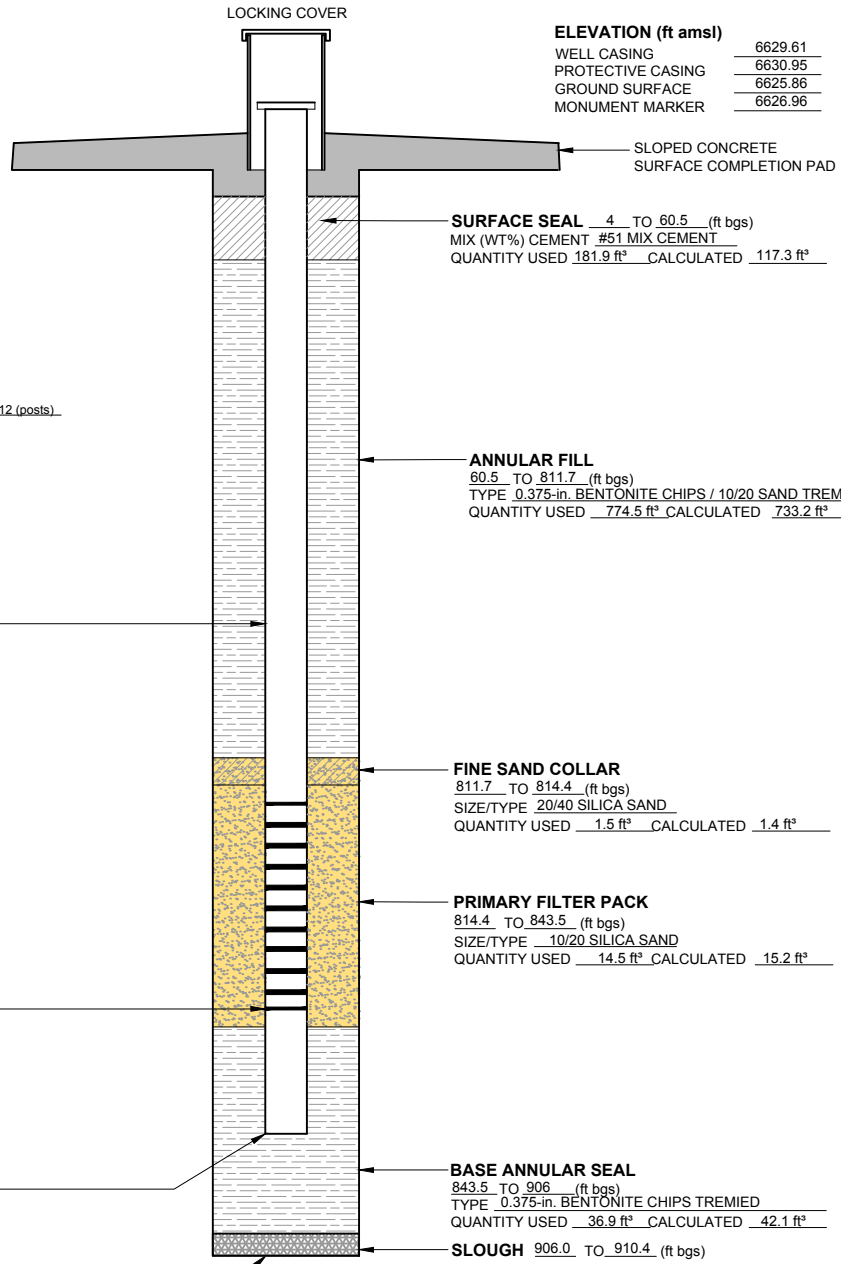
STAINLESS STEEL CENTRALIZERS USED
 YES AT 816.3 (ft bgs) AND 841.5 (ft bgs)

TYPE OF CASING
MATERIAL PASSIVATED A304 STAINLESS STEEL
ID (in.) 5.11 OD (in.) 5.56
JOINT TYPE THREADED / COUPLED (86.6 ft)
JOINT TYPE WELDED (769.2 ft)

SCREENED INTERVAL 819.4 TO 839.7 (ft bgs)
SCREEN TYPE A304 STAINLESS STEEL
ID (in.) 5.11 OD (in.) 5.56
SLOT SIZE 0.20
JOINT TYPE WELDED

BOTTOM OF WELL CASING 849.8 (ft bgs)

BOTTOM OF BORING 910.4 (ft bgs)



ELEVATION (ft amsl)

WELL CASING	<u>6629.61</u>
PROTECTIVE CASING	<u>6630.95</u>
GROUND SURFACE	<u>6625.86</u>
MONUMENT MARKER	<u>6626.96</u>

SURFACE SEAL 4 TO 60.5 (ft bgs)
MIX (WT%) CEMENT #51 MIX CEMENT
QUANTITY USED 181.9 ft³ CALCULATED 117.3 ft³

ANNULAR FILL
60.5 TO 811.7 (ft bgs)
TYPE 0.375-in. BENTONITE CHIPS / 10/20 SAND TREMIED & FREEFALL
QUANTITY USED 774.5 ft³ CALCULATED 733.2 ft³

FINE SAND COLLAR
811.7 TO 814.4 (ft bgs)
SIZE/TYPE 20/40 SILICA SAND
QUANTITY USED 1.5 ft³ CALCULATED 1.4 ft³

PRIMARY FILTER PACK
814.4 TO 843.5 (ft bgs)
SIZE/TYPE 10/20 SILICA SAND
QUANTITY USED 14.5 ft³ CALCULATED 15.2 ft³

BASE ANNULAR SEAL
843.5 TO 906 (ft bgs)
TYPE 0.375-in. BENTONITE CHIPS TREMIED
QUANTITY USED 36.9 ft³ CALCULATED 42.1 ft³

SLOUGH 906.0 TO 910.4 (ft bgs)

WELL COMPLETION BEGAN
DATE 11/8/2011 TIME 17:42

WELL COMPLETION FINISHED
DATE 11/16/2011 TIME 11:00

WELL DEVELOPMENT BEGAN
DATE 11/17/2011
TIME 12:15

WELL DEVELOPMENT FINISHED
DATE 12/18/2011
TIME 15:00

DEVELOPMENT METHOD

SWABBING BAILING

PUMPING

TOTAL PURGE VOLUME
INCLUDING AQUIFER
TESTING 88,018 gal.

FINAL PARAMETERS

pH 7.71

TEMPERATURE (°C) 22.05

SPECIFIC
CONDUCTANCE (µS/cm) 30.7

TURBIDITY (NTU) 243

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DATA AS OF 4/20/2012

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R-66 WELL CONSTRUCTION DIAGRAM (AS BUILT)	
TA-21 LOS ALAMOS NATIONAL LABORATORY LOS ALAMOS, NEW MEXICO	
ORIGINATOR: C. VALLEJO	DRAWING CATEGORY: 2
APPROVED BY: B. EVERETT	

FIGURE

FACT SHEET