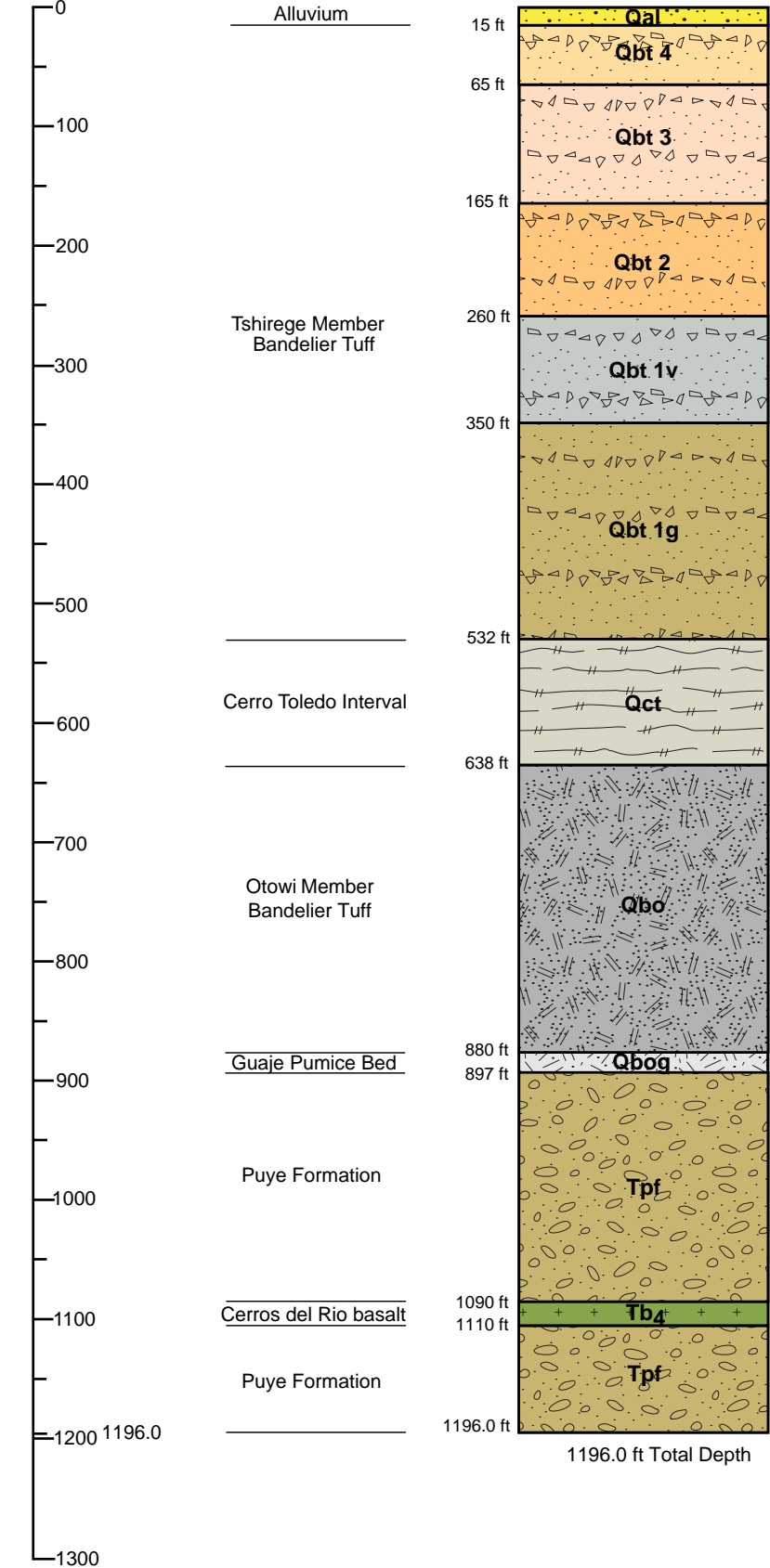


Depth (ft bgs)

**STRATIGRAPHY**



**DRILLING INFORMATION**

**DRILLING COMPANY/PERSONNEL:**

Layne Christensen Company  
H. Waddell, R. Wall, K. Keller

**DRILL RIG:** Schramm T130XD

**DRILLING METHOD:**

- AIR ROTARY
- DUAL ROTARY

**DRILLING FLUID TYPE**

- |   |   |
|---|---|
| 0.0 - 1020.0 ft bgs                             | 1020.0 - 1196.0 ft bgs                    |
| <input checked="" type="checkbox"/> WATER       | <input checked="" type="checkbox"/> WATER |
| <input checked="" type="checkbox"/> AIR         | <input checked="" type="checkbox"/> AIR   |
| <input checked="" type="checkbox"/> AQF-2 FOAM™ |   |

**DRILLING START/FINISH:**

DATE: 03/14/10 TIME: 1945  
DATE: 03/24/10 TIME: 1115

▼ 1124.1 ft bgs (03/24/10)  
(prior to well installation)

EP2010-0183  
LA-UR-10-2148



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Project Number:10005.004.09

Date: April 29, 2010  
Filename: R30\_LithLog\_0\_1196\_042910.ai

**WELL SUMMARY DATA SHEET**  
R-30 Borehole Stratigraphy  
TA-49

May 2010

Los Alamos National Laboratory  
Los Alamos, New Mexico

**FACT SHEET**

NOT TO SCALE

**TOTAL LENGTH**  
CASING AND SCREEN (ft) 1174.3

**DEPTH TO WATER**  
FOLLOWING INSTALLATION (ft bgs) 1124.6 (04/04/2010)

**DIAMETER OF BOREHOLE**  
24.0 (in) FROM 0 TO 65.5 (ft bgs)  
17.5 (in) FROM 65.5 TO 1034.0 (ft bgs)  
14.3 (in) FROM 1034.0 TO 1196.0 (ft bgs)

**SURFACE SEAL** 0.09 TO 78.5 (ft bgs)

**SURFACE COMPLETION INFORMATION**  
PROTECTIVE CASING  
TYPE STEEL SIZE 16.75 (in) OD  
PAD AND PROTECTIVE POSTS INSTALLED TBD  
SURFACE SEAL AND PAD  
CHECK FOR SETTLEMENT TBD  
PAD MATERIAL REINFORCED CONCRETE ~3000 psi  
REINFORCED WITH REBAR WITH 1/8-in WIRE MESH  
PAD DIMENSIONS (ft) 10.0 (L) 10.0 (W) 0.5 (H)

**BENTONITE SEAL** 78.5 TO 1132.6 (ft bgs)

**STATIC WATER LEVEL POST INSTALLATION** 1124.6 (ft bgs)

**FINE SAND COLLAR** 1132.6 TO 1135.3 (ft bgs)

**SCREENED INTERVAL** 1140.0 TO 1160.9 (ft bgs)

**FILTER PACK** 1135.3 TO 1168.0 (ft bgs)

**STAINLESS STEEL CENTRALIZERS USED**  
 YES AT 1138.8 & 1161.6 (ft bgs)

**BOTTOM OF WELL CASING** 1171.8 (ft bgs)

**BACKFILL** 1168.0 TO 1193.2 (ft bgs)

**12" CASING SHOE** 1189.5 TO 1191.4 (ft bgs)

**SLOUGH** 1193.2 TO 1196.0 (ft bgs)

**BOTTOM OF BORING** 1196.0 (ft bgs)

LOCKING COVER

**ELEVATIONS (ft amsl)**  
WELL CASING TBD  
PROTECTIVE CASING TBD  
GROUND SURFACE TBD  
MONUMENT MARKER TBD

SLOPED CONCRETE  
SURFACE COMPLETION PAD

**SURFACE SEAL**  
MIX (WT%) CEMENT 100  
QUANTITY USED 186.0 ft<sup>3</sup>  
CALCULATED VOLUME 211.4 ft<sup>3</sup>

**HYDRATED 0.375-in BENTONITE CHIP SEAL**  
QUANTITY USED 1337.3 ft<sup>3</sup>  
CALCULATED VOLUME 1526.5 ft<sup>3</sup>

**TYPE OF WELL CASING**  
MATERIAL PASSIVATED A304 STAINLESS STEEL  
ID (in) 5.047 OD (in) 5.563  
JOINT TYPE THREADED AND COUPLED

**FINE TRANSITION SAND COLLAR**  
SIZE/TYPE 20/40 SILICA  
QUANTITY USED 2.0 ft<sup>3</sup>  
CALCULATED VOLUME 2.5 ft<sup>3</sup>

**TYPE OF SCREEN(S)**  
MATERIAL A304 STAINLESS STEEL  
ID (in) 5.047 OD (in) 5.563  
SLOT SIZE 0.020  
JOINT TYPE THREADED AND COUPLED

**PRIMARY FILTER PACK SAND**  
SIZE/TYPE 10/20 SILICA  
QUANTITY USED 32.0 ft<sup>3</sup>  
CALCULATED VOLUME 30.8 ft<sup>3</sup>

**HYDRATED 0.375-in BENTONITE CHIP SEAL**  
QUANTITY USED 25.1 ft<sup>3</sup>  
CALCULATED VOLUME 26.7 ft<sup>3</sup>

**WELL DEVELOPMENT BEGAN**  
Date 04-07-10 Time 1205  
**WELL DEVELOPMENT FINISHED**  
Date 04-11-10 Time 1030

**DEVELOPMENT METHOD**  
 Swabbing  Bailing  
 Pumping  
Total Purge Volume 9688 gal

**PARAMETER MEASUREMENTS**  
pH TBD  
Temperature (°C) 18.98  
Specific  
Conductance (µS/cm) 122  
Turbidity (NTU) TBD

**WELL COMPLETION BEGAN**  
Date 03-26-10 Time 1740  
**WELL COMPLETION FINISHED**  
Date 04-03-10 Time 0850

EP2010-0183  
LA-UR-10-2148



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Project Number: 10005.004.09 Filename: R30\_WellSchematic(AsBuilt)042910.ai

**R- 30 WELL CONSTRUCTION DIAGRAM (AS BUILT)**

TA-49  
Los Alamos National Laboratory  
Los Alamos, New Mexico

May 2010

**FACT SHEET**

NOT TO SCALE