

WELL SUMMARY

Location ID: BLM-21-400 Field Representative(s): D. Menzie, G. Contaldo

Date Started: 04/09/91 Date Completed: 07/02/91

Northing: 228493.474 Easting: 408392.146

Brass Cap: 4648.73 Outer Casing: 4649.71 Inner Casing: 4650.36

Drilling Method: Mud/air Foam Rotary Drilling Contractor: Larjon Drilling Co.

Driller: J. Gower

Total Depth Borehole: 460' Total Depth Well Casing: 412.62'

Total Depth Surface Casing: 55'

Diameter Well Casing: 4" Diameter Surface Casing: 10"

Length of Bottom Blank: 2.61'

Type of Screen: Extra strength 0.02 slot

Screen Interval: 400.00' to 410.01'

Water First Detected: 453'(during drilling) Water Level Open Borehole: 285.82'(top surface deflector) 06/04/91

Water Level Cased Borehole: 290.56'(T.O.C.) 07/09/91

Quik-Foam Use: 2 gallons

Estimated Water Use: 4,000 (gal.)

Well Casing:

4in x 3ft SCD 40 PVC:
4in x 5ft SCD 40 PVC:
4in x 10ft SCD 40 PVC:
4in x 20ft SCD 40 PVC:
Total SCD 40 PVC pipe: 0 ft

4in x 3ft SCD 5 SS pipe:
4in x 5ft SCD 5 SS pipe:
4in x 10ft SCD 5 SS pipe:
4in x 20ft SCD 5 SS pipe: 20
Total SCD 5 SS pipe: 400 ft

stock SS centralizers: 0
custom SS centralizers: 1
4"x2' SS locking riser: 1
4" SS locking cap: 1
4" SS female cap: 1
ASTM male adaptor: 1

4in x 5ft SCD 10 SS pipe: 1
4in x 10ft SCD 10 SS pipe: 0
4in x 20ft SCD 10 SS pipe: 0
*Total SCD 10 SS pipe: 5 ft
Extra Strength Screen: 10 ft
*Cut to 2.61' for sump

Well Completion:

100# bags 16/40 sand:	26	bags
100# bags 10/20 sand:	0	bags
100# bags 8/14 sand:	0	bags
100# bags 8/20 sand:	45	bags

94# bags cement:	114	bags
5 gal. buckets bentonite:	0	buckets
50# bentonite powder:	12	bags
Benseal:	1	bag

Surface Casing:

94# bags cement:	30	bags
50# bags bentonite powder:	3	bags
Grout:	0	bags

Pertinent Field Notes:

04/09/91 Finish setting up and drill pilot hole (12¼" mill tooth bit) from 0'-55', used 8 sacks mud and 900 gallons water to fill mud goose. - Menzie

04/10/91 Ream 12¼" pilot hole to 16", 0-48'. Stopped drilling to repair mud goose. - Egan

04/11/91 Finish reaming 12¼" pilot hole to 16", reamed from 48' to 58', installed 10" surface casing, grouted casing to surface. - Menzie

05/29/91 Completed setting up BE rig and equipment. - Contaldo

05/30/91 Drilled from 55' - 217' using air-foam rotary with 9 7/8" button bit. Blew hydraulic line and had to quit for the day to locate new hose. - Contaldo

05/31/91 Repaired blown hydraulic line. Drilled from 217'-335' using air-foam rotary with 9 7/8" button bit. Encountered volcanic-rich alluvium at 303'. No water observed during drilling. - Contaldo

06/04/91 Bailed an open borehole and measured water level recovery at 0.04 - 0.08 gpm. Water level in open borehole indicates that alluvium (volcanic-rich) is saturated. - Contaldo

- 06/17/91 Drilled from 335' - 460' using air-foam rotary with 9 7/8" button bit. Encountered large quantities of water while drilling at 453'. Encountered rhyolitic tuff bedrock at ≈ 455'. Completed tripping out of borehole. - Contaldo
- 06/18/91 Southwest surveys completed running full suite of geophysical logs. Designed well and installed filler sand and bottom benseal plug. - Contaldo
- 06/19/91 Installed well casing (screen from 400.00' - 410.06'), gravel pack and upper plug. - Contaldo
- 06/20/91 Installed filler sand to 220.0', began developing using bailer and monitored water level recovery. Installed submersible pump for development. - Contaldo
- 06/21/91 Installed first load of grout and continued development using submersible pump. - Contaldo
- 06/24/91 Installed second load of grout to ground surface and continued development using submersible pump. - Contaldo
- 06/24/91 - Continued development using submersible pump. - Contaldo
07/02/91
- 07/02/91 Completed development and removed submersible pump. - Contaldo