

WELL SUMMARY

Location ID: ST-1-541 Field Representative(s): D. Menzie

Date Started: 10/29/91 Date Completed: 11/19/91

Northing: 229207.06 Easting: 401119.59

Brass Cap: 4502.39 Outer Casing: 4503.53 Inner Casing: 4504.02

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

Driller: J. Gower

Total Depth Borehole: 585' Total Depth Well Casing: 556.91'

Total Depth Surface Casing: 80'

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

Length of Bottom Blank: 5.69'

Type of Screen: extra strength 0.02 slot

Screen Interval: 541.21' to 551.22'

Water First Detected: 460'-485' Water Level Open Borehole: 431.52' (G.S.)

Water Level Cased Borehole: 433.58' (T.O.C.)

Quik-Foam Use: 4 gal

Estimated Water Use: 4,600 gallons

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: ft  
Five adaptors

stock SS centralizers:  
custom SS centralizers: yes  
4"x2' SS locking riser: 1.99  
4" SS locking cap: yes  
4" SS female cap: yes  
ASTM male adaptor:  
4in x 10ft extra strength screen: 10 ft

4in x 3ft SCD 5 SS pipe:  
4in x 5ft SCD 5 SS pipe:  
4in x 10ft SCD 5 SS pipe: 20  
4in x 20ft SCD 5 SS pipe: 380  
Total SCD 5 SS pipe: 400 ft

4in x 5ft SCD 10 SS pipe: 5  
4in x 10ft SCD 10 SS pipe: 60  
4in x 20ft SCD 10 SS pipe: 80  
Total SCD 10 SS pipe: 145 ft

Well Completion:

100# bags 16/40 sand:	5 1/2	bags
100# bags 10/20 sand:		bags
100# bags 8/14 sand:		bags
100# bags 8/20 sand:	15 1/2	bags
100# bags #3 sand:	52	bags

94# bags cement: 185 bags

5 gal. buckets bentonite: buckets

50# bentonite powder: 19 bags

Benseal: bags

Surface Casing:

94# bags cement: 40 bags

50# bags bentonite powder: 4 bags

Grout: bags

Pertinent Field Notes:

10/29/91 Steam clean and mobilize mud rotary equipment. - Menzie

10/30/91 Set up rig, mix mud, and drill 12 1/4" pilot hole 0'-15'. - Menzie

10/31/91 Drill pilot hole 15'-82', ream to 16" from 0'-25'. - Menzie

11/01/91 Ream pilot hole 25'-82'. - Menzie

11/04/91 Set 80' of 10" surface casing and grout. - Menzie

11/05/91 Demobilize mud rotary equipment, steam clean and mobilize air/foam rotary equipment. - Menzie

11/06/91 Drill air/foam rotary (9 7/8" milltooth tricone bit) from 82'-410'. - Menzie

11/07/91 Drill air/foam rotary from 410'-585'. - Menzie

11/08/91 Run full suite of geophysical logs, load casing and completion materials; steam clean casing, tremie and pulling unit. - Menzie

11/11/91 Pour about 10' of filler sand then pump lower benseal plug, run about 75' of 4" SS casing and leave it hanging in surface casing. - Menzie

- 11/12/91 Finish running 555' of casing (including screen), install gravel pack and pump upper benseal plug. - Menzie
- 11/13/91 Pour filler sand to 10' above static water level, pour 1st load of grout, bail to check for grout invasion, no grout invasion. - Menzie
- 11/14/91 Pour 2nd load of grout, bail to check for grout, no grout invasion. - Menzie
- 11/15/91 Surge and bail well for initial development, set 1 1/2 HP submersible pump at 525'. - Menzie
- 11/18/91 Pump well for development, total water bailed and pumped was 911 gallons, turbidity measurements less than 5 NTU's. - Menzie
- 11/19/91 Well developed, pull pump and turn over to Lockheed. - Menzie