

WELL SUMMARY

page 1 of 2Location ID: WW-1-452 Field Representative(s): Kaszuba/CooperNorthing: 227994.74 Easting: 397803.86Date Started: 5 January 1988 Date Completed: 21 January 1988Drilling Method: Air-foam rotary Drilling Contractor: LarjonDriller: Jim GowerTotal Depth Borehole: 488' Total Depth Well Casing: 467.8'Total Depth Surface Casing: 100'Diameter Well Casing: 4" Diameter Surface Casing: 10"Length of Bottom Blank: 5.3'Type of Screen: extra strength 0.02 slotScreen Interval: 451.9' to 462.2'Water First Detected: 450' Water Level Open Borehole: 383.3' (G.L.)Water Level Cased Borehole: 383.2' (G.L.)

Quik-Foam Use: ND

Estimated Water Use: 5850 gallons introduced while drilling
 3900 gallons pumped out of mudpit
 1620 gallons water left in mudpit
 320 gallons introduced to formation

Well Casing:

4in x 3ft SCD 40 PVC:		stock SS centralizers:	
4in x 5ft SCD 40 PVC:		custom SS centralizers:	1
4in x 10ft SCD 40 PVC:		4"x2' SS locking riser:	1
4in x 20ft SCD 40 PVC:		4" SS locking cap:	1
Total SCD 40 PVC pipe:	ft	4" SS female cap:	1
4in x 3ft SCD 5 SS pipe:	1		
4in x 5ft SCD 5 SS pipe:		4in x 5ft SCD 10 SS pipe:	1
4in x 10ft SCD 5 SS pipe:		4in x 10ft SCD 10 SS pipe:	1
4in x 20ft SCD 5 SS pipe:	19	4in x 20ft SCD 10 SS pipe:	3
Total SCD 5 SS pipe:	383 ft	Total SCD 10 SS pipe:	75 ft

Well Completion:

100# bags 16/40 sand: 3 bags
 100# bags 10/20 sand: 17 bags
 100# bags 8/14 sand: 16 bags
 100# bags 8/20 sand: 11 bags

 94# bags cement: 110 bags

 5 gal. buckets bentonite: 1.25 buckets

 50# bentonite powder: 10 bags

Surface Casing:

94# bags cement: 70 bags

 50# bags bentonite powder: 7 bags

Pertinent Field Notes:

1/5/88 Mobilize to site, spud well with 7 7/8" bit, drill 0'-100' Cooper
 1/6/88 Ream hole 0'-64' with 14 3/4" bit Cooper
 1/7/88 Ream hole 64'-100' with 14 3/4" bit, set 10"x100' steel surface casing Cooper
 1/8/88 Grout in surface casing Cooper
 1/9/88 Changed air filters and compressor for air-foam drilling, drill 100'-308', 7 7/8" bit Cooper/Kaszuba
 1/10/88 Drill 308'-388', 7 7/8" bit, plugged bit at 388' Kaszuba
 1/11/88 Drill 388'-488', 7 7/8" bit, bit stuck at 484', possible water zone at 450', left bit in hole and filled drill pipe with heavy soap to lubricate plug Kaszuba
 1/12/88 Unplugged bit by circulating fluid through tremie, bottom at 478' Kaszuba
 1/13/88 Static water level is 383.3', bailed out 144 gallons with no change in static, collect unofficial sample for analysis by Tracer Kaszuba
 1/14/88 Geophysical logging by Pearson of S.W. Surveys, run 4"x470.1' stainless steel casing, gravel pack around screen Cooper/Kaszuba
 1/15/88 Upper bentonite plug installed, add filler sand and grout well, grout not up to surface Cooper/Kaszuba
 1/20/88 Set submersible pump at 465', develop ~ 2000 gallons, collect unofficial samples for Tracer to analyze Cooper
 1/21/88 Finish grouting well and set brass cap