

# WELL SUMMARY

Page 1 of 2

Location ID: 100-D Field Representative(s): G.Giles, M.Russell, J.Pearson

Purpose of Well: Monitor water table downgradient of 100 Area sewage lagoon (NMED DP-392 requirement)

Date Started: 05/02/97 Date Completed: 05/15/97

Northing: 224081.80 Easting: 418346.39

Elevations: Brass Cap: 4748.45 Inner Casing: 4750.66 Outer Casing: 4750.55

Drilling Method: Mud/air-foam rotary Drilling Contractor: Stewart Bros. Drilling

Driller: R. Stewart, V. Amaro

Diameter Borehole: 17"; 0-176', 8 3/4"; 176'-210'

Total Depth Borehole: 210' Total Depth Well Casing: 201'

Total Depth Surface Casing: 176'

Diameter Well Casing: 4" (nominal) Diameter Surface Casing: 10" (nominal)

Type of Screen: 0.02 slot extra strength

Screen Interval: 176' to 196'

Water First Detected: Not detected Water Level Open Borehole: 176'

Water Level Cased Borehole: 173.31'

Estimated Water Use: Approx. 34,500 gallons used during drilling.

## Well Casing (PVC and SS):

4" x 3' SCD 40 PVC:	-	Stock SS centralizers:	-
4" x 5' SCD 40 PVC:	-	Custom SS centralizers:	2
4" x 10' SCD 40 PVC:	-	4" x 2' SS locking riser:	1
4" x 20' SCD 40 PVC:	8	4" SS locking cap:	1
Total SCD 80 PVC pipe:	160'	4" SS female cap:	1
4" x 5' SCD 5 SS pipe:	1	4" x 5' SCD 10 SS pipe:	-
4" x 10' SCD 5 SS pipe:	-	4" x 10' SCD 10 SS pipe:	-
4" x 20' SCD 5 SS pipe:	1	4" x 20' SCD 10 SS pipe:	-
4" x 10' SCD 5 SS screen:	2		-
Total SCD 5 SS pipe:	45'	Total SCD 10 SS pipe:	-

**Total length of well casing: 205'**

Well Completion:

100# bags 16/40 sand:		bags
100# bags 10/20 sand:	18	bags
100# bags 70/30 sand:	4	bags
94# bags cement:	35	bags
Benseal:	3	bags

Surface Casing:

# bags cement:	105	bags
# bags bentonite powder:		bags
Grout:		bags

Pertinent Field Notes: For details see Field Notebook #1, pgs. 1-28.

- 05/02/97 Stewart Brothers Drilling Company arrives at site. Obtain badges. Health and safety requirements outlined to drillers. Drilling equipment stored on site. - G. Giles
- 05/05/97 D. Burnham (ATSC) performs visual safety inspection of all drilling equipment. Everything passes except 4 breaker switches on drill rig which were labeled. D. Burnham reviews Stewart's Health and Safety Plan. Set up at site - G. Giles.
- 05/06/97 Stewart Brothers back on site with support equipment. Start mobilizing to 100-D well pad. Mix mud and spud hole. Drilled 20' with 7 7/8" bit through alluvium. - G. Giles/M. Russell.
- 05/07/97 Minor repairs to mud pump hose. Resume drilling. Having some problems adjusting mud viscosity. Drilled to 60'. Bit change. Reamed hole with new 8 3/4" bit, 0-60'. Continued drilling to 80' in alluvium- G. Giles.
- 05/08/97 Drilled 8 3/4" borehole 80-170' with mud rotary. All drilling in alluvium - J. Pearson.
- 05/09/97 Reamed hole to 14 3/4", 0-140'. 10" (nominal) surface casing mobilized to drill site. - J. Pearson.
- 05/10/97 Continued reaming hole to 14 3/4", 140-176'. Andesite bedrock encountered at 176'. Started running surface casing and encountered obstruction. Cleared obstruction. - G. Giles.
- 05/11/97 Reamed hole with 17" diameter bit to 176' to stabilize for surface casing installation. Installed 176' X 10" casing, but not grouted. - M. Russell.
- 05/12/97 Grouted casing in place. Prepared for air-foam rotary drilling. - M. Russell.
- 05/13/97 Drilled air-foam rotary with a 8 3/4" bit through andesite bedrock to 210' (TD). No significant groundwater produced by blowing borehole with air after 5 minute recovery time. Bailed well and monitored water level recovery twice. Set tremie pipe for well completion. - M. Russell.
- 05/14/97 Well installed and annulus backfilled with silica sand, bentonite plugs, and grout. Well is 4" PVC and SS with 20' x 0.02 slot screen. Checked for grout invasion with bailer. - J. Pearson.
- 05/15/97 Well developed by bailing. Rig down, move to next site. - J. Pearson.
- 05/20/97 Cemented remainder of well annulus to surface. - G. Giles.