

GL04804

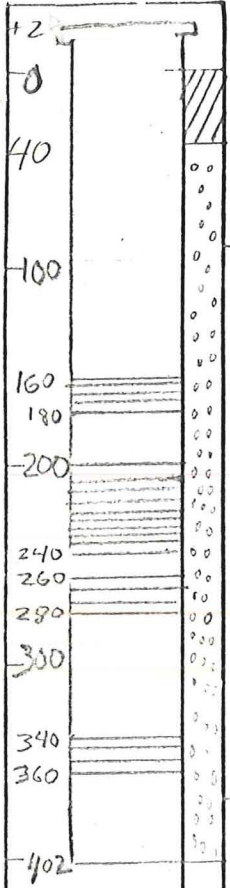
WELL CONSTRUCTION SUMMARY

LOCATION or COORDS: (C-12-10) 31cc

ELEVATION: GROUND LEVEL _____
TOP OF CASING _____

LOCATION Dugway Valley
PERSONNEL _____

PROJECT Shallow Aquifer
Drilling FY-80



DRILLING SUMMARY:
 TOTAL DEPTH 402'
 BOREHOLE DIAMETER 28" (0'-40')
17 1/2" (40'-402')
 DRILLER Andrew MacPherson,
Russ Mangelson
 RIG CP-RT-1800
 BIT(S) tricone
 DRILLING FLUID bentonite
 SURFACE CASING 22" (0'-40')

WELL DESIGN:
 BASIS: GEOLOGIC LOG 90% GEOPHYSICAL LOG 10%
 CASING STRING(S): C=CASING S=SCREEN
+2 - 160' C1 | 360' - 402' C1
160' - 180' S1
180' - 200' C1
200' - 240' S1
240' - 260' C1
260' - 280' S1
280' - 340' C1
340' - 360' S1
 CASING: C1 10" ID
 C2 _____
 C3 _____
 C4 _____
 SCREEN: S1 10" 10 Johnson Hi Cap
 S2 _____
 S3 _____
 S4 _____
 CENTRALIZERS _____
 FILTER MATERIAL 8-12 sand
(40'-402')
 CEMENT (0'-40')
 OTHER _____

CONSTRUCTION TIME LOG:

TASK	START		FINISH	
	DATE	TIME	DATE	TIME
DRILLING:				
GEOPHYS. LOGGING:				
CASING:				
FILTER PLACEMENT:				
CEMENTING:				
DEVELOPMENT:				
OTHER:				

WELL DEVELOPMENT

COMMENTS:
Dry Well

LOG OF BOREHOLE

BOREHOLE DU-S-T-1

PAGE 1 OF 5

LOC. or COORDS. <u>T12 S - R 10W - SECT 31 CC</u>	DRILLER <u>S. STEPHENSON</u> <u>A. MCPHERSON</u>	START DATE <u>7-28-80</u>	FINISH DATE <u>7-29-80</u>
GROUND ELEV. _____	RIG <u>CP-1800</u>	TIME <u>15.45</u>	12.40
TOTAL DEPTH <u>402'</u>	BIT(S) <u>TRICONE</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9.9"</u>	FLUID <u>BENTONITE</u>	HOW LEFT <u>CASED</u> <u>UNRESTORED</u>	

LOCATION DUGWAY VALLEY
 LOGGED BY W. NOBIS, T. SMITH, D. BOYLAN
 Ke logged by BLAZO

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
00 ft.				00'		
	10mm			SILTY SAND		SILTY SAND: (00'-20') () gray (w-7.5 YR 6/10); lt gray (d-7.5 YR 7/10); med to f. sd. 95% (carb. 70%, Gz 30%), silt 5%, m.s.; sd: subang to subrnd; strucless; n.p.; not stky; no consol; mod Hcl rxn.
10 ft				10'		
	4.5mm			SILTY SAND		SILTY SAND: (10-20') SAME AS ABOVE.
20 ft				20'		
	7mm			SAND w/SOME GRAVEL		SAND w/SOME GRAVEL (20'-30') (); pinkish gray (w-7.5 YR 6/10) gray (d-7.5 YR 7/10); cs to med sd. 80% (carb. 80%, Gz 20%); fine gul up to 6mm. 20% (Gz 60%, carb 30%, ss free 10%); p.s. sd ang to subrnd; gul: subang to subrnd; strucless; n.p.; not stky; no consol; wk Hcl rxn.
30 ft				30'		
	10mm			SAND		SAND (30-40') (); pinkish gray (w-7.5 YR 6/10); light gray (d-7.5 YR 7/10); cs to f. sd 95% (carb 60%, Gz 40%), silt 5% p.s.; sd: ang to subrnd; strucless; n.p.; not stky; no consol; wk Hcl rxn.
40 ft				40'		
	10mm			SAND		SAND w/ LITTLE GRAVEL: (40-50') (); pinkish gray (w-5 YR 6/10); gray (d-7.5 YR 7/10); cs to med sd. 95% (carb 60%, Gz 30%, CHEST 10%); gul 5% up to 10mm. (carb. 80%, CHEST 15%, Gz 5%); p.s.; sd: ang to subrnd; gul: subang; strucless; n.p.; not stky; no consol; mod. Hcl rxn.
50 ft				50'		
	7mm			SAND		SAND (50-60') () SAME AS ABOVE, WITH GRAIN SIZE DECREASING TO MEDIUM, AND NO GRAVEL.
60 ft				60'		
	10mm			SAND		SAND (60-70') () SAME AS ABOVE, EXCEPT GRAIN SIZE INCREASING TO COARSE.
70 ft				70'		
	8mm			SAND		SAND (70-80') () SAME AS ABOVE. Log indicates, NO EVIDENCE OF CAVING.
80 ft				80'		

LOG OF BOREHOLE

BOREHOLE DU-S-T-1

PAGE 2 OF 5

LOC. or COORDS. <u>T 125-R 10W-SECT 31 CC.</u>	DRILLER <u>S. STEPHENSON.</u> <u>A. McPHERSON.</u>	START DATE <u>7-28-80</u> TIME <u>15:45</u>	FINISH DATE <u>7-29-80</u> TIME <u>12:40</u>
GROUND ELEV. _____ TOTAL DEPTH <u>402'</u> BOREHOLE DIAM. <u>9.9"</u>	RIG <u>C.P. 1800</u> BIT(S) <u>TRICONE</u> FLUID <u>BENTONITE.</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO HOW LEFT <u>CASED</u> <u>UNREESTORED.</u>	

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
80ft	10min			SAND		80' SAND (80-90') (), pinkish gray (w. 75 YR 6/2), light gray (d. 7.5 YR 7/2) cs to med sd 95% (carb. 80%, Az 20%) silt 5%, ms; sd: Subang to subynd, structureless, n.p, not sticky, no consol; mod Hcl YXN. log indicates. hitting hard mat.
90ft	28min			SAND		90' SAND (90-100') (), pinkish gray (w. 75 YR 6/2), light gray (d. 7.5 YR 7/2) med to f. sd. 95% (carb. 75%, Az 25%); silt 5%, ms; sd: Subang to subynd, structureless, n.p, not sticky, no consol; mod. Hcl YXN.
100ft	25min			SAND		100' SAND (100'-120') (), pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 6/2), med to f. sd. 95% (carb. 50%, Az 50%) silt 2.5%, ms; sd: Subang to subynd, structureless, n.p, not sticky, no consol; mod. Hcl YXN.
110ft	25min			SAND		110' SAND (110-120') (), SAME AS ABOVE; silt up to 10%.
120ft	22min			SAND		120' SAND (120'-140') (), pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 7/2); cs to f. sd. 95% (carb. 75%, Az 25%); silt 5%, ps; sd: Subang to subynd; structureless, n.p, not sticky, no consol; mod Hcl YXN.
130ft	12min			SAND		130' SAND (130'-140') () SAME AS ABOVE field log indicates: drilling hard mat, but not indication of boulders.
140ft	14min			SAND		140' SAND (140'-150') () SAME AS ABOVE.
150ft	23min			SAND		150' SAND (150'-160') (), pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 7/2); cs to f. sd. 95% (carb. 75%, Az 25%); silt up to 5mm (carb. 20%, Az 10%); ps; sd: Subang to subynd, structureless, n.p, not sticky, no consol; mod Hcl YXN.
155ft						155'

LOGGED BY W. ANDREWS, T. SMITH, D. BOYLAN.

LOG OF BOREHOLE

BOREHOLE DU-S-T-1
PAGE 3 OF (5)

LOC. or COORDS. <u>T-125-R-10W-SECT-31CC</u>	DRILLER <u>S. STEPHENSON</u> <u>A. MCPHERSON</u>	START DATE <u>7-28-80</u>	FINISH DATE <u>7-29-80</u>
GROUND ELEV. _____	RIG <u>C.P. 1800</u>	TIME <u>11:45</u>	<u>12:40</u>
TOTAL DEPTH <u>402'</u>	BIT(S) <u>TRICON</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9.9"</u>	FLUID <u>BENTONITE</u>	HOW LEFT <u>CASED</u> <u>HAIR RESTORED</u>	

LOGGED BY W. N. SORRIS, T. SMITH, D. BOYLAN

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT O (gpm)	MATERIAL	SYMBOL	DESCRIPTION and COMMENTS
160 ft	12 min			SAND 160'		SAND w/ SOME GRAVEL (160'-170') () pinkish gray (w. 7.5 YR 6/2); light gray (d. 7.5 YR 7/6); cs to med sd. 90% (carb 75%, Az 25%); (Q) 10% up to 11mm (carb. 90%, Az 10%); ps, sd: subang to subrnd; structureless; n.p.; not sticky; no consol; mod. Hcl rxn.
170 ft	21 min			SAND 170'		SAND (170-200') () pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 7/6); cs to med sd. 95% (carb. 50%, Az 50%), silt < 5%; m.s.; sd: subang to subrnd; structureless; n.p.; not sticky; no consol; mod. Hcl rxn.
180 ft	11 min			SAND 180'		SAND (180-190') () SAME AS ABOVE.
190 ft	39 min			SAND 190'		SAND (190'-200') () SAME AS ABOVE.
200 ft	29 min			SAND 200'		SAND (200'-210') () pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 7/6); cs to fsd. 95% (carb. 75%, Az 25%), silt 5%; ps; sd: subang to subrnd; structureless; n.p.; not sticky; no consol; mod. Hcl rxn.
210 ft	37 min			SAND 210'		SAND (210-220') () SAME AS ABOVE.
220 ft	37 min			SAND 220'		SAND (220'-230') () SAME AS ABOVE.
230 ft	52 min			SAND 230'		SAND (230'-240') () SAME AS ABOVE field log indicates drilling rate slowing down, driller expects more variation of softer lith.
240 ft				SAND 240'		

LOG OF BOREHOLE

BOREHOLE DU-57-1

PAGE 4 OF 5

LOC. or COORDS. T-125-R-10W-SECT 31 CC	DRILLER S. STEPHENSON A. MCPHERSON	START DATE 7-28-80 TIME 15:45	FINISH DATE 7-29-80 TIME 12:40
GROUND ELEV.	RIG C.P-1800	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
TOTAL DEPTH 402'	BIT(S) TRICONE	HOW LEFT <u>UNRESTORED</u>	
BOREHOLE DIAM. 9.9"	FLUID BENTONITE		

LOGGED BY W. NOBBIS, T. SMITH, J. BOYLAN

DEPTH	PENE. RATE	CIRC. MET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
240 ft				SAND		SAND (240-260') (); pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 7/6), cs to f sd. 95% (carb. 2%, Az 25%), silt 5%; ps; sd: subang to subvnd; structureless; np; not sticky, no consol; mod. Hcl rxn.
250 ft	110			SAND		SAND (250-260') () SAME AS ABOVE.
260 ft	115			SAND		SAND (260-300') (); pinkish gray (w. 7.5 YR 6/2), light gray (d. 7.5 YR 7/6), med to f sd. 95% (carb. 60%, Az 40%), silt 5% m.s; sd: subang to subvnd; structureless; np; not sticky, no consol; mod. Hcl rxn.
270 ft	23			SAND		SAND (270-280') () SAME AS ABOVE.
280 ft	25			SAND		SAND (280-290') () SAME AS ABOVE.
290 ft	27			SAND		SAND (290-300') () SAME AS ABOVE.
300 ft	32			SAND		SAND (300-400') (); brown (w. 7.5 YR 5/2), 95% (d. 7.5 YR 5/6), cs to f sd. 95% (carb. 80%, Az 10%, clort 10%), silt 5%; ps; sd: subang to subvnd; structureless; np; not sticky, no consol; w/ Hcl rxn.
310 ft	39			SAND		SAND (310-370') () SAME AS ABOVE.
320 ft	7			SAND		SAND (320-370') () SAME AS ABOVE.
330 ft				SAND		SAND (330-370') () SAME AS ABOVE.

LOGGED BY WINDSORS, T. SMITH, D. GAYLORD.

LOC. or COORDS. <u>T-12S-R-10W-SECT-31CC.</u> GROUND ELEV. _____ TOTAL DEPTH <u>402'</u> BOREHOLE DIAM. <u>9.9"</u>	DRILLER <u>S. STEPHENSON,</u> <u>A. Mc PHERSON.</u> RIG <u>C.P. 1800</u> BIT(S) <u>TRICONE.</u> FLUID <u>BENTONITE.</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">START DATE <u>7-28-80</u></td> <td style="width: 50%;">FINISH DATE <u>7-29-80</u></td> </tr> <tr> <td>TIME <u>11:45</u></td> <td><u>12:40</u></td> </tr> <tr> <td colspan="2">GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</td> </tr> <tr> <td colspan="2">HOW LEFT <u>CASED</u></td> </tr> <tr> <td colspan="2"><u>UNRESTORED.</u></td> </tr> </table>	START DATE <u>7-28-80</u>	FINISH DATE <u>7-29-80</u>	TIME <u>11:45</u>	<u>12:40</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		HOW LEFT <u>CASED</u>		<u>UNRESTORED.</u>	
START DATE <u>7-28-80</u>	FINISH DATE <u>7-29-80</u>											
TIME <u>11:45</u>	<u>12:40</u>											
GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO												
HOW LEFT <u>CASED</u>												
<u>UNRESTORED.</u>												

DEPTH	PENE RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM. BOL	DESCRIPTION and COMMENTS
320ft	22 min			SAND		SAND (320-400') (), Brown (w. 2.5% R ₂ O ₃), gray (d. 7.5% S ₂ O ₃) c/s to f/sd. 9% (carb. 50%, Az. 25%, chert 25%), silt 5%; ps; sd: sub sup to subvnd; structure, n.p.; not sticky; no laminae; HK Hel. YRN.
330ft	29 min			SAND		SAND (330-340') () SAME AS ABOVE.
340ft	26 min			SAND		SAND (340-350') () SAME AS ABOVE.
350ft	21 min			SAND		SAND (350-360') () SAME AS ABOVE.
360ft	29 min			SAND		SAND (360-370') () SAME AS ABOVE.
370ft	29 min			SAND		SAND (370-380') () SAME AS ABOVE.
380ft	27 min			SAND		SAND (380-390') () SAME AS ABOVE.
390ft	23 min			SAND		SAND (390-400') () SAME AS ABOVE.
400ft						T.D.