

Lithology

Depth	Lithologic description	%	Mud In	Mud Out
0-23	No samples - ground level to KB			
23-83	No samples - conductor pipe			
83-118	Very coarse sand to very fine pebble gravel, qtz, volcanics & altered volcanics, unconsolidated, subangular to subrounded	100		
118-137	Same as before	100		
137-185	No samples			
185-215	Sand, qtz, fine to coarse, subangular to subrounded, mostly clear Siltstone, mostly qtz, poor indurated Volcanics, altered and unaltered, coarse sand to vf pebble gravel	60 30		
215-247	Sand, as above, a lot of qtz is yellow-stained, more coarse fraction than before Volcanics, as before Siltstone, very minor, as before	85 15 T		
247-278	No sample; lots of LCM & cement			
278-310	Sand, medium to vf pebbly gravel qtz. and volcanics as before Clay, soft, gummy, light tan to gray Siltstone	60 30 10	52	60
310-340	Sand, medium to v coarse, mostly qtz., some volcanics Siltstone, gray and tan	98 2	53	59
340-370	Gravel, vf pebble, qtz and volcanics, some sand Clay, gray, soft & gummy	75? 25?	53	60

Depth	Lithologic description	%	Mud In	Mud Out
370-400	Gravel, vf to fine pebble as before, some sand Siltstone, tan and gray Clay, gummy	90 10 T	53	60
400-430	Sand, medium to vc with some vf to fine gravel as before Siltstone as before Clay, soft and gummy (quite a lot of siltstone sluff)	90 5 5	53	60
430-460	Very poor sample, mostly siltstone sluff, some gummy clay and vf to fine pebble gravel		53	60
460-491	No sample			
491-522	Sand, vf to <u>vc</u> ; qtz and volcanics, Clay, gummy	90 10	54	61
522-535	Sand and gravel, as before (poor sample, lots of sluff)	100	53	61

1-29

- 15'-45' coarse - fine sands well-rounded mostly gt_3 some
volc. minor py, hem. mica common
- 45'-75' coarse - medium sands gt_3 predominates (many gt_3 grains
have opaque inclusions pyroxene, amphibole?) volcanic grains
common
- 75'-105' same as above
- 105'-135' same as above but gt_3 is more angular and volc's are more oxidized
- 135'-165' same as above
- 165'-195' same as above volc fraction increasing
- 195'-225' ?
- 225'-255' fine-med. sand, very heterolithic, angular to well rounded.
- 260'-290' secondary (hydrothermal) gt_3 , pyrite - med sand. heterolithic
minor volcanics.
- 290'-320' same as above fine sand, less pyrite, some trace of green
mineral (epidote?).

320-350 same as above

350-380 NR

380-410 ?

410-440 fine gtz sand, some silt & minor other lithic fragments (occasional volc)

440-470 fine sand gtz + volc minor clay (hydrothermal?)

470-500 same as above

500-570 fine silt & clays, some sand-size gtz. probably primarily volc debris

530-560 same as above more hydrothermal looking maybe a gypsum matrix (evapor)

560-590
590-620
620-650
650-680

?

680-70 very fine grained clays, hydrothermal chlorite(?), many fragments have been altered to clay - possibly some playa clays as well

Soda Lake

11 Temperature Gradient Holes

All holes encountered sand to 500'.

Lith logs were not constructed.

Logs from deep wells 1-29, and 44-5 - in same area, are attached.

9-19N/27E
NEVADA
SODA LAKE
06/15/72

GEOTHERMAL

ZN: 11 UTH
X: 331804
Y: 4376171
LAT : 39.52061
LONG: 118.95670

* SL-4 *

ELEV: + 4000

800 FT N & 2500 FT W OF SE COR OF SEC 9
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	56.9	3.0	13.83
20.0	56.9	6.1	13.83
30.0	57.4	9.1	14.11
40.0	57.3	12.2	14.06
50.0	57.3	15.2	14.06
60.0	57.3	18.3	14.06
70.0	57.4	21.3	14.11
80.0	57.6	24.4	14.22
90.0	57.8	27.4	14.33
100.0	58.2	30.5	14.56
108.0	58.5	32.9	14.72

SEP 27, 1978

14-19N/27E
NEVADA
SODA LAKE
07/07/27

GEOHERMAL

ZN: 11 UTM
X: 335655
Y: 4374331
LAT : 39.50479
LONG: 118.91147

* SL-5 *

ELEV: + 3995

650 FT N & 200 FT W OF SE COR OF SEC 14
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	59.7	3.0	15.39
20.0	59.2	6.1	15.11
30.0	60.1	9.1	15.61
40.0	60.2	12.2	15.67
50.0	60.2	15.2	15.67
60.0	60.3	18.3	15.72
70.0	60.5	21.3	15.83
80.0	60.7	24.4	15.94
90.0	60.9	27.4	16.06
100.0	61.1	30.5	16.17
109.0	61.3	33.2	16.28

SEP 27, 1978

5-19N/28E
NEVADA
SODA LAKE
04/29/73

GEOHERMAL

ZN: 11 UTM
X: 340217
Y: 4378576
LAT : 39.54388
LONG: 118.85945

* SL-27 *

ELEV: + 4000

1740 FT S & 1250 FT W OF NE COR OF SEC 5
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
11.0	54.6	3.4	12.56
20.0	57.8	6.1	14.33
32.0	59.9	9.8	15.50
40.0	60.4	12.2	15.78
50.0	61.7	15.2	16.50
60.0	63.0	18.3	17.22
70.0	63.8	21.3	17.67
80.0	64.7	24.4	18.17
90.0	65.5	27.4	18.61
100.0	66.2	30.5	19.00
120.0	67.4	36.6	19.67
140.0	68.8	42.7	20.44
160.0	70.1	48.8	21.17
180.0	71.1	54.9	21.72
200.0	72.0	61.0	22.22
220.0	73.0	67.1	22.78
240.0	73.8	73.2	23.22
260.0	74.9	79.2	23.83
280.0	76.1	85.3	24.50
300.0	77.4	91.4	25.22
320.0	78.9	97.5	26.06
340.0	80.1	103.6	26.72
360.0	81.3	109.7	27.39
380.0	82.6	115.8	28.11
400.0	83.6	121.9	28.67
420.0	85.2	128.0	29.56
440.0	86.2	134.1	30.11
460.0	87.3	140.2	30.72
480.0	88.1	146.3	31.17
484.0	88.4	147.5	31.33

SEP 27, 1978

3-19N/28E
NEVADA
SODA LAKE
04/30/73

GEOHERMAL

ZN: 11 UTM
X: 342257
Y: 4378805
LAT : 39.54633
LONG: 118.83578

* SL-23 *

ELEV: + 3980

114 FT S & 70 FT E OF NW COR OF SEC 3
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	59.8	3.0	15.44
20.0	64.0	6.1	17.78
32.0	65.7	9.8	18.72
40.0	66.3	12.2	19.06
50.0	66.9	15.2	19.39
60.0	67.5	18.3	19.72
70.0	68.3	21.3	20.17
80.0	69.3	24.4	20.72
90.0	70.1	27.4	21.17
100.0	70.8	30.5	21.56
120.0	72.2	36.6	22.33
140.0	74.0	42.7	23.33
160.0	75.3	48.8	24.06
180.0	76.5	54.9	24.72
200.0	78.0	61.0	25.56
220.0	79.5	67.1	26.39
240.0	81.3	73.2	27.39
260.0	83.0	79.2	28.33
280.0	84.4	85.3	29.11
300.0	86.5	91.4	30.28
320.0	88.1	97.5	31.17
340.0	89.8	103.6	32.11
360.0	91.4	109.7	33.00
380.0	93.0	115.8	33.89
400.0	94.6	121.9	34.78
420.0	96.4	128.0	35.78
440.0	98.2	134.1	36.78
460.0	99.9	140.2	37.72
465.0	100.3	141.7	37.94

SEP 27, 1978

27-20N/28E
NEVADA
SODA LAKE
04/30/73

GEOHERMAL

ZN: 11 UTM
X: 342260
Y: 4380649
LAT : 39.56293
LONG: 118.83618

* SL-29 *

ELEV: + 3870

200 FT N & 200 FT E OF SW COR OF SEC 27
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	57.6	3.0	14.22
20.0	61.9	6.1	16.61
32.0	62.9	9.8	17.17
40.0	64.1	12.2	17.83
50.0	65.4	15.2	18.56
60.0	66.9	18.3	19.39
70.0	68.7	21.3	20.39
80.0	70.6	24.4	21.44
90.0	72.2	27.4	22.33
100.0	73.5	30.5	23.06
120.0	75.6	36.6	24.22
140.0	78.2	42.7	25.67
160.0	80.7	48.8	27.06
180.0	82.4	54.9	28.00
200.0	84.0	61.0	28.89
220.0	86.2	67.1	30.11
240.0	88.4	73.2	31.33
260.0	90.2	79.2	32.33
280.0	91.9	85.3	33.28
300.0	93.5	91.4	34.17
320.0	95.1	97.5	35.06
340.0	97.1	103.6	36.17
360.0	99.1	109.7	37.28
380.0	101.0	115.8	38.33
400.0	102.8	121.9	39.33
420.0	104.6	128.0	40.33
440.0	106.8	134.1	41.56
460.0	108.9	140.2	42.72
472.0	110.0	143.9	43.33

SEP 27, 1978

29-20N/28E
NEVADA
SODA LAKE
05/16/73

GEOTHERMAL

ZN: 11 UTM
X: 340513
Y: 4381383
LAT : 39.56921
LONG: 118.85669

* SL-30 *

ELEV: + 3980

2250 FT S & 200 FT W OF NE COR OF SEC 29
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	60.2	3.0	15.67
20.0	67.3	6.1	19.61
32.0	70.8	9.8	21.56
40.0	71.7	12.2	22.06
50.0	73.6	15.2	23.11
60.0	75.9	18.3	24.39
70.0	78.3	21.3	25.72
80.0	80.9	24.4	27.17
90.0	83.8	27.4	28.78
100.0	86.7	30.5	30.39
120.0	91.6	36.6	33.11
140.0	100.6	42.7	38.11
160.0	106.5	48.8	41.39
180.0	113.6	54.9	45.33
200.0	122.1	61.0	50.06
220.0	133.5	67.1	56.39
240.0	148.3	73.2	64.61
260.0	162.8	79.2	72.67
280.0	176.2	85.3	80.11
300.0	189.5	91.4	87.50
320.0	200.4	97.5	93.56
340.0	210.6	103.6	99.22
360.0	220.9	109.7	104.94
380.0	229.7	115.8	109.83
400.0	237.0	121.9	113.89
420.0	239.4	128.0	115.22
440.0	238.2	134.1	114.56
460.0	237.6	140.2	114.22
480.0	236.3	146.3	113.50
484.0	236.3	147.5	113.50

SEP 27, 1978

29-20N/28E
NEVADA
SODA LAKE
05/01/73

GEOHERMAL

ZN: 11 UTM
X: 339119
Y: 4381442
LAT : 39.56949
LONG: 118.87292

* SL-31 *

ELEV: + 3990

2300 FT S & 800 FT E OF NW COR OF SEC 29
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	56.6	3.0	13.67
20.0	61.7	6.1	16.50
32.0	62.7	9.8	17.06
40.0	63.0	12.2	17.22
50.0	63.7	15.2	17.61
60.0	64.1	18.3	17.83
70.0	64.7	21.3	18.17
80.0	65.4	24.4	18.56
90.0	65.9	27.4	18.83
100.0	66.3	30.5	19.06
120.0	67.7	36.6	19.83
140.0	68.9	42.7	20.50
160.0	70.1	48.8	21.17
180.0	71.1	54.9	21.72
200.0	72.5	61.0	22.50
220.0	73.8	67.1	23.22
240.0	75.1	73.2	23.94
260.0	76.2	79.2	24.56
280.0	77.4	85.3	25.22
300.0	79.1	91.4	26.17
320.0	80.3	97.5	26.83
340.0	81.3	103.6	27.39
360.0	82.6	109.7	28.11
380.0	83.8	115.8	28.78
400.0	85.6	121.9	29.78
420.0	86.9	128.0	30.50
440.0	88.1	134.1	31.17
460.0	89.4	140.2	31.89
480.0	90.8	146.3	32.67
500.0	92.2	152.4	33.44

SEP 27, 1978

31-20N/28E
NEVADA
SODA LAKE
05/03/73

GEOHERMAL

ZN: 11 UTH
X: 338067
Y: 4379048
LAT : 39.54773
LONG: 118.88458

* SL-32 *

ELEV: + 4000

250 FT N & 2250 FT E OF SW COR OF SEC 31
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	57.9	3.0	14.39
20.0	59.9	6.1	15.50
32.0	61.1	9.8	16.17
40.0	61.1	12.2	16.17
50.0	61.3	15.2	16.28
60.0	62.1	18.3	16.72
70.0	63.1	21.3	17.28
80.0	63.7	24.4	17.61
90.0	64.1	27.4	17.83
100.0	64.6	30.5	18.11
120.0	65.4	36.6	18.56
140.0	66.3	42.7	19.06
160.0	67.4	48.8	19.67
180.0	68.4	54.9	20.22
200.0	69.5	61.0	20.83
220.0	70.6	67.1	21.44
240.0	71.7	73.2	22.06
260.0	72.7	79.2	22.61
280.0	73.6	85.3	23.11
300.0	74.6	91.4	23.67
320.0	75.4	97.5	24.11
340.0	76.4	103.6	24.67
360.0	77.2	109.7	25.11
380.0	78.7	115.8	25.94
400.0	79.7	121.9	26.50
420.0	80.7	128.0	27.06
440.0	81.7	134.1	27.61
460.0	82.8	140.2	28.22
480.0	83.8	146.3	28.78
484.0	84.0	147.5	28.89

SEP 27, 1978

6-19N/28E
NEVADA
SODA LAKE
05/04/73

GEOHERMAL

ZN: 11 UTM
X: 338872
Y: 4377850
LAT : 39.53709
LONG: 118.87492

* SL-33 *

ELEV: + 4020

1550 FT N & 250 FT W OF SE COR OF SEC 6
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	55.8	3.0	13.22
20.0	54.3	6.1	12.39
32.0	61.2	9.8	16.22
40.0	60.5	12.2	15.83
50.0	59.8	15.2	15.44
60.0	59.7	18.3	15.39
70.0	60.0	21.3	15.56
80.0	60.0	24.4	15.56
90.0	60.1	27.4	15.61
100.0	60.1	30.5	15.61
120.0	60.2	36.6	15.67
140.0	60.3	42.7	15.72
160.0	60.5	48.8	15.83
180.0	60.7	54.9	15.94
200.0	60.9	61.0	16.06
220.0	61.1	67.1	16.17
240.0	61.3	73.2	16.28
260.0	61.4	79.2	16.33
280.0	61.4	85.3	16.33
300.0	61.7	91.4	16.50
320.0	61.8	97.5	16.56
340.0	62.2	103.6	16.78
360.0	62.6	109.7	17.00
380.0	63.3	115.8	17.39
400.0	64.1	121.9	17.83
420.0	64.8	128.0	18.22
440.0	65.8	134.1	18.78
460.0	67.2	140.2	19.56
480.0	68.7	146.3	20.39
484.0	69.0	147.5	20.56

SEP 27, 1978

9-19N/28E
NEVADA
SODA LAKE
05/04/73

GEOHERMAL

ZN: 11 UTM
X: 340575
Y: 4376587
LAT : 39.52603
LONG: 118.85481

* SL-34 *

ELEV: + 3997

2400 FT S & 250 FT E OF NW COR OF SEC 9
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	53.9	3.0	12.17
20.0	58.4	6.1	14.67
32.0	60.1	9.8	15.61
40.0	60.7	12.2	15.94
50.0	61.3	15.2	16.28
60.0	61.8	18.3	16.56
70.0	62.2	21.3	16.78
80.0	62.7	24.4	17.06
90.0	63.2	27.4	17.33
100.0	63.4	30.5	17.44
120.0	64.2	36.6	17.89
140.0	64.8	42.7	18.22
160.0	65.4	48.8	18.56
180.0	65.9	54.9	18.83
200.0	66.0	61.0	18.89
220.0	66.7	67.1	19.28
240.0	67.1	73.2	19.50
260.0	67.7	79.2	19.83
280.0	68.0	85.3	20.00
300.0	69.9	91.4	21.06
320.0	70.8	97.5	21.56
340.0	71.2	103.6	21.78
360.0	71.9	109.7	22.17
380.0	72.5	115.8	22.50
400.0	73.2	121.9	22.89
420.0	73.8	128.0	23.22
440.0	74.4	134.1	23.56
460.0	75.1	140.2	23.94
480.0	75.7	146.3	24.28
484.0	75.9	147.5	24.39

SEP 27, 1978

21-20N/28E
NEVADA
SODA LAKE
05/15/73

GEOTHERMAL

ZN: 11 UTM
X: 340632
Y: 4383175
LAT : 39.58537
LONG: 118.85573

* SL-35 *

ELEV: + 3980

3300 FT N & 300 FT E OF SW COR OF SEC 21
SOURCE: CHEVRON
COMMENTS:

FEET	TEMP-F	METERS	TEMP-C
10.0	58.6	3.0	14.78
20.0	64.3	6.1	17.94
32.0	65.8	9.8	18.78
40.0	66.2	12.2	19.00
50.0	66.4	15.2	19.11
60.0	67.3	18.3	19.61
70.0	68.0	21.3	20.00
80.0	69.0	24.4	20.56
90.0	70.1	27.4	21.17
100.0	70.9	30.5	21.61
120.0	72.8	36.6	22.67
140.0	74.3	42.7	23.50
160.0	76.4	48.8	24.67
180.0	78.0	54.9	25.56
200.0	79.9	61.0	26.61
220.0	81.5	67.1	27.50
240.0	83.4	73.2	28.56
260.0	86.0	79.2	30.00
280.0	88.1	85.3	31.17
300.0	90.1	91.4	32.28
320.0	91.9	97.5	33.28
340.0	93.5	103.6	34.17
360.0	94.9	109.7	34.94
380.0	96.7	115.8	35.94
400.0	98.7	121.9	37.06
420.0	100.5	128.0	38.06
440.0	102.2	134.1	39.00
460.0	103.6	140.2	39.78
480.0	105.6	146.3	40.89
484.0	106.2	147.5	41.22

SEP 27, 1978