Art. 2 C(1) a.
Art. 2 C(1) c. 1)

GL04401

UNION OIL COMPANY OF CALIFORNIA
Geothermal Division

Item (1) a. Temperature Gradient Investigation (6 holes)
and (1) c. .1, Temperature Gradient Investigation (19 holes)

Measurement: In 1974 the temperature profiles were measured using a "Minimite" thermocouple instrument manufactured by Thermo Electric of North Hollywood, California, with an accuracy of $\pm$ 0.5°F. The reproducibility of the temperature data varied $\pm$ 1.0°F. For the temperature profiles used in the geologic report the data was visually smoothed to eliminate erratic data. In 1976 the temperature profiles were measured using a thermistor, model DT 101, manufactured by Enviro-Labs, Burbank, California. This instrument can be read to the nearest 0.01°C and the reproducibility of the data is within 0.01°C.

Temperature readings were obtained every 25 feet as the probe was lowered into the gradient hole which had been completed with 3/4" or 1" PVC pipe run into a 4-3/4" drill hole, backfilled with earth, cuttings and drilling mud. At each station the probe was given 3 to 10 minutes to stabilize before the final reading was obtained. The holes were resurveyed until we were satisfied that reasonable stability had been established in the bore hole, or mechanical problems prevented reentry.

Item (1) a. Temperature Gradient Investigation (6 holes) and
c. .1, Temperature Gradient Investigation (19 holes).

UNION OIL COMPANY OF CALIFORNIA
Geothermal Division

Dates of 1974 Temperature Gradient Data

Hole No.	Days Since Completion	Date	
74- 1	1	8/22/74	
	5	8/26/74	ART. 2C(1)c1)
	8	8/29/74	
	9	8/30/74	
74- 2	2	8/25/74	
	3	8/26/74	ART. 2C(1)c1)
	7	8/30/74	
74- 3	1	8/29/74	
	2	8/30/74	ART. 2C(1)c1)
	8	9/5/74	
74- 4	5	9/4/74	
	6	9/5/74	ART. 2C(1)c1)
	8	9/7/74	
	10	9/9/74	
74- 5	1	9/5/74	
	3	9/7/74	ART. 2C(1)a
	5	9/9/74	
74- 6	3	9/9/74	
	5	9/11/74	ART. 2C(1)c1)
	7	9/13/74	
74- 8	3/4	9/20/74	
	2	9/21/74	
	3	9/22/74	ART. 2C(1)c1)
	4	9/23/74	
	5	9/24/74	
74- 9	5	9/28/74	
	9	10/2/74	
	17	10/10/74	
	21	10/14/74	ART. 2C(1)c1)
	25	10/18/74	
	57	11/19/74	
74-10	2	9/27/74	
	3	9/28/74	
	7	10/2/74	
	15	10/10/74	ART. 2C(1)c1)
	17	10/12/74	
	23	10/18/74	

Dates of 1974 Temperature Gradient Data (Cont'd)

Hole No.	Days Since Completion	Date	
74-11	3	9/30/74	
	5	10/2/74	
	6	10/3/74	ART. 2C (1)a
	13	10/10/74	
	15	10/12/74	
74-12	1	10/10/~~64~~ 74	
	3	10/12/74	
	5	10/14/74	ART. 2C (1)c 1)
	8	10/17/74	
74-13	2	10/18/74	
	12	10/28/74	ART. 2 C (1) a
	13	10/29/74	
74-14	6	10/28/74	
	7	10/29/74	ART. 2 C (1) c 1)
	9	10/31/74	
74-15	4	10/28/74	
	5	10/29/74	
	7	10/31/74	
	19	11/12/74	ART. 2C (1) c 1)
	20	11/13/74	
	21	11/14/74	
74-16	1	11/1/74	
	12	11/12/74	
	13	11/13/74	ART. 2 C (1) a
	14	11/14/74	
74-20	1/4	11/23/74	
	1	11/24/74	ART. 2 C (1) c 1)
	2	11/25/74	
74-21	13	12/10/74	ART. 2C (1) a
	14	12/11/74	
74-22	6	12/9/74	
	7	12/10/74	ART. 2C (1) c 1)
74-23	2	8/25/74	
	6	8/29/74	ART. 2C (1) a
	29	9/21/74	
74-24	1	9/6/74	
	4	9/9/74	ART. 2C (1) c 1)
	15	9/20/74	

Dates of 1976 Temperature Gradient Data

Hole No.	Days Since Completion	Date	
76- 1	8	11/8/76	ART. 2C(1)c 1)
	12	11/12/76	
76- 2	4	11/8/76	ART. 2C(1)c 1)
	8	11/12/76	
76- 3	3	11/12/76	ART. 2C(1)c 1)
	8	11/17/76	
76- 4	3	11/13/76	ART. 2C(1)c 1)
	7	11/17/76	
76- 5	1	11/13/76	ART. 2C(1)c 1)
	5	11/17/76	

ART. 2, CODE. 1)

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-1
T.D. 300'

T. 26S R. 7W Sec. 12
1250 fel 2250 fsl

BEAVER COUNTY UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1	5	8	9		
25'	57.0°F	67.0°F	66.0°F	59.0°F		
50	65.5	70.5	74.0	65.0		
75	70.0	75.5	77.0	69.5		
100	75.0	79.0	81.0	74.0		
125	77.5	82.5	84.0	78.0		
150	82.0	86.0	89.0	81.5		
175	83.0	90.5	93.0	86.0		
200	86.0	94.0	95.5	89.5		
225	90.0	99.5	98.5	94.0		
250	94.0	105.0	105.0	99.0		
275	98.0	109.0	108.0	103.0		
300	102.5	112.0	110.5	107.0		

LITHOLOGY:
0'-240' sandstone; gravel, boulders; 240'-300' volcanics; 80°F water circulated from hole on morning of completion after 14 hours shut-in. Watertable 12 feet.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-2
T.D. 135'

T. 25S R. 6W Sec. 17
600' fwl 2350' fsl

Beaver (COUNTY) Utah (STATE)

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	~1	3	7			
25'	56.0°F	67.5°F	60.0°F			
50'	64.5	74.0	68.0			
75'	72.0	79.0	76.0			
100'	76.0	83.5	83.0			
125'	79.5	86.0	86.0			
135'	82.5	87.5	87.0			

LITHOLOGY:
0'-60' - limestone, hard; 60'-110' - soft Limestone; 110'-120' - limestone Cavern; 120'-135' - black shale
Lost circulation - cavern (10') at 110'-120'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-3
T. D. 300'

T. 25S R. 6W Sec. 19
2100' N/S 50' E/W

MILLARD COUNTY
UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	~1	2	8			
25'	67.0°F	65.5°F	56.0°F			
50	71.0	70.5	61.0			
75	78.0	75.0	67.0			
100	79.5	78.0	70.0			
125	84.0	84.0	76.0			
150	88.5	90.0	82.0			
175	94.0	91.5	88.0			
200	98.0	96.5	90.5			
225	101.0	101.5	95.0			
250	108.0	106.0	100.5			
275	111.0	111.0	105.0			
300'	116.0	116.5	112.0			

LITHOLOGY:
0'-107 alluvium;
107-300'. volcanics.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-4
T.D. 125'

T. 25S R. 6W Sec. 20
1450 N/S 850 E/W

MILLARD COUNTY UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	5	6	8	10		
25'	65.5°F	61.0°F	64.0°F	62.5°F		
50	71.5	66.0	70.0	68.0		
75	76.5	73.5	76.0	74.0		
100'	82.0	79.5	82.5	80.5		
125	86.0	81.5	86.0	85.0		

LITHOLOGY:
0'-100' quartzite, limestone, gravel; 100'-125'-? lost circulation soft porous at bottom, noreturns

OTHER:

Art. 2, C 02a. ①

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-5
T. D. 300'

T. 25S R. 6W Sec. 29
250 S/N 4400 E/W

Millard COUNTY — Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1	3	5			
25	70.0°F	66.0°F	64.0°F			
50	73.5	72.0	70.0			
75	75.0	76.0	76.0			
100	80.0	82.0	80.0			
125	87.0	86.0	86.0			
150	89.5	90.0	90.0			
175	93.5	95.0	95.0			
200	97.5	100.0	99.0			
225	104.0	103.0	104.0			
250	108.5	109.0	109.0			
275	113.5	113.0	114.0			
300	118.0	119.0	119.0			

LITHOLOGY:
0'-72' overburden; 72'-168' soft volcanics; 168'-220' hard volcanics; 220'-264' soft volcanics; 264'-300' hard volcanics

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-6
T. D. 256'

T. 25S R. 7W Sec. 23
2700' N/S 150 W/E

MILLARD COUNTY UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	3	5	7			
25	56.0°F	56.0°F	53.0°F			
50	57.0	58.5	54.0			
75	59.0	60.5	58.0			
100	60.5	62.5	59.5			
125	62.0	65.0	60.5			
150	64.0	66.5	63.0			
175	66.0	68.5	65.0			
200	68.0	70.0	67.0			
225	70.0	72.0	69.0			
250	72.0	73.5	71.0			
256	73.0	74.0	72.0			

LITHOLOGY:
0'-46'-overburden
46'-256'-volcanics

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-8
T.D. 256'

T. 25S R. 6W Sec. 28
2900' E/W 1200' N/S

MILLARD (COUNTY) UTAH (STATE)

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	3/4	2	3	4	5	
25'	66.5°F	65.0°F	65.5°F	65.5°F	63.0°F	
50'	67.0	66.0	68.0	66.5	65.0	
75'	70.0	71.0	72.0	70.5	68.0	
100'	74.0	75.5	76.0	74.5	73.5	
125'	76.0	78.0	80.0	78.5	77.0	
150	79.5	81.5	83.0	80.5	80.0	
175	82.0	84.0	88.0	84.5	84.0	
200	86.0	88.0	90.5	88.5	88.0	
225	89.0	91.0	94.5	92.5	92.0	
250	94.5	96.0	99.5	97.5	97.0	
256	96.5	97.0	100.5	99.0	98.0	

LITHOLOGY:
0'-23' overburden; 23-32' soft volcanics; 32-58' hard volcanics; 58-63 very hard volcanics; 63'-187' hard volcanics; 187'-210' soft volcanics; 210'-255' hard volcanics; water at 40'; and bluish-green andesite 58'-187' becoming darker purplish-andesite at 187'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-9
T. D. 300'

T. 26S R. 7W Sec. 1
2820' W/E 1350' S/N

Millard COUNTY Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	5	9	17	21	25	57
25	57.0°F	56.0°F	58.0°F	55.0°F	56.0°F	55.5°F
50	57.0	57.0	58.0	57.0	57.5	57.5
75	59.5	59.0	59.5	58.0	59.0	59.5
100	61.0	61.0	60.5	60.0	61.0	60.5
125	62.5	62.0	62.0	61.5	62.5	62.0
150	63.0	64.0	63.5	63.0	64.0	63.5
175	65.0	65.0	63.5	64.0	65.0	64.0
200	65.0	65.5	64.5	64.0	66.0	65.5
225	66.0	65.5	66.0	65.0	66.0	66.0
250	66.5	66.0	67.0	66.0	67.0	66.5
275	67.5	67.0	68.0	67.0	68.0	67.5
300	68.0	69.5	68.5	67.5	68.5	68.0

LITHOLOGY:
0'-300' overburden

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-10
T. D. 300

T. 25S R. 6W Sec. 31
1420'S/NL 440'E/WL

Millard COUNTY
Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	2	3	7	15	17	23
25	61.5°F	63.0°F	62.0°F	66.0°F	64.5°F	63.5°F
50	63.5	64.0	63.0	66.5	65.0	64.5
75	64.0	64.5	64.0	66.5	65.5	65.0
100	64.0	66.0	65.0	66.5	66.0	66.0
125	64.0	66.0	65.5	67.0	66.5	66.5
150	65.0	66.0	66.0	67.0	66.0	66.5
175	65.5	67.0	66.5	68.0	66.0	67.5
200	66.5	68.5	67.5	69.0	68.0	68.5
225	68.0	69.0	69.0	70.0	69.5	70.0
250	70.0	70.5	71.0	71.5	70.5	72.0
275	71.5	73.5	73.0	73.5	72.0	73.5
300	73.5	75.0	75.0	76.0	74.5	75.5

LITHOLOGY:
0'-300' overburden
Lost circulation at 90'.
Water level 18'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-11
T. D. 255'

T. 26S R. 7W Sec. 13
2750' W/E 2650' N/S

Beaver (COUNTY) Utah (STATE)

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	3	5	6	13	15	
25'	55.0°F	58.0°F	58.0°F	56.0°F	56.0°F	
50	56.0	59.0	59.0	57.5	57.5	
75	58.5	62.0	61.0	60.0	59.5	
100	59.5	62.0	62.0	62.0	62.0	
125	62.0	65.0	65.0	64.0	64.0	
150	63.5	67.0	67.0	66.0	65.5	
175	66.5	69.5	68.0	68.5	67.5	
200	68.0	70.0	70.0	70.0	69.5	
225	69.0	72.0	71.5	71.0	70.5	
250	70.5	74.0	71.5	72.0	71.5	
255	71.0	74.5(-)	72.0	72.0+	72.0	

LITHOLOGY:
0'-7' overburden; 7'-106' hard volcanics; 106'-109' soft volcanics; 109-117 hard volcanics; 117-121 soft volcanics; 121-255' hard volcanics; Water table 60'. Lost circulation at 106'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-12
T.D. 300'

T. 25S R. 6W Sec. 29
600' E/W, 250' N/S

Millard COUNTY — Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1	3	5	8		
25'	67.0°F	63.5°F	60.5°F	60.0°F		
50	67.5	64.0	62.0	61.5		
75'	70.0	68.0	66.0	65.5		
100	74.0	71.0	70.0	69.5		
125	78.0	75.0	74.0	73.0		
150	80.0	78.0	79.5	77.0		
175	83.0	82.5	83.5	81.5		
200	84.0	85.0	87.0	86.0		
225	88.0	88.5	90.5	89.5		
250	91.5	92.0	94.5	92.5		
275	94.5	96.0	98.5	96.5		
300	99.5	100.0	102.0	100.5		

LITHOLOGY:
0'-40' alluvium; 40'-120' hard gray andesite; 120'-192' very hard volcanics; 192'-220' soft volcanics much water; 220'-285' hard volcanics; 285'-300' very hard volcanics; watertable 30'
drilling temperature 78°

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-13
T.D. 255'

T. 26S R. 6W Sec. 7
600' W/E, 750' N/S

BEAVER COUNTY
UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	2	12	13			
25'	58.0°F	55.5°F	58.0°F			
50	60.5	58.0	60.5			
75	64.0	63.0	65.0			
100	68.0	68.5	69.5			
125	73.0	73.0	73.0			
150	77.5	77.0	77.0			
175	80.5	81.5	81.0			
200	86.0	85.5	85.0			
225	89.5	89.5	89.5			
250	93.0	93.5	93.5			
255	94.0	94.5	94.5			

LITHOLOGY:
0'-60' Alluvium; 60'-240' tuff, soft clayey, red; 240'-255' tuff, biotite, white
Water table 35' Drilling temp. 80°F.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-14
T.D. 255'

T. 25S R. 6W Sec. 21
4700'E/W, 2300 N/S

MILLARD (COUNTY) UTAH (STATE)

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	6	7	9			
25'	56.5°F	58.0°F	58.0°F			
50	59.5	60.0	60.5			
75	62.0	62.5	62.0			
100	64.5	65.0	65.0			
125	68.0	67.0	67.0			
150	70.0	69.0	69.5			
175	72.0	70.5	72.0			
200	74.0	72.5	73.5			
225	76.0	75.0	75.5			
250	78.0	77.5	78.0			
255	79.0	78.0	78.5			

LITHOLOGY:
0'-52' overburden; 52'-80' soft andesite; 80-102' hard andesite; 102'-125' soft volcanics; 125-205' hard volcanics; 205'-255' very hard volcanics

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-15
T.D. 255'

T. 25S R. 5W Sec. 19
500' E/W, 700' N/S

MILLARD COUNTY — UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	4	5	7	19	20	21
25	56.5°F	55.0°F	54.5°F	55.5°F	56.5°F	58.5°F
50	56.5	56.0	56.0	57.0	58.0	60.0
75	58.0	57.5	58.0	58.5	59.5	60.0
100	61.0	61.0	60.0	60.5	62.0	63.5
125	63.5	64.0	63.0	64.0	64.0	66.0
150	65.5	66.0	65.5	66.0	66.0	68.5
175	68.0	68.0	68.0	68.0	68.5	70.5
200	69.0	70.0	70.0	70.0	70.0	72.5
225	69.5	70.0	70.5	72.5	72.0	74.0
250	74.0	74.0	74.0	75.0	74.5	76.0
255	75.0	75.5	74.5	76.0	75.0	76.5

LITHOLOGY:
0'-102' overburden. 102'-132' hard reddish andesite; 132-141'-soft volcanics; 148'-227' hard volcanics; 227'-230' soft volcanics; Lost Circulation 230'-255'. Drilling temp. 63°F.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-16
T. D. 175'

T. 25S R. 7W Sec. 22
1500' E/W, 1200' N/S
(unsurveyed)
Millard COUNTY Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1	12	13	?		
25	56.0°F	56.5°F	58.5°F	55.5°F		
50	58.0	58.0	59.5	57.5		
75	61.0	61.0	62.5	61.0		
100	61.0	64.0	65.0	62.5		
125	64.0	67.0	69.0	66.0		
150	67.0	68.5	70.0	68.0		
175	70.0	70.0	71.5	70.0		

LITHOLOGY:
0'-7' overburden; 7'-35' hard volcanics; 35'-130' soft volcanics; 130'-176' hard volcanics; water at 140'; Lost circulation 105' and 162'.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-20
T. D. 250'

T. 26S R. 7W Sec. 30
10' W/EL, 1200' S/NL

Beaver COUNTY
Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1/4	1	7			
25'	52.0°F	54.0°F	55.0°F			
50	52.0	54.0	55.5			
75	53.0	54.0	56.0			
100	54.0	55.5	57.0			
125	56.0	56.0	57.0			
150	56.0	57.0	57.5			
175	56.5	57.5	58.0			
200	55.0	57.5	58.0			
225	52.0	54.0	54.5			
250	50.5	52.0	52.5			

LITHOLOGY:
0'-9' alluvium; 9'-45' rhyolite, soft and fractured; 45'-80'-rhyolite hard; 80'-118' rhyolite, soft; 118'-160' rhyolite, hard; 160'-174' rhyolite, very hard; 174-219' rhyolite hard; 219'-255' Lost circulation; water table at 200'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-21
T. D. 225'

T. 26S R. 7W Sec. 21
100'W/EL, 1000'N/SL

BEAVER COUNTY
UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	14	17				
25'	56.0°F	55.5°F				
50	56.0	54.0				
75	59.0	55.0				
100	57.5	55.5				
125	58.0	56.0				
150	59.0	56.5				
175	59.5	57.5				
200	60.0	57.5				
225	60.0	58.0				

LITHOLOGY:
0'-40' Sandstone; 40'-80' volcanics;
80'-225' alluvium

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-22
T.D. 250'

T. 26S R. 6W Sec. 18
1000' N/SL 150' W/EL
(unsurveyed)
BEAVER COUNTY UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	6	7				
25'	56.0°F	55.5°F				
50	56.0	56.0				
75'	56.5	56.5				
100	58.0	58.0				
125	60.0	59.5				
150	61.0	60.5				
175	62.0	62.0				
200	62.5	63.5				
225	64.0	64.5				
250	65.5	66.0				

LITHOLOGY:
0'-250' tuff, red
water table: not reported.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-23
T. D. 98'

T. 25S R. 6W Sec. 19
400' W/EL, 400' N/SL

BEAVER COUNTY UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	2	6	29			
25	61.0°F	62.5°F	60.0°F			
50	66.0	69.5	65.5			
75	72.0	77.0	70.5			
98	78.0	80.5	75.5			
102	79.0	—	—			

LITHOLOGY:
0'-98 Pre-Tertiary;
water table probably at T.D.

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 74-24
T. D. 390'

T. 25S R. 7W Sec. 26
2500' N/SL, 200' W/EL

MILLARD COUNTY — UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1	4	15			
25'	55.5°F	57.0°F	59.5°F			
50	58.0	59.0	59.0			
75	58.0	59.5	59.5			
100	59.0	60.5	62.0			
125	58.5	62.0	62.5			
150	60.5	62.0	62.0			
175	59.5	62.0	62.0			
200	59.0	61.5	63.0			
225	59.0	62.0	63.0			
250	58.0	62.0	62.5			
275	58.0	61.0	63.0			
300	57.5	62.0	63.0			
325	60.5	64.0	64.0			
350	61.0	66.5	66.0			
375	63.0	68.0	68.0			
390	64.0	70.0	69.0			

LITHOLOGY:
0'-390' - Alluvium and Late Tertiary Sediments.
Water table at 105'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 76-1
T.D. 162.5

T. 26S R. 7W Sec. 13
300 fnl 2150 fel

Beaver (COUNTY) Utah (STATE)

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	8	12				
25'	14.28°C	14.34°C				
50	16.86	16.82				
75	19.10	19.09				
100	20.92	20.98				
125	22.92	22.94				
137.5	—	23.55				
150	24.01	24.05				
162.5	24.99	25.00				

LITHOLOGY:
0'-162.5' alluvium; sandstone; gravel; water at 147'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 76-2
T. D. 250'

T. 26S R. 7W Sec. 24
1800 fwl 1650 fsl

Beaver COUNTY
Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	4	8				
25	12.01°C	11.78°C				
50	12.28	12.25				
75	13.02	12.96				
100	13.64	13.59				
125	14.25	14.23				
150	14.69	14.71				
175	15.20	15.21				
200	15.66	15.66				
225	16.25	16.26				
250	16.96	16.96				

LITHOLOGY:
Alluvium, sandstone, gravel
0'-250'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 76-3
T.D. 250'

T. 26S R. 6W Sec. 20
800' fnl 500' fwl

Beaver COUNTY UTAH STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	3	8				
25'	10.09°C	9.98°C				
50	10.38	10.28				
75	11.11	11.04				
100	11.57	11.56				
125	12.14	12.15				
150	12.85	12.83				
175	13.55	13.50				
200	14.23	14.50				
225	15.01	14.99				
250	15.76	15.74				

LITHOLOGY:
0'-250' volcanics, andesitic, medium hard; water at 108', 223' and 240'; 5-6 gpm at 155'; 15-20 gpm at 250'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 76-4
T.D. 250'

T. 26S R. 6W Sec. 20
1150 fwl 1550 fsl

Beaver (COUNTY) Utah (STATE)

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	3	7				
25'	9.78°C	9.66°C				
50	9.97	9.82				
75	10.49	10.41				
100	11.23	11.22				
125	12.05	11.96				
150	12.75	12.74				
175	13.37	13.22				
200	13.79	13.74				
225	14.14	14.11				
250'	14.66	14.66				

LITHOLOGY:
0'-250' volcanics, andesitic; first water at 106'; 2-3 gpm at 250'; water zone at 145-155'

OTHER:

UNION GEOTHERMAL DIVISION
TEMPERATURE GRADIENT DATA

PROSPECT: Cove Fort
HOLE NO. 76-5
T.D. 208.5'

T. 26S R. 6W Sec. 29
750 fwl 1950 fnl

Beaver COUNTY
Utah STATE

TEMPERATURES

DEPTH	DAYS SINCE COMPLETION					
	1	5				
25'	9.83°C	9.64°C				
50	10.09	9.99				
75	10.68	10.70				
100	11.27	11.32				
125	11.87	11.94				
150	12.73	12.82				
175	13.21	13.37				
200	13.60	13.66				
208.5	13.69	13.74				

LITHOLOGY:
0-208.5' volcanics, andesitic, medium hard; water at 110', 145', 175', and 208'; 15 gpm at T.D.

OTHER: