TOWNSHIP/RANGE/SECTION: 35/8E - 14RC

STATE: Oregon

TOPO. QUAD: Government Camp 1/4

ELEVATION: 3,126 feet, 953 meters [Source: USGS 7.5']

LATITUDE: 1

LONGITUDE: 1

HOLE OWNER (AND NUMBER): Northwest Natural Gas

DATE(S) LOGGED: 7/19/79

INCLINATION & BEARING: West

GEOLOGIC PROVINCE: High Cascades

KEY INFORMATION:

DEPTH LOGGED: 2,840 ft

MAX. TEMP.: 116.4°F

BOTTOM HOLE TEMP.: 116.4°F

DEPTH TO WATER: ≤ 5 ft

MIN. TEMP.: 8.15°F

SURFACE TEMP.: 7.1°F

DRILLING INFORMATION:

DRILLING CONTRACTOR AND ADDRESS: Snyder Bros., Portland, OR

DRILLING METHODS: mud rotary

DRILLED DEPTH: 935 ft

HOLE SIZE AND CASING RECORD:
- 200' of 8" casing - 1 1/2" steel pipe
- to total depth - annulus filled with heavy mud

COMMENTS:

TERRAIN INFORMATION:

GROUND COVER, COLLAR: more; Within 150 m - heavy conifer forest

TOPOGRAPHIC SETTING, LOCAL: Rivited; Regional: MT Flank

RELIEF, LOCAL (M): 85 m; Regional (M): 825

SLOPE ORIENTATION, LOCAL: South; Regional: West

SLOPE ANGLE, LOCAL: ; Regional:

HEAT FLOW INFORMATION:

SHAPE OF T-D CURVE: ORLDIST

QUALITY OF GRADIENT: C

PURPOSE OF HOLE: LOC/REC HF

"GEOLGIC LOG (INCLUDE AQUIFERS) WILL BE AVAILABLE"

"GEOPHYSICAL LOGS AVAILABLE"

THERMAL CONDUCTIVITY SAMPLES: cuttings, coreable

"RADIOACTIVITY SAMPLES"

REFERENCES:

COMMENTS:

"HOLE COLLARED HIGH CASCADES AND SIDE - PENETRATED INTO FIRE & CONTINUED THROUGH DANIEL HILL PLUTON AND REMAINED THERE TO TOTAL DEPTH"
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor  American Deep Drilling  Report # 1
Location  3S 8E 14 BC  Date  6-6-79

Well # Zig Zag  DRILLING WITH 6" AIR HAMMER

<table>
<thead>
<tr>
<th>Depth @</th>
<th>1D AM/PM</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log: 1D' MED GRAY AQUIFERITE BASALTIC ANDESITE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RARE PHRENOID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2D' SAME RK PC phreos are MED GRAY NS PHENOS, BASALTIC ANDESITE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONE FRACTION FOUND, NO SECONDARY XTLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30' SAME - DARKER GRAY SOME OXIDIZED FOSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34' MUDFLOW RK (DRILLER)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40' NOT MUDFLOW BUT WELL CEMENTED QZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHRENOID PC SOME OXIDIZED TO CHLORITE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOOSE XTLS OF QZ, SOME ~10% QZ IN RK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RARE PHRENOID, RED ORANGE OXIDATION SPEC NEMATITE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50' SAME RK MUCH MORE OXIDIZED, LITTLE QZ, RK COULD ACTUALLY BE ANDESITE, PHRENOID PC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Driller says ANDESITE flow 43'-48'

Total Footage

Drilling Fluid:

☐ Mud - Additives
☐ Air - Pressure 220 - 250 P.S.I. Additives

Weather Report  RAIN

8071-NS  Observer J. Mayer
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling

Location: 3S 9E 14 R., #13

Well #: Fig. 28g

Report #: 1

Date: 6-6-79

Depth @ AM/PM

Log:
- 60' greasy white and smeary
- Chloritized, large xts, PC, ferrous (sulfur as encrustation)
- Oxidized
- 70' same, pneumatolytic
- Chlorite, milky PC, & aged mass grains?
- Little oxidation

80' same

90' same, appears same as 110' only

Xts are larger & not as oxidized

100' same, Rx triple, only minor

Quartz - flakes of te Mou Rare P basalts

Appears more weathered, same as 40'

110' same, larger, fresher xts, line 70'

120' same, fine grain, Gt, 5 hematite

130' same, te Mou, more fuscous

140' same, almost pure white, ice to melt

Depth @ 4 AM/PM

Total Footage

Drilling Fluid:
- [ ] Mud - Additives
- [ ] Air - Pressure

P.S.I. Additives: None

Weather Report: Raw

Observer: J. W. Jr.
## NORTHWEST GEOTHERMAL CORPORATION
### DRILLING LOG

<table>
<thead>
<tr>
<th>Contractor</th>
<th>American Deep Drilling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>B 58E 14 BE E 13</td>
</tr>
<tr>
<td>Date</td>
<td>6-6-79</td>
</tr>
<tr>
<td>Well #</td>
<td></td>
</tr>
</tbody>
</table>

### Depth @ 4 AM/PM

<table>
<thead>
<tr>
<th>Depth @ 4 AM/PM</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>150' Same</td>
<td>150</td>
</tr>
<tr>
<td>160' Same - More Oxidation</td>
<td>160</td>
</tr>
<tr>
<td>Fe Mags Not Totally Chloritized</td>
<td></td>
</tr>
<tr>
<td>Yellow Stains in PC Around Chloritized MnLS. Qtz &amp; Black Metallic Veinlets</td>
<td></td>
</tr>
</tbody>
</table>

### Depth @ 11:00 AM/PM

<table>
<thead>
<tr>
<th>Depth @ 11:00 AM/PM</th>
<th>Total Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>163'</td>
<td></td>
</tr>
</tbody>
</table>

### Drilling Fluid:
- Mud - Additives
- Air - Pressure

### Weather Report

8071-NS

Observer: [Signature]
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling
Location: 3S 8E 14 BC
Well #: 13

Report #: 2
Date: 6-7-79

Depth @ 9:20 AM
Log:
160' same as 160'
180' same as 180'
VeRY HARD DRILLING 185'-189'
190' two RK Types 500' as before
500' greenish gray aphanitic
few grains of PE microlites of 40 Mics
andesite? veinlets of graphite
200' 1000' RK Type as at 180'

As much epidote, more signs of oxidation.
RK at 185'-189' probably dire RK

* changing 6.5" to 10" reamer (air hammer)

Depth @ 11:40 AM

Total Footage:

Drilling Fluid:
☐ Mud - Additives
☐ Air - Pressure 220-250 P.S.I. Additives

Weather Report: Sunny

8071-NS Observer: J. Meyer
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drilling
Location: 35° 14' 36" W
Well #: 13

Report #: 3
Date: 6-8-79

STATIC WATER LEVEL 4'

Depth @ AM/PM
Log:

6-11-79 Report # 4 removed out hole to 200 ft. 10 in.

6-12-79 Cleaned out hole with Report # 5 9 3/4 Roller cone bit ledges to 100'

6-13-79 Cemented Surface casing 200' returns to surface
100 sacks cement

Total Footage

Drilling Fluid:
- Mud - Additives
- Air - Pressure P.S.I. Additives

Weather Report

8071-NS

Observer: J. Meyr
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling
Location: 35 8E 14 AC
Well #: 13

Report # 7
Date: 2-14-79

Depth @ 1:30 AM/PM

Log:
205' Frequent Zone
210' Same as before
Porous formation with open fractures
One large open fracture
Tripped to casing to 6 ½'
10 in. casing
220' Same as 12

Formation

<table>
<thead>
<tr>
<th>Depth @ 1:30 AM/PM</th>
<th>Total Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>223'</td>
</tr>
</tbody>
</table>

Drilling Fluid:
- Mud - Additives
- Air - Pressure 225-250 P.S.I. Additives

Weather Report
8071-NS

Observer: J. May
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drilling
Location: 3S 8E 14 BC
Well #: 13

Report #: 8
Date: 6-15-79

Depth @ 8:30 AM/PM

Log:
230' same as above
10-15% acid - ? much more white
240' same, RK type, more green
less epiota, black metallic mud?
242' fracture: oxidized fracture
open no diamonds, no scales.
250' same, RK type oxidized, spe k-4 retailer
Magnetite: gray, metallic and epiota, gray-black steink. epiperite in slices.
260' same, metallic mud, gray
270' same, casting: tan mud, secondary
RK chips. iron magnetite, back to
at least 170'
280' same, still seems of fracture.
290' same, no oxidation
300' same, oxidation: open fracture.

Depth @ 10:35 AM/PM

Total Footage

Formation

- - - - - -
223 ft.

About 6 gal/min water at 21/2' depth

250'
260
270
280
290
300

Drilling Fluid:

☐ Mud - Additives
☐ Air - Pressure 220-250 p.s.i. Additives

Weather Report: cloudy

Observer: J. Meyr

8071-NS
## Drilling Log

**Contractor:** American Deep Drilling  
**Location:** 3S2E 14 BC  
**Well #:** 13  
**Date:** 6-15-70

### Depth @ 1235 AM/PM

- Log: 310 same as above, originated flows
- 310 same as above, oxidation vessels
- Cuttings have 10-15% water
- True of all samples so far.  kennenlernen of epidote, law's phase, etc.
- 310 same as 310A. Rock very soft, - 0.1% carbonate
- 340' same materials as above
- 350 same greenish gray and white clay

### Formation

- **300 ft.**
  - 1:40 PM water out 44 in 36
  - 2:10 PM water out 44 in 32

### Drilling Fluid:

- **Air - Pressure:** 220.250 P.S.I.  
  - Additives

### Weather Report

8071-NS  
Observer: J. Meyer
NORTHWEST GEOThErmAL CORPORATION

DRILLING LOG

Contractor American Deep Drilling
Location SE 146c
Well # 13

Depth @ 3:00 AM
Log: Hole drilled to 30 ft. Driller had trouble finding a suitable cut-off point above men's triped hole. Drilling resumed drilling @ 9 PM. 6" bit. 380 ft. Same - brownish gray and white dr. with mixed ox. dr. on.
390 D: Ho, mid dr. 0.1
400 D: Ho, min. ox. 1

Formation
---
370 ft.

Depth @ 5:30 AM
Total Footage
30

Drilling Fluid:
☐ Mud - Additives
☐ Air - Pressure
P.S.I. Additives

Weather Report
Cloudy w/ AM Drizzle

8071-NS
Observer J. Hook
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling
Location: 35° 48' 14.08" N, 116° 49' 22.00" W
Well #: 13

Report #: 10
Date: 6-19-79

Depth @ AM/PM
Log:

Deepening around with mud slurry

410' Same as Type as before

oxidized

420' Same as Type, white soft

Vein material clay? or pine

430' Same as Type, clay is gone

oxidized - charged each of water to

lt brown - dark mucky green

440' Same - little oxidation - Some

White clay

450' Same - Some oxidation No Clay

460' Same - Oxidation clay - Re appeares wetness

470' Same - 460-470 Driller took

Drilling Fluid:

☐ Mud - Additives
☐ Air - Pressure 115 P.S.I. Additives

Weather Report

Observer: J. Mayr
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drilling
Location: 35° 38' 18"
Well #: 13
Report #: 11
Date: 6-20-75

Depth @ 10:30 AM/PM

Log:
Driller asked a lot to vary
but flags were too large. Had
to cut flag to building. Slight
between 2 and 4 ft. Found
everything all right and
245 ft. started to N. 430 ft.
480 ft. "White clay" and 490
430 ft. Came as clay, but ran
490 ft. D. Ho, mild. 1 or 2 ft.
495 ft. D. Ho, mild. 4 or 6 ft.

Total Footage

Drilling Fluid:
☐ Mud - Additives
☐ Air - Pressure

P.S.I. Additives

Weather Report: Partly Cloudy - Cool

Observer: J. Hook

8071-NS
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Drilling, Inc.
Location: 35° 46' 14" N 115° 10' 12" W
Well #: 13

Report #: 12
Date: 6-31-79

<table>
<thead>
<tr>
<th>Depth @ 7:00 AM/PM</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:30 PM Started Drilling</td>
<td></td>
</tr>
<tr>
<td>5:00 PM Mud out, new mud after 450' down, 455'-456'</td>
<td></td>
</tr>
<tr>
<td>5:10 PM Hoist 1 full reel</td>
<td></td>
</tr>
<tr>
<td>5:15 PM @ 6' PM</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth @ 6:00 AM/PM</th>
<th>Total Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 1/2</td>
<td></td>
</tr>
</tbody>
</table>

Drilling Fluid:

- [X] Mud - Additives
- [ ] Air - Pressure, P.S.I. - Additives

Weather Report: Partly Cloudy AM, Sunny PM

8071-NS

Observer: T. Hook
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drilling
Location: 35 20 11 m
Well #: 13

Report #: 13
Date: 6/22/77

Depth @ 9:00 A.M.
Log: 520' Greenish Gray

Depth @ 12:30 A.M.

Rig broke down 12:30 p.m.

Formation:

Total Footage: 540 ft.

Drilling Fluid:
☐ Mud - Additives
☐ Air - Pressure — P.S.I. — Additives

Weather Report: Sunny

Observer: J. H. Wh. 45 WH
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling
Location: 35' 06' 06.63
Well #: 17

Report #: 14 (10501)
Date: 6-26-79

Depth @ 9:45 AM/PM
Log:
550 - Greenish gray and white Qtz. cavity, Vap. 1 Ht.
560 - Ditto
570 - Ditto
575 @ 1:45 PM - cavity
580 - Ditto of normal gray...
590 - Ditto
600 - Ditto, 3'6/8" cord.
610 - Ditto

Note: Poured colloidal cement from 610 Ht. to 622 Ht. - Nearly 2' to 3'

Depth @ AM/PM

Formation

540 ft.

in - out
90° 90° F

50° 50° F

54° 53°

57° 57

Total Footage

Drilling Fluid:

☐ Mud - Additives

☐ Air - Pressure P.S.I. Additives

Weather Report: Sunny

Observer: J W Hook

8071-NS
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor ___________________________ Report # 14 (Page 2)
Location ___________________________ Date ___________________________
Well # ___________________________

Depth @ ____________________ AM/PM Formation

Log: Contd.
620 P.T. Mod. out & off
625 P.T. W. stuck & off
Note: Driller unable to number
of small cavities from
575 to the present depth

Depth @ ____________________ AM/PM

Total Footage

Drilling Fluid:
☐ Mud - Additives ___________________________ P.S.I. Additives
☐ Air - Pressure ___________________________

Weather Report ___________________________

8071-NS Observer T. W. Hook
# DRILLING LOG

**Contractor:** American Deep Drilling  
**Location:** 35°56'17.60"N  
**Well #:** 13  
**Report #:** 15  
**Date:** 6-27-79

<table>
<thead>
<tr>
<th>Depth @ 9 AM/PM</th>
<th>Log</th>
<th>Formation</th>
<th>Time</th>
<th>Temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>640</td>
<td>Gray green and whitish. Liq. to mud. Shaker sides lit to produce 0.5 gal.</td>
<td>630 ft.</td>
<td>11:00</td>
<td>44°F</td>
</tr>
<tr>
<td>650</td>
<td>Same as above but with very fine. Greenish. Color is from a lithium green mineral (possibly).</td>
<td></td>
<td>11:30</td>
<td>50°F</td>
</tr>
<tr>
<td>660</td>
<td>Same but with little more fine. Some oxidized. Mud line broke @ 1:30 @ 663 feet.</td>
<td></td>
<td>12:30</td>
<td>53°F</td>
</tr>
<tr>
<td>1:00</td>
<td></td>
<td></td>
<td>55°F</td>
<td></td>
</tr>
</tbody>
</table>

**Depth @ 1:30 AM/PM:**

**Total Footage:**

663

**Drilling Fluid:**
- [x] Mud - Additives
- [ ] Air - Pressure

**P.S.I. Additives:**

**Weather Report:** Sunny

8071-NS

**Observer:**
## Drilling Log

**Contractor:** American Deep Drilling  
**Location:** 33° 01' 14.66"  
**Well #:**  

<table>
<thead>
<tr>
<th>Depth @ 10:00 AM/PM</th>
<th>Log</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>600'</td>
<td>Greenish Gray Q.T. &amp; Slake Mud</td>
<td>663' ft.</td>
</tr>
<tr>
<td>680'</td>
<td>Same except Soft Fault Zone &amp; White Clay &amp; 1st Grit 3.4 &amp; 4.4</td>
<td></td>
</tr>
<tr>
<td>690'</td>
<td>P.H.O., with some 6.0 &amp; Fault Showing</td>
<td></td>
</tr>
<tr>
<td>700'</td>
<td>Greenish Gray Q.T. clays w/ Mud &amp; Slake Mud Slimes</td>
<td></td>
</tr>
<tr>
<td>&amp; Heavy Pyrite (No Sulfur)</td>
<td>12:00 PM</td>
<td></td>
</tr>
<tr>
<td>Driller reported small currents.</td>
<td>1:00 PM</td>
<td></td>
</tr>
<tr>
<td>710'</td>
<td>P.H.O., harder</td>
<td></td>
</tr>
<tr>
<td>720'</td>
<td>P.H.O., hard, clays less free</td>
<td></td>
</tr>
<tr>
<td>730'</td>
<td>P.H.O., less mud, less pyrite</td>
<td></td>
</tr>
<tr>
<td>Depth @ 5:00 PM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Footage:** 235'

**Drilling Fluid:**  
- **Mud - Additives**  
- **Air - Pressure: P.S.I.** Additives

**Weather Report:** Sunny  
**Observer:** J. W. Hook
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drill. Report # 17
Location: 2 38 14 R, Date: 6-29-79
Well #: 13

<table>
<thead>
<tr>
<th>Depth @ AM/PM</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>735'</td>
<td></td>
</tr>
<tr>
<td>12:15 PM MUD Temp: 44°F</td>
<td>28.5 sec. Summer Slick MUD, Marsh fluid</td>
</tr>
<tr>
<td>130 Gal. MUD: 95°F</td>
<td>39°F, 14°F</td>
</tr>
<tr>
<td>750'</td>
<td>750'</td>
</tr>
<tr>
<td>760'</td>
<td>760'</td>
</tr>
<tr>
<td>770'</td>
<td>770'</td>
</tr>
<tr>
<td>780'</td>
<td>780'</td>
</tr>
</tbody>
</table>

Depth @ AM/PM

Total Footage

Drilling Fluid:
- [ ] Mud - Additives
- [ ] Air - Pressure P.S.I. Additives

Weather Report: Cloudy

8071-NS Observer: J. Mayer
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drillers
Location: 3S 7E 1460
Well #: 13

<table>
<thead>
<tr>
<th>Depth @ 9 AM/PM</th>
<th>Log:</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>760 ft.</td>
<td>780 ft.</td>
<td>2.45 m/s.</td>
</tr>
<tr>
<td>810 ft.</td>
<td>810 ft.</td>
<td>4.45 m/s.</td>
</tr>
<tr>
<td>830 ft.</td>
<td>830 ft.</td>
<td>6.45 m/s.</td>
</tr>
<tr>
<td>836 ft. feature zone small mud loss</td>
<td>840 ft. feature zone small mud loss</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth @ 5 PM AM/PM</th>
<th>Total Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>843 ft.</td>
<td></td>
</tr>
</tbody>
</table>

Drilling Fluid:
- [ ] Mud - Additives
- [ ] Air - Pressure
- [ ] P.S.I. Additives

Weather Report: Cloudy

Observer: J. Meyer
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling
Location: 3S8E 1440 - Giggles
Well #: 13

Report #: 19
Date: 7-3-71

Depth @ 12:30 AM/PM

Log:
- 850 gravelly gray silt
- 1460 white to light gray silt
- 360 sand, medium to fine
- 510 sand
- 870 sand, fine to very fine with
- 930 sand, fine to very fine with
- 950 sand, fine to very fine with
- 970 sand, fine to very fine with
- Note: Driller reported
- Numbers appear to be teenagers

Total Footage:

Drilling Fluid:
- [ ] Mud - Additives
- [ ] Air - Pressure

Weather Report
8071-NS

Observer: J. W. Heck
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling
Location: 35/05 1/46c - Zigzag
Well #: 13

Report #: 20
Date: 7-5-79

Depth @ 9 AM/PM

Log:
870 ft. Brownish gray quartzite
dolerite, moderate oxidation
Texas grits, open fractures
900 ft. No visible circulation
(pump/less).

MT: drill thru thick horizontal zones below by raising
use of pressure on 6.7. Fracture
below 700 was firm and normal
pressure was resumed.

Breakline: 11:36 to 3:15.
Drilled 9:15 to 11:30 and
2:15 to 6:15.

Depth @ 6:15 AM/PM

Total Footage

Drilling Fluid:

☐ Mud - Additives  1000 lbs. B.J. Laidlaw
☐ Air - Pressure  P.S.I. Additives

Weather Report: Mostly Sunny

8071-NS

Observer: J.W. Hix

90 ft.
NORTHWEST GEOTHERMAL CORPORATION
DRILLING LOG

Contractor: American Deep Drilling
Location: 35° E 14 Be-Jigzag
Well #: 13

Report #: 21
Date: 7-6-79

Depth @ 11:45 AM/PM
Log:
- Clean and mud turning

910 ft. Lava, gas, pressure
878 ft. $70,000
930 ft. Same as above. Mud turning

940 ft. Same, slight increase in mud turning

Driller reported that there is a slight leak of mud from drill.

Formation:
- 905 ft.
- 910'
- 920'
- 930'
- 940'

Drilling Fluid:
V Mud - Additives
\ Air - Pressure \ P.S.I. Additives

Weather Report: Cloudy
8071-NS
Observer: J. May
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: American Deep Drilling

Location: SSE 14 Be - Zigzag

Well #: 13

Report #: 22

Date: 7-9-77

Depth @ ________ AM/PM

Log: Attempted to resume drilling but pipe refused to turn when lowered to bottom.

Pulled pipe and found that all three lower cuts were missing from bit.

Discussed situation w/ Bill Coutt and decided to discontinue drilling and set observation pipe.

Formation: 940 ft.

Total Footage: ________

Drilling Fluid:

☐ Mud - Additives

☐ Air - Pressure ________ P.S.I. ________ Additives

Weather Report: ________

Observer: J. W. Hook

8071-NS
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor American Deep Drilling
Location 35/EE 14 6c Zigzag
Well #

Report # 23
Date 7-18-79

Depth @ AM/PM
Log: Set Observation
Pipe - Suspended 2.5 feet off bottom.

Formation TD 940 ft.

Depth @ AM/PM

Total Footage

Drilling Fluid:
☐ Mud - Additives
☐ Air - Pressure P.S.I. Additives

Weather Report 8071-NS
Observer J Hook
NORTHWEST GEOTHERMAL CORPORATION

DRILLING LOG

Contractor: Air Deep Drilling
Location: 146c Zigzag

Well #

Report # 24
Date 7/11/78

Formation

TD. 940' Deep Well

Depth @ AM/PM

Log:

Finished setting observation pipe +

Moved + 2/90c

Total Footage

Drilling Fluid:

☐ Mud - Additives

☐ Air - Pressure P.S.I. Additives

Weather Report

8071-NS

Observer JW Hook