

Ken Linsey
Detroit Ranger District
854-3366

DEEP TEMPERATURE GRADIENT HOLE INSPECTION FORM

Forest Service

Lease or Permit No. _____ Well No. & Name Breitenbush No. 1

SE 1/4 NE 1/4 Sec. 14, T. 9S, R. 8E, W M. Area Breitenbush

County Marion State Oregon

Operator or Permittee Sun Oil Company (Alan Rama - Geophysicist)

Contractor GeoThermal Services, Inc. -> Skyles Drilling Co.
(San Diego, CA) (Oregon City, OR)

Type and Model Rig Cyclone 100 (Ingersoll Rand)

Casing -

Type 1/4" Size 7" Date Set _____ Amount _____

No. of Sacks Used _____ Returns to Surface? _____

Blowout Preventer -

Type Regan Nitrogen Operated Double Ram Date Tested & Witnessed _____

Tested Pressure _____ psi Time Interval _____ minutes Kill Line _____

Blowdown Line _____ "Cement" Value _____

Mud Pit -

Type Dug Size 20' x 6' x 10' Type of Mud Bentonite

Measurement of Flow Line Temperature -

Temperature In _____ Temperature Out _____ If drilling with

Air then bottom hole temperature _____

Safe Operation Yes Housekeeping Yes

Remarks (Continue on back if necessary) Open Hole - Drilling (over) ahead at 120'. Hope to set surface casing at 2150'.

Contractor Representative Barry Williams Title Geologist

Operator Representative (above) Title _____

USGS Representative Chuck Wassinger Title Geologist

Date of Inspection Sept. 29, 1977 (5 hours)

Breitenbush #3
Hot Springs - Cabin #3

B. Williams said they had been stuck yesterday but were now free and ready to go again.

He hoped to have the casing in and set by Friday evening, and said he would call to verify it Friday. Since they are working a 10-hour day they couldn't run a B.O.P. test until next Monday or Tuesday at the ~~soonest~~ earliest. He said he would call U. Newton to witness the test.

KEN LINSEY, DET. PIT RANGER DIST.

Geoth. Permit # 19

854-3366 DEEP TEMPERATURE GRADIENT HOLE INSPECTION FORM

FOREST SERVICE

Lease or Permit No. _____ Well No. & Name BREITENBUSH No. 1

SE 1/4 SW 1/4 NE 1/4 Sec. 14, T. 9S, R. 7E, W. M. Area BREITENBUSH

County MARION State OREGON

Operator or Permittee SUN OIL CO. (GEOTHERMAL SERVICES, INC.)

Contractor SKYLES DRILLING CO. - OREGON CITY, OR

Type and Model Rig CYCLONE 100 (INGERSOLL RAND)

Casing -

Type 1/4" THICK Size 7" DIA. Date Set 10/10/77 Amount 140'

No. of Sacks used 4 YDS. Returns to Surface? YES

Blowout Preventer -

Type REGAN (NIT. OPERATED) (HY-DRILL TYPE) Date Tested & Witnessed 10/13/77

Tested Pressure 240 psi Time Interval 15 minutes Kill Line YES

Blowdown Line YES 240 PSI / 15 MIN-W/ 40 PSI DROP (LEAKAGE THROUGH SWIVEL)

Mud Pit -

Type DUG Size 20' x 6' x 10' Type of Mud BENTONITE

Measurement of Flow Line Temperature -

Temperature In _____ Temperature Out _____ If drilling with

Air then bottom hole temperature _____

Safe Operation YES Housekeeping YES

Remarks (Continue on back if necessary) ON 10/12/77 AT 11:30 AM

I MET B. WILLIAMS AT THE SITE TO CONDUCT (OJBE)

Contractor Representative GENE SKYLES Title DRILLER

Operator Representative BARRY WILLIAMS Title GEOLOGIST

USGS Representative CHUCK WASSINGER Title GEOLOGIST

Date of Inspection 10/12 - 10/13/77

BREITENBUSH HOT SPRINGS CABIN #3
854-3595

A SCHEDULED I.P. TEST. THE I.O.P. HAD NOT YET BEEN HOOKED UP YET, DUE TO THE CONTRACTOR GETTING A LATE START.

I REMAINED ON SITE UNTIL 3:15 AT WHICH TIME THE TEST HAD TO BE POSTPONED DUE TO RIG PROBLEMS. I RETURNED ON-SITE AT 9:30 AM THE FOLLOWING DAY AND WAITED UNTIL 11:30 AM FOR HOOK-UP TO BE COMPLETED. THE FIRST TEST SHOWED UP LEAKAGE AROUND THE FLANGE AND AT A COUPLE OF WELD POINTS AFTER WELDING AND TIGHTENING A SECOND TEST WAS RUN. AGAIN LEAKS WERE NOTED AROUND FLANGE AND AT SWIVEL ON DRILL RIG. AFTER TIGHTENING NO LEAKS WERE NOTED AROUND FLANGE, BUT LEAK CONTINUED AROUND SWIVEL. OPERATOR WAS ALLOWED TO DRILL ^{OUT} A SUBJECT TO USE OF BACK PRESSURE VALVE IN THE DRILL STRING. DEPARTED 3:00 PM.