

WELL "OM 41A-10" - W E G E -
 COMPANY OREGON NATURAL GAS CORP. WESTERN GEO-ENGINEERS
 AREA MIST "A SERVICE TO THE OIL AND GAS INDUSTRY"
 LOCATION 1069'S & 355'W FROM NE CRN. SEC. 10; T6N; R5W; W8&M
 COUNTY, STATE COLUMBIA Co., OREGON

LITHOLOGY SYMBOLS
 [] Sand [] Clay [] Shale [] Silt [] Gravel [] Grit [] Shell [] Coal [] Lignite [] Vol. [] Ash [] Salt [] Limestone [] Chert

REMARKS
 WELL ELEV. 68.899' 9"
 SALINITY IN PPM CL-
 FILTRATE IN CC/30 MIN.
 GAS TRAP AGITATOR TYPE
 MUD GEL/LIGNOSULFONATE
 (BEAVER DRILLING FLUIDS)
 TAYLOR DRILLING RIG #5
 CASING
 8 5/8" to 422'
 TO
 TO

LEGEND
 MUD DATA
 W WEIGHT %
 V VISCOSITY
 F FILTRATE
 FC FILTER CAKE
 SD SAND IN %
 S SALINITY
 R RESISTIVITY
 RF FILTRATE RESISTIVITY
 BIT DATA
 NB NEW BIT
 RB REBUR BIT
 CB CORE BIT
 WCB WIRE LINE CB
 OTHER DATA
 TG TRIP GAS
 CG CONNECTION GAS
 C CARBIDE GAS
 CR CIRCULATE RETURNS
 NR NO RETURN
 DST DRILL STEM TEST
 DST INTERVAL
 CORE INTERVAL

DATE 12/4/86 to 12/15/86 DEPTH 23' to 3067' ENGINEERS G. THOMAS

DEPTH	LITHOLOGY	OIL IN MUD OR CUTTINGS Tr x Fair xx Good xxx V/Gd xxxx		REMARKS
		MUD ANALYSIS	CUTTING ANALYSIS	
0		PET. VAP. ---	PET. VAP. ---	SPUD W/ GEL-WATER MUD; DRL AND W/ 12" BIT W 8.7 v 40
100				MINOR SLOUGHING W 8.7 v 41
200				MINOR SLOUGHING W 8.8 v 42
300				RAN 10 UNITS; 36# K-52; 8 5/8" GARDENS; SET @ 422' DRILL OUT SHOE W/ 7 7/8" BIT.
400				CUTTINGS GAS PUMP MALFUNCTION 450-600' W 8.9 v 43 V 18 Y 18 P 12 H 12 F 6 C 6 S 6 SD 6 SOL 9
500				C=58U VIS 42 LAG=2.5 MIN 60SPM A.V.=194'/MIN
600				W 9.0 v 43
700				W 9.1 v 44
800				WIPE HOLE W 9.1 v 45
900				W 9.1 v 45
1000				W 9.1 v 45
1100				W 9.1 v 45
1200				W 9.1 v 45
1300				WIPE HOLE W 9.1 v 45
1400				W 9.1 v 45
1500				W 9.1 v 45
1600				MINOR SLOUGHING W 9.1 v 45
1700				WIPE HOLE W 9.2 v 46
1800				W 9.2 v 46 C=23U VIS 46 LAG=10 MIN 60SPM A.V.=179'/MIN
1900				W 9.3 v 45
2000				WIPE HOLE W 9.3 v 46
2100				W 9.3 v 46
2200				W 9.3 v 46 NOTE: 3" CORE CUT INTO PLASTIC LINER; GENERAL DESCRIPTION GIVEN FOR EACH END OF CORE; DETAILED CORE DESCRIPTIONS WILL BE PROVIDED BY CORE LABS AT A LATER DATE.
2300				W 9.6 v 53 NOTE: CORE RECOVERY INFO AT END OF LOG W 9.5 v 53 PV 26 YF 19.5 PH 9.0 F 5.4 FC 22.2 S 600 SD 7.5 SOL
2400				W 9.7 v 53 PV 26 YF 19.5 PH 9.0 F 5.4 FC 22.2 S 600 SD 7.5 SOL
2500				W 9.6 v 48 PV 22 YF 12.2 PH 9.0 F 5.4 FC 22.2 S 600 SD 7.5 SOL
2600				W 9.6 v 46 PV 23 YF 12.2 PH 9.0 F 5.4 FC 22.2 S 600 SD 7.5 SOL
2700				W 9.9 v 47
2800				W 9.9 v 47 C=24U VIS 47 LAG=29 MIN 60SPM A.V.=105'/MIN
2900				W 9.9 v 47
3000				W 9.9 v 47
3100				RAN DRESSER ATLAS E-LOGS NOTE: CORE SAMPLES TO STATE; 2284'-2284' 5"; 2510'-2511'; 2565'-2566'; 2664'-2665'.

OREGON NATURAL GAS CORP. DEVEL. "OM 41A-10" MIST GAS SEC. 10; T6N; R5W; W8&M COLUMBIA Co., OREGON

CORE #1: (2270'-2286') : CUT 16 FEET IN 5 HOURS. RECOVERED 14.5 FEET. FCH TO DRILL AHEAD.
 CORE #2: (2352'-2380') : CUT 28 FEET IN 8 3/4 HOURS. RECOVERED 6.5 FEET. FCH TO DRILL AHEAD.
 CORE #3: (2474'-2442') : CUT 28 FEET IN 8 HOURS. RECOVERED 26.5 FEET. FCH FOR CORE. RIH TO CORE #4.
 CORE #4: (2421'-2450') : CUT 19 FEET IN 2 HOURS. RECOVERED 3 FEET. FCH FOR CORE. RIH TO CORE #5.
 CORE #5: (2455'-2482') : CUT 25 FEET IN 2 1/4 HOURS. RECOVERED 22 FEET. FCH FOR CORE. RIH TO CORE #6.
 CORE #6: (2482'-2512') : CUT 30 FEET IN 7 HOURS. RECOVERED 28 FEET. FCH FOR CORE. RIH TO CORE #7.
 CORE #7: (2512'-2541') : CUT 29 FEET IN 4 1/2 HOURS. RECOVERED 29 FEET. FCH FOR CORE. RIH TO CORE #8.
 CORE #8: (2541'-2571') : CUT 30 FEET IN 3 HOURS. RECOVERED 29 FEET. FCH FOR CORE. RIH TO CORE #9.
 CORE #9: (2571'-2601') : CUT 30 FEET IN 2 HOURS. RECOVERED 29 FEET. FCH FOR CORE. RIH TO CORE #10.
 CORE #10: (2601'-2632') : CUT 30 FEET IN 2 HOURS. RECOVERED 29 FEET. FCH FOR CORE. RIH TO CORE #11.
 CORE #11: (2631'-2665') : CUT 25 FEET IN 2 HOURS. RECOVERED 22 FEET. FCH FOR CORE. RIH TO CORE #12.
 CORE #12: (2656'-2686') : CUT 30 FEET IN 3 1/2 HOURS. RECOVERED 29 FEET. FCH FOR CORE. RIH TO CORE #13.
 CORE #13: (2686'-2716') : CUT 30 FEET IN 1 1/2 HOURS. RECOVERED 28 FEET. FCH FOR CORE. RIH TO DRILL AHEAD.