

HISTORY OF OIL OR GAS WELL

(In compliance with rules and regulations pursuant to ORS 520)

OREGON NATURAL GAS DEVELOPMENT CORP. ONGD IW33C-3  
(Company or operator) (Lease) (Well No.)  
Sec. 3, T. 6N, R. 5W W.B.&M. Surveyed Coordinates: 1602.75' N. AND  
2377.21' W. FROM THE SE CORNER OF SEC. 3, T6N, R5W WB&M  
Wildcat: (or) Field Name: MIST-UNDERGROUND STORAGE County: COLUMBIA  
Date: May 4, 1987 Signature: [Signature] Position: FIELD OPERATIONS SUPERINTENDENT

Use this form in reporting the daily operations at the well. (Operator may use his own forms, but heading of this form must also be completed and submitted.) Please submit a complete history of the well. Include such information as bit sizes, mud weights, casing sizes and depths set, amount of cement used, drilling depths, fishing, logging, perforating, and plugging procedures, and anything else pertinent to the operation. Do not include lithology.

Date  
12/21/86 DRILLING 17 1/2" HOLE TO 503'. WIPER TRIP.  
12/22/86 CIRCULATE, RUN 505.26' OF 13 3/8", K-55, 54.5# CASING TO 493'. CEMENT WITH 485 SACKS CLASS 'G' CEMENT MIXED WITH 2% CACL. WOC. CUT OFF CONDUCTOR.  
12/23/86 WELD ON WELLHEAD. TESTED TO 950 PSI. NIPPLE UP BOPE AND TEST WITH STATE REPRESENTATIVE WITNESSING. SUSPEND OPERATIONS FOR HOLIDAY.  
12/27/86 CIRCULATE AND CONDITION MUD. DRILL FLOAT, CEMENT AND SHOE. DRILLING 12 1/4" HOLE TO 737'. POOH FOR MUDMOTOR.  
12/28/86 RIH. DIRECTIONAL DRILLING AND SURVEYING TO 922'. POOH FOR BALLED BIT. REDRESS BIT. DIRECTIONAL DRILLING TO 927'. SURVEYS: 803' 1°45' N6 0W, 833'-2°15' N61W, 864' 3°15' N67W.  
12/29/86 DRILLING TO 884. SURVEY 3°45' N70W. POOH AND CHANGE BHA. REAM THROUGH KOP. DRILLING 12 1/4" HOLE TO 1210. SURVEYS: 946'-5°00' N69W, 1008'-5°15' N69W, 1102'-5°15' N70W.  
12/30/86 UNPLUG FLOWLINE, CIRCULATE AND RUN NUT PLUG SWEEP. POOH FOR NEW BHA. DRILLING TO 1688 SURVEYS: 1321'-7°30' N62W, 1445'-7°45' N59W, 1538'-7°45' N60W, 1632'-7°45' N59W.  
12/31/86 POOH TO CHANGE BHA. RIH WITH NEW BIT #4. DRILLING TO 1876'. WIPER TRIP. DRILLING TO 2002'. WIPER TRIP. SURVEYS: 1726'-7°45' N61W, 1821'-7°15' N60W, 1914'-6°45' N62W.  
1/1/87 DRILLING TO 2188. 10 STAND WIPER TRIP. DRILLING TO 2283. FIVE STAND WIPER TRIP. DRILLING TO 2238. WIPER TRIP TO SHOE. SURVEYS: 2040'-6°45' N62W, 2195'-6°45' N62W.  
1/2/87 CIRCULATE AND CONDITION MUD. POOH FOR LOGS. RUN WIRE LINE LOGS TO 2150'. RIH AND DRILLING TO 2368'. POOH AND PICK UP CORING ASSEMBLY. ORIENT MULTISHOT TOOL. WASH 30' TO BOTTOM. CORING 2368'-2378'.  
1/3/87 CORING 2378-2398. POOH AND LAY DOWN CORE #1. RIH WITH CORE BARREL. REAM 30' TO BOTTOM. CORE 2398-2428'. POOH AND LAY DOWN CORE #2.  
1/4/87 RIH WITH CORING ASSEMBLY. WASH 30' TO BOTTOM. CORING 2428-2458'. CHAIN OUT OF HOLE. LAY DOWN CORE #3. ORIENT TOOL. RIH WITH CORE BARRELL. DROP MULTISHOT. CORING 2458-2464'.  
1/5/87 CORING 2464-2490. CHAIN OUT OF HOLE. LAY DOWN CORE #4. ORIENT MULTISHOT. RIH WITH CORING ASSEMBLY. WASH 30' TO BOTTOM. CORING 2490-2515'.

Form 6  
(9/84)

HISTORY OF OIL OR GAS WELL

Page 2

Date  
1/6/87 CORING 2515-2520'. POOH AND LAY DOWN CORE #5. RIH WITH CORING SET UP. WASH 30' TO BOTTOM. CORING 2520-2535. CHAIN AND STRAP OUT OF HOLE. LAY DOWN CORE #6. RIH WITH 12 1/4" BIT. REAMING 2368-2469.  
1/7/87 REAM 2469-2535'. CIRCULATE AND SURVEY. 7°00' NS 6W. 10 STAND WIPER TRIP. POOH FOR LOGS AND RUN WIRELINE LOGS. RIH AND CIRCULATE FOR CASING. POOH.  
1/3/87 RUN 63 JOINTS OR 2522' 3 5/8", K-55, MODIFIED 8 ROUND CASING TO 2519. HYDROTEST EACH JOINT TO 2000 PSI. NO FAILURES. CEMENT CASING AS FOLLOWS:  
LEAD SLURRY-452 SACKS 1:1 PERLITE, MIXED WITH 2% CACL, 3% KCL, 1% CFR-3, .25% HALAD 4.  
TAIL SLURRY-396 SACKS CLASS 'G' MIXED WITH 1% CACL, 3% KCL, 1% CFR-3, .25% HALAD 4.  
BUMP PLUG. HOLD 450 PSI ON CASING. NO CEMENT TO SURFACE.  
1/9/87 CUT OFF 8 5/8" CASING. NIPPLE UP AND TEST TUBING HEAD. TEST BOPE WITH STATE REPRESENTATIVE WITNESSING. DRILL PLUG FLOAT, CEMENT TO 2515. WOC.  
1/10/87 WOC. DRILLING CEMENT TO 2536. POOH FOR CEMENT BOND LOG. RUN CEMENT BOND LOG. DUMP MUD PITS AND BUILD VOLUME WITH HEC-10 POLYMER. RIH WITH CORE BARRELL. DISPLACE MUD IN HOLE WITH HEC-10. CORING 2536-2569. POOH.  
1/11/87 LAYDOWN CORE #7. RIH WITH CORE BARRELL. CORING 2569-2599'. POOH AND LAY DOWN CORE #8. CHANGE BHA. ORIENT MULTISHOT AND RIH. CORING 2599-1620'. POOH AND LAY DOWN CORE #9. RIH WITH CORE BARRELL. CORING 2629-2659'. POOH AND LAY DOWN CORE #10. RIH. WASH TO BOTTOM. CORING 2659-2689'. POOH.  
1/12/87 LAY DOWN CORE #11. RIH WITH CORE BARRELL. CORE 2689-2719'. POOH AND LAY DOWN CORE #12. PICK UP 7 5/8" BIT AND STABILIZER. DRILLING 7 5/8" HOLE TO 2772'. POOH. RUN WIRE LINE LOGS.  
1/13/87 RIH WITH UNDER REAMER. BREAK CIRCULATION AT 2515. UNDERREAM 2528-2541'. POOH. RIH OPEN ENDED AND SET 15 SACK CEMENT PLUG AT 2650-2596'.  
1/14/87 POOH AND PICK UP BIT AND TAG PLUG AT 2585'. WOC. DRILL OUT CEMENT TO 2608'. POOH. RIH WITH UNDER REAMER. UNDER REAM TO 2608'.  
1/15/87 CIRCULATE HOLE CLEAN. POOH FOR CALIPER. RIG UP LOGGERS AND RUN CALIPER. STRAP IN HOLE WITH UNDER REAMER. UNDER REAM 2528-2606'. CIRCULATE THROUGH HALLIBURTON FILTER. RIH WITH REAMER. CIRCULATE AND DISPLACE OLD MUD.  
1/16/87 HOOK UP HALLIBURTON FILTER. STRAP LINER. RIH WITH LINER TO 2605'. GRAVEL PACK LINER WITH 111 SACKS 20-40 SAND. REVERSE 5 SACKS. PRESSURE UP PACK. POOH AND LAY DOWN GRAVEL PACK TOOLS. RIG UP DRESSER-ATLAS AND LOG. RIH WITH LEAD SEAL AND SET AT 2441'.  
1/17/87 RIG UP TO RUN TUBING. CHANGE RAMS IN BOP. RUN 76 JOINTS OR 2406', 5 1/2", K-55, 20# WITH ATLAS BRADFORD MODIFIED COUPLINGS, TUBING WITH BAKER PACKER SAFETY VALVE. HYDRO-TEST ALL CONNECTIONS TO 2100 PSI. ONE FAILURE. REVERSE CIRCULATE 75 BARRELLS OF CORROSION INHIBITOR. LAND TUBING HANGER AND SET PACKER WITH 4900 PSI. BACK OUT OF LANDING JOINT. TUBING LANDED AT 2436'.  
1/18/87 NIPPLE DOWN BOPE. NIPPLE UP TREE. RELEASE RIG. WELL WENT ON LINE AS INJECTION/ WITHDRAWAL WELL.

Form 5a  
(9/84)