## STATE OF OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

800 NE Oregon St =28

Portland, OR 97201

## HISTORY OF OIL OR GAS WELL

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

|          | Enerfin Resources Northwest |  |   |   | "Columbia County"   |  |   | 14-22-75 (Raptor)  |  |
|----------|-----------------------------|--|---|---|---|--|---|--|--|
|          | (Company or Operator)       |  |   |   | (Lease)   |  |   | (Well No.)   |  |
| Sec.     | 22                          | _ T  | 7N  | R   | 5W :  | Surveyed Coordinates:  |   |  |  |
| SHL=     | 1,126.89' N                 | orth and 12  | 23.58' East fr  | om the S  | outhwest comer  | of Section 22 (X=1   | 289 594.9839  | Y=889 229.7698)  |  |
| BHL=     | NA                          |  |   |   | · "   | '  |   | <del></del>  |  |
| Wildcat: | NA                          |  | (or) Field  | Name:   | Mist Gas  |  | County:   | Columbia   |  |
|          |                             |  |   |   | Signatu   | ire:   | June  |  |  |
| Date:    | August 14, 1                | 999  |   |   |   | Position: C  | onsultant   |  |  |
| _        |                             |  |   |   |   |  | ***   |  |  |
| Date     |                             |  |   |   |   |  |   |  |  |
| )7-18-99 | 1:30                        | RU Taylor i<br>PM. Drii<br>79.0  | Drilling Rig<br>Il to 469' at n<br>Vis 38                       | #7 on 07<br>nidnight.                                       | -17-99. Weld on<br>WL 8.8   | n conductor, take on   | spud mud and fre  | sh water, and mix gel. Spud 9-7/8" hole a  |  |
| 97-19-99 | LT& pum2 three              | cC casing of the control of the cont | equipped wit<br>181 cft) of "I<br>cele, drop pl<br>turned 12 BI | h float sh<br>Light" ce<br>ug and d<br>BLs ceme<br>0 PSI-OI | noe and 3 centralisment + 3% CaClusplace to shoe went to surface). No. Nipple up BC | izers. Cement casing<br>12 + .25#/sk Flocele<br>with 18 BBLs water<br>Wait on cement. Cu | g shoe at 476' as fo<br>followed by 75 sx<br>, bump plug (float<br>t off conductor an | s and run 11 joints (478.00°) of 7" 23# J-5 llows: pump 20 BBLs water ahead, mix an (88 cft) of "Premium" cement + 3% CaCl held), CIP at 6:00 AM with good return d casing. Weld on 7" SOW X 7-1/16" 3NK. Make up new 6-1/4" bit = 2 and BH. |  |
|          | Rur<br>MW                   | in hole to<br>8.6  | ~465'. Test<br>Vis 30   | BOPE to   | o 1000 PSI-OK (<br>WL 11.2  | witnessed and appro  | wed by Dan Werm   | iel-DOGAMI). Drill out shoe at midnigh   |  |

Drill from 1,773'-2,023' (continued slow loss of fluid to formation at ~5 BBLs/Hour-continue with LCM additions. Circulate clean.

Survey (1.5° S37W). Wipe hole to 1,460' (2-4K spot drag to 1,770'). Drill to 2,335' (minimal loss of fluid to formation-continue LCM additions). Circulate clean. Wipe hole to 1,672' (6-8K drag and spot swabbing to 2,023'). Drill to 2,525'. Circulate clean. Survey (5.75° S7W). Drill to 2,587' (no apparent loss of fluid to formation-continue LCM additions). Circulate clean. Wipe hole to 1,923'

Drill from 2,756'-2,806'. Wipe hole to 2,305'. Circulate clean. Pull out of hole. Change bit (#3). Run in hole to 2,806'. Drill to 2,912'.

Circulate clean. Wipe hole to 2,266' (20-25K drag and swabbing from 2,766'-2,546'). Drill to 2,936' at midnight.

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Drill from 2,936'-2,976' TD at 4:15 AM. Circulate clean. Survey (3.50° S11W). Wipe hole to shoe. Circulate clean. Pull out of hole.

"Columbia County" 14-22-75 (Raptor)

**Enerfin Resources Northwo** 

(4-8K spot drag). Drill to 2,756' at midnight.

Vis 40

Vis 35

MW 9.1

MW 9.1

07-21-99

07-22-99

07-23-99

08-05-99

08-06-99

08-09-99

|          | DP and BHA.    | Rig up casing tor   | ng at midnight.         |   |     |
|----------|----------------|---------------------|-------------------------|---|-----|
|          | MW 9.1         | Vis 35              | WL 5.6                  | ,   |     |
| 07-24-99 | Finish running | g 93 joints (2,859. | 24') of 2-7/8" 6.5# J-5 | 5 EUE casing equipped with float shoe, latch down plug seat in first collar | and |

Rig up Schlumberger and run AIT/DSN/CDL/BHC/GR from 2,882'-476'. Run in hole. Circulate clean. Pull out of hole laving down

20 centralizers. Rig up HES cementers, and circulate and reciprocate casing clean. Cement casing shoe at 2,857' (latch down plug at 2,825') as follows: pump 20 BBLs mud flush ahead, mix and pump 140 sx (240 cft) of "Light" cement + .25#/sk Flocele mixed at 13.1 PPG followed by 130 sx (150 cft) of "Premium" cement + 3% KCL + .3% CFR-3 + .3% Halad-344 + .15% SuperCBL mixed at 15.8 PPG, washout lines, drop plug and displace to seat with 16 BBLs 3% KCL water, bump plug (float held), CIP at 4:00 AM with good returns throughout (calculated TOC at ~800'). Set casing in slips. Nipple down BOPE. Clean mud pits and release rig at 8:00 AM.

MIRU Taylor workover rig. Install 7-1/16" 3M X 2-9/16" 3M tree and test to 750 PSI-OK. Rig up Schlumberger and run

MIRU Taylor workover rig. Install 7-1/16" 3M X 2-9/16" 3M tree and test to 750 PSI-OK. Rig up Schlumberger and run NDL/CBL/CCL from 2,793'-770' (log showed excellent bonding through interval of interest with TOC at ~956'), run in hole with 1-11/16" Enerjet thru tubing gun, correlate to open hole log dated 7-23-99, and perforate 4 SPF 0° phased from 2,618'-2,624', rig down Schlumberger (0 SICP). Rig up swab equipment, run in hole with swab (fluid level at 160'), and make 6 swab runs to 1,300' (fluid level would not drop below 800') with no sign of gas entry. Rig up Schlumberger, run in hole with and set Baker model "N-3" tubing bridge plug at 2,610', run in hole with 1-11/16" Enerjet thru tubing gun, correlate to open hole log and perforate 4 SPF 0° phased from 2,558'-2,570', rig down Schlumberger (175 SICP). Flow well to unload fluid. Shut in well (744 SICP). Open well to flare stack and record the following: 1649 MCFD with 666 FCP on 20/64ths positive choke, 549 MCFD with 670 FCP on 12/64ths adjustable choke, and 238 MCFD with 671 FCP on 8/64ths adjustable choke. Shut well in (742 SICP after 15 minutes).

positive choke at 3:00 PM with an initial rate of 950 MCFD and 702 FCP. Well flowing at 922 MCFD with 681 FCP after 9 hours flow ending at midnite.

Continue 48 hour flow test with a rate of 803 MCFD and 667 FCP after 33 hours flow ending at midnight.

Check well (760 SICP). Install SPIDR electronic pressure gauge. Put well to flare stack and begin 48 hour flow test on 16/64ths

08-07-99 Continue flow test with a rate of 782 MCFD and 658 FCP after 57 hours flow ending at midnight.

Continue flow test with a rate of 763 MCFD and 641 FCP after 105 hours flow ending at midnight.

08-08-99 Continue flow test with a rate of 771 MCFD and 649 FCP after 81 hours flow ending at midnight.

O8-10-99 Continue flow test with a final rate of 760 MCFD and 639 FCP after 120 hours flow ending at 3:00 PM. Shut well in (694 SICP after 60 minutes).

08-12-99 Check pressure (736 SICP). Download SPIDR gauge, disconnect from wellhead, and return to DRC for evaluation.