

GREGON NATURAL GAS COMP.  
 IW 33 C-3  
 MIST  
 COLUMBIA  
 01/07/87

OREGON

INTERVAL 500.0 TO 2773.0  
 RUN 3 REAC 0.  
 ENGINEER M. HINDS MR. THOMAS MAG DEC 20.

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 \* W3 SL12 STP2 \*  
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\*\*FORMATION DIP\*\*

\*\*\*\*BOREHOLE\*\*\*\*

DEPTH WL ANG AZ BEARING GRADE DA DAZ BEARINGS

DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARINGS
505.0	4.00	11.0	30	N 30 E	100	0.7	312	N 40 E
507.0	8.00	1.5	60	N 60 E	100	0.7	327	N 33 E
509.0	8.00	4.7	101	S 75 E	100	0.7	22	N 22 E
511.0	8.00	4.3	140	S 40 E	100	0.7	54	N 50 E
513.0	8.00	10.6	157	S 23 E	100	0.6	52	N 52 E
515.0	8.00	10.7	98	S 82 E	100	0.6	54	N 54 E
517.0	8.00	18.1	93	S 87 E	100	0.6	55	N 55 E
519.0	8.00	2.0	179	S 1 E	98	0.5	58	N 58 E
521.0	8.00	15.0	350	N 10 W	94	0.5	65	N 65 E
523.0	8.00	4.5	75	N 75 E	67	0.6	71	N 71 E
525.0	8.00	4.3	57	N 57 E	51	0.6	83	N 83 E
527.0	8.00	5.0	59	N 59 E	51	0.6	93	S 87 E
529.0	8.00	4.3	77	N 77 E	100	0.6	96	S 84 E
533.0	8.00	26.1	268	S 88 W	74	0.6	99	S 81 E
535.0	8.00	26.8	139	S 41 E	100	0.6	99	S 81 E
537.0	8.00	12.7	190	S 10 W	100	0.6	97	S 83 E
539.0	8.00	24.5	138	S 42 E	100	0.6	101	S 79 E
541.0	8.00	27.8	138	S 42 E	100	0.5	96	S 84 E
543.0	8.00	7.4	11	N 11 E	100	0.5	96	S 84 E
545.0	8.00	8.3	92	S 88 E	100	0.6	92	S 88 E
547.0	8.00	8.5	96	S 84 E	100	0.6	92	S 88 E
549.0	8.00	7.6	94	S 86 E	100	0.6	90	N 90 E
551.0	8.00	8.8	142	S 38 E	100	0.6	88	N 88 E
553.0	8.00	7.7	138	S 42 E	100	0.6	88	N 88 E
555.0	8.00	6.7	121	S 59 E	100	0.6	86	N 86 E
557.0	8.00	7.5	90	N 90 E	100	0.6	85	N 85 E
559.0	8.00	7.7	114	S 65 E	100	0.6	86	N 86 E
551.0	8.00	5.6	127	S 53 E	100	0.7	87	N 87 E
553.0	8.00	11.1	95	S 85 E	100	0.7	88	N 88 E

OREGON NATURAL GAS CORP.

IM 33 C-3

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DEPTH	WL	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
555.0	8.00	10.3	95	S 84 E	100	0.8	89	N 89 E
571.0	8.00	9.6	143	S 37 E	100	0.7	88	N 88 E
573.0	8.00	34.0	265	S 85 W	69	0.7	68	N 86 E
581.0	8.00	12.5	277	N 83 W	81	0.7	87	N 87 E
585.0	8.00	17.4	143	S 31 E	100	0.8	87	N 87 E
587.0	8.00	6.9	91	S 89 E	100	0.8	87	N 87 E
589.0	8.00	7.9	114	S 65 E	100	0.8	88	N 88 E
591.0	8.00	7.4	111	S 69 E	100	0.8	89	N 89 E
593.0	8.00	8.7	105	S 74 E	100	0.8	88	N 88 E
595.0	8.00	7.7	110	S 70 E	100	0.8	88	N 88 E
597.0	8.00	6.5	115	S 64 E	100	0.8	89	N 89 E
599.0	8.00	5.9	119	S 61 E	100	0.8	86	N 86 E
601.0	8.00	6.2	127	S 53 E	100	0.8	86	N 86 E
603.0	8.00	5.5	122	S 58 E	100	0.8	85	N 85 E
605.0	8.00	17.4	63	N 63 E	100	0.8	85	N 85 E
607.0	8.00	18.0	63	N 63 E	100	0.8	86	N 86 E
609.0	8.00	17.8	64	N 64 E	100	0.8	87	N 87 E
611.0	8.00	7.1	107	S 73 E	100	0.8	88	N 88 E
613.0	8.00	8.3	107	S 73 E	100	0.7	90	N 90 E
615.0	8.00	12.3	118	S 62 E	100	0.8	87	N 87 E
617.0	8.00	12.6	125	S 55 E	100	0.8	87	N 87 E
619.0	8.00	20.0	172	S 8 E	100	0.7	91	S 89 E
621.0	8.00	13.7	137	S 43 E	100	0.7	93	S 87 E
623.0	8.00	13.9	147	S 33 E	100	0.7	96	S 84 E
625.0	8.00	7.4	137	S 43 E	100	0.7	95	S 85 E
627.0	8.00	6.9	119	S 61 E	100	0.7	98	S 82 E
629.0	8.00	7.9	97	S 83 E	100	0.7	98	S 82 E
631.0	8.00	8.0	100	S 80 E	100	0.7	99	S 81 E
633.0	8.00	7.9	104	S 75 E	100	0.7	101	S 79 E
635.0	8.00	7.6	105	S 74 E	100	0.7	102	S 78 E
637.0	8.00	5.1	87	N 87 E	100	0.7	103	S 77 E
639.0	8.00	7.9	110	S 70 E	100	0.7	105	S 75 E
641.0	8.00	5.3	73	N 73 E	100	0.7	108	S 72 E
643.0	8.00	10.7	98	S 82 E	100	0.7	112	S 68 E
645.0	8.00	14.3	99	S 81 E	100	0.7	113	S 67 E
647.0	8.00	14.7	97	S 83 E	100	0.8	114	S 66 E
649.0	8.00	13.9	88	N 88 E	100	0.8	118	S 62 E
651.0	8.00	8.6	127	S 53 E	100	0.9	120	S 60 E
653.0	8.00	13.1	92	S 86 E	100	0.9	120	S 60 E
655.0	8.00	6.6	112	S 68 E	100	0.9	123	S 57 E

OREGON NATURAL GAS CORP.  
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\*\*FORMATION DIP\*\*

\*\*\*\*\*BOREHOLE\*\*\*\*\*

DEPTH	KL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
657.0	8.00	8.5	111	S 59 E	100	0.9	123	S 57 E
659.0	8.00	8.2	119	S 61 E	100	0.9	122	S 58 E
651.0	8.00	5.7	107	S 73 E	100	0.9	122	S 58 E
653.0	8.00	8.9	89	N 89 E	100	0.9	121	S 59 E
655.0	8.00	7.7	99	N 90 E	100	0.9	121	S 59 E
657.0	8.00	8.2	83	N 83 E	100	0.8	123	S 57 E
659.0	8.00	6.3	95	S 85 E	100	0.8	124	S 56 E
671.0	8.00	9.9	100	S 80 E	100	0.8	124	S 56 E
673.0	8.00	5.5	99	S 81 E	100	0.8	124	S 56 E
675.0	8.00	21.0	162	S 18 E	100	0.8	123	S 57 E
677.0	8.00	6.3	119	N 19 E	100	0.7	122	S 58 E
679.0	8.00	6.3	137	S 43 E	100	0.7	124	S 56 E
681.0	8.00	9.6	117	S 63 E	100	0.7	125	S 55 E
683.0	8.00	6.9	139	S 50 E	100	0.7	128	S 55 E
685.0	8.00	7.9	117	S 62 E	100	0.7	121	S 59 E
687.0	8.00	6.6	100	S 80 E	100	0.7	124	S 56 E
689.0	8.00	6.5	100	S 80 E	100	0.7	123	S 57 E
691.0	8.00	6.5	87	N 87 E	100	0.7	123	S 57 E
693.0	8.00	7.2	97	S 83 E	100	0.8	123	S 57 E
695.0	8.00	4.1	197	S 17 W	100	0.7	123	S 57 E
699.0	8.00	7.1	140	S 40 E	100	0.7	121	S 59 E
701.0	8.00	8.1	111	S 69 E	100	0.7	121	S 59 E
703.0	8.00	7.8	106	S 74 E	100	0.7	122	S 58 E
705.0	8.00	6.5	104	S 76 E	75	0.6	121	S 59 E
707.0	8.00	7.7	109	S 71 E	100	0.6	121	S 59 E
709.0	8.00	15.1	233	S 53 W	9	0.6	122	S 58 E
711.0	8.00	30.7	7	N 7 E	75	0.6	113	S 67 E
713.0	8.00	17.8	188	S 8 W	56	0.6	109	S 71 E
715.0	8.00	17.7	183	S 9 E	49	0.6	101	S 79 E
725.0	8.00	17.2	50	N 50 E	56	0.6	94	S 86 E
729.0	8.00	26.5	325	N 34 W	22	0.5	99	S 81 E
731.0	8.00	15.2	129	S 51 E	72	0.4	94	S 86 E
733.0	8.00	17.1	58	N 36 E	33	0.4	75	N 75 E
735.0	8.00	21.6	213	S 33 W	56	0.4	59	N 59 E
737.0	8.00	17.5	125	S 52 E	100	0.4	45	N 45 E
739.0	8.00	13.1	331	N 29 W	92	0.3	47	N 47 E
741.0	8.00	12.9	173	S 7 E	87	0.3	56	N 56 E
743.0	8.00	17.4	185	S 5 W	100	0.2	66	N 66 E
745.0	8.00	5.2	124	S 55 E	100	0.2	67	N 67 E
749.0	8.00	3.6	74	N 74 E	99	0.2	21	N 21 E

OREGON NATURAL GAS COMP.

IW 33 C-3

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DEPTH	WL	**FORMATION DIP**				*****BOREHOLE*****			
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
751.0	8.00	17.1	358	N 2 W	66	0.3	5	N 5 E	
755.0	8.00	9.8	341	N 19 W	100	0.6	349	N 11 W	
757.0	8.00	9.5	339	N 21 W	100	0.6	348	N 12 W	
759.0	8.00	22.0	130	S 50 E	75	0.6	352	N 8 W	
751.0	8.00	4.8	82	N 82 E	100	0.5	359	N 1 W	
753.0	8.00	7.0	73	N 73 E	100	0.5	359	N 1 W	
755.0	8.00	7.1	95	S 85 E	69	0.5	355	N 5 W	
757.0	8.00	12.8	117	S 63 E	100	0.5	352	N 8 W	
771.0	8.00	14.1	125	S 55 E	100	0.6	339	N 21 W	
773.0	8.00	11.3	115	S 65 E	100	0.6	333	N 27 W	
775.0	8.00	9.9	114	S 65 E	100	0.6	328	N 32 W	
777.0	8.00	10.2	119	S 61 E	100	0.7	329	N 31 W	
779.0	8.00	9.5	134	S 45 E	100	0.7	331	N 29 W	
781.0	8.00	8.2	88	N 88 E	100	0.7	336	N 24 W	
783.0	8.00	12.5	65	N 65 E	100	0.7	333	N 27 W	
785.0	8.00	12.2	111	S 69 E	100	0.8	331	N 29 W	
787.0	8.00	11.8	110	S 70 E	100	0.8	330	N 30 W	
789.0	8.00	21.3	144	S 36 E	47	0.8	328	N 32 W	
791.0	8.00	7.7	100	S 80 E	100	0.8	323	N 37 W	
793.0	8.00	24.0	175	S 5 E	95	0.9	319	N 41 W	
795.0	8.00	16.8	59	N 59 E	100	1.0	318	N 42 W	
797.0	8.00	17.4	83	N 63 E	100	1.1	319	N 41 W	
799.0	8.00	24.3	73	N 73 E	100	1.1	318	N 42 W	
803.0	8.00	18.7	121	S 59 E	100	1.1	315	N 45 W	
805.0	8.00	19.0	85	N 85 E	100	1.1	314	N 46 W	
807.0	8.00	20.4	120	S 60 E	100	1.1	310	N 50 W	
809.0	8.00	15.2	115	S 65 E	100	1.1	314	N 46 W	
811.0	8.00	19.1	81	N 81 E	55	1.1	314	N 46 W	
813.0	8.00	22.4	91	S 89 E	82	1.2	313	N 47 W	
815.0	8.00	13.1	7	N 7 E	80	1.2	313	N 47 W	
819.0	8.00	9.5	161	S 19 E	100	1.3	311	N 49 W	
821.0	8.00	14.9	78	N 78 E	100	1.4	309	N 51 W	
823.0	8.00	30.5	301	N 59 W	100	1.4	308	N 52 W	
825.0	8.00	14.0	73	N 73 E	100	1.4	307	N 53 W	
827.0	8.00	24.2	338	N 22 W	66	1.5	309	N 51 W	
829.0	8.00	14.9	105	S 75 E	100	1.4	308	N 52 W	
831.0	8.00	16.5	305	N 54 W	100	1.4	308	N 52 W	
833.0	8.00	16.6	300	N 60 W	100	1.5	306	N 54 W	
835.0	8.00	16.5	304	N 56 W	100	1.6	302	N 58 W	
837.0	8.00	17.8	310	N 50 W	100	1.6	300	N 60 W	

OREGON NATURAL GAS CORP.

IW 33 C-3

WIST

COLUMBIA

OREGON

01/07/87

\*\*FORMATION DIP\*\*

\*\*\*\*BOREHOLE\*\*\*\*

DEPTH	ML	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
839.0	8.00	14.8	105	N 52 W	100	1.7	299	N 61 W
841.0	8.00	25.0	137	S 43 E	100	1.8	300	N 60 W
843.0	8.00	25.8	137	S 43 E	100	1.8	300	N 60 W
845.0	8.00	13.7	121	S 59 E	100	1.8	300	N 60 W
847.0	8.00	27.3	138	S 42 E	100	1.9	298	N 62 W
849.0	8.00	6.9	95	S 65 E	77	1.9	298	N 62 W
851.0	8.00	9.8	93	S 67 E	100	1.9	298	N 62 W
853.0	8.00	7.4	83	N 83 E	100	2.0	297	N 63 W
855.0	8.00	8.1	85	N 86 E	100	2.0	297	N 63 W
857.0	8.00	8.4	85	N 85 E	100	2.0	295	N 65 W
859.0	8.00	9.8	85	N 85 E	100	2.1	295	N 65 W
851.0	8.00	10.2	85	N 85 E	100	2.2	294	N 66 W
853.0	8.00	8.4	75	N 79 E	100	2.2	295	N 65 W
855.0	8.00	8.3	79	N 79 E	100	2.3	294	N 66 W
857.0	8.00	8.6	77	N 82 E	100	2.4	295	N 65 W
859.0	8.00	3.3	57	N 57 E	100	2.5	295	N 65 W
871.0	8.00	1.3	59	N 55 E	100	2.6	295	N 65 W
873.0	8.00	1.7	113	S 67 E	100	2.6	295	N 65 W
877.0	8.00	2.0	137	S 43 E	100	2.8	294	N 66 W
879.0	8.00	1.9	141	S 39 E	100	2.9	294	N 66 W
881.0	8.00	2.1	110	S 70 E	100	3.0	293	N 67 W
883.0	8.00	1.7	107	S 73 E	100	3.1	293	N 67 W
885.0	8.00	2.5	85	N 85 E	100	3.2	293	N 67 W
887.0	8.00	2.4	80	N 80 E	100	3.3	293	N 67 W
889.0	8.00	2.5	17	N 17 E	100	3.3	292	N 68 W
891.0	8.00	2.3	27	N 27 E	100	3.4	292	N 68 W
893.0	8.00	3.0	177	S 3 E	100	3.5	292	N 66 W
895.0	8.00	2.7	139	S 50 E	100	3.6	292	N 68 W
897.0	8.00	2.0	169	S 11 E	100	3.7	292	N 68 W
899.0	8.00	1.4	141	S 35 E	100	3.8	291	N 69 W
901.0	8.00	2.4	147	S 35 E	100	3.8	291	N 69 W
903.0	8.00	4.5	143	S 37 E	100	3.9	290	N 70 W
905.0	8.00	3.3	129	S 51 E	100	4.0	290	N 70 W
907.0	8.00	3.2	114	S 65 E	100	4.1	291	N 69 W
909.0	8.00	2.5	83	N 83 E	100	4.2	291	N 69 W
911.0	8.00	2.5	78	N 78 E	100	4.3	291	N 69 W
913.0	8.00	3.3	73	N 73 E	100	4.3	291	N 69 W
915.0	8.00	3.6	77	N 77 E	100	4.4	291	N 69 W
917.0	8.00	4.3	77	N 77 E	100	4.5	291	N 69 W
919.0	8.00	4.3	81	N 81 E	100	4.5	291	N 69 W

GREGG NATURAL GAS CORP.  
 1W 33 C-3  
 MIST  
 COLUMBIA  
 01/37/87

OREGON

DEPTH	WL	**FORMATION DIP**			GRADE	***BORCHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
921.0	8.00	15.9	71	N 71 E	100	4.6	290	N 70 W
923.0	8.00	16.9	74	N 74 E	100	4.6	291	N 69 W
925.0	8.00	15.8	39	N 39 E	100	4.7	291	N 69 W
927.0	8.00	2.0	133	S 45 E	100	4.7	290	N 70 W
929.0	8.00	0.6	217	S 37 W	100	4.8	291	N 69 W
931.0	8.00	2.0	191	S 11 W	100	4.8	290	N 70 W
933.0	8.00	6.1	230	S 50 W	100	4.9	291	N 69 W
935.0	8.00	7.5	232	S 52 W	100	5.0	290	N 70 W
937.0	8.00	8.8	225	S 45 W	100	5.0	290	N 70 W
939.0	8.00	8.5	221	S 41 W	100	5.1	291	N 69 W
941.0	8.00	9.0	217	S 37 W	100	5.1	290	N 70 W
943.0	8.00	9.0	216	S 36 W	100	5.1	290	N 70 W
945.0	8.00	7.9	219	S 39 W	100	5.2	290	N 70 W
947.0	8.00	10.2	220	S 40 W	100	5.3	290	N 70 W
949.0	8.00	7.4	244	S 64 W	100	5.3	290	N 70 W
953.0	8.00	4.5	295	N 64 W	100	5.4	290	N 70 W
955.0	8.00	25.6	183	S 3 W	100	5.4	290	N 70 W
957.0	8.00	25.3	176	S 4 E	100	5.4	290	N 70 W
959.0	8.00	16.2	172	S 5 E	100	5.4	290	N 70 W
961.0	8.00	24.7	173	S 7 E	100	5.5	290	N 70 W
963.0	8.00	5.0	161	S 19 E	100	5.5	290	N 70 W
965.0	8.00	3.6	155	S 25 E	100	5.6	290	N 70 W
967.0	8.00	2.6	153	S 25 E	100	5.6	290	N 70 W
969.0	8.00	0.7	93	S 85 E	100	5.7	291	N 69 W
971.0	8.00	26.5	181	S 1 W	64	5.7	290	N 70 W
973.0	8.00	26.5	179	S 1 E	100	5.7	290	N 70 W
975.0	8.00	24.9	183	S 3 W	100	5.7	291	N 69 W
977.0	8.00	1.6	60	N 60 E	100	5.7	291	N 69 W
979.0	8.00	1.7	73	N 73 E	100	5.7	291	N 69 W
981.0	8.00	5.4	46	N 46 E	100	5.7	291	N 69 W
983.0	8.00	3.8	71	N 71 E	100	5.7	291	N 69 W
985.0	8.00	18.1	7	N 7 E	100	5.7	291	N 69 W
987.0	8.00	1.6	60	N 60 E	100	5.7	291	N 69 W
989.0	8.00	2.3	52	N 52 E	100	5.8	291	N 69 W
991.0	8.00	2.4	47	N 47 E	100	5.8	291	N 69 W
993.0	8.00	2.4	41	N 41 E	100	5.8	291	N 69 W
995.0	8.00	2.5	42	N 42 E	100	5.8	292	N 68 W
997.0	8.00	3.0	43	N 43 E	100	5.8	292	N 68 W
999.0	8.00	4.7	32	N 32 E	100	5.8	291	N 69 W
1001.0	8.00	4.3	15	N 15 E	100	5.8	291	N 69 W

OREGON NATURAL GAS CORP.

IN 33 C-3

WISI

COLUMBIA

OREGON

01/07/87

DEPTH	RL	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1003.0	8.00	5.5	25	N 25 E	100	5.8	291	N 69 W
1005.0	8.00	5.2	31	N 31 E	100	5.8	291	N 69 W
1007.0	8.00	3.4	28	N 30 E	100	5.8	292	N 68 W
1009.0	8.00	3.4	87	N 87 E	100	5.8	291	N 69 W
1011.0	8.00	4.5	104	S 75 E	100	5.9	292	N 68 W
1013.0	8.00	5.0	107	S 73 E	100	5.9	292	N 68 W
1015.0	8.00	4.6	114	S 65 E	100	5.8	291	N 69 W
1017.0	8.00	11.8	22	N 22 E	100	5.9	292	N 68 W
1019.0	8.00	10.6	14	N 14 E	100	5.9	292	N 68 W
1021.0	8.00	9.2	13	N 13 E	100	5.9	292	N 68 W
1023.0	8.00	26.1	10	N 10 E	60	5.9	292	N 68 W
1025.0	8.00	15.1	8	N 8 E	100	5.9	292	N 68 W
1027.0	8.00	2.2	59	N 59 E	87	5.9	292	N 68 W
1029.0	8.00	2.0	53	N 53 E	100	5.9	292	N 68 W
1031.0	8.00	2.7	38	N 38 E	100	6.0	292	N 68 W
1033.0	8.00	2.3	31	N 31 E	100	5.9	293	N 67 W
1035.0	8.00	2.3	3	N 3 E	100	6.0	292	N 68 W
1037.0	8.00	2.8	7	N 7 E	100	5.9	292	N 68 W
1039.0	8.00	3.6	25	N 25 E	100	5.9	293	N 67 W
1041.0	8.00	0.6	129	S 51 E	100	5.9	293	N 67 W
1043.0	8.00	0.9	256	S 75 W	100	6.0	292	N 68 W
1045.0	8.00	0.1	192	S 19 W	100	6.0	293	N 67 W
1047.0	8.00	1.1	96	S 84 E	100	6.0	293	N 67 W
1049.0	8.00	1.5	91	S 89 E	100	6.0	292	N 68 W
1051.0	8.00	1.3	94	S 86 E	100	6.0	293	N 67 W
1053.0	8.00	1.6	87	N 87 E	100	6.0	292	N 68 W
1055.0	8.00	1.4	87	N 87 E	100	6.0	292	N 68 W
1057.0	8.00	1.1	83	N 83 E	100	6.0	293	N 67 W
1059.0	8.00	1.4	62	N 62 E	100	6.1	293	N 67 W
1061.0	8.00	1.2	61	N 61 E	100	6.1	293	N 67 W
1063.0	8.00	1.2	58	N 58 E	100	6.0	293	N 67 W
1065.0	8.00	1.1	53	N 53 E	100	6.1	293	N 67 W
1067.0	8.00	1.5	48	N 48 E	100	6.1	293	N 67 W
1069.0	8.00	1.0	37	N 37 E	100	6.1	293	N 67 W
1071.0	8.00	0.5	39	N 39 E	100	6.0	293	N 67 W
1073.0	8.00	0.4	44	N 44 E	100	6.1	293	N 67 W
1075.0	8.00	0.7	97	S 83 E	100	6.1	293	N 67 W
1077.0	8.00	2.3	107	S 73 E	100	6.1	293	N 67 W
1079.0	8.00	3.4	97	S 83 E	100	6.1	293	N 67 W
1081.0	8.00	4.2	101	S 79 E	100	6.1	293	N 67 W

OREGON NATURAL GAS CORP.

IW 33 C-3

MIST

COLUMBIA

OREGON

01/07/87

DEPTH	RL	**FORMATION DIP**				****BOREHOLE****		
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
1083.0	8.00	4.8	106	S 74 E	100	6.2	293	N 67 W
1085.0	8.00	4.7	106	S 74 E	100	6.2	294	N 66 W
1087.0	8.00	5.0	103	S 77 E	100	6.2	293	N 67 W
1089.0	8.00	5.0	100	S 80 E	100	6.2	293	N 67 W
1091.0	8.00	5.0	95	S 85 E	100	6.2	293	N 67 W
1093.0	8.00	4.9	91	S 89 E	100	6.2	293	N 67 W
1095.0	8.00	4.5	93	S 87 E	100	6.2	294	N 66 W
1097.0	8.00	4.9	102	S 78 E	100	6.2	294	N 66 W
1099.0	8.00	4.7	102	S 76 E	100	6.3	293	N 67 W
1101.0	8.00	4.2	103	S 75 E	100	6.3	294	N 66 W
1103.0	8.00	4.7	103	S 77 E	100	6.3	294	N 66 W
1105.0	8.00	4.7	95	S 85 E	100	6.3	293	N 67 W
1107.0	8.00	3.4	93	S 87 E	100	6.3	294	N 66 W
1109.0	8.00	2.9	116	S 64 E	100	6.3	293	N 67 W
1111.0	8.00	3.2	110	S 70 E	100	6.3	293	N 67 W
1113.0	8.00	2.6	105	S 75 E	100	6.3	293	N 67 W
1115.0	8.00	2.9	104	S 75 E	100	6.4	293	N 67 W
1117.0	8.00	2.8	101	S 79 E	100	6.4	293	N 67 W
1119.0	8.00	2.9	104	S 75 E	100	6.4	293	N 67 W
1121.0	8.00	3.0	96	S 84 E	100	6.4	294	N 66 W
1123.0	8.00	3.4	105	S 75 E	100	6.4	294	N 66 W
1125.0	8.00	2.9	104	S 75 E	100	6.4	294	N 66 W
1127.0	8.00	2.9	98	S 82 E	100	6.4	294	N 66 W
1129.0	8.00	3.0	103	S 77 E	100	6.5	294	N 66 W
1131.0	8.00	2.7	105	S 75 E	100	6.4	294	N 66 W
1133.0	8.00	2.6	100	S 80 E	100	6.5	294	N 66 W
1135.0	8.00	3.2	103	S 77 E	100	6.5	294	N 66 W
1137.0	8.00	3.5	105	S 75 E	100	6.5	295	N 65 W
1139.0	8.00	3.1	107	S 73 E	100	6.5	295	N 65 W
1141.0	8.00	3.0	105	S 73 E	100	6.5	295	N 65 W
1143.0	8.00	3.4	105	S 71 E	100	6.6	295	N 65 W
1145.0	8.00	3.4	111	S 69 E	100	6.5	295	N 65 W
1147.0	8.00	3.8	111	S 69 E	100	6.6	295	N 65 W
1149.0	8.00	4.1	110	S 70 E	100	6.6	295	N 65 W
1151.0	8.00	4.2	110	S 70 E	100	6.6	295	N 65 W
1153.0	8.00	3.8	112	S 68 E	100	6.6	296	N 64 W
1155.0	8.00	3.5	111	S 69 E	100	6.6	295	N 65 W
1157.0	8.00	3.4	111	S 69 E	100	6.7	296	N 64 W
1159.0	8.00	3.0	119	S 61 E	100	6.7	295	N 65 W
1161.0	8.00	3.2	132	S 48 E	100	6.8	296	N 64 W

## OREGON NATURAL GAS CORP.

IW 33 C-3

WIST

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		GA	DAZ	BEARING
1153.0	8.00	3.2	138	S 42 E	100	6.8	296	N 64 W
1155.0	8.00	3.4	145	S 35 E	100	6.8	296	N 64 W
1157.0	8.00	3.6	145	S 31 E	100	6.8	296	N 64 W
1159.0	8.00	3.4	151	S 29 E	100	6.9	296	N 64 W
1171.0	8.00	3.1	153	S 27 E	100	6.9	296	N 64 W
1173.0	8.00	3.1	154	S 25 E	100	7.0	296	N 64 W
1175.0	8.00	2.5	165	S 15 E	100	7.0	296	N 64 W
1177.0	8.00	2.3	166	S 14 E	100	7.0	296	N 64 W
1179.0	8.00	1.8	209	S 29 W	100	7.0	297	N 63 W
1181.0	8.00	2.8	162	S 11 E	100	7.0	297	N 63 W
1183.0	8.00	7.3	213	S 53 W	100	7.0	297	N 63 W
1185.0	8.00	6.5	232	S 52 W	100	7.1	297	N 63 W
1187.0	8.00	7.7	250	S 70 W	100	7.1	297	N 63 W
1189.0	8.00	10.2	251	S 71 W	100	7.1	297	N 63 W
1191.0	8.00	8.2	253	S 72 W	100	7.2	297	N 63 W
1193.0	8.00	5.4	254	S 74 W	100	7.2	297	N 63 W
1195.0	8.00	5.3	265	S 85 W	100	7.2	297	N 63 W
1197.0	8.00	5.4	271	N 89 W	100	7.3	297	N 63 W
1199.0	8.00	5.3	257	S 77 W	100	7.3	297	N 63 W
1201.0	8.00	5.6	260	S 80 W	100	7.3	298	N 62 W
1203.0	8.00	6.3	255	S 75 W	100	7.3	298	N 62 W
1205.0	8.00	6.0	245	S 65 W	100	7.5	298	N 62 W
1207.0	8.00	11.2	205	S 25 W	92	7.5	298	N 62 W
1209.0	8.00	1.5	151	S 29 E	100	7.5	297	N 63 W
1211.0	8.00	2.5	148	S 32 E	100	7.6	298	N 62 W
1213.0	8.00	1.4	193	S 13 W	100	7.6	298	N 62 W
1215.0	8.00	2.4	191	S 11 W	100	7.6	298	N 62 W
1217.0	8.00	2.9	159	S 11 E	100	7.6	298	N 62 W
1219.0	8.00	3.0	174	S 5 E	100	7.6	298	N 62 W
1221.0	8.00	2.9	155	S 25 E	100	7.6	298	N 62 W
1223.0	8.00	2.8	133	S 45 E	100	7.7	298	N 62 W
1225.0	8.00	3.2	131	S 45 E	100	7.7	298	N 62 W
1227.0	8.00	4.1	127	S 53 E	100	7.7	298	N 62 W
1229.0	8.00	4.5	125	S 55 E	100	7.7	298	N 62 W
1231.0	8.00	5.5	124	S 55 E	100	7.7	298	N 62 W
1233.0	8.00	4.3	119	S 61 E	100	7.7	298	N 62 W
1235.0	8.00	4.9	118	S 62 E	100	7.7	298	N 62 W
1237.0	8.00	6.8	119	S 61 E	100	7.7	298	N 62 W
1239.0	8.00	6.7	124	S 56 E	100	7.7	298	N 62 W
1241.0	8.00	10.7	101	S 79 E	100	7.6	298	N 62 W

OREGON NATURAL GAS CORP.

1W 33 C-3

MIST

COLUMBIA

OREGON

01/97/87

## \*\*FORMATION DIP\*\*

## \*\*\*\*BOREHOLE\*\*\*\*

DEPTH	HL	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1243.0	8.00	8.6	126	S 54 E	100	7.6	299	N 61 W
1245.0	8.00	7.4	125	S 55 E	100	7.6	298	N 62 W
1247.0	8.00	17.8	240	S 60 W	72	7.7	298	N 62 W
1251.0	8.00	21.3	332	N 28 W	55	7.7	298	N 62 W
1253.0	8.00	5.5	140	S 40 E	68	7.7	298	N 62 W
1255.0	8.00	6.5	143	S 37 E	100	7.7	298	N 62 W
1257.0	8.00	7.0	121	S 59 E	92	7.7	298	N 62 W
1259.0	8.00	6.9	128	S 52 E	100	7.7	298	N 62 W
1261.0	8.00	6.2	127	S 53 E	100	7.7	298	N 62 W
1263.0	8.00	6.3	129	S 51 E	100	7.8	298	N 62 W
1265.0	8.00	6.2	128	S 52 E	100	7.8	298	N 62 W
1267.0	8.00	7.5	131	S 49 E	100	7.8	299	N 61 W
1269.0	8.00	6.5	137	S 57 W	100	7.8	299	N 61 W
1271.0	8.00	30.4	260	S 80 W	93	7.8	299	N 61 W
1273.0	8.00	28.2	269	S 89 W	100	7.8	299	N 61 W
1275.0	8.00	17.3	133	S 47 E	100	7.8	299	N 61 W
1277.0	8.00	18.2	124	S 55 E	100	7.7	299	N 61 W
1279.0	8.00	17.9	130	S 50 E	100	7.7	299	N 61 W
1281.0	8.00	8.3	144	S 35 E	100	7.7	299	N 61 W
1283.0	8.00	5.3	150	S 30 E	100	7.7	299	N 61 W
1287.0	8.00	9.6	88	N 88 E	100	7.7	299	N 61 W
1289.0	8.00	8.1	144	S 35 E	100	7.7	299	N 61 W
1291.0	8.00	8.2	145	S 35 E	100	7.8	299	N 61 W
1293.0	8.00	8.1	132	S 48 E	100	7.7	299	N 61 W
1295.0	8.00	8.6	126	S 54 E	100	7.7	298	N 62 W
1297.0	8.00	7.8	124	S 56 E	81	7.8	298	N 62 W
1299.0	8.00	6.9	124	S 56 E	66	7.8	298	N 62 W
1301.0	8.00	12.3	194	S 14 W	88	7.9	298	N 62 W
1303.0	8.00	12.3	199	S 19 W	100	7.8	298	N 62 W
1305.0	8.00	9.2	124	S 56 E	90	7.9	299	N 61 W
1307.0	8.00	11.1	130	S 50 E	100	7.8	299	N 61 W
1309.0	8.00	13.3	133	S 47 E	100	7.8	299	N 61 W
1311.0	8.00	21.3	132	S 46 E	100	7.8	299	N 61 W
1313.0	8.00	22.0	136	S 44 E	96	7.8	299	N 61 W
1315.0	8.00	24.4	147	S 33 E	100	7.9	300	N 60 W
1317.0	8.00	27.9	161	S 19 E	87	7.8	299	N 61 W
1319.0	8.00	27.2	155	S 25 E	100	7.8	299	N 61 W
1321.0	8.00	14.4	157	S 23 E	100	7.8	299	N 61 W
1323.0	8.00	9.9	160	S 20 E	100	7.8	300	N 60 W
1329.0	8.00	6.1	185	S 6 W	100	8.0	299	N 61 W

OREGON NATURAL GAS CORP.

1W 33 C-3

WIST

COLUMBIA

OREGON

01/07/87

DEPTH	NL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1331.0	8.00	6.8	177	S 3 E	100	8.0	299	N 61 W
1333.0	8.00	13.4	156	S 44 E	100	8.0	298	N 62 W
1335.0	8.00	13.8	157	S 43 E	100	8.0	299	N 61 W
1337.0	8.00	14.8	142	S 36 E	100	7.9	299	N 61 W
1339.0	8.00	6.8	165	S 15 E	100	7.9	299	N 61 W
1341.0	8.00	8.7	161	S 19 E	100	7.9	300	N 60 W
1343.0	8.00	9.1	161	S 19 E	100	8.0	300	N 60 W
1345.0	8.00	9.7	153	S 27 E	100	8.0	300	N 60 W
1347.0	8.00	10.5	155	S 26 E	100	8.1	300	N 60 W
1349.0	8.00	9.4	156	S 24 E	100	8.0	300	N 60 W
1351.0	8.00	7.6	153	S 27 E	100	8.0	300	N 60 W
1353.0	8.00	7.5	168	S 12 E	100	7.9	300	N 60 W
1355.0	8.00	6.6	191	S 11 W	100	7.9	300	N 60 W
1357.0	8.00	7.3	187	S 7 W	100	7.9	299	N 61 W
1359.0	8.00	8.5	189	S 9 E	100	7.9	299	N 61 W
1361.0	8.00	9.4	175	S 4 E	100	7.9	299	N 61 W
1363.0	8.00	7.2	165	S 15 E	100	7.9	299	N 61 W
1365.0	8.00	7.1	161	S 19 E	100	7.9	299	N 61 W
1367.0	8.00	6.7	156	S 24 E	100	7.9	299	N 61 W
1369.0	8.00	6.7	165	S 15 E	100	7.9	299	N 61 W
1371.0	8.00	6.8	172	S 8 E	100	7.9	299	N 61 W
1373.0	8.00	5.7	172	S 6 E	100	8.0	300	N 60 W
1375.0	8.00	5.0	187	S 7 W	100	7.9	299	N 61 W
1377.0	8.00	5.2	187	S 7 W	100	7.9	300	N 60 W
1379.0	8.00	7.7	167	S 13 E	100	7.9	299	N 61 W
1383.0	8.00	9.6	15	N 13 E	100	7.9	300	N 60 W
1385.0	8.00	8.0	349	N 31 W	100	8.0	300	N 60 W
1387.0	8.00	8.9	125	S 55 E	100	8.0	300	N 60 W
1389.0	8.00	3.6	94	S 86 E	100	7.9	299	N 61 W
1391.0	8.00	18.4	144	S 35 E	100	7.9	299	N 61 W
1393.0	8.00	15.3	109	S 21 E	100	8.0	300	N 60 W
1395.0	8.00	15.3	136	S 44 E	100	7.9	300	N 60 W
1399.0	8.00	6.5	178	S 2 E	100	7.9	299	N 61 W
1401.0	8.00	8.7	339	N 21 W	99	7.9	300	N 60 W
1403.0	8.00	6.4	17	N 17 E	100	8.0	300	N 60 W
1405.0	8.00	7.7	258	S 78 W	100	8.1	300	N 60 W
1407.0	8.00	5.4	341	N 19 W	74	8.1	300	N 60 W
1411.0	8.00	14.6	91	S 89 E	75	8.0	299	N 61 W
1413.0	8.00	11.9	63	N 63 E	100	7.9	299	N 61 W
1415.0	8.00	22.0	80	N 60 E	100	7.9	300	N 60 W

OREGON NATURAL GAS CORP.

IW 33 C-3

MIST

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**				****BORCHOLE****		
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
1417.0	8.00	14.2	91	S 83 E	100	8.0	300	N 60 W
1419.0	8.00	4.1	66	N 66 E	100	8.1	300	N 60 W
1421.0	8.00	28.3	152	S 28 E	81	8.1	300	N 60 W
1423.0	8.00	10.3	339	N 21 W	100	8.1	300	N 60 W
1425.0	8.00	8.1	312	N 38 W	100	8.0	299	N 61 W
1427.0	8.00	10.0	354	N 5 W	100	8.0	300	N 60 W
1429.0	8.00	3.5	38	N 38 E	100	7.9	300	N 60 W
1431.0	8.00	2.7	44	N 44 E	100	8.0	299	N 61 W
1433.0	8.00	2.5	48	N 48 E	100	7.9	299	N 61 W
1435.0	8.00	2.8	44	N 44 E	100	8.0	299	N 61 W
1437.0	8.00	4.5	5	N 5 E	100	8.0	299	N 61 W
1439.0	8.00	4.8	1	N 1 E	100	8.1	300	N 60 W
1441.0	8.00	6.1	304	N 35 W	100	8.1	299	N 61 W
1443.0	8.00	3.3	183	S 5 W	100	8.1	300	N 60 W
1445.0	8.00	3.3	223	S 45 W	100	8.0	300	N 60 W
1447.0	8.00	1.8	184	S 17 E	100	8.1	300	N 60 W
1449.0	8.00	1.9	234	S 54 W	100	8.1	300	N 60 W
1451.0	8.00	0.3	122	S 58 E	100	8.0	300	N 60 W
1453.0	8.00	2.3	100	S 80 E	100	8.0	300	N 60 W
1457.0	8.00	18.6	243	S 63 W	100	8.1	301	N 59 W
1459.0	8.00	19.0	268	S 88 W	100	8.0	300	N 60 W
1451.0	8.00	17.0	261	S 81 W	100	7.9	300	N 60 W
1453.0	8.00	16.0	271	N 89 W	100	8.0	300	N 60 W
1455.0	8.00	2.7	260	S 80 W	100	7.9	300	N 60 W
1457.0	8.00	3.2	237	S 57 W	100	8.0	300	N 60 W
1471.0	8.00	15.4	353	N 7 W	56	8.1	301	N 59 W
1475.0	8.00	32.1	103	S 77 E	100	8.1	300	N 60 W
1477.0	8.00	13.4	178	S 2 E	89	8.0	300	N 60 W
1479.0	8.00	21.2	234	S 54 W	94	8.0	300	N 60 W
1481.0	8.00	2.9	215	S 35 W	100	8.1	300	N 60 W
1483.0	8.00	3.9	301	N 59 W	100	8.0	301	N 59 W
1485.0	8.00	5.7	298	N 70 W	100	8.1	301	N 59 W
1487.0	8.00	1.5	268	S 85 W	100	7.9	301	N 59 W
1489.0	8.00	0.9	234	S 54 W	100	7.9	301	N 59 W
1495.0	8.00	3.3	51	N 51 E	72	8.0	301	N 59 W
1497.0	8.00	3.9	41	N 41 E	45	8.1	301	N 59 W
1499.0	8.00	5.6	74	N 74 E	100	8.1	301	N 59 W
1501.0	8.00	4.9	93	S 87 E	100	8.1	301	N 59 W
1503.0	8.00	19.1	74	N 74 E	56	8.1	300	N 60 W
1507.0	8.00	5.0	37	N 37 E	100	8.2	300	N 60 W

OREGON NATURAL GAS COMP.

IW 33 C-3

WISI

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	***FOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1509.0	8.00	2.0	335	N 37 W	100	8.2	300	N 60 W
1511.0	8.00	3.5	2	N 2 E	100	8.2	301	N 59 W
1513.0	8.00	2.4	4	N 4 E	100	8.1	301	N 59 W
1515.0	8.00	1.8	295	N 65 W	100	8.2	301	N 59 W
1517.0	8.00	3.0	21	N 21 E	100	8.3	301	N 59 W
1519.0	8.00	2.8	63	N 63 E	100	8.4	300	N 60 W
1521.0	8.00	3.1	55	N 55 E	85	8.3	301	N 59 W
1523.0	8.00	5.3	60	N 60 E	74	8.3	300	N 60 W
1525.0	8.00	12.3	71	N 71 E	62	8.2	301	N 59 W
1527.0	8.00	22.8	100	S 80 E	70	8.2	301	N 59 W
1529.0	8.00	14.8	303	N 57 W	100	8.1	300	N 60 W
1531.0	8.00	12.9	9	N 9 E	100	8.2	301	N 59 W
1533.0	8.00	10.1	224	S 44 W	67	8.2	301	N 59 W
1535.0	8.00	9.2	53	N 53 E	100	8.2	301	N 59 W
1537.0	8.00	10.7	63	N 63 E	100	8.2	301	N 59 W
1539.0	8.00	11.3	65	N 65 E	100	8.1	301	N 59 W
1545.0	8.00	30.3	215	S 35 W	55	8.2	301	N 59 W
1557.0	8.00	14.2	65	N 65 E	100	8.1	301	N 59 W
1551.0	8.00	21.7	274	N 65 W	100	8.1	301	N 59 W
1553.0	8.00	21.6	267	S 87 W	100	8.2	301	N 59 W
1555.0	8.00	24.4	87	N 87 E	91	8.2	301	N 59 W
1557.0	8.00	12.4	276	N 84 W	100	8.3	301	N 59 W
1559.0	8.00	11.6	274	N 85 W	77	8.3	301	N 59 W
1571.0	8.00	27.9	223	S 43 W	78	8.2	301	N 59 W
1573.0	8.00	11.9	222	S 42 W	100	8.2	301	N 59 W
1575.0	8.00	9.6	221	S 41 W	100	8.2	301	N 59 W
1577.0	8.00	8.7	235	S 55 W	100	8.2	302	N 58 W
1579.0	8.00	7.9	207	S 27 W	100	8.1	301	N 59 W
1581.0	8.00	10.1	194	S 15 W	100	8.1	301	N 59 W
1583.0	8.00	9.5	226	S 45 W	100	8.1	301	N 59 W
1585.0	8.00	7.0	197	S 17 W	100	8.2	302	N 58 W
1587.0	8.00	17.4	147	S 33 E	100	8.3	302	N 58 W
1589.0	8.00	14.9	182	S 2 W	65	8.4	301	N 59 W
1591.0	8.00	23.4	93	N 53 E	53	8.3	302	N 58 W
1595.0	8.00	12.2	196	S 18 W	100	8.2	301	N 59 W
1599.0	8.00	8.6	111	S 69 E	82	8.4	301	N 59 W
1601.0	8.00	13.2	132	S 42 E	88	8.4	302	N 58 W
1603.0	8.00	17.2	152	S 28 E	100	8.3	301	N 59 W
1605.0	8.00	16.6	144	S 35 E	66	8.3	300	N 60 W
1607.0	8.00	10.5	132	S 42 E	60	8.4	301	N 59 W

GREGG NATURAL GAS CORP.

W 33 C-3

WIST

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1603.0	8.00	33.5	42	N 42 E	62	8.4	302	N 56 W
1615.0	8.00	10.2	338	N 38 W	90	8.4	301	N 59 W
1619.0	8.00	13.1	331	N 29 W	100	8.4	301	N 59 W
1623.0	8.00	4.3	153	S 27 E	100	8.4	301	N 59 W
1625.0	8.00	5.5	131	S 45 E	100	8.4	302	N 58 W
1627.0	8.00	5.1	130	S 50 E	100	8.4	301	N 59 W
1629.0	8.00	7.8	126	S 52 E	93	8.4	301	N 59 W
1631.0	8.00	38.0	127	S 53 E	71	8.4	302	N 58 W
1635.0	8.00	21.4	181	S 1 W	100	8.5	301	N 59 W
1637.0	8.00	21.4	162	S 18 E	100	8.4	301	N 59 W
1639.0	8.00	17.1	15	N 15 E	69	8.4	301	N 59 W
1641.0	8.00	20.7	163	S 17 E	72	8.3	301	N 59 W
1643.0	8.00	13.8	138	S 42 E	100	8.3	301	N 59 W
1647.0	8.00	6.9	120	S 60 E	100	8.4	301	N 59 W
1649.0	8.00	23.9	153	S 25 E	100	8.4	301	N 59 W
1651.0	8.00	29.1	164	S 15 E	100	8.4	301	N 59 W
1657.0	8.00	15.8	112	S 68 E	100	8.5	300	N 60 W
1659.0	8.00	16.7	140	S 40 E	95	8.5	300	N 60 W
1661.0	8.00	28.3	135	S 45 E	93	8.5	301	N 59 W
1663.0	8.00	23.1	158	S 22 E	100	8.5	301	N 59 W
1665.0	8.00	16.6	158	S 22 E	100	8.5	301	N 59 W
1667.0	8.00	15.1	158	S 23 E	100	8.5	300	N 60 W
1669.0	8.00	16.0	158	S 24 E	100	8.6	301	N 59 W
1677.0	8.00	22.9	224	S 44 W	100	8.6	301	N 59 W
1679.0	8.00	10.5	173	S 7 E	100	8.6	301	N 59 W
1681.0	8.00	12.2	178	S 2 E	100	8.5	301	N 59 W
1683.0	8.00	12.0	210	S 40 W	100	8.5	300	N 60 W
1685.0	8.00	11.8	209	S 29 W	91	8.5	301	N 59 W
1687.0	8.00	12.0	216	S 35 W	61	8.5	300	N 60 W
1689.0	8.00	12.4	296	N 64 W	100	8.5	300	N 60 W
1691.0	8.00	12.5	298	N 62 W	100	8.5	301	N 59 W
1693.0	8.00	13.6	310	N 50 W	100	8.5	301	N 59 W
1695.0	8.00	5.2	301	N 59 W	100	8.5	301	N 59 W
1697.0	8.00	7.8	194	S 14 W	100	8.5	301	N 59 W
1699.0	8.00	8.5	192	S 11 W	100	8.5	301	N 59 W
1701.0	8.00	7.9	189	S 9 W	100	8.4	301	N 59 W
1703.0	8.00	7.2	184	S 4 W	100	8.4	301	N 59 W
1705.0	8.00	7.3	178	S 2 E	100	8.4	301	N 59 W
1707.0	8.00	7.1	183	S 3 E	100	8.4	301	N 59 W
1709.0	8.00	4.9	322	N 38 W	100	8.4	301	N 59 W

OREGON NATURAL GAS CO. INC.  
 IW 33 C-3  
 WIST  
 COLUMBIA  
 01/07/87

OREGON

DEPTH	ML	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1711.0	8.00	7.1	152	S 28 E	100	8.4	301	N 59 W
1713.0	8.00	5.3	249	S 69 W	93	8.4	300	N 60 W
1715.0	8.00	7.9	125	S 45 W	100	8.4	301	N 59 W
1717.0	8.00	7.8	194	S 14 W	100	8.4	301	N 59 W
1719.0	8.00	7.2	165	S 3 W	100	8.4	301	N 59 W
1721.0	8.00	7.8	177	S 3 E	100	8.4	301	N 59 W
1723.0	8.00	8.2	179	S 1 E	100	8.4	301	N 59 W
1725.0	8.00	8.2	181	S 1 W	100	8.4	301	N 59 W
1727.0	8.00	1.5	316	N 44 W	100	8.4	301	N 59 W
1729.0	8.00	9.2	52	N 52 E	100	8.4	301	N 59 W
1731.0	8.00	4.2	14	N 14 E	100	8.4	300	N 60 W
1733.0	8.00	8.9	42	N 42 E	100	8.4	300	N 60 W
1735.0	8.00	9.3	59	N 50 E	100	8.4	300	N 60 W
1737.0	8.00	6.1	95	S 84 E	100	8.3	300	N 60 W
1739.0	8.00	13.6	99	N 80 E	78	8.3	300	N 60 W
1741.0	8.00	26.5	283	N 77 W	100	8.3	301	N 59 W
1743.0	8.00	24.3	229	S 42 W	100	8.3	300	N 60 W
1745.0	8.00	5.8	172	S 8 E	100	8.4	301	N 59 W
1747.0	8.00	12.0	133	S 47 E	100	8.3	301	N 59 W
1751.0	8.00	8.5	111	S 69 E	100	8.3	300	N 60 W
1753.0	8.00	22.7	225	S 46 W	98	8.3	300	N 60 W
1755.0	8.00	21.5	233	S 53 W	100	8.2	300	N 60 W
1757.0	8.00	17.5	270	N 90 W	100	8.3	301	N 59 W
1759.0	8.00	8.1	186	S 6 W	100	8.3	301	N 59 W
1761.0	8.00	22.5	224	S 44 W	100	8.3	301	N 59 W
1765.0	8.00	26.1	208	S 28 W	100	8.3	301	N 59 W
1767.0	8.00	10.2	213	S 35 W	100	8.3	301	N 59 W
1769.0	8.00	8.3	213	S 35 W	100	8.3	301	N 59 W
1771.0	8.00	8.9	117	S 32 W	100	8.2	301	N 59 W
1773.0	8.00	9.7	199	S 19 W	100	8.2	301	N 59 W
1775.0	8.00	11.1	191	S 11 W	96	8.2	300	N 60 W
1777.0	8.00	24.5	142	S 38 E	92	8.2	300	N 60 W
1779.0	8.00	2.3	64	N 84 E	68	8.3	301	N 59 W
1781.0	8.00	32.1	76	N 76 E	57	8.2	300	N 60 W
1783.0	8.00	7.4	159	S 15 W	82	8.3	301	N 59 W
1785.0	8.00	8.5	197	S 17 W	100	8.2	300	N 60 W
1787.0	8.00	8.5	195	S 15 W	64	8.3	301	N 59 W
1789.0	8.00	8.6	173	S 1 E	100	8.2	301	N 59 W
1791.0	8.00	8.6	201	S 21 W	100	8.2	301	N 59 W
1793.0	8.00	8.4	153	S 13 W	100	8.2	300	N 60 W

GREGSON NATURAL GAS CORP.

IW 33 C-3

MIST

COLUMBIA

OREGON

61/97/87

\*\*FORMATION DIP\*\*

\*\*\*\*\*BOREHOLE\*\*\*\*\*

DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
1795.0	8.00	8.2	205	S 25 W	79	8.1	301	N 59 W
1797.0	8.00	6.8	198	S 18 W	73	8.1	301	N 59 W
1799.0	8.00	8.0	185	S 7 W	100	8.1	301	N 39 W
1801.0	8.00	8.4	182	S 2 W	100	8.1	301	N 59 W
1803.0	8.00	9.7	183	S 3 W	100	8.1	301	N 59 W
1807.0	8.00	20.7	203	S 23 W	90	8.1	301	N 59 W
1809.0	8.00	19.5	212	S 32 W	92	8.1	301	N 59 W
1811.0	8.00	20.5	211	S 31 W	82	8.1	301	N 59 W
1813.0	8.00	4.5	143	S 37 E	96	8.1	301	N 59 W
1815.0	8.00	8.2	184	S 4 W	81	8.1	300	N 60 W
1817.0	8.00	14.8	78	N 78 E	73	8.2	300	N 60 W
1819.0	8.00	9.6	185	S 3 W	100	8.1	300	N 60 W
1821.0	8.00	7.2	193	S 18 W	100	8.2	300	N 60 W
1823.0	8.00	8.4	205	S 25 W	76	8.2	300	N 60 W
1825.0	8.00	8.4	207	S 27 W	100	8.2	300	N 60 W
1827.0	8.00	8.9	208	S 29 W	100	8.1	300	N 60 W
1829.0	8.00	8.0	204	S 24 W	100	8.2	300	N 60 W
1831.0	8.00	8.4	201	S 21 W	100	8.2	300	N 60 W
1833.0	8.00	7.8	202	S 22 W	100	8.2	300	N 60 W
1835.0	8.00	8.2	194	S 14 W	100	8.1	300	N 60 W
1837.0	8.00	8.8	190	S 10 W	100	8.1	301	N 59 W
1839.0	8.00	9.8	196	S 16 W	100	8.0	301	N 59 W
1841.0	8.00	11.0	193	S 13 W	100	8.1	301	N 59 W
1843.0	8.00	6.8	210	S 30 W	100	8.1	300	N 60 W
1845.0	8.00	12.5	254	S 74 W	100	8.1	300	N 60 W
1847.0	8.00	6.7	189	S 9 W	100	8.1	300	N 60 W
1849.0	8.00	6.7	186	S 6 W	100	8.1	300	N 60 W
1851.0	8.00	5.7	186	S 6 W	100	8.1	300	N 60 W
1853.0	8.00	6.1	196	S 16 W	100	8.1	300	N 60 W
1855.0	8.00	5.7	204	S 24 W	100	8.0	300	N 60 W
1857.0	8.00	6.2	203	S 23 W	100	7.9	300	N 60 W
1859.0	8.00	8.1	210	S 30 W	100	7.9	301	N 59 W
1851.0	8.00	20.4	214	S 68 E	100	7.9	301	N 59 W
1853.0	8.00	17.5	137	S 43 E	100	7.9	301	N 59 W
1855.0	8.00	17.4	133	S 43 E	100	7.9	300	N 60 W
1857.0	8.00	19.6	203	S 23 W	100	7.9	301	N 59 W
1859.0	8.00	13.2	247	S 67 W	100	7.9	300	N 60 W
1871.0	8.00	12.4	240	S 60 W	100	7.9	301	N 59 W
1873.0	8.00	12.2	241	S 61 W	100	7.9	301	N 59 W
1875.0	8.00	12.7	252	S 72 W	100	7.9	301	N 59 W

OREGON NATURAL GAS CORP.

IW 33 C-3

WIST

COLUMBIA

OREGON

01/07/87

DEPTH	WT	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1877.0	8.00	13.2	259	S 75 W	100	7.9	301	N 59 W
1879.0	8.00	13.3	258	S 75 W	100	7.9	301	N 59 W
1881.0	8.00	11.7	246	S 65 W	100	7.8	301	N 59 W
1883.0	8.00	11.4	245	S 65 W	100	7.9	301	N 59 W
1885.0	8.00	10.5	244	S 64 W	100	7.8	301	N 59 W
1887.0	8.00	11.2	243	S 63 W	100	7.8	300	N 60 W
1889.0	8.00	11.5	235	S 65 W	100	7.9	301	N 59 W
1891.0	8.00	11.0	230	S 60 W	69	7.9	301	N 59 W
1893.0	8.00	2.6	184	S 4 W	100	7.9	301	N 59 W
1895.0	8.00	11.7	213	S 53 W	100	7.9	301	N 59 W
1897.0	8.00	38.9	172	S 3 E	100	7.9	301	N 59 W
1899.0	8.00	11.4	241	S 61 W	100	7.8	301	N 59 W
1901.0	8.00	13.2	210	S 30 W	100	7.9	301	N 59 W
1905.0	8.00	32.3	163	S 15 E	100	7.8	301	N 59 W
1907.0	8.00	16.8	164	S 15 E	100	7.8	300	N 60 W
1909.0	8.00	29.5	173	S 7 E	100	7.8	301	N 59 W
1911.0	8.00	29.2	175	S 7 E	100	7.7	301	N 59 W
1913.0	8.00	18.0	148	S 32 E	100	7.7	301	N 59 W
1915.0	8.00	14.2	164	S 15 E	100	7.7	301	N 59 W
1917.0	8.00	24.5	238	S 58 W	64	7.7	301	N 59 W
1919.0	8.00	11.5	238	S 58 W	78	7.7	301	N 59 W
1921.0	8.00	21.3	239	S 59 W	96	7.7	301	N 59 W
1923.0	8.00	23.1	152	S 28 E	100	7.7	301	N 59 W
1925.0	8.00	4.5	345	N 14 W	72	7.7	301	N 59 W
1927.0	8.00	5.6	92	S 58 E	100	7.7	301	N 59 W
1929.0	8.00	14.8	177	S 3 E	86	7.7	301	N 59 W
1931.0	8.00	14.2	155	S 15 W	95	7.7	300	N 60 W
1933.0	8.00	16.1	186	S 5 W	100	7.8	301	N 59 W
1935.0	8.00	16.8	153	S 3 W	100	7.8	300	N 60 W
1937.0	8.00	23.9	201	S 21 W	62	7.8	300	N 60 W
1939.0	8.00	20.5	208	S 20 W	78	7.8	301	N 59 W
1941.0	8.00	24.0	193	S 13 W	100	7.9	301	N 59 W
1943.0	8.00	23.9	193	S 13 W	100	7.9	301	N 59 W
1945.0	8.00	21.6	184	S 4 W	100	7.9	301	N 59 W
1947.0	8.00	20.2	186	S 5 W	100	7.9	301	N 59 W
1949.0	8.00	16.8	145	S 35 E	94	7.9	301	N 59 W
1951.0	8.00	17.5	143	S 37 E	100	7.5	301	N 59 W
1953.0	8.00	20.1	158	S 30 E	88	7.8	301	N 59 W
1955.0	8.00	15.2	123	S 57 E	100	7.8	301	N 59 W
1957.0	8.00	12.9	174	S 5 E	100	7.9	301	N 59 W

OREGON NATURAL GAS CORP.

IW 33 C-3

MISI

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1959.0	8.00	15.6	197	S 17 W	100	7.9	300	N 60 W
1961.0	8.00	13.0	197	S 17 W	100	7.8	301	N 59 W
1963.0	8.00	10.4	194	S 14 W	100	7.8	301	N 59 W
1965.0	8.00	9.4	194	S 14 W	66	7.8	300	N 60 W
1969.0	8.00	23.6	123	S 60 E	100	7.8	301	N 59 W
1971.0	8.00	15.8	132	S 48 E	100	7.8	301	N 59 W
1973.0	8.00	14.2	145	S 34 E	100	7.8	301	N 59 W
1975.0	8.00	14.9	143	S 37 E	100	7.8	301	N 59 W
1977.0	8.00	14.2	148	S 32 E	100	7.8	301	N 59 W
1979.0	8.00	14.0	150	S 30 E	100	7.8	301	N 59 W
1981.0	8.00	19.3	232	S 52 W	100	7.7	301	N 59 W
1983.0	8.00	19.4	280	N 80 W	100	7.7	301	N 59 W
1985.0	8.00	19.4	281	N 79 W	100	7.7	301	N 59 W
1987.0	8.00	19.9	290	N 70 W	100	7.6	301	N 59 W
1989.0	8.00	22.9	160	S 0 E	100	7.7	301	N 59 W
1993.0	8.00	27.5	198	S 22 E	100	7.7	302	N 58 W
1995.0	8.00	19.9	203	S 23 W	100	7.6	302	N 58 W
1997.0	8.00	15.5	184	S 4 W	100	7.7	301	N 59 W
1999.0	8.00	17.8	172	S 8 E	100	7.7	301	N 59 W
2001.0	8.00	11.1	208	S 28 W	100	7.7	301	N 59 W
2003.0	8.00	22.0	178	S 2 E	100	7.7	301	N 59 W
2005.0	8.00	12.3	155	S 25 E	100	7.7	301	N 59 W
2007.0	8.00	11.9	153	S 27 E	100	7.7	301	N 59 W
2009.0	8.00	16.4	165	S 15 E	100	7.7	301	N 59 W
2011.0	8.00	14.5	112	S 68 E	83	7.8	301	N 59 W
2013.0	8.00	20.8	138	S 42 E	100	7.8	301	N 59 W
2015.0	8.00	15.4	167	S 7 W	100	7.7	301	N 59 W
2017.0	8.00	15.4	188	S 8 W	96	7.7	301	N 59 W
2019.0	8.00	16.9	212	S 32 W	100	7.7	301	N 59 W
2021.0	8.00	19.2	167	S 13 E	45	7.7	301	N 59 W
2023.0	8.00	19.9	159	S 11 E	100	7.7	301	N 59 W
2025.0	8.00	21.3	167	S 13 E	100	7.8	301	N 59 W
2027.0	8.00	21.2	170	S 10 E	100	7.8	301	N 59 W
2029.0	8.00	21.4	170	S 10 E	100	7.7	301	N 59 W
2031.0	8.00	21.1	171	S 9 E	78	7.6	301	N 59 W
2033.0	8.00	17.8	190	S 10 W	100	7.6	301	N 59 W
2035.0	8.00	18.0	191	S 11 W	100	7.6	301	N 59 W
2039.0	8.00	19.5	195	S 15 W	100	7.6	301	N 59 W
2045.0	8.00	12.8	223	S 43 W	100	7.7	302	N 58 W
2047.0	8.00	7.6	250	S 70 W	100	7.7	302	N 58 W

OREGON NATURAL GAS CORP.  
 IW 33 C-3  
 MIST  
 COLUMBIA OREGON  
 01/07/87

DEPTH	#1	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	#2	BEARING		DA	DAZ	BEARING
2049.0	8.00	7.5	200	S 20 W	100	7.8	302	N 58 W
2051.0	8.00	7.1	211	S 31 W	100	7.7	301	N 59 W
2053.0	8.00	6.2	206	S 25 W	100	7.7	301	N 59 W
2055.0	8.00	4.1	164	S 15 E	100	7.7	301	N 59 W
2057.0	8.00	2.8	132	S 50 E	100	7.7	301	N 59 W
2059.0	8.00	8.5	136	S 44 E	100	7.8	302	N 58 W
2053.0	8.00	5.8	194	S 14 W	100	7.7	301	N 59 W
2055.0	8.00	5.7	192	S 12 W	100	7.6	301	N 59 W
2057.0	8.00	2.1	184	S 4 W	100	7.7	301	N 59 W
2059.0	8.00	5.9	275	N 85 W	100	7.8	301	N 59 W
2071.0	8.00	8.2	195	S 10 W	100	7.8	302	N 58 W
2073.0	8.00	6.9	217	S 37 W	100	7.7	301	N 59 W
2077.0	8.00	21.4	271	N 89 W	75	7.6	301	N 59 W
2079.0	8.00	18.1	1	N 1 E	82	7.7	302	N 58 W
2085.0	8.00	7.6	125	S 52 E	82	7.6	301	N 59 W
2087.0	8.00	7.8	222	S 42 W	100	7.6	302	N 58 W
2089.0	8.00	11.7	146	S 34 E	73	7.6	301	N 59 W
2091.0	8.00	9.2	184	S 4 W	71	7.6	301	N 59 W
2093.0	8.00	8.5	307	N 53 W	76	7.6	302	N 58 W
2099.0	8.00	26.5	25	N 25 E	45	7.5	302	N 58 W
2101.0	8.00	7.9	114	S 66 E	78	7.5	302	N 58 W
2105.0	8.00	25.7	39	N 39 E	68	7.5	302	N 58 W
2111.0	8.00	24.4	138	S 42 E	100	7.5	302	N 58 W
2113.0	8.00	12.8	210	S 30 W	100	7.5	302	N 58 W
2115.0	8.00	9.4	222	S 42 W	100	7.5	302	N 58 W
2117.0	8.00	3.7	227	S 47 W	100	7.5	302	N 58 W
2119.0	8.00	4.0	247	S 67 W	100	7.5	302	N 58 W
2121.0	8.00	4.3	227	S 47 W	100	7.5	302	N 58 W
2123.0	8.00	6.9	213	S 33 W	100	7.6	302	N 58 W
2125.0	8.00	6.6	199	S 19 W	73	7.6	302	N 58 W
2127.0	8.00	5.8	212	S 32 W	100	7.6	302	N 58 W
2129.0	8.00	6.8	200	S 20 W	60	7.6	302	N 58 W
2131.0	8.00	6.6	185	S 5 W	100	7.6	302	N 58 W
2133.0	8.00	32.1	228	S 48 W	100	7.5	302	N 58 W
2137.0	8.00	12.0	384	N 35 W	100	7.6	302	N 58 W
2139.0	8.00	18.4	61	N 61 E	64	7.6	302	N 58 W
2141.0	8.00	15.0	308	N 52 W	88	7.5	302	N 58 W
2143.0	8.00	14.3	331	N 29 W	93	7.5	302	N 58 W
2145.0	8.00	21.5	266	S 55 W	53	7.5	302	N 58 W
2147.0	8.00	6.1	291	N 69 W	100	7.6	302	N 58 W

OREGON NATURAL GAS CORP.

10 33 C-3

MIST

COLUMBIA

OREGON

01/07/87

DEPTH	ML	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
2149.0	8.00	5.1	291	N 69 W	100	7.6	301	N 59 W
2151.0	8.00	4.7	279	N 81 W	100	7.6	302	N 58 W
2153.0	8.00	5.5	249	S 69 W	100	7.6	302	N 58 W
2155.0	8.00	4.0	268	S 88 W	100	7.6	301	N 59 W
2157.0	8.00	6.7	259	S 79 W	100	7.5	301	N 59 W
2159.0	8.00	7.9	267	S 87 W	100	7.6	302	N 58 W
2151.0	8.00	7.7	171	N 89 W	100	7.7	302	N 58 W
2153.0	8.00	4.5	214	S 34 W	100	7.7	302	N 58 W
2155.0	8.00	6.0	291	N 69 W	96	7.6	302	N 58 W
2157.0	8.00	9.5	284	N 75 W	92	7.7	302	N 58 W
2159.0	8.00	9.7	184	N 75 W	100	7.7	302	N 58 W
2171.0	8.00	14.4	269	S 89 W	100	7.7	302	N 58 W
2173.0	8.00	11.9	229	S 49 W	100	7.7	302	N 58 W
2175.0	8.00	3.9	197	S 17 W	100	7.6	302	N 58 W
2177.0	8.00	7.1	52	S 55 E	100	7.5	302	N 58 W
2179.0	8.00	3.3	2	N 2 E	100	7.5	302	N 58 W
2181.0	8.00	1.5	342	N 18 W	100	7.5	302	N 58 W
2183.0	8.00	8.3	316	N 44 W	100	7.5	302	N 58 W
2185.0	8.00	7.9	340	N 20 W	100	7.5	302	N 58 W
2187.0	8.00	16.4	344	N 15 W	100	7.5	302	N 58 W
2189.0	8.00	14.8	319	N 41 W	74	7.4	302	N 58 W
2191.0	8.00	22.1	134	S 66 E	71	7.4	302	N 58 W
2193.0	8.00	21.4	131	S 69 E	100	7.4	302	N 58 W
2195.0	8.00	25.3	251	S 71 W	76	7.3	302	N 58 W
2197.0	8.00	25.4	2	N 2 E	78	7.3	302	N 58 W
2203.0	8.00	28.4	314	N 46 W	68	7.3	302	N 58 W
2211.0	8.00	17.5	232	S 52 W	59	7.4	302	N 58 W
2219.0	8.00	11.3	285	N 75 W	100	7.4	302	N 58 W
2221.0	8.00	20.7	289	N 71 W	84	7.5	302	N 58 W
2223.0	8.00	27.3	9	N 9 E	98	7.3	303	N 57 W
2225.0	8.00	31.7	354	N 5 W	100	7.3	303	N 57 W
2227.0	8.00	31.1	358	N 2 W	78	7.4	303	N 57 W
2229.0	8.00	43.7	211	S 31 W	80	7.3	303	N 57 W
2231.0	8.00	15.3	339	N 21 W	75	7.3	303	N 57 W
2241.0	8.00	5.2	27	N 27 E	61	7.3	303	N 57 W
2243.0	8.00	7.1	93	S 85 E	100	7.3	302	N 58 W
2245.0	8.00	20.0	289	S 9 W	100	7.3	302	N 58 W
2247.0	8.00	16.2	264	S 64 W	100	7.2	302	N 58 W
2249.0	8.00	17.2	275	N 64 W	100	7.1	302	N 58 W
2251.0	8.00	16.4	284	N 75 W	100	7.2	302	N 58 W

OREGON NATURAL GAS CORP.

1W 33 C-3

W1ST

COLUMBIA

OREGON

01/07/87

\*\*FORMATION DIP\*\*

\*\*\*\*\*BOREHOLE\*\*\*\*\*

DEPTH	DI	ANG	#1	BEARING	GRADE	DA	DAZ	BEARING
2255.0	3.00	34.0	163	S 15 E	68	7.1	303	N 37 W
2257.0	8.00	25.4	92	S 88 E	79	7.1	302	N 58 W
2259.0	8.00	17.0	251	S 71 W	100	7.1	302	N 53 W
2263.0	8.00	32.3	55	N 55 E	87	7.1	303	N 57 W
2255.0	3.00	32.6	54	N 54 E	86	7.0	303	N 57 W
2257.0	8.00	34.5	49	N 49 E	100	7.1	303	N 57 W
2269.0	8.00	33.9	344	N 15 W	53	7.1	303	N 57 W
2271.0	8.00	29.5	341	N 19 W	21	7.1	304	N 56 W
2277.0	8.00	23.4	230	S 50 W	56	7.0	303	N 57 W
2279.0	8.00	28.1	234	S 54 W	59	7.0	303	N 57 W
2281.0	8.00	25.2	217	S 37 W	100	7.0	303	N 57 W
2283.0	8.00	15.2	255	S 75 W	62	7.1	303	N 57 W
2285.0	8.00	36.8	61	N 61 E	61	7.1	303	N 57 W
2287.0	8.00	30.2	62	N 62 E	55	7.1	303	N 57 W
2289.0	8.00	18.1	24	N 19 E	100	7.2	304	N 56 W
2291.0	8.00	19.8	245	S 65 W	68	7.2	305	N 58 W
2293.0	8.00	20.3	260	S 80 W	77	7.2	304	N 56 W
2301.0	8.00	25.3	18	N 18 E	79	7.2	304	N 56 W
2303.0	8.00	27.1	3	N 3 E	44	7.2	304	N 56 W
2309.0	8.00	26.4	40	N 40 E	57	7.1	304	N 56 W
2313.0	8.00	16.0	305	N 55 W	41	7.0	304	N 56 W
2321.0	8.00	31.9	279	N 81 W	100	6.9	304	N 56 W
2323.0	8.00	25.2	259	S 79 W	100	7.0	304	N 56 W
2325.0	8.00	24.5	245	S 65 W	100	7.0	304	N 56 W
2327.0	8.00	22.3	221	S 41 W	87	7.0	304	N 56 W
2329.0	8.00	12.3	215	S 35 W	100	7.0	304	N 56 W
2331.0	8.00	35.6	141	S 35 E	100	7.0	304	N 56 W
2333.0	8.00	35.8	147	S 33 E	100	7.0	304	N 56 W
2339.0	8.00	17.6	204	N 54 W	100	7.0	303	N 57 W
2341.0	8.00	17.8	314	N 46 W	100	7.0	303	N 57 W
2343.0	8.00	16.9	313	N 47 W	100	7.0	303	N 57 W
2345.0	8.00	25.4	11	N 11 E	60	7.0	303	N 57 W
2347.0	8.00	27.2	295	N 62 W	88	7.0	304	N 56 W
2351.0	8.00	26.5	301	N 59 W	35	6.9	303	N 57 W
2353.0	8.00	16.2	13	N 13 E	42	6.8	303	N 57 W
2355.0	8.00	15.1	342	N 18 W	100	6.9	303	N 57 W
2357.0	8.00	23.0	237	S 37 W	92	6.8	303	N 57 W
2359.0	8.00	27.6	185	S 3 W	82	6.7	303	N 57 W
2361.0	8.00	32.0	144	S 35 E	72	6.7	303	N 57 W
2363.0	8.00	28.9	143	S 31 E	100	6.6	302	N 58 W

OREGON NATURAL GAS CORP.

IW 33 C-3

MIST

COLUMBIA

OREGON

01/07/87

## \*\*FORMATION DIP\*\*

## \*\*\*BOREHOLE\*\*\*

DEPTH	NL	**FORMATION DIP**				GRADE	***BOREHOLE***		
		ANG	AZ	BEARING	DA		DAZ	BEARING	
2355.0	3.00	29.1	145	S 32 E	94	6.6	302	N 39 W	
2357.0	0.00	36.1	158	S 22 E	67	6.6	302	N 58 W	
2359.0	0.00	12.1	255	S 72 W	69	6.7	302	N 58 W	
2371.0	0.00	12.0	261	S 81 W	100	6.7	303	N 57 W	
2373.0	0.00	11.7	262	S 83 W	100	6.7	303	N 57 W	
2375.0	0.00	11.4	265	S 85 W	100	6.7	303	N 57 W	
2377.0	0.00	19.0	300	S 50 W	100	6.6	303	N 57 W	
2381.0	0.00	17.4	5	N 3 E	89	6.7	303	N 57 W	
2383.0	0.00	16.7	219	S 39 W	100	6.7	303	N 57 W	
2385.0	0.00	17.7	233	S 53 W	100	6.7	304	N 56 W	
2387.0	0.00	15.0	239	S 56 W	100	6.8	304	N 56 W	
2389.0	0.00	19.0	230	S 50 W	100	6.8	304	N 56 W	
2391.0	0.00	36.4	40	N 40 E	100	6.8	303	N 57 W	
2393.0	0.00	23.0	242	S 62 W	100	6.8	304	N 56 W	
2397.0	0.00	17.4	209	S 29 W	100	6.8	304	N 56 W	
2399.0	0.00	17.9	17	N 17 E	92	6.9	304	N 56 W	
2401.0	0.00	21.8	295	N 64 W	52	6.9	304	N 56 W	
2403.0	0.00	22.8	295	N 64 W	49	6.9	304	N 56 W	
2405.0	0.00	30.2	304	N 55 W	98	6.9	304	N 56 W	
2407.0	0.00	7.7	357	N 3 W	74	6.9	304	N 56 W	
2409.0	0.00	0.9	351	N 9 W	77	6.9	304	N 56 W	
2411.0	0.00	31.8	301	N 59 W	100	6.9	305	N 59 W	
2413.0	0.00	6.0	208	S 28 W	100	6.9	305	N 59 W	
2415.0	0.00	8.1	225	S 45 W	61	7.0	304	N 56 W	
2417.0	0.00	6.5	146	S 34 E	68	7.0	304	N 56 W	
2419.0	0.00	20.8	128	S 52 E	86	6.9	304	N 56 W	
2421.0	0.00	24.5	62	N 62 E	98	6.9	304	N 56 W	
2423.0	0.00	24.3	118	S 62 E	72	6.9	304	N 56 W	
2431.0	0.00	25.4	223	S 43 W	100	6.9	304	N 56 W	
2433.0	0.00	2.6	302	N 58 W	100	6.9	304	N 56 W	
2435.0	0.00	6.9	332	N 30 W	100	6.9	304	N 56 W	
2437.0	0.00	14.1	233	S 53 W	100	6.9	304	N 56 W	
2441.0	0.00	20.5	148	S 32 E	100	6.9	304	N 56 W	
2443.0	0.00	3.5	233	S 53 W	81	6.9	304	N 56 W	
2445.0	0.00	5.4	212	S 33 W	81	7.0	304	N 56 W	
2447.0	0.00	5.2	239	S 59 W	99	6.9	304	N 56 W	
2449.0	0.00	8.3	233	S 53 W	100	6.9	304	N 56 W	
2451.0	0.00	3.0	284	N 76 W	100	6.9	304	N 56 W	
2453.0	0.00	13.1	354	N 3 W	100	6.9	304	N 56 W	
2455.0	0.00	13.1	243	S 63 W	100	6.9	304	N 56 W	

ORF50V NATURAL GAS CORP.

IK 33 C-3

MIST

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
2457.0	8.00	11.4	236	S 36 W	100	7.0	304	N 56 W
2459.0	8.00	12.8	238	S 51 W	100	7.0	304	N 56 W
2461.0	8.00	16.0	217	S 37 W	100	7.0	304	N 56 W
2463.0	8.00	10.5	219	S 39 W	100	7.0	304	N 56 W
2465.0	8.00	22.3	231	S 51 W	100	7.0	304	N 56 W
2467.0	8.00	23.2	233	S 53 W	100	7.0	305	N 55 W
2469.0	8.00	23.2	233	S 53 W	100	7.0	304	N 56 W
2471.0	8.00	21.1	300	N 60 W	100	7.0	304	N 56 W
2473.0	8.00	21.5	321	S 41 W	76	7.0	305	N 55 W
2475.0	8.00	21.1	170	S 10 E	100	7.0	305	N 55 W
2477.0	8.00	19.0	162	S 16 E	100	7.0	305	N 55 W
2479.0	8.00	22.3	292	N 68 W	42	7.1	305	N 55 W
2481.0	8.00	13.0	162	S 16 E	100	7.1	305	N 55 W
2487.0	8.00	3.6	51	N 51 E	100	7.1	305	N 55 W
2489.0	8.00	11.5	35	N 35 E	100	7.1	305	N 55 W
2491.0	8.00	16.7	38	N 38 E	100	7.2	305	N 55 W
2493.0	8.00	14.0	201	S 21 W	66	7.2	305	N 55 W
2495.0	8.00	25.2	203	S 23 W	100	7.2	305	N 55 W
2497.0	8.00	25.3	204	S 24 W	100	7.2	305	N 55 W
2499.0	8.00	27.3	207	S 27 W	100	7.2	305	N 55 W
2501.0	8.00	24.1	212	S 32 W	100	7.3	305	N 55 W
2503.0	8.00	29.6	190	S 10 W	100	7.3	305	N 55 W
2505.0	8.00	16.3	222	S 42 W	98	7.3	305	N 55 W
2507.0	8.00	14.3	159	S 21 E	100	7.4	304	N 56 W
2509.0	8.00	33.6	176	S 4 E	100	7.4	304	N 56 W
2511.0	8.00	18.0	183	S 3 W	86	7.5	304	N 56 W
2513.0	8.00	17.7	175	S 3 E	100	7.5	304	N 56 W
2515.0	8.00	27.1	175	S 4 E	100	7.4	304	N 56 W
2517.0	8.00	40.4	157	S 23 E	100	7.1	304	N 56 W
2519.0	8.00	55.2	152	S 28 E	100	7.1	305	N 55 W
2521.0	8.00	57.9	149	S 31 E	100	7.1	304	N 56 W
2523.0	8.00	57.4	147	S 33 E	100	7.1	304	N 56 W
2525.0	8.00	25.4	205	S 20 W	100	7.1	304	N 56 W
2527.0	8.00	45.8	69	N 69 E	100	7.1	304	N 56 W
2529.0	8.00	31.0	64	N 64 E	100	7.1	304	N 56 W
2531.0	8.00	45.8	90	N 90 E	100	7.1	304	N 56 W
2533.0	8.00	48.5	353	N 7 W	100	7.1	304	N 56 W
2541.0	8.00	19.8	237	S 57 W	100	7.3	294	N 66 W
2543.0	8.00	19.0	252	S 72 W	100	7.3	297	N 63 W
2545.0	8.00	36.2	230	S 50 W	100	7.3	299	N 61 W

## OREGON NATURAL GAS CORP.

IW 33 C-3

WIST

CO. U931A

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
2547.0	8.00	35.7	222	S 42 W	100	7.3	300	N 60 W
2549.0	8.00	11.6	295	N 65 W	100	7.3	301	N 59 W
2551.0	8.00	40.9	195	S 19 W	100	7.5	301	N 59 W
2553.0	8.00	17.7	323	N 37 W	100	7.5	310	N 50 W
2555.0	8.00	17.4	305	N 51 W	100	7.4	301	N 59 W
2557.0	8.00	18.4	300	N 60 W	100	7.3	302	N 58 W
2559.0	8.00	18.0	292	N 68 W	100	7.3	302	N 58 W
2561.0	8.00	12.3	330	N 30 W	100	7.3	302	N 58 W
2563.0	8.00	11.4	325	N 35 W	100	7.3	302	N 58 W
2565.0	8.00	12.2	314	N 45 W	74	7.3	302	N 58 W
2567.0	8.00	16.0	288	N 72 W	100	7.3	302	N 58 W
2569.0	8.00	12.3	319	N 41 W	100	7.3	302	N 58 W
2571.0	8.00	17.8	315	N 45 W	100	7.3	302	N 58 W
2573.0	8.00	15.8	305	N 54 W	100	7.3	302	N 58 W
2575.0	8.00	13.6	307	N 51 W	100	7.3	302	N 58 W
2577.0	8.00	13.1	309	N 51 W	100	7.3	302	N 58 W
2579.0	8.00	12.4	315	N 44 W	100	7.3	302	N 58 W
2581.0	8.00	15.2	310	N 56 W	100	7.3	303	N 57 W
2583.0	8.00	14.1	317	N 48 W	100	7.3	302	N 58 W
2585.0	8.00	13.6	327	N 33 W	100	7.3	302	N 58 W
2587.0	8.00	13.9	335	N 25 W	100	7.3	303	N 57 W
2589.0	8.00	22.4	340	N 26 W	100	7.2	303	N 57 W
2591.0	8.00	18.7	335	N 25 W	100	7.3	302	N 58 W
2593.0	8.00	20.0	292	N 68 W	100	7.3	303	N 57 W
2595.0	8.00	18.8	287	N 73 W	100	7.2	303	N 57 W
2597.0	8.00	14.0	22	N 82 E	100	7.3	303	N 57 W
2599.0	8.00	11.5	335	N 21 W	100	7.2	303	N 57 W
2601.0	8.00	12.5	345	N 12 W	100	7.2	303	N 57 W
2607.0	8.00	21.5	248	S 68 W	100	7.2	304	N 56 W
2609.0	8.00	23.7	1	N 1 E	100	7.1	304	N 56 W
2611.0	8.00	14.3	331	N 29 W	100	7.1	304	N 56 W
2613.0	8.00	18.2	337	N 23 W	100	7.1	304	N 56 W
2615.0	8.00	24.7	343	N 17 W	100	7.1	304	N 56 W
2617.0	8.00	7.0	53	N 53 E	100	7.1	304	N 56 W
2619.0	8.00	6.2	153	S 47 E	100	7.0	304	N 56 W
2621.0	8.00	6.0	135	S 44 E	100	7.0	304	N 56 W
2625.0	8.00	18.1	340	N 20 W	95	7.0	304	N 56 W
2627.0	8.00	19.2	347	N 13 W	96	7.0	304	N 56 W
2629.0	8.00	16.0	323	N 31 W	100	7.0	304	N 56 W
2631.0	8.00	15.8	325	N 32 W	100	7.0	304	N 56 W

OREGON NATURAL GAS CORP.

IW 33 C-3

WST

COLUMBIA

OREGON

01/07/87

DEPTH	WL	**FORMATION DIP**				****BOREHOLE****		
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
2633.0	8.00	13.6	323	N 40 W	100	7.0	304	N 56 W
2635.0	8.00	14.8	327	N 33 W	100	7.0	304	N 56 W
2637.0	8.00	14.8	331	N 29 W	100	6.9	304	N 56 W
2639.0	8.00	35.2	344	N 16 W	91	6.9	304	N 56 W
2641.0	8.00	23.0	5	N 0 E	49	6.9	304	N 56 W
2647.0	8.00	14.0	308	N 52 W	92	7.0	304	N 56 W
2649.0	8.00	14.0	307	N 53 W	92	7.0	304	N 56 W
2651.0	8.00	15.2	329	N 31 W	100	7.0	304	N 56 W
2653.0	8.00	18.3	311	N 49 W	100	7.0	304	N 56 W
2655.0	8.00	18.0	310	N 50 W	100	7.0	304	N 56 W
2657.0	8.00	15.8	314	N 45 W	100	7.0	304	N 56 W
2659.0	8.00	19.6	318	N 42 W	100	7.0	304	N 56 W
2651.0	8.00	19.6	319	N 41 W	100	7.0	304	N 56 W
2653.0	8.00	18.9	323	N 37 W	100	7.0	304	N 56 W
2655.0	8.00	19.0	322	N 38 W	100	7.0	304	N 56 W
2657.0	8.00	18.7	321	N 39 W	100	7.0	304	N 56 W
2659.0	8.00	18.3	322	N 38 W	100	7.0	304	N 56 W
2671.0	8.00	17.3	331	N 29 W	100	7.0	304	N 56 W
2673.0	8.00	18.0	332	N 28 W	100	7.0	304	N 56 W
2675.0	8.00	15.2	314	N 45 W	100	7.1	304	N 56 W
2677.0	8.00	14.5	312	N 48 W	100	7.1	304	N 56 W
2679.0	8.00	15.7	313	N 47 W	100	7.1	304	N 56 W
2681.0	8.00	15.4	311	N 49 W	100	7.1	305	N 55 W
2683.0	8.00	24.6	311	N 49 W	100	7.1	305	N 55 W
2685.0	8.00	22.5	327	N 33 W	100	7.1	305	N 55 W
2687.0	8.00	19.3	334	N 23 W	100	7.1	305	N 55 W
2689.0	8.00	20.3	333	N 27 W	100	7.1	305	N 55 W
2691.0	8.00	20.3	330	N 30 W	100	7.1	305	N 55 W
2693.0	8.00	26.3	333	N 27 W	100	7.1	305	N 55 W
2695.0	8.00	18.8	327	N 33 W	100	7.1	305	N 55 W
2697.0	8.00	19.4	324	N 35 W	100	7.1	305	N 55 W
2699.0	8.00	19.4	332	N 28 W	100	7.1	305	N 55 W
2701.0	8.00	20.9	328	N 32 W	100	7.1	305	N 55 W
2703.0	8.00	22.5	319	N 41 W	100	7.1	305	N 55 W
2705.0	8.00	21.0	343	N 17 W	100	7.1	305	N 55 W
2707.0	8.00	20.3	353	N 7 W	100	7.1	305	N 55 W
2709.0	8.00	19.5	347	N 13 W	100	7.1	305	N 55 W
2711.0	8.00	19.5	352	N 8 W	100	7.1	305	N 55 W
2713.0	8.00	15.3	343	N 13 W	100	7.1	305	N 55 W
2715.0	8.00	17.3	336	N 24 W	100	7.0	305	N 55 W

OREGON NATURAL GAS CORP.

W 33 C-3

MIST

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01/07/87

DEPTH	WL	**FORMATION DIP**			GRADE	****BOREHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
2717.0	8.00	16.5	343	N 20 W	100	7.0	305	N 55 W
2719.0	8.00	16.5	343	N 17 W	100	7.1	305	N 55 W
2721.0	8.00	17.2	342	N 16 W	100	7.0	305	N 55 W
2723.0	8.00	25.4	337	N 23 W	100	7.0	305	N 55 W
2725.0	8.00	20.7	341	N 19 W	100	7.1	305	N 55 W
2727.0	8.00	21.5	345	N 15 W	100	7.0	305	N 55 W
2729.0	8.00	21.3	344	N 15 W	100	7.0	305	N 55 W
2731.0	8.00	20.7	346	N 14 W	100	7.1	305	N 55 W
2733.0	8.00	20.2	338	N 22 W	100	7.0	305	N 55 W
2735.0	8.00	22.1	327	N 33 W	100	7.0	305	N 55 W
2737.0	8.00	20.9	313	N 47 W	100	7.1	305	N 55 W
2739.0	8.00	19.8	312	N 48 W	100	7.0	305	N 55 W
2741.0	8.00	13.0	301	N 59 W	100	7.1	305	N 55 W
2743.0	8.00	16.0	302	N 58 W	100	7.0	305	N 55 W
2745.0	8.00	17.9	291	N 57 W	100	7.0	305	N 55 W
2747.0	8.00	14.7	287	N 73 W	100	7.0	305	N 55 W
2749.0	8.00	17.9	309	N 55 W	100	7.0	305	N 55 W
2751.0	8.00	18.0	310	N 50 W	100	7.0	305	N 55 W
2753.0	8.00	16.8	305	N 54 W	100	7.0	305	N 55 W
2755.0	8.00	20.3	325	N 39 W	100	7.0	305	N 55 W
2757.0	8.00	19.5	317	N 43 W	100	7.0	305	N 55 W
2759.0	8.00	15.6	313	N 47 W	100	7.0	305	N 55 W
2751.0	8.00	14.3	324	N 35 W	100	7.0	305	N 55 W
2753.0	8.00	13.8	335	N 24 W	100	7.0	305	N 55 W
2755.0	8.00	11.7	341	N 19 W	100	7.0	305	N 55 W
2757.0	8.00	19.8	307	N 53 W	100	6.9	306	N 54 W
2759.0	8.00	33.2	305	N 52 W	52	6.9	306	N 54 W