

BENSON-MONTIN-GREER
 CANADA OILFIELD #15-A
 SEC 16-T25N-R01W
 RIO ARriba COUNTY, NEW MEXICO

File Name: GREER2S

RECORD OF SURVEY
 Calculated by Smith International's CADDs System

Radius of Curvature Method
 All Angles are Decimal
 Vertical Section Plane: 90.00 Degs

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T AZIMUTH (DEG)	COURSE LENGTH (FT)	TOTAL VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT) AZIMUTH (DEG)		DOGLEG SEVERITY (DEG/100')
5900.00	.88	74.90	0.00	5898.86	9.07 S	80.70 E	80.70	81.21	96.41	0.00
5979.00	.75	90.75	79.00	5977.85	8.93 S	81.81 E	81.81	82.30	96.23	.33
6015.00	1.87	88.75	36.00	6013.84	8.93 S	82.63 E	82.63	83.12	96.17	3.11
6029.00	2.50	80.25	14.00	6027.83	8.88 S	83.17 E	83.17	83.64	96.09	5.05
6041.00	3.25	94.75	12.00	6039.82	8.85 S	83.76 E	83.76	84.23	96.03	8.66
6069.00	4.37	78.75	28.00	6067.75	8.74 S	85.62 E	85.62	86.06	95.83	5.48
6148.00	6.50	87.25	79.00	6146.39	7.83 S	93.04 E	93.04	93.37	94.81	2.88
6200.00	7.13	83.75	52.00	6198.03	7.35 S	99.19 E	99.19	99.46	94.24	1.45
6230.00	7.75	86.25	30.00	6227.77	7.01 S	103.06 E	103.06	103.29	93.89	2.33
6341.00	9.87	87.25	111.00	6337.46	6.05 S	120.03 E	120.03	120.18	92.88	1.91
6373.00	10.00	90.25	32.00	6368.98	5.93 S	125.55 E	125.55	125.69	92.70	1.67
KOP WELLBORE #2 - 6376' MD										
1 DEG STEERABLE, DRILL TO 6524' MD										
6388.00	10.50	83.75	15.00	6383.74	5.79 S	128.21 E	128.21	128.34	92.58	8.39
6418.00	12.62	85.75	30.00	6413.13	5.24 S	134.20 E	134.20	134.30	92.23	7.19
6449.00	15.25	87.75	31.00	6443.21	4.81 S	141.65 E	141.65	141.73	91.95	8.62
6482.00	16.62	87.00	33.00	6474.94	4.40 S	150.70 E	150.70	150.76	91.67	4.20
6513.00	17.00	89.25	31.00	6504.62	4.11 S	159.66 E	159.66	159.71	91.47	2.43

BENSON-MONTIN-GREER
CANADA OJITOS #16-A

SEC 16-T25N-R01W
RIO ARriba COUNTY, NEW MEXICO

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T AZIMUTH (DEG)	COURSE LENGTH (FT)	TOTAL VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT) AZIMUTH (DEG)		DOGLEG SEVERITY (DEG/100')
3/4 DEG STEERABLE, 6524' TO 6679'										
6544.00	17.75	89.75	31.00	6534.21	4.02 S	168.92 E	168.92	168.96	91.36	2.47
6576.00	19.12	91.25	32.00	6564.56	4.11 S	179.03 E	179.03	179.08	91.32	4.53
6607.00	20.62	93.25	31.00	6593.72	4.53 S	189.56 E	189.56	189.62	91.37	5.31
6637.00	21.87	93.75	30.00	6621.68	5.19 S	200.41 E	200.41	200.48	91.48	4.21
6660.00	23.75	93.75	23.00	6642.88	5.77 S	209.31 E	209.31	209.39	91.58	8.17
1.5 X .5 DOUBLE BEND, 6679' TO 6802										
6692.00	25.37	95.25	32.00	6671.98	6.82 S	222.57 E	222.57	222.67	91.75	5.42
6721.00	28.00	92.50	29.00	6697.89	7.70 S	235.56 E	235.56	235.69	91.87	10.02
6762.00	31.25	90.25	41.00	6733.53	8.18 S	255.82 E	255.82	255.95	91.83	8.38
6802.00	33.00	90.75	40.00	6767.40	8.37 S	277.09 E	277.09	277.21	91.73	4.43
1.75 X .5 DOUBLE BEND, 6802' TO 6954'										
6824.00	35.75	89.25	22.00	6785.56	8.37 S	289.51 E	289.51	289.63	91.66	13.08
6845.00	38.00	88.25	21.00	6802.35	8.09 S	302.10 E	302.10	302.21	91.53	11.09
6875.00	40.87	88.25	30.00	6825.52	7.51 S	321.15 E	321.15	321.24	91.34	9.57
6914.00	44.37	87.25	39.00	6854.22	6.48 S	347.53 E	347.53	347.59	91.07	9.14
6954.00	48.87	86.75	40.00	6881.68	4.95 S	376.56 E	376.56	376.59	90.75	11.29
1.75 DEG ADJUSTABLE MOTOR, 6954' TO 7199'										
6980.00	52.00	86.25	26.00	6898.24	3.73 S	396.56 E	396.56	396.58	90.54	12.13
6999.00	55.50	85.25	19.00	6909.47	2.60 S	411.84 E	411.84	411.85	90.36	18.90
7029.00	59.50	83.75	30.00	6925.59	.17 S	437.02 E	437.02	437.02	90.02	13.98
7060.00	65.00	82.75	31.00	6940.02	3.05 N	464.25 E	464.25	464.26	89.62	17.97
7092.00	68.00	83.25	32.00	6952.78	6.63 N	493.38 E	493.38	493.42	89.23	9.48
7122.00	70.75	83.75	30.00	6963.34	9.81 N	521.27 E	521.27	521.36	88.92	9.30
7158.00	72.88	83.75	36.00	6974.58	13.53 N	555.27 E	555.27	555.43	88.60	5.92
3/4 DEG STEERABLE W/ PDC BIT, 7199' TO 7267'										
7200.00	75.00	84.25	42.00	6986.20	17.75 N	595.40 E	595.40	595.67	88.29	5.18

BENSON-MONTIN-GREER
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7223.00	76.13	87.00	23.00	6991.93	19.45 N	617.61 E	617.61	617.92	88.20	12.58
7253.00	77.75	86.75	30.00	6998.71	21.04 N	646.79 E	646.79	647.13	88.14	5.46
CONVENTIONAL BUILD ASSY W/ PDC BIT, 7267' TO 7734'										
7284.00	79.00	86.75	31.00	7004.96	22.76 N	677.10 E	677.10	677.49	88.07	4.03
7314.00	80.13	86.75	30.00	7010.39	24.43 N	706.56 E	706.56	706.98	88.02	3.77
7344.00	81.13	87.25	30.00	7015.27	25.98 N	736.12 E	736.12	736.58	87.98	3.72
7374.00	82.13	87.25	30.00	7019.64	27.41 N	765.76 E	765.76	766.25	87.95	3.33
7403.00	83.00	86.75	29.00	7023.39	28.91 N	794.48 E	794.48	795.01	87.92	3.45
7434.00	84.00	87.25	31.00	7026.90	30.52 N	825.24 E	825.24	825.80	87.88	3.60
7464.00	84.87	86.75	30.00	7029.81	32.09 N	855.06 E	855.06	855.66	87.85	3.34
7495.00	85.75	86.75	31.00	7032.35	33.84 N	885.90 E	885.90	886.55	87.81	2.84
7524.00	86.37	87.25	29.00	7034.34	35.35 N	914.79 E	914.79	915.48	87.79	2.74
7555.00	87.25	87.25	31.00	7036.06	36.84 N	945.71 E	945.71	946.43	87.77	2.84
7586.00	88.25	87.25	31.00	7037.28	38.32 N	976.65 E	976.65	977.40	87.75	3.23
7617.00	89.25	87.75	31.00	7037.96	39.68 N	1007.61 E	1007.61	1008.39	87.75	3.61
7648.00	90.37	87.75	31.00	7038.06	40.89 N	1038.59 E	1038.59	1039.39	87.75	3.61
7678.00	91.37	87.75	30.00	7037.60	42.07 N	1068.56 E	1068.56	1069.39	87.75	3.33
7710.00	92.62	87.75	32.00	7036.49	43.33 N	1100.52 E	1100.52	1101.37	87.75	3.91
CONVENTIONAL BUILD ASSY W/ PDC BIT, 7734' TO 7833'										
7742.00	93.50	88.25	32.00	7034.78	44.44 N	1132.45 E	1132.45	1133.32	87.75	3.16
7773.00	94.00	88.25	31.00	7032.75	45.39 N	1163.37 E	1163.37	1164.26	87.77	1.61
7803.00	94.37	88.25	30.00	7030.56	46.30 N	1193.28 E	1193.28	1194.17	87.78	1.23
3/4 DEG STEERABLE W/ PDC BIT, 7833' TO 8861' (TD)										
7835.00	94.88	88.75	32.00	7027.98	47.13 N	1225.16 E	1225.16	1226.07	87.80	2.23
7865.00	94.62	89.75	30.00	7025.50	47.53 N	1255.05 E	1255.05	1255.95	87.83	3.43
7896.00	94.00	89.00	31.00	7023.17	47.86 N	1285.96 E	1285.96	1286.86	87.87	3.13
7927.00	93.13	89.25	31.00	7021.24	48.34 N	1316.90 E	1316.90	1317.79	87.90	2.92
7958.00	92.50	89.25	31.00	7019.72	48.74 N	1347.86 E	1347.86	1348.74	87.93	2.03

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7989.00	92.38	89.75	31.00	7018.40	49.01 N	1378.83 E	1378.83	1379.70	87.96	1.66
8020.00	92.37	89.75	31.00	7017.12	49.15 N	1409.80 E	1409.80	1410.66	88.00	.03
8052.00	92.37	89.25	32.00	7015.79	49.43 N	1441.78 E	1441.78	1442.62	88.04	1.56
8081.00	92.37	89.25	29.00	7014.59	49.80 N	1470.75 E	1470.75	1471.59	88.06	0.00
8111.00	92.25	89.25	30.00	7013.38	50.20 N	1500.72 E	1500.72	1501.56	88.08	.40
8138.00	91.50	89.25	27.00	7012.50	50.55 N	1527.70 E	1527.70	1528.54	88.10	2.78
8157.00	91.38	89.25	19.00	7012.02	50.80 N	1546.70 E	1546.70	1547.53	88.12	.63
8187.00	91.25	88.75	30.00	7011.34	51.32 N	1576.68 E	1576.68	1577.52	88.14	1.72
8222.00	90.88	89.25	35.00	7010.68	51.93 N	1611.67 E	1611.67	1612.51	88.15	1.78
8253.00	90.75	89.25	31.00	7010.24	52.34 N	1642.67 E	1642.67	1643.50	88.18	.42
8283.00	90.75	89.25	30.00	7009.85	52.73 N	1672.66 E	1672.66	1673.49	88.19	0.00
8289.00	90.63	88.80	6.00	7009.78	52.83 N	1678.66 E	1678.66	1679.49	88.20	7.76
8320.00	90.50	88.80	31.00	7009.47	53.48 N	1709.65 E	1709.65	1710.49	88.21	.42
8351.00	90.63	88.80	31.00	7009.17	54.13 N	1740.64 E	1740.64	1741.49	88.22	.42
8381.00	90.63	88.80	30.00	7008.84	54.76 N	1770.64 E	1770.64	1771.48	88.23	0.00
8412.00	90.50	88.80	31.00	7008.53	55.41 N	1801.63 E	1801.63	1802.48	88.24	.42
8442.00	90.25	88.80	30.00	7008.34	56.04 N	1831.62 E	1831.62	1832.48	88.25	.83
8474.00	90.75	89.30	32.00	7008.06	56.57 N	1863.61 E	1863.61	1864.47	88.26	2.21
8504.00	92.25	90.30	30.00	7007.27	56.67 N	1893.60 E	1893.60	1894.45	88.29	6.01
8534.00	91.58	89.30	30.00	7006.27	56.78 N	1923.58 E	1923.58	1924.42	88.31	4.01
8566.00	91.50	88.30	32.00	7005.41	57.45 N	1955.57 E	1955.57	1956.41	88.32	3.13
8596.00	91.63	87.30	30.00	7004.59	58.60 N	1985.53 E	1985.53	1986.40	88.31	3.36
8626.00	91.38	86.30	30.00	7003.80	60.27 N	2015.47 E	2015.47	2016.38	88.29	3.43
8658.00	91.50	85.30	32.00	7003.00	62.62 N	2047.38 E	2047.38	2048.34	88.25	3.15
8688.00	91.75	84.80	30.00	7002.15	65.20 N	2077.25 E	2077.25	2078.28	88.20	1.86
8718.00	91.75	84.30	30.00	7001.23	68.05 N	2107.10 E	2107.10	2108.20	88.15	1.67
8750.00	91.25	83.30	32.00	7000.39	71.51 N	2138.91 E	2138.91	2140.10	88.09	3.49
8780.00	91.38	82.80	30.00	6999.70	75.13 N	2168.68 E	2168.68	2169.98	88.02	1.72
8810.00	92.00	82.80	30.00	6998.82	78.89 N	2198.43 E	2198.43	2199.84	87.94	2.07
8825.00	91.63	82.30	15.00	6998.34	80.84 N	2213.29 E	2213.29	2214.77	87.91	4.15

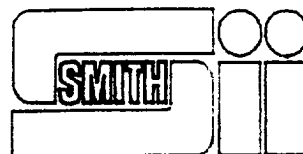
THE FOLLOWING SURVEY IS A STRAIGHT-LINE PROJECTION

8861.00	91.63	82.30	36.00	6997.32	85.66 N	2248.95 E	2248.95	2250.59	87.82	0.00
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BOTTOM HOLE CLOSURE: 2250.59 Feet at 87.82 Degrees

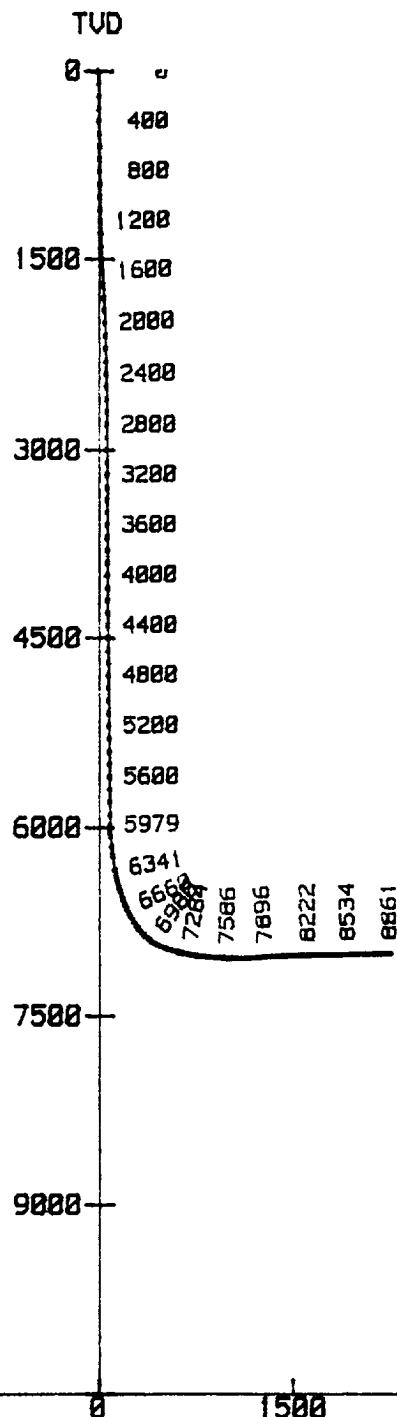
BENSON-MONTIN-GREER
 CANADA OJITOS #16-A
 SEC 16-T25N-R01W
 RIO ARriba COUNTY, NEW MEXICO

20 Feb 1992 @ 09:43



SCALE: 1500 FEET/INCH

VERTICAL PLOT



VERTICAL SECTION

SECTION PLANE: 90.00 Degrees

BHL: 2251 FEET
 @ N 87.83 E
 TVD: 6997 FEET
 MD: 8861 FEET

BENSON-MONTIN-GREER
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RIO ARriba COUNTY, NEW MEXICO

20 Feb 1992 @ 10:03

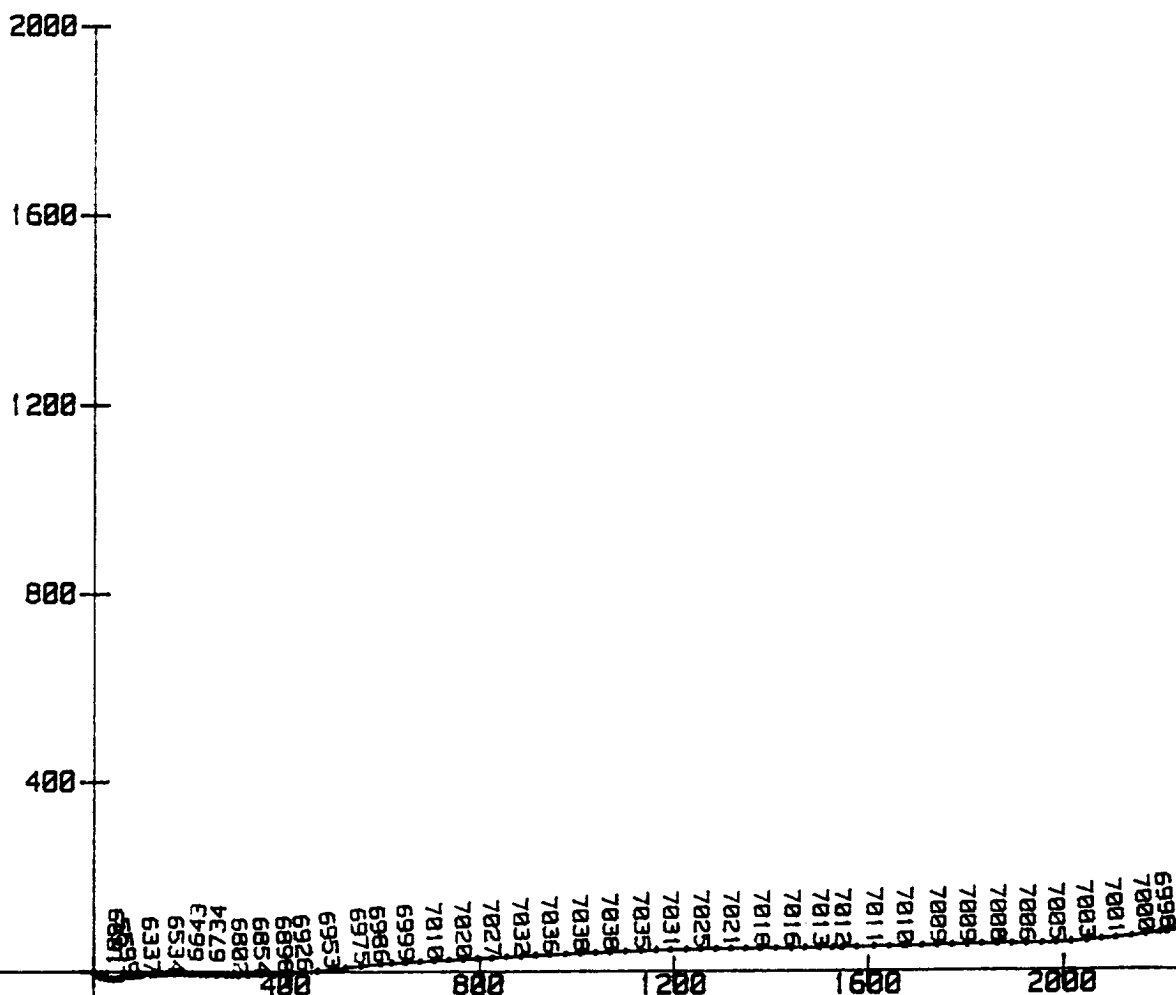


HORIZONTAL PLOT



SCALE: 400 FEET/INCH

BHL: 2251 FEET
@ N 87.83 E
TVD: 6997 FEET
MD: 8861 FEET



ACKNOWLEDGMENT

Attached hereby Record of Survey prepared by Smith International's CADDs System Data Sheets, Vertical Section Diagram and Horizontal Plot for Benson-Montin-Greer Drilling Corp. Canada Ojitos Unit #8 (A-16)H location in Section 16, Township 25N, Range 1W, Rio Arriba County, New Mexico.

State of New Mexico
County of San Juan

Subscribed and sworn to before me by [Signature]
on this 25th day of January, 1993.

My Commission expires July 24, 1996
Notary Public Carel L. Williams