

H

Williams Production Company
Rosa Unit #139B

slot #1
Mesaverde
SAN JUAN COUNTY, NEW MEXICO

SURVEY LISTING

by
Baker Hughes INTEQ

Your ref : MWD
Our ref : svy2664
License :

Date printed : 19-Apr-2005
Date created : 9-Sep-2004
Last revised : 18-Feb-2005

Field is centred on 0.000,0.000,3.00000,N
Structure is centred on n36 53 51.000,w107 53 51.000,3

Slot location is n36 53 51.000,w107 53 51.000
Slot Grid coordinates are N 2145960.128, E 481237.234
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico West (3003), Spheroid: Clarke - 1866

Reference North is True North



30-045-31137

17-31N-6W

surf. 1845/5 1885/W
BHL 715/5 1844/N

MD 7945

Tvd 7702

J

Williams Production Company
Rosa Unit #139B, slot #1
Mesaverde, SAN JUAN COUNTY, NEW MEXICO

SURVEY LISTING Page 1
Your ref : MWD
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Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	G R I D Easting	C O O R D S Northing
0.00	0.00	0.00	0.00	0.00N	0.00E	0.00	0.00	481237.23	2145960.13
167.00	1.00	130.00	166.99	0.94S	1.12E	0.60	1.02	481238.35	2145959.19
460.00	0.75	75.00	459.96	2.08S	4.93E	0.29	2.46	481242.16	2145958.04
558.00	1.30	103.00	557.95	2.17S	6.63E	0.74	2.67	481243.86	2145957.96
588.00	1.40	108.00	587.94	2.36S	7.31E	0.51	2.91	481244.54	2145957.77
619.00	1.40	140.00	618.93	2.76S	7.91E	2.49	3.36	481245.15	2145957.36
648.00	2.60	160.50	647.91	3.66S	8.36E	4.75	4.29	481245.59	2145956.47
678.00	3.60	171.30	677.87	5.23S	8.73E	3.85	5.88	481245.96	2145954.89
708.00	4.80	179.80	707.79	7.42S	8.88E	4.50	8.07	481246.11	2145952.71
738.00	6.30	185.00	737.65	10.31S	8.74E	5.27	10.95	481245.96	2145949.81
767.00	8.00	189.00	766.42	13.89S	8.28E	6.10	14.48	481245.51	2145946.23
797.00	9.50	190.50	796.07	18.39S	7.51E	5.06	18.91	481244.73	2145941.74
827.00	10.80	189.00	825.60	23.60S	6.62E	4.42	24.03	481243.83	2145936.53
857.00	12.20	185.00	855.00	29.53S	5.90E	5.37	29.90	481243.11	2145930.60
888.00	13.60	184.30	885.21	36.43S	5.34E	4.54	36.73	481242.55	2145923.70
917.00	15.30	182.00	913.29	43.65S	4.95E	6.19	43.90	481242.16	2145916.48
947.00	16.70	180.00	942.13	51.92S	4.81E	5.01	52.14	481242.01	2145908.21
977.00	17.90	178.50	970.77	60.84S	4.93E	4.27	61.04	481242.13	2145899.29
1006.00	18.80	177.40	998.30	69.96S	5.26E	3.33	70.16	481242.45	2145890.17
1036.00	20.00	175.20	1026.60	79.90S	5.91E	4.68	80.12	481243.09	2145880.23
1066.00	21.40	174.50	1054.66	90.46S	6.87E	4.74	90.72	481244.04	2145869.67
1097.00	22.70	175.00	1083.39	102.05S	7.93E	4.24	102.36	481245.09	2145858.08
1126.00	24.00	176.00	1110.02	113.51S	8.83E	4.69	113.85	481245.98	2145846.62
1157.00	25.00	175.10	1138.22	126.33S	9.83E	3.44	126.71	481246.98	2145833.80
1188.00	25.90	175.30	1166.22	139.60S	10.94E	2.92	140.03	481248.08	2145820.53
1219.00	26.80	174.80	1193.99	153.31S	12.13E	2.99	153.79	481249.26	2145806.82
1251.00	27.50	175.30	1222.47	167.86S	13.39E	2.30	168.39	481250.51	2145792.28
1281.00	27.90	175.70	1249.03	181.76S	14.48E	1.47	182.34	481251.59	2145778.37
1313.00	29.00	176.10	1277.17	196.97S	15.57E	3.49	197.58	481252.67	2145763.17
1344.00	30.30	176.40	1304.11	212.27S	16.57E	4.22	212.91	481253.66	2145747.87
1373.00	30.70	175.80	1329.09	226.95S	17.58E	1.73	227.63	481254.66	2145733.18
1436.00	32.60	175.00	1382.72	259.90S	20.23E	3.09	260.69	481257.29	2145700.24
1498.00	33.10	174.90	1434.81	293.40S	23.19E	0.81	294.32	481260.23	2145666.74
1560.00	33.70	174.40	1486.57	327.38S	26.38E	1.06	328.44	481263.39	2145632.76
1623.00	34.30	174.50	1538.80	362.45S	29.78E	0.96	363.66	481266.77	2145597.69
1685.00	34.30	174.80	1590.01	397.23S	33.04E	0.27	398.60	481270.01	2145562.91
1747.00	34.50	175.00	1641.17	432.12S	36.15E	0.37	433.62	481273.10	2145528.02
1810.00	33.40	176.20	1693.43	467.20S	38.86E	2.04	468.80	481275.78	2145492.94
1872.00	33.70	176.90	1745.10	501.40S	40.92E	0.79	503.06	481277.81	2145458.74
1935.00	33.90	176.30	1797.45	536.39S	43.00E	0.62	538.10	481279.87	2145423.76
1998.00	34.10	176.80	1849.68	571.55S	45.12E	0.55	573.33	481281.96	2145388.59
2061.00	34.30	176.80	1901.79	606.91S	47.10E	0.32	608.73	481283.92	2145353.24
2124.00	33.40	175.74	1954.11	641.92S	49.37E	1.71	643.82	481286.17	2145318.22
2188.00	33.30	176.60	2007.57	677.03S	51.72E	0.76	679.00	481288.50	2145283.12
2250.00	32.20	176.20	2059.72	710.50S	53.83E	1.81	712.54	481290.58	2145249.65
2313.00	30.40	175.50	2113.54	743.14S	56.19E	2.91	745.27	481292.92	2145217.01
2375.00	30.50	175.60	2166.99	774.47S	58.63E	0.18	776.69	481295.34	2145185.68
2437.00	31.00	175.10	2220.28	806.07S	61.20E	0.91	808.39	481297.89	2145154.09
2498.00	29.00	176.00	2273.10	836.47S	63.57E	3.36	838.88	481300.24	2145123.68
2561.00	28.50	176.50	2328.34	866.71S	65.56E	0.88	869.18	481302.20	2145093.45

All data in feet unless otherwise stated. Calculation uses minimum curvature method.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1180.13 on azimuth 179.57 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 175.60 degrees.
Grid is mercator - New Mexico West (3003).
Grid coordinates in FEET and computed using the Clarke - 1866 spheroid
Presented by Baker Hughes INTEQ

Williams Production Company
Rosa Unit #139B, slot #1
Mesaverde, SAN JUAN COUNTY, NEW MEXICO

SURVEY LISTING Page 2
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Last revised : 18-Feb-2005

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect	G R I D Easting	C O O R D S Northing
2624.00	27.60	175.70	2383.93	896.26S	67.57E	1.55	898.81	481304.20
2686.00	26.60	174.90	2439.13	924.41S	69.88E	1.72	927.05	481306.49
2748.00	25.10	174.60	2494.92	951.33S	72.35E	2.43	954.08	481308.94
2810.00	23.70	173.80	2551.38	976.81S	74.94E	2.32	979.68	481311.51
2872.00	23.00	177.00	2608.31	1001.30S	76.91E	2.34	1004.25	481313.47
2935.00	21.80	175.80	2666.55	1025.26S	78.42E	2.04	1028.25	481314.95
2998.00	20.30	173.60	2725.35	1047.78S	80.49E	2.69	1050.87	481317.01
3058.00	19.00	173.60	2781.85	1067.83S	82.74E	2.17	1071.03	481319.25
3121.00	17.30	173.50	2841.72	1087.33S	84.94E	2.70	1090.65	481321.44
3184.00	15.50	175.60	2902.15	1105.04S	86.65E	3.01	1108.43	481323.13
3245.00	13.20	177.50	2961.24	1120.12S	87.58E	3.85	1123.54	481324.05
3306.00	12.70	177.10	3020.69	1133.78S	88.22E	0.83	1137.20	481324.69
3369.00	12.10	174.20	3082.22	1147.26S	89.24E	1.37	1150.73	481325.70
3429.00	11.10	173.20	3141.00	1159.26S	90.56E	1.70	1162.79	481327.01
3491.00	9.60	176.80	3201.99	1170.34S	91.55E	2.63	1173.92	481327.99
3554.00	9.20	175.70	3264.14	1180.61S	92.23E	0.70	1184.21	481328.66
3616.00	8.60	178.00	3325.39	1190.19S	92.76E	1.12	1193.80	481329.19
3679.00	7.90	174.50	3387.74	1199.20S	93.34E	1.37	1202.83	481329.76
3742.00	6.00	174.70	3450.28	1206.79S	94.06E	3.02	1210.45	481330.47
3805.00	3.80	173.00	3513.04	1212.14S	94.62E	3.50	1215.83	481331.03
3866.00	0.80	170.00	3573.99	1214.57S	94.94E	4.92	1218.27	481331.35
3929.00	0.70	166.00	3636.98	1215.38S	95.11E	0.18	1219.09	481331.51
3980.00	0.50	212.30	3687.98	1215.87S	95.06E	0.99	1219.58	481331.47
4498.00	3.25	325.50	4205.71	1205.67S	85.53E	0.67	1208.68	481321.95
4750.00	2.00	285.00	4457.46	1198.65S	77.24E	0.86	1201.04	481313.66
5212.00	1.75	280.00	4919.21	1195.34S	62.51E	0.06	1196.61	481298.93
5730.00	1.00	255.00	5437.07	1195.13S	50.35E	0.18	1195.47	481286.78
6230.00	1.75	284.00	5936.92	1194.41S	38.73E	0.20	1193.87	481275.16
6730.00	1.25	298.00	6436.75	1190.01S	26.50E	0.12	1188.53	481262.94
7230.00	0.75	320.00	6936.68	1184.94S	19.59E	0.12	1182.95	481256.02
7732.00	1.00	285.00	7438.62	1181.29S	13.24E	0.12	1178.82	481249.68
7995.00	1.00	285.00	7701.58	1180.10S	8.81E	0.00	1177.30	481245.25

All data in feet unless otherwise stated. Calculation uses minimum curvature method.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1180.13 on azimuth 179.57 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 175.60 degrees.
Grid is mercator - New Mexico West (3003).
Grid coordinates in FEET and computed using the Clarke - 1866 spheroid
Presented by Baker Hughes INTEQ

Williams Production Company

Structure : Rosa Unit #139B

Slot : slot #1

Field : Mesaverde

Location : SAN JUAN COUNTY, NEW MEXICO

Created by adryann

Date plotted : 18-Feb-2005

Plot Reference is Pin 1.

Coordinates are in feet reference slot #1.

True Vertical Depths are reference rotary table.

--- Baker Hughes INTEQ ---

WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
Tie on	0.00	0.00	175.60	0.00	0.00	0.00	0.00	0.00
KOP	400.00	0.00	175.60	400.00	0.00	0.00	0.00	0.00
End of Build/Turn	1510.74	33.32	175.60	1449.18	-313.07	24.08	313.99	3.00
End of Hole	2336.57	33.32	175.60	2139.24	-765.40	58.88	767.66	0.00
Target int Csg	4002.69	0.00	175.60	3713.00	-1235.00	95.00	1238.65	2.00
T.O. & Target BHL	8432.69	0.00	270.00	8143.00	-1235.00	95.00	1238.65	0.00

