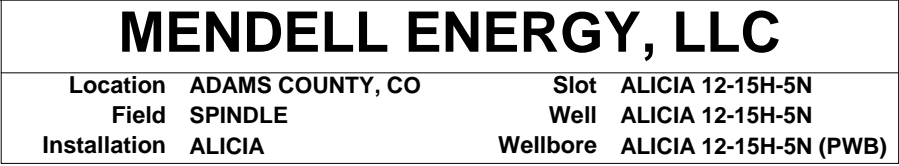


MENDELL ENERGY, LLC			
Location	ADAMS COUNTY, CO	Slot	ALICIA 12-15H-5N
Field	SPINDLE	Well	ALICIA 12-15H-5N
Installation	ALICIA	Wellbore	ALICIA 12-15H-5N (PWB)



WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	13.00	0.00	0.00	13.00	0.00	0.00	0.00	0.00
KOP	1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00
End of Build	1990.90	7.82	200.09	1989.69	-25.01	-9.15	2.00	-24.44
End of Hold	7225.61	7.82	200.09	7175.74	-693.75	-253.74	0.00	-677.88
Target ALICIA 12-15H-5	8198.85	90.00	359.67	7821.00	-125.65	-287.90	10.00	-108.76
T.D. & Target ALICIA 12	13841.63	90.00	359.67	7821.00	5517.04	-320.22	0.00	5526.32

Created by admin
Date plotted 19-Aug-2014
Plot reference is ALICIA 12-15H-5N (PWB).
Ref wellpath is ALICIA 12-15H-5N (PWP#1).
Coordinates are in feet reference ALICIA 12-15H-5N.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Planned Datum #1
Rig Datum to Mean Sea Level: 5163.00 ft.
Plot North is aligned to GRID North.



INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL
Well Design Combined Report
Wellbore: ALICIA 12-15H-5N (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
ALICIA 12-15H-5N	1233702.2406	3154967.1571	39.97357000	-104.94706000	7.37N	13.97E	-0.00

Declination			
Date	Source	Time	
8-Jul-2013	IGRF Model [1900.0-2015.0]	09:34	

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
ALICIA	1233694.8679	3154953.1896	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
13.00	0.00	0.000	13.00	0.00N	0.00E		0.00	1233702.24	3154967.16
1600.00	0.00	0.000	1600.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1990.90	7.82	200.090	1989.69	25.01S	9.15W	2.00	-24.44	1233677.23	3154958.01
7225.61	7.82	200.090	7175.74	693.75S	253.74W	==>	-677.88	1233008.51	3154713.43
8198.85	90.00	359.670	7821.00	125.65S	287.90W	10.00	-108.76	1233576.59	3154679.26
13841.63	90.00	359.670	7821.00	5517.04N	320.22W	==>	5526.32	1239219.09	3154646.95

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1233702.24	3154967.16
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1587.00	0.00	0.000	1587.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1600.00	0.00	0.000	1600.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
1687.00	1.74	200.090	1686.99	1.24S	0.45W	2.00	-1.21	1233701.00	3154966.70
1787.00	3.74	200.090	1786.87	5.73S	2.10W	2.00	-5.60	1233696.51	3154965.06
1887.00	5.74	200.090	1886.52	13.49S	4.93W	2.00	-13.18	1233688.75	3154962.22
1987.00	7.74	200.090	1985.82	24.51S	8.97W	2.00	-23.95	1233677.73	3154958.19
1990.90	7.82	200.090	1989.69	25.01S	9.15W	2.00	-24.44	1233677.23	3154958.01
2000.00	7.82	200.090	1998.70	26.17S	9.57W	==>	-25.57	1233676.07	3154957.59
2100.00	7.82	200.090	2097.77	38.95S	14.24W	==>	-38.05	1233663.30	3154952.91
2200.00	7.82	200.090	2196.84	51.72S	18.92W	==>	-50.54	1233650.52	3154948.24
2300.00	7.82	200.090	2295.92	64.50S	23.59W	==>	-63.02	1233637.75	3154943.57
2400.00	7.82	200.090	2394.99	77.27S	28.26W	==>	-75.50	1233624.97	3154938.90
2500.00	7.82	200.090	2494.06	90.05S	32.93W	==>	-87.99	1233612.20	3154934.22
2600.00	7.82	200.090	2593.13	102.82S	37.61W	==>	-100.47	1233599.42	3154929.55
2700.00	7.82	200.090	2692.20	115.60S	42.28W	==>	-112.95	1233586.65	3154924.88
2800.00	7.82	200.090	2791.27	128.37S	46.95W	==>	-125.44	1233573.87	3154920.21
2900.00	7.82	200.090	2890.34	141.15S	51.62W	==>	-137.92	1233561.10	3154915.53
3000.00	7.82	200.090	2989.41	153.92S	56.30W	==>	-150.40	1233548.32	3154910.86
3100.00	7.82	200.090	3088.48	166.70S	60.97W	==>	-162.88	1233535.55	3154906.19
3200.00	7.82	200.090	3187.55	179.47S	65.64W	==>	-175.37	1233522.77	3154901.52
3300.00	7.82	200.090	3286.62	192.25S	70.31W	==>	-187.85	1233510.00	3154896.84

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5163.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 356.680 degrees
Bottom hole distance is 5526.32 Feet on azimuth 356.68 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 19-Aug-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL

Well Design Combined Report
Wellbore: ALICIA 12-15H-5N (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3400.00	7.82	200.090	3385.69	205.02S	74.99W	==>	-200.33	1233497.23	3154892.17
3500.00	7.82	200.090	3484.76	217.80S	79.66W	==>	-212.82	1233484.45	3154887.50
3600.00	7.82	200.090	3583.83	230.57S	84.33W	==>	-225.30	1233471.68	3154882.83
3700.00	7.82	200.090	3682.90	243.35S	89.00W	==>	-237.78	1233458.90	3154878.16
3800.00	7.82	200.090	3781.97	256.12S	93.68W	==>	-250.26	1233446.13	3154873.48
3900.00	7.82	200.090	3881.04	268.90S	98.35W	==>	-262.75	1233433.35	3154868.81
4000.00	7.82	200.090	3980.11	281.67S	103.02W	==>	-275.23	1233420.58	3154864.14
4100.00	7.82	200.090	4079.18	294.45S	107.69W	==>	-287.71	1233407.80	3154859.47
4200.00	7.82	200.090	4178.25	307.22S	112.37W	==>	-300.20	1233395.03	3154854.79
4300.00	7.82	200.090	4277.32	320.00S	117.04W	==>	-312.68	1233382.25	3154850.12
4400.00	7.82	200.090	4376.40	332.77S	121.71W	==>	-325.16	1233369.48	3154845.45
4500.00	7.82	200.090	4475.47	345.55S	126.39W	==>	-337.64	1233356.70	3154840.78
4600.00	7.82	200.090	4574.54	358.32S	131.06W	==>	-350.13	1233343.93	3154836.10
4700.00	7.82	200.090	4673.61	371.10S	135.73W	==>	-362.61	1233331.15	3154831.43
4800.00	7.82	200.090	4772.68	383.87S	140.40W	==>	-375.09	1233318.38	3154826.76
4900.00	7.82	200.090	4871.75	396.65S	145.08W	==>	-387.58	1233305.60	3154822.09
5000.00	7.82	200.090	4970.82	409.42S	149.75W	==>	-400.06	1233292.83	3154817.41
5100.00	7.82	200.090	5069.89	422.20S	154.42W	==>	-412.54	1233280.05	3154812.74
5200.00	7.82	200.090	5168.96	434.97S	159.09W	==>	-425.03	1233267.28	3154808.07
5300.00	7.82	200.090	5268.03	447.75S	163.77W	==>	-437.51	1233254.51	3154803.40
5400.00	7.82	200.090	5367.10	460.53S	168.44W	==>	-449.99	1233241.73	3154798.72
5500.00	7.82	200.090	5466.17	473.30S	173.11W	==>	-462.47	1233228.96	3154794.05
5600.00	7.82	200.090	5565.24	486.08S	177.78W	==>	-474.96	1233216.18	3154789.38
5700.00	7.82	200.090	5664.31	498.85S	182.46W	==>	-487.44	1233203.41	3154784.71
5800.00	7.82	200.090	5763.38	511.63S	187.13W	==>	-499.92	1233190.63	3154780.04
5900.00	7.82	200.090	5862.45	524.40S	191.80W	==>	-512.41	1233177.86	3154775.36
6000.00	7.82	200.090	5961.52	537.18S	196.47W	==>	-524.89	1233165.08	3154770.69
6100.00	7.82	200.090	6060.59	549.95S	201.15W	==>	-537.37	1233152.31	3154766.02
6200.00	7.82	200.090	6159.66	562.73S	205.82W	==>	-549.85	1233139.53	3154761.35
6300.00	7.82	200.090	6258.73	575.50S	210.49W	==>	-562.34	1233126.76	3154756.67
6400.00	7.82	200.090	6357.81	588.28S	215.16W	==>	-574.82	1233113.98	3154752.00
6500.00	7.82	200.090	6456.88	601.05S	219.84W	==>	-587.30	1233101.21	3154747.33
6600.00	7.82	200.090	6555.95	613.83S	224.51W	==>	-599.79	1233088.43	3154742.66
6700.00	7.82	200.090	6655.02	626.60S	229.18W	==>	-612.27	1233075.66	3154737.98
6800.00	7.82	200.090	6754.09	639.38S	233.85W	==>	-624.75	1233062.88	3154733.31
6900.00	7.82	200.090	6853.16	652.15S	238.53W	==>	-637.24	1233050.11	3154728.64
7000.00	7.82	200.090	6952.23	664.93S	243.20W	==>	-649.72	1233037.34	3154723.97
7100.00	7.82	200.090	7051.30	677.70S	247.87W	==>	-662.20	1233024.56	3154719.29
7200.00	7.82	200.090	7150.37	690.48S	252.54W	==>	-674.68	1233011.79	3154714.62
7225.61	7.82	200.090	7175.74	693.75S	253.74W	==>	-677.88	1233008.51	3154713.43
7300.00	2.74	272.070	7249.85	698.44S	257.26W	10.00	-682.36	1233003.82	3154709.90
7400.00	10.48	344.660	7349.21	689.57S	262.07W	10.00	-673.22	1233012.70	3154705.09
7500.00	20.29	352.230	7445.52	663.55S	266.84W	10.00	-646.97	1233038.71	3154700.33
7600.00	30.23	354.960	7535.84	621.19S	271.41W	10.00	-604.42	1233081.07	3154695.76
7700.00	40.19	356.420	7617.45	563.76S	275.64W	10.00	-546.84	1233138.50	3154691.52
7800.00	50.17	357.380	7687.84	493.02S	279.42W	10.00	-476.00	1233209.24	3154687.75
7900.00	60.15	358.100	7744.90	411.11S	282.62W	10.00	-394.04	1233291.14	3154684.54
8000.00	70.14	358.680	7786.88	320.52S	285.15W	10.00	-303.46	1233381.73	3154682.01
8100.00	80.13	359.190	7812.50	224.01S	286.93W	10.00	-207.01	1233478.24	3154680.23
8198.85	90.00	359.670	7821.00	125.65S	287.90W	10.00	-108.76	1233576.59	3154679.26
8200.00	90.00	359.670	7821.00	124.50S	287.91W	==>	-107.61	1233577.74	3154679.26
8300.00	90.00	359.670	7821.00	24.50S	288.48W	==>	-7.75	1233677.74	3154678.68
8400.00	90.00	359.670	7821.00	75.49N	289.06W	==>	92.12	1233777.73	3154678.11
8500.00	90.00	359.670	7821.00	175.49N	289.63W	==>	191.98	1233877.73	3154677.54
8600.00	90.00	359.670	7821.00	275.49N	290.20W	==>	291.84	1233977.72	3154676.97
8700.00	90.00	359.670	7821.00	375.49N	290.77W	==>	391.71	1234077.72	3154676.39
8800.00	90.00	359.670	7821.00	475.49N	291.35W	==>	491.57	1234177.71	3154675.82
8900.00	90.00	359.670	7821.00	575.49N	291.92W	==>	591.43	1234277.71	3154675.25
9000.00	90.00	359.670	7821.00	675.48N	292.49W	==>	691.30	1234377.70	3154674.68
9100.00	90.00	359.670	7821.00	775.48N	293.06W	==>	791.16	1234477.70	3154674.10
9200.00	90.00	359.670	7821.00	875.48N	293.64W	==>	891.02	1234577.69	3154673.53

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5163.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 356.680 degrees
Bottom hole distance is 5526.32 Feet on azimuth 356.68 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 19-Aug-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL

Well Design Combined Report
Wellbore: ALICIA 12-15H-5N (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9300.00	90.00	359.670	7821.00	975.48N	294.21W	==>	990.89	1234677.69	3154672.96
9400.00	90.00	359.670	7821.00	1075.48N	294.78W	==>	1090.75	1234777.68	3154672.38
9500.00	90.00	359.670	7821.00	1175.48N	295.36W	==>	1190.61	1234877.68	3154671.81
9600.00	90.00	359.670	7821.00	1275.47N	295.93W	==>	1290.48	1234977.67	3154671.24
9700.00	90.00	359.670	7821.00	1375.47N	296.50W	==>	1390.34	1235077.67	3154670.67
9800.00	90.00	359.670	7821.00	1475.47N	297.07W	==>	1490.21	1235177.66	3154670.09
9900.00	90.00	359.670	7821.00	1575.47N	297.65W	==>	1590.07	1235277.66	3154669.52
10000.00	90.00	359.670	7821.00	1675.47N	298.22W	==>	1689.93	1235377.65	3154668.95
10100.00	90.00	359.670	7821.00	1775.47N	298.79W	==>	1789.80	1235477.65	3154668.38
10200.00	90.00	359.670	7821.00	1875.46N	299.36W	==>	1889.66	1235577.64	3154667.80
10300.00	90.00	359.670	7821.00	1975.46N	299.94W	==>	1989.52	1235677.64	3154667.23
10400.00	90.00	359.670	7821.00	2075.46N	300.51W	==>	2089.39	1235777.63	3154666.66
10500.00	90.00	359.670	7821.00	2175.46N	301.08W	==>	2189.25	1235877.63	3154666.08
10600.00	90.00	359.670	7821.00	2275.46N	301.66W	==>	2289.11	1235977.62	3154665.51
10700.00	90.00	359.670	7821.00	2375.46N	302.23W	==>	2388.98	1236077.62	3154664.94
10800.00	90.00	359.670	7821.00	2475.45N	302.80W	==>	2488.84	1236177.61	3154664.37
10900.00	90.00	359.670	7821.00	2575.45N	303.37W	==>	2588.70	1236277.61	3154663.79
11000.00	90.00	359.670	7821.00	2675.45N	303.95W	==>	2688.57	1236377.60	3154663.22
11100.00	90.00	359.670	7821.00	2775.45N	304.52W	==>	2788.43	1236477.60	3154662.65
11200.00	90.00	359.670	7821.00	2875.45N	305.09W	==>	2888.29	1236577.59	3154662.08
11300.00	90.00	359.670	7821.00	2975.45N	305.66W	==>	2988.16	1236677.59	3154661.50
11400.00	90.00	359.670	7821.00	3075.44N	306.24W	==>	3088.02	1236777.58	3154660.93
11500.00	90.00	359.670	7821.00	3175.44N	306.81W	==>	3187.89	1236877.58	3154660.36
11600.00	90.00	359.670	7821.00	3275.44N	307.38W	==>	3287.75	1236977.57	3154659.78
11700.00	90.00	359.670	7821.00	3375.44N	307.96W	==>	3387.61	1237077.57	3154659.21
11800.00	90.00	359.670	7821.00	3475.44N	308.53W	==>	3487.48	1237177.56	3154658.64
11900.00	90.00	359.670	7821.00	3575.44N	309.10W	==>	3587.34	1237277.56	3154658.07
12000.00	90.00	359.670	7821.00	3675.43N	309.67W	==>	3687.20	1237377.55	3154657.49
12100.00	90.00	359.670	7821.00	3775.43N	310.25W	==>	3787.07	1237477.55	3154656.92
12200.00	90.00	359.670	7821.00	3875.43N	310.82W	==>	3886.93	1237577.54	3154656.35
12300.00	90.00	359.670	7821.00	3975.43N	311.39W	==>	3986.79	1237677.54	3154655.78
12400.00	90.00	359.670	7821.00	4075.43N	311.96W	==>	4086.66	1237777.53	3154655.20
12500.00	90.00	359.670	7821.00	4175.43N	312.54W	==>	4186.52	1237877.53	3154654.63
12600.00	90.00	359.670	7821.00	4275.42N	313.11W	==>	4286.38	1237977.52	3154654.06
12700.00	90.00	359.670	7821.00	4375.42N	313.68W	==>	4386.25	1238077.52	3154653.48
12800.00	90.00	359.670	7821.00	4475.42N	314.26W	==>	4486.11	1238177.51	3154652.91
12900.00	90.00	359.670	7821.00	4575.42N	314.83W	==>	4585.97	1238277.51	3154652.34
13000.00	90.00	359.670	7821.00	4675.42N	315.40W	==>	4685.84	1238377.50	3154651.77
13100.00	90.00	359.670	7821.00	4775.42N	315.97W	==>	4785.70	1238477.50	3154651.19
13200.00	90.00	359.670	7821.00	4875.41N	316.55W	==>	4885.57	1238577.49	3154650.62
13300.00	90.00	359.670	7821.00	4975.41N	317.12W	==>	4985.43	1238677.49	3154650.05
13400.00	90.00	359.670	7821.00	5075.41N	317.69W	==>	5085.29	1238777.48	3154649.48
13500.00	90.00	359.670	7821.00	5175.41N	318.26W	==>	5185.16	1238877.48	3154648.90
13600.00	90.00	359.670	7821.00	5275.41N	318.84W	==>	5285.02	1238977.47	3154648.33
13700.00	90.00	359.670	7821.00	5375.41N	319.41W	==>	5384.88	1239077.47	3154647.76
13800.00	90.00	359.670	7821.00	5475.41N	319.98W	==>	5484.75	1239177.46	3154647.18
13841.63	90.00	359.670	7821.00	5517.04N	320.22W	==>	5526.32	1239219.09	3154646.95

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Vertical Section is from 0.00N 0.00E on azimuth 356.680 degrees
Bottom hole distance is 5526.32 Feet on azimuth 356.68 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 19-Aug-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL
Well Design Combined Report
Wellbore: ALICIA 12-15H-5N (PWB)

Hole Sections								
Diameter [in]	Start MD[ft]	Start TVD[ft]	Start North[ft]	Start East[ft]	End MD[ft]	End TVD[ft]	End North[ft]	End East[ft]
13 1/2	13.00	13.00	0.00N	0.00E	1250.00	1250.00	0.00N	0.00E
8 3/4	1250.00	1250.00	0.00N	0.00E	8198.00	7821.00	126.50S	287.90W
6 1/8	8198.00	7821.00	126.50S	287.90W	13841.63	7821.00	5517.04N	320.22W

Casings								
Name	Top MD[ft]	Top TVD[ft]	Top North[ft]	Top East[ft]	Shoe MD[ft]	Shoe TVD[ft]	Shoe North[ft]	Shoe East[ft]
9 5/8in Surface Casing	13.00	13.00	0.00N	0.00E	1250.00	1250.00	0.00N	0.00E
7.0in Intermediate Casing	13.00	13.00	0.00N	0.00E	8198.00	7821.00	126.50S	287.90W
4 1/2in Production Liner	7998.00	7786.19	322.40S	285.11W	13841.63	7821.00	5517.04N	320.22W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
ALICIA 12-15H-5 - T6	125.65S	287.90W	7821.00	39.97323000	-104.94809000	1233576.59	3154679.26	3-Mar-2014
ALICIA 12-15H-5 - T7	5517.04N	320.22W	7821.00	39.98872000	-104.94808000	1239219.09	3154646.95	3-Mar-2014

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
172743	Planned	13841.63	7821.00	WdW Rate Gyro	Standard

Notes

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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: ALICIA 12-15H-5N (PWB)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Proximities beyond 2500.00ft with expansion rate of 0.00ft/1000ft are not reported
Scan limit is calculated on CENTRE to CENTRE distance

Summary data uses Closest Approach clearance calculation for all minima
Hole size/Casings ARE included
Hole size/Casings are NOT subtracted from Centre-Centre distance
Confidence limit of 95.00% / 2.80 SD.

Wellbore			
Name	Created	Last Revised	
ALICIA 12-15H-5N (PWB)	3-Mar-2014	19-Aug-2014	

Well		
Name	Government ID	Last Revised
ALICIA 12-15H-5N		19-Aug-2014

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
ALICIA 12-15H-5N	1233702.2406	3154967.1571	39.97357000	-104.94706000	7.37N	13.97E

Installation				
Name	Easting	Northing	Coord System Name	North Alignment
ALICIA	3154953.1896	1233694.8679	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field				
Name	Easting	Northing	Coord System Name	North Alignment
SPINDLE	3156324.1590	1233718.6871	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
ALICIA 12-15H-2N	ALICIA 12-15H-2N (PWB)	ALICIA 12-15H-2N	ALICIA	14.48	1604.21	13841.63	11.26	1604.21	3.31	13841.63
ALICIA 12-15H-1N	ALICIA 12-15H-1N (PWB)	ALICIA 12-15H-1N	ALICIA	15.79	1550.00	13841.63	12.66	1550.00	3.27	13841.63
ALICIA 12-15H-4C	ALICIA 12-15H-4C (PWB)	ALICIA 12-15H-4C	ALICIA	30.08	1604.21	1604.21	26.86	1604.21	8.21	12562.21
ALICIA 12-15H-6C	ALICIA 12-15H-6C (PWB)	ALICIA 12-15H-6C	ALICIA	31.59	1500.00	12559.11	28.54	1500.00	6.90	12611.43
Ruby #1	Ruby #1 (AWB)	Ruby #1	Offsets	38.55	1604.21	8352.01	33.60	1604.21	7.75	1637.02
ALICIA 12-15H-3N	ALICIA 12-15H-3N (PWB)	ALICIA 12-15H-3N	ALICIA	45.82	1604.21	13838.33	42.60	1604.21	6.62	13841.63
Ruby #2	Ruby #2 (AWB)	Ruby #2	Offsets	60.18	1218.00	9712.27	57.28	1218.00	6.54	9707.88
MALLO #1	MALLO #1 (AWB)	MALLO #1	Offsets	104.87	1604.21	1604.21	100.62	1604.21	24.25	1719.04
W MORRISON N #15-1	W MORRISON #15-1 (AWB)	MORRISON N #15-1	Offsets	167.85	13839.53	13839.53	92.86	13839.53	2.24	13839.53
TUDEX REINHOLT #NC4	TUDEX REINHOLT #NC4	TUDEX REINHOLT #NC4	Offsets	257.28	12082.99	12082.99	215.76	12082.99	6.20	12082.99

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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: ALICIA 12-15H-5N (PWB)

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
	(AWB)									
AFTON 12-16H-1	AFTON 12-16H-1 (PWB)	Slot #1	AFTON	872.49	7366.58	7366.58	847.02	12545.81	12.44	12545.81
AFTON 12-16H-1	AFTON 12-16H-1 (REV 1)	Slot #1	AFTON	908.96	13841.63	13841.63	809.86	13841.63	9.17	13841.63
W MORRISO N 33-1 #4	W MORRISON 33-1 #4 (AWB)	MORRISO N 33-1 #4	Offsets	1017.82	13841.63	13841.63	977.17	13841.63	25.03	13841.63
AFTON 12-16H-2	AFTON 12-16H-2 (PWB)	Slot #2	AFTON	1034.15	8157.23	8157.23	965.84	12545.81	13.50	12545.81
W MORRISO N 24-1 #3	W MORRISON 24-1 #3 (AWB)	MORRISO N 24-1 #3	Offsets	1116.28	13669.89	13669.89	1041.86	13677.70	14.89	13776.12
AFTON 12-16H-8	AFTON 12-16H-8 (PWB)	Slot #8	AFTON	1150.07	8100.27	8100.27	1090.26	12545.81	15.24	12562.21
DARLOW UNIT #12-16B	DARLOW UNIT #12-16B (AWB)	DARLOW UNIT #12-16B	Offsets	1155.92	1604.21	8401.06	1150.99	1620.61	99.80	8953.29
AFTON 12-16H-7	AFTON 12-16H-7 (PWB)	Slot #7	AFTON	1199.95	7219.30	7219.30	1165.03	12545.81	16.48	12578.62
BARKER #12-9	BARKER #12-9 (AWB)	BARKER #12-9	Offsets	1279.19	9691.48	9691.48	1257.73	9691.48	57.17	9986.75
PULIS #12-8	PULIS #12-8 (AWB)	PULIS #12-8	Offsets	1283.77	1604.21	1604.21	1279.53	1620.61	149.54	5311.56
W MORRISO N #16-1	W MORRISON #16-1 (AWB)	MORRISO N #16-1	Offsets	1370.41	13499.92	13499.92	1298.33	13513.66	18.92	13612.08
AFTON #12-16H-3	AFTON #12-16H-3 (PWB)	Slot #3	AFTON	1384.89	1817.46	12531.02	1381.25	1833.87	19.88	12627.83
AFTON 12-16H-6	AFTON 12-16H-6 (PWB)	Slot #6	AFTON	1389.68	1398.00	1398.00	1386.73	1243.31	26.36	12775.47
AFTON #12-16H-4	AFTON #12-16H-4 Sidetrack	Slot #4	AFTON	1391.37	1472.97	12340.55	1385.16	1505.78	12.17	12413.00
AFTON #12-16H-4	AFTON #12-16H-4 Original	Slot #4	AFTON	1391.37	1472.97	8339.15	1385.16	1505.78	44.97	9281.37
BELLINGER R #12-7	BELLINGER #12-7 (AWB)	BELLINGER R #12-7	Offsets	1403.15	1604.21	1604.21	1398.88	1604.21	200.29	5229.54
AFTON #12-16H-4	AFTON #12-16H-4 (PWB)	Slot #4	AFTON	1404.99	1177.70	1177.70	1402.06	1243.31	22.24	12677.04
AFTON #12-16H-4	AFTON #12-16H-4	Slot #4	AFTON	1405.03	1604.21	1604.21	1401.81	1620.61	22.54	12677.04

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Wellbore: ALICIA 12-15H-5N (PWB)

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
Ensign Plan										
AFTON 12-16H-5	AFTON 12-16H-5 (PWB)	Slot #5	AFTON	1405.65	1347.00	1347.00	1402.70	1243.31	28.23	12824.68
ELMS #2	ELMS #2 (AWB)	ELMS #2	Offsets	1407.78	11294.19	11294.19	1373.00	11299.09	39.64	11512.34
W MORRISON N #11-1	W MORRISON #11-1 (AWB)	MORRISON N #11-1	Offsets	1619.52	13841.63	13841.63	1554.47	13841.63	24.90	13841.63
DARLOW #12-2	DARLOW #12-2 (AWB)	DARLOW #12-2	Offsets	1712.84	1604.21	1604.21	1708.62	1604.21	236.08	5262.34
W MORRISON N #9-1	W MORRISON #9-1 (AWB)	MORRISON N #9-1	Offsets	1825.57	13841.63	13841.63	1756.97	13841.63	26.61	13841.63
TUDEX BRINK #S-2	TUDEX BRINK #S-2 (AWB)	TUDEX BRINK #S-2	Offsets	2400.23	1604.21	1604.21	2396.97	1604.21	502.23	2572.06