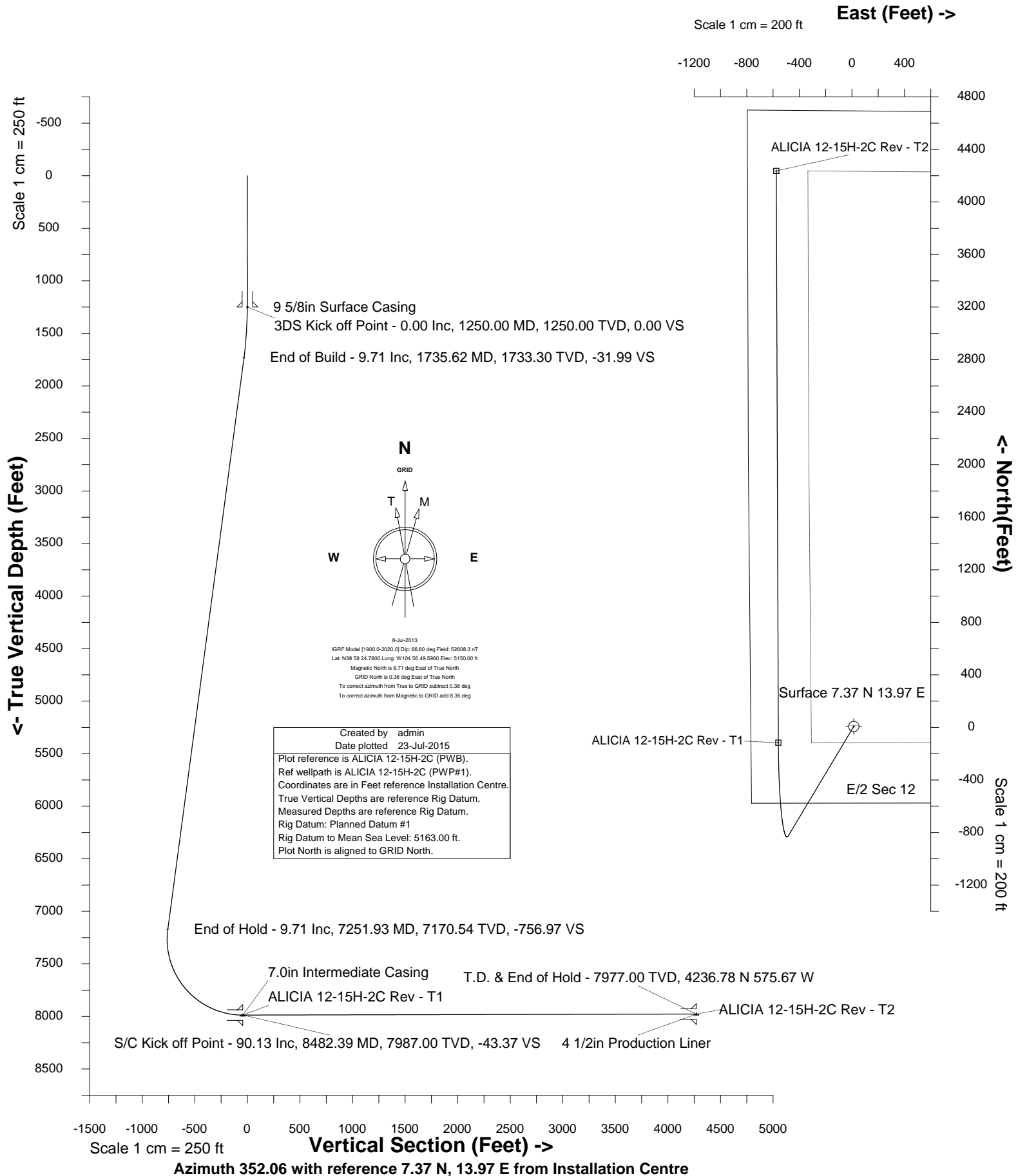




# MENDELL ENERGY, LLC

Location DJ Basin  
Field SPINDLE  
Installation ALICIA-Revised

Slot ALICIA 12-15H-2C  
Well ALICIA 12-15H-2C  
Wellbore ALICIA 12-15H-2C (PWB)





SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-2C (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
ALICIA 12-15H-2C	39.97357000	-104.94706000	1233702.2406	3154967.1571	7.37N	13.97E	0.00

Declination		
Date	Source	Time
9-Jul-2015	IGRF Model [1900.0-2020.0]	15:08
8-Jul-2013	IGRF Model [1900.0-2020.0]	09:34

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
ALICIA-Revised	39.97355000	-104.94711000	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
1250.00	0.00	210.890	1250.00	0.00N	0.00E	==>	0.00	1233702.24	3154967.16
12835.63	90.13	359.790	7977.00	4229.41N	589.63W	==>	4270.31	1237931.51	3154377.54

Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	Rig Datum Slot Datum
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	
1250.00	0.00	210.890	1250.00	0.00N	0.00E	==>	0.00	
1300.00	1.00	210.890	1300.00	0.37S	0.22W	2.00	-0.34	9 5/8in Surface Casing
1400.00	3.00	210.890	1399.93	3.37S	2.02W	2.00	-3.06	
1500.00	5.00	210.890	1499.68	9.35S	5.60W	2.00	-8.49	
1600.00	7.00	210.890	1599.13	18.32S	10.96W	2.00	-16.64	
1700.00	9.00	210.890	1698.15	30.27S	18.11W	2.00	-27.48	
1800.00	9.71	210.890	1796.75	44.56S	26.66W	==>	-40.45	
1900.00	9.71	210.890	1895.32	59.03S	35.32W	==>	-53.59	
2000.00	9.71	210.890	1993.89	73.51S	43.98W	==>	-66.73	
2100.00	9.71	210.890	2092.45	87.99S	52.64W	==>	-79.88	
2200.00	9.71	210.890	2191.02	102.47S	61.30W	==>	-93.02	
2300.00	9.71	210.890	2289.59	116.94S	69.96W	==>	-106.16	
2400.00	9.71	210.890	2388.16	131.42S	78.63W	==>	-119.30	
2500.00	9.71	210.890	2486.72	145.90S	87.29W	==>	-132.45	
2600.00	9.71	210.890	2585.29	160.37S	95.95W	==>	-145.59	
2700.00	9.71	210.890	2683.86	174.85S	104.61W	==>	-158.73	
2800.00	9.71	210.890	2782.42	189.33S	113.27W	==>	-171.88	
2900.00	9.71	210.890	2880.99	203.81S	121.93W	==>	-185.02	
3000.00	9.71	210.890	2979.56	218.28S	130.59W	==>	-198.16	
3100.00	9.71	210.890	3078.12	232.76S	139.25W	==>	-211.30	
3200.00	9.71	210.890	3176.69	247.24S	147.92W	==>	-224.45	

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Bottom hole distance is 4270.31 Feet on azimuth 352.06 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 23-Jul-2015



SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-2C (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3300.00	9.71	210.890	3275.26	261.71S	156.58W	==>	-237.59	
3400.00	9.71	210.890	3373.82	276.19S	165.24W	==>	-250.73	
3500.00	9.71	210.890	3472.39	290.67S	173.90W	==>	-263.87	
3600.00	9.71	210.890	3570.96	305.15S	182.56W	==>	-277.02	
3700.00	9.71	210.890	3669.52	319.62S	191.22W	==>	-290.16	
3800.00	9.71	210.890	3768.09	334.10S	199.88W	==>	-303.30	
3900.00	9.71	210.890	3866.66	348.58S	208.54W	==>	-316.44	
4000.00	9.71	210.890	3965.22	363.06S	217.21W	==>	-329.59	
4100.00	9.71	210.890	4063.79	377.53S	225.87W	==>	-342.73	
4200.00	9.71	210.890	4162.36	392.01S	234.53W	==>	-355.87	
4300.00	9.71	210.890	4260.92	406.49S	243.19W	==>	-369.01	
4400.00	9.71	210.890	4359.49	420.96S	251.85W	==>	-382.16	
4500.00	9.71	210.890	4458.06	435.44S	260.51W	==>	-395.30	
4600.00	9.71	210.890	4556.62	449.92S	269.17W	==>	-408.44	
4700.00	9.71	210.890	4655.19	464.40S	277.84W	==>	-421.58	
4800.00	9.71	210.890	4753.76	478.87S	286.50W	==>	-434.73	
4900.00	9.71	210.890	4852.32	493.35S	295.16W	==>	-447.87	
5000.00	9.71	210.890	4950.89	507.83S	303.82W	==>	-461.01	
5100.00	9.71	210.890	5049.46	522.30S	312.48W	==>	-474.15	
5200.00	9.71	210.890	5148.02	536.78S	321.14W	==>	-487.30	
5300.00	9.71	210.890	5246.59	551.26S	329.80W	==>	-500.44	
5400.00	9.71	210.890	5345.16	565.74S	338.46W	==>	-513.58	
5500.00	9.71	210.890	5443.72	580.21S	347.13W	==>	-526.73	
5600.00	9.71	210.890	5542.29	594.69S	355.79W	==>	-539.87	
5700.00	9.71	210.890	5640.86	609.17S	364.45W	==>	-553.01	
5800.00	9.71	210.890	5739.42	623.64S	373.11W	==>	-566.15	
5900.00	9.71	210.890	5837.99	638.12S	381.77W	==>	-579.30	
6000.00	9.71	210.890	5936.56	652.60S	390.43W	==>	-592.44	
6100.00	9.71	210.890	6035.12	667.08S	399.09W	==>	-605.58	
6200.00	9.71	210.890	6133.69	681.55S	407.76W	==>	-618.72	
6300.00	9.71	210.890	6232.26	696.03S	416.42W	==>	-631.87	
6400.00	9.71	210.890	6330.82	710.51S	425.08W	==>	-645.01	
6500.00	9.71	210.890	6429.39	724.99S	433.74W	==>	-658.15	
6600.00	9.71	210.890	6527.96	739.46S	442.40W	==>	-671.29	
6700.00	9.71	210.890	6626.52	753.94S	451.06W	==>	-684.44	
6800.00	9.71	210.890	6725.09	768.42S	459.72W	==>	-697.58	
6900.00	9.71	210.890	6823.66	782.89S	468.38W	==>	-710.72	
7000.00	9.71	210.890	6922.22	797.37S	477.05W	==>	-723.86	
7100.00	9.71	210.890	7020.79	811.85S	485.71W	==>	-737.01	
7200.00	9.71	210.890	7119.36	826.33S	494.37W	==>	-750.15	
7300.00	6.74	228.260	7218.12	839.20S	503.05W	8.00	-761.70	
7400.00	6.17	304.860	7317.65	840.04S	511.85W	8.00	-761.32	
7500.00	12.58	336.440	7416.32	826.96S	520.63W	8.00	-747.15	
7600.00	20.16	345.840	7512.21	800.22S	529.21W	8.00	-719.48	
7700.00	27.96	350.190	7603.45	760.34S	537.43W	8.00	-678.85	
7800.00	35.85	352.750	7688.28	708.11S	545.14W	8.00	-626.05	
7900.00	43.77	354.480	7765.04	644.52S	552.17W	8.00	-562.11	
8000.00	51.72	355.780	7832.23	570.83S	558.39W	8.00	-488.26	
8100.00	59.67	356.810	7888.54	488.46S	563.69W	8.00	-405.95	
8200.00	67.63	357.690	7932.89	399.03S	567.96W	8.00	-316.78	
8300.00	75.60	358.480	7964.40	304.26S	571.11W	8.00	-222.49	
8400.00	83.57	359.210	7982.47	206.01S	573.08W	8.00	-124.91	
8482.00	90.10	359.790	7987.00	124.18S	573.80W	8.00	-43.76	7.0in Intermediate Casing
8500.00	90.13	359.790	7986.96	106.18S	573.86W	==>	-25.93	
8600.00	90.13	359.790	7986.73	6.18S	574.23W	==>	73.16	
8700.00	90.13	359.790	7986.50	93.82N	574.59W	==>	172.26	
8800.00	90.13	359.790	7986.27	193.82N	574.95W	==>	271.35	
8900.00	90.13	359.790	7986.04	293.81N	575.32W	==>	370.44	
9000.00	90.13	359.790	7985.81	393.81N	575.68W	==>	469.53	

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SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-2C (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9100.00	90.13	359.790	7985.58	493.81N	576.05W	==>	568.62	
9200.00	90.13	359.790	7985.35	593.81N	576.41W	==>	667.71	
9300.00	90.13	359.790	7985.12	693.81N	576.77W	==>	766.80	
9400.00	90.13	359.790	7984.89	793.81N	577.14W	==>	865.90	
9500.00	90.13	359.790	7984.66	893.81N	577.50W	==>	964.99	
9600.00	90.13	359.790	7984.43	993.81N	577.86W	==>	1064.08	
9700.00	90.13	359.790	7984.20	1093.81N	578.23W	==>	1163.17	
9800.00	90.13	359.790	7983.97	1193.81N	578.59W	==>	1262.26	
9900.00	90.13	359.790	7983.74	1293.80N	578.96W	==>	1361.35	
10000.00	90.13	359.790	7983.51	1393.80N	579.32W	==>	1460.44	
10100.00	90.13	359.790	7983.28	1493.80N	579.68W	==>	1559.54	
10200.00	90.13	359.790	7983.05	1593.80N	580.05W	==>	1658.63	
10300.00	90.13	359.790	7982.82	1693.80N	580.41W	==>	1757.72	
10400.00	90.13	359.790	7982.59	1793.80N	580.77W	==>	1856.81	
10500.00	90.13	359.790	7982.37	1893.80N	581.14W	==>	1955.90	
10600.00	90.13	359.790	7982.14	1993.80N	581.50W	==>	2054.99	
10700.00	90.13	359.790	7981.91	2093.80N	581.87W	==>	2154.08	
10800.00	90.13	359.790	7981.68	2193.80N	582.23W	==>	2253.18	
10900.00	90.13	359.790	7981.45	2293.80N	582.59W	==>	2352.27	
11000.00	90.13	359.790	7981.22	2393.79N	582.96W	==>	2451.36	
11100.00	90.13	359.790	7980.99	2493.79N	583.32W	==>	2550.45	
11200.00	90.13	359.790	7980.76	2593.79N	583.68W	==>	2649.54	
11300.00	90.13	359.790	7980.53	2693.79N	584.05W	==>	2748.63	
11400.00	90.13	359.790	7980.30	2793.79N	584.41W	==>	2847.72	
11500.00	90.13	359.790	7980.07	2893.79N	584.78W	==>	2946.82	
11600.00	90.13	359.790	7979.84	2993.79N	585.14W	==>	3045.91	
11700.00	90.13	359.790	7979.61	3093.79N	585.50W	==>	3145.00	
11800.00	90.13	359.790	7979.38	3193.79N	585.87W	==>	3244.09	
11900.00	90.13	359.790	7979.15	3293.79N	586.23W	==>	3343.18	
12000.00	90.13	359.790	7978.92	3393.79N	586.59W	==>	3442.27	
12100.00	90.13	359.790	7978.69	3493.78N	586.96W	==>	3541.36	
12200.00	90.13	359.790	7978.46	3593.78N	587.32W	==>	3640.46	
12300.00	90.13	359.790	7978.23	3693.78N	587.69W	==>	3739.55	
12400.00	90.13	359.790	7978.00	3793.78N	588.05W	==>	3838.64	
12500.00	90.13	359.790	7977.77	3893.78N	588.41W	==>	3937.73	
12600.00	90.13	359.790	7977.54	3993.78N	588.78W	==>	4036.82	
12700.00	90.13	359.790	7977.31	4093.78N	589.14W	==>	4135.91	
12800.00	90.13	359.790	7977.08	4193.78N	589.50W	==>	4235.00	
12835.63	90.13	359.790	7977.00	4229.41N	589.63W	==>	4270.31	4 1/2in Production Liner

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: ALICIA 12-15H-2C (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 1000.00ft 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-2C (PWB)	9-Jul-2015	23-Jul-2015

Well		
Name	Government ID	Last Revised
ALICIA 12-15H-2C		9-Jul-2015

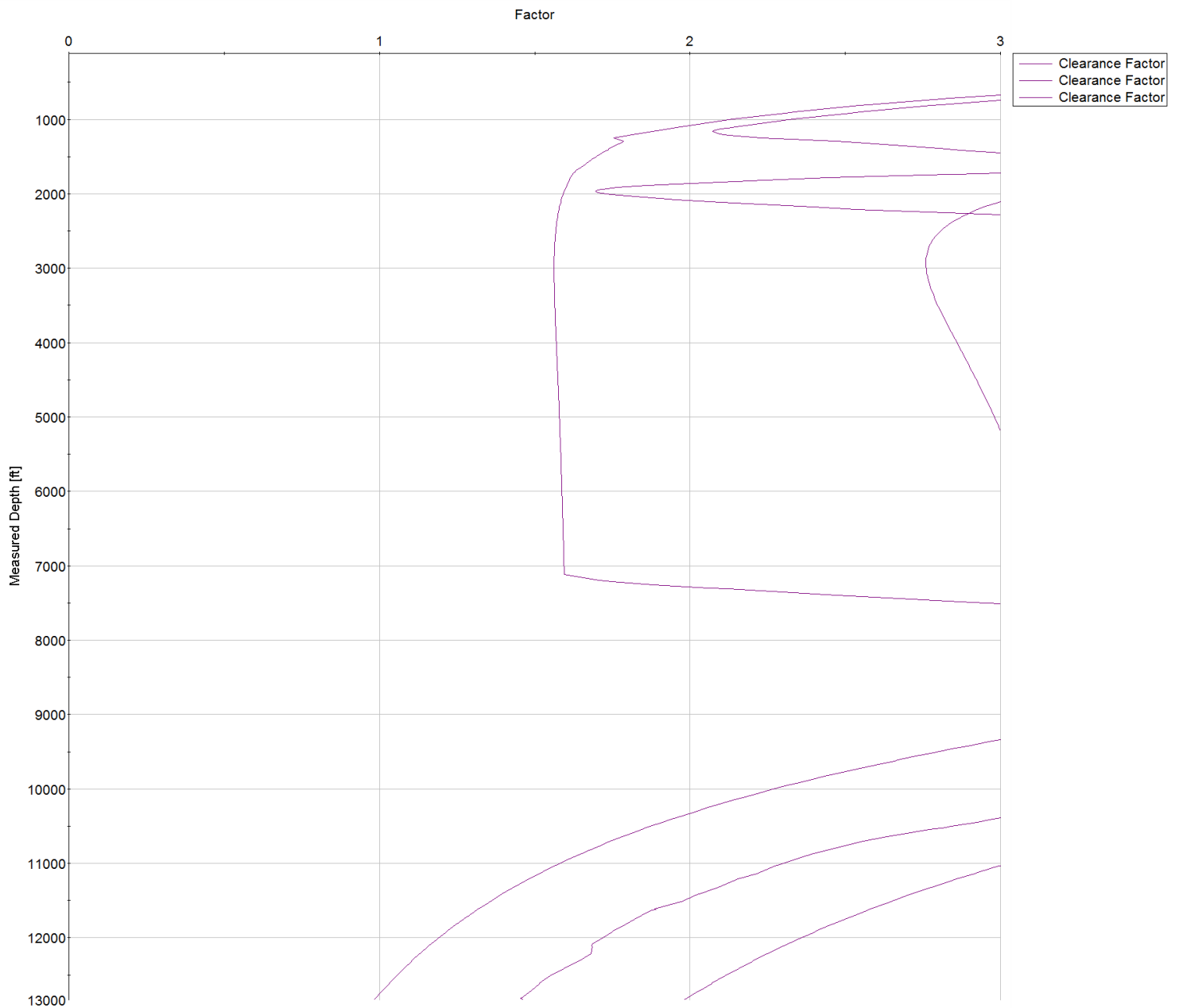
Slot						
Name	Latitude	Longitude	Grid Northing	Grid Easting	North	East
ALICIA 12-15H-2C	39.97357000	-104.94706000	1233702.2406	3154967.1571	7.37N	13.97E

Installation						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Easting	Northing	Coord System Name	North Alignment
ALICIA-Revised	39.97355000	-104.94711000	3154953.1896	1233694.8679	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
ALICIA 12-15H-3N	14.48	1250.00	12835.63	6.23	1250.00	1.56	2965.76
ALICIA 12-15H-1N	15.79	1125.00	12835.63	-3.15	12835.63	0.98	12835.63
ALICIA 12-15H-5N	21.09	1948.70	12818.12	8.68	1965.10	1.45	12818.12
ALICIA 12-15H-4N	30.07	1259.72	8482.39	21.94	1250.00	3.05	12835.63
ALICIA 12-15H-6C	45.82	1250.00	1250.00	37.57	1250.00	3.03	12835.63
ALICIA 12-15H-7N	60.16	1250.00	1250.00	51.91	1250.00	3.26	12835.63
Ruby #2	60.18	18.00	10009.71	58.66	144.23	5.61	9986.75
ALICIA 12-15H-8N	75.89	1250.00	8482.39	67.63	1250.00	4.27	12835.63
ALICIA 12-15H-9N	89.07	1250.00	1250.00	80.82	1250.00	5.04	12835.63
ALICIA 12-15H-10N	103.37	1250.00	1250.00	95.12	1250.00	11.96	1472.97
MALLO #1	104.86	1250.00	1250.00	98.22	1250.00	15.76	1423.76
TUDEX REINHOLT #NC4	535.05	12365.36	12365.36	410.85	12365.36	4.31	12364.17
CUNDALL #6-12	772.98	11341.53	11341.53	672.91	11364.71	7.55	11479.54
NORTH YORK #11-12	838.00	10020.82	10020.82	768.34	10052.37	11.43	10249.22



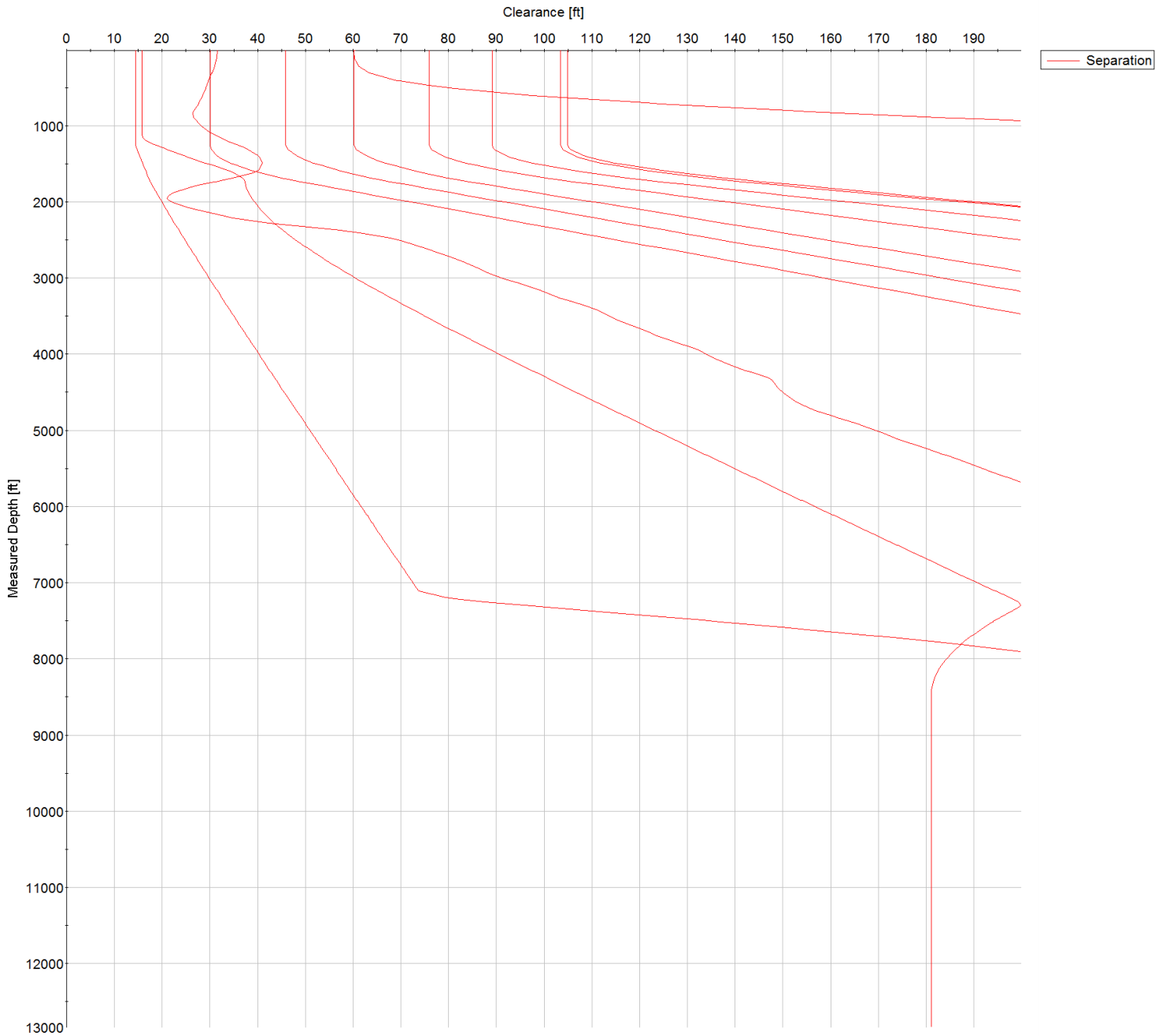
SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: ALICIA 12-15H-2C (PWB)



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Wellbore: ALICIA 12-15H-2C (PWB)

