

HRM Resources

Location	DJ Basin	Slot	Slot 5
Field	WATTENBERG	Well	Lehl 30-5
Installation	Lehl Pad - Rev 2 - 2016-07-15	Wellbore	Lehl 30-5 (PWB)

Scale 1 cm = 400 ft

East (Feet) ->

-2400 -1600 -800 0 800

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		-0.00
KOP	1500.00	0.00	284.09	1500.00	S 0.00	W 0.00	0.00	-0.00
End of Build	2308.46	16.17	284.09	2297.78	N 27.58	W 109.92	2.00	-12.13
End of Hold	6719.96	16.17	284.09	6534.76	N 326.55	W 1301.48	0.00	-143.61
Target LEHL 3... Rev 2	7660.07	90.00	179.54	7125.00	S 246.33	W 1462.48	10.00	446.02
T.D. & Target LEH...v 2	17335.57	90.00	179.54	7125.00	S 9921.51	W 1384.00	0.00	10017.58

LEHL 30-5 EP - Rev 2

Surface 0.00 N 0.00 E

Scale 1 cm = 400 ft

<- True Vertical Depth (Feet)

-800
-0
800
1600
2400
3200
4000
4800
5600
6400
7200
8000

Scale 1 cm = 400 ft

Azimuth 187.94 with reference 0.00 N, 0.00 E from Slot 5

Tie on - 0.00 Inc, 0.00 MD, 0.00 TVD, -0.00 VS

3DS Kick off Point - 0.00 Inc, 1500.00 MD, 1500.00 TVD, -0.00 VS

End of Build - 16.17 Inc, 2308.46 MD, 2297.78 TVD, -12.13 VS

Created by	admin
Date plotted	15-Jul-2016
Plot reference is Lehl 30-5 (PWB).	
Ref wellpath is Lehl 30-5 (PWP#1).	
Coordinates are in Feet reference Slot 5.	
True Vertical Depths are reference Rig Datum.	
Measured Depths are reference Rig Datum.	
Rig Datum: Planned Datum #1	
Rig Datum to Mean Sea Level: 4974.00 ft.	
Plot North is aligned to GRID North.	

End of Hold - 16.17 Inc, 6719.96 MD, 6534.76 TVD, -143.61 VS

Target - 90.00 Inc, 7660.07 MD, 7125.00 TVD, 446.02 VS

T.D. & Target - 7125.00 TVD, 9921.51 S 1384.00 W

LEHL 30-5 BH - Rev 2

Lehl 30-5 (PWB)

Lehl 30-5 (PWB)

<- North(Feet)

Scale 1 cm = 400 ft

1600
800
0
-800
-1600
-2400
-3200
-4000
-4800
-5600
-6400
-7200
-8000
-8800
-9600
-10400
-11200



SYS DRILL
Well Design Combined Report
Wellbore: Lehl 30-5 (PWB)



Wellhead Details

Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
Slot 5	40.02899000	-104.69849000	1254421.5137	3224447.3963	47.09N	5684.67E	0.00

Declination

Date	Source	Time
Jun-9-2016	EMM-2015 [2000.0-2020.0]	15:46

Installation Details

Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Lehl Pad - Rev 2 - 2016-07-15	40.02900000	-104.71878983	1254374.4255	3218762.9369	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
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1254421.51	3224447.40
1500.00	0.00	284.090	1500.00	0.00N	0.00E	==>	0.00	1254421.51	3224447.40
2308.46	16.17	284.090	2297.78	27.58N	109.92W	2.00	-12.13	1254449.09	3224337.49
6719.96	16.17	284.090	6534.76	326.55N	1301.48W	==>	-143.61	1254748.05	3223145.97
7660.07	90.00	179.540	7125.00	246.33S	1462.48W	10.00	446.02	1254175.19	3222984.97
17335.57	90.00	179.540	7125.00	9921.51S	1384.00W	==>	10017.58	1244500.38	3223063.44

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	Slot Datum
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	
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	
1500.00	0.00	284.090	1500.00	0.00N	0.00E	==>	0.00	
1600.00	2.00	284.090	1599.98	0.42N	1.69W	2.00	-0.19	
1700.00	4.00	284.090	1699.84	1.70N	6.77W	2.00	-0.75	
1800.00	6.00	284.090	1799.45	3.82N	15.22W	2.00	-1.68	
1900.00	8.00	284.090	1898.70	6.78N	27.04W	2.00	-2.98	
2000.00	10.00	284.090	1997.47	10.59N	42.21W	2.00	-4.66	
2100.00	12.00	284.090	2095.62	15.24N	60.72W	2.00	-6.70	
2200.00	14.00	284.090	2193.06	20.71N	82.54W	2.00	-9.11	
2300.00	16.00	284.090	2289.64	27.01N	107.64W	2.00	-11.88	
2400.00	16.17	284.090	2385.69	33.78N	134.64W	==>	-14.86	
2500.00	16.17	284.090	2481.73	40.56N	161.65W	==>	-17.84	
2600.00	16.17	284.090	2577.78	47.34N	188.66W	==>	-20.82	
2700.00	16.17	284.090	2673.82	54.11N	215.67W	==>	-23.80	
2800.00	16.17	284.090	2769.87	60.89N	242.68W	==>	-26.78	
2900.00	16.17	284.090	2865.91	67.67N	269.69W	==>	-29.76	
3000.00	16.17	284.090	2961.96	74.44N	296.70W	==>	-32.74	
3100.00	16.17	284.090	3058.00	81.22N	323.71W	==>	-35.72	
3200.00	16.17	284.090	3154.05	88.00N	350.72W	==>	-38.70	

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 4974.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 187.940 degrees
Bottom hole distance is 10017.58 Feet on azimuth 187.94 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 15-Jul-2016

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	16.17	284.090	3250.09	94.78N	377.73W	==>	-41.68	
3400.00	16.17	284.090	3346.13	101.55N	404.74W	==>	-44.66	
3500.00	16.17	284.090	3442.18	108.33N	431.75W	==>	-47.64	
3600.00	16.17	284.090	3538.22	115.11N	458.76W	==>	-50.62	
3700.00	16.17	284.090	3634.27	121.88N	485.77W	==>	-53.60	
3800.00	16.17	284.090	3730.31	128.66N	512.78W	==>	-56.58	
3900.00	16.17	284.090	3826.36	135.44N	539.80W	==>	-59.56	
4000.00	16.17	284.090	3922.40	142.21N	566.81W	==>	-62.54	
4100.00	16.17	284.090	4018.44	148.99N	593.82W	==>	-65.52	
4200.00	16.17	284.090	4114.49	155.77N	620.83W	==>	-68.50	
4300.00	16.17	284.090	4210.53	162.55N	647.84W	==>	-71.48	
4400.00	16.17	284.090	4306.58	169.32N	674.85W	==>	-74.46	
4500.00	16.17	284.090	4402.62	176.10N	701.86W	==>	-77.44	
4600.00	16.17	284.090	4498.67	182.88N	728.87W	==>	-80.43	
4700.00	16.17	284.090	4594.71	189.65N	755.88W	==>	-83.41	
4800.00	16.17	284.090	4690.75	196.43N	782.89W	==>	-86.39	
4900.00	16.17	284.090	4786.80	203.21N	809.90W	==>	-89.37	
5000.00	16.17	284.090	4882.84	209.99N	836.91W	==>	-92.35	
5100.00	16.17	284.090	4978.89	216.76N	863.92W	==>	-95.33	
5200.00	16.17	284.090	5074.93	223.54N	890.93W	==>	-98.31	
5300.00	16.17	284.090	5170.98	230.32N	917.94W	==>	-101.29	
5400.00	16.17	284.090	5267.02	237.09N	944.95W	==>	-104.27	
5500.00	16.17	284.090	5363.06	243.87N	971.96W	==>	-107.25	
5600.00	16.17	284.090	5459.11	250.65N	998.97W	==>	-110.23	
5700.00	16.17	284.090	5555.15	257.43N	1025.98W	==>	-113.21	
5800.00	16.17	284.090	5651.20	264.20N	1052.99W	==>	-116.19	
5900.00	16.17	284.090	5747.24	270.98N	1080.00W	==>	-119.17	
6000.00	16.17	284.090	5843.29	277.76N	1107.01W	==>	-122.15	
6100.00	16.17	284.090	5939.33	284.53N	1134.02W	==>	-125.13	
6200.00	16.17	284.090	6035.37	291.31N	1161.03W	==>	-128.11	
6300.00	16.17	284.090	6131.42	298.09N	1188.04W	==>	-131.09	
6400.00	16.17	284.090	6227.46	304.86N	1215.05W	==>	-134.07	
6500.00	16.17	284.090	6323.51	311.64N	1242.06W	==>	-137.05	
6600.00	16.17	284.090	6419.55	318.42N	1269.08W	==>	-140.03	
6700.00	16.17	284.090	6515.60	325.20N	1296.09W	==>	-143.01	
6800.00	16.16	255.050	6611.77	326.39N	1323.09W	10.00	-140.46	
6900.00	20.90	226.850	6706.74	310.56N	1349.61W	10.00	-121.12	
7000.00	28.40	210.800	6797.67	277.85N	1374.87W	10.00	-85.24	
7100.00	37.04	201.370	6881.77	229.25N	1398.08W	10.00	-33.90	
7200.00	46.16	195.170	6956.51	166.24N	1418.54W	10.00	31.34	
7300.00	55.53	190.650	7019.60	90.73N	1435.64W	10.00	108.48	
7400.00	65.03	187.050	7069.14	5.02N	1448.84W	10.00	195.20	
7500.00	74.60	183.970	7103.61	88.29S	1457.76W	10.00	288.84	
7600.00	84.22	181.160	7121.97	186.36S	1462.12W	10.00	386.58	
7700.00	90.00	179.540	7125.00	286.26S	1462.16W	==>	485.52	
7800.00	90.00	179.540	7125.00	386.25S	1461.35W	==>	584.45	
7900.00	90.00	179.540	7125.00	486.25S	1460.54W	==>	683.37	
8000.00	90.00	179.540	7125.00	586.25S	1459.73W	==>	782.30	
8100.00	90.00	179.540	7125.00	686.24S	1458.91W	==>	881.22	
8200.00	90.00	179.540	7125.00	786.24S	1458.10W	==>	980.15	
8300.00	90.00	179.540	7125.00	886.24S	1457.29W	==>	1079.07	
8400.00	90.00	179.540	7125.00	986.23S	1456.48W	==>	1178.00	
8500.00	90.00	179.540	7125.00	1086.23S	1455.67W	==>	1276.93	
8600.00	90.00	179.540	7125.00	1186.23S	1454.86W	==>	1375.85	
8700.00	90.00	179.540	7125.00	1286.22S	1454.05W	==>	1474.78	
8800.00	90.00	179.540	7125.00	1386.22S	1453.24W	==>	1573.70	
8900.00	90.00	179.540	7125.00	1486.22S	1452.43W	==>	1672.63	
9000.00	90.00	179.540	7125.00	1586.21S	1451.61W	==>	1771.55	
9100.00	90.00	179.540	7125.00	1686.21S	1450.80W	==>	1870.48	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4974.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 187.940 degrees
Bottom hole distance is 10017.58 Feet on azimuth 187.94 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 15-Jul-2016



SYSDRILL
Well Design Combined Report
Wellbore: Lehl 30-5 (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9200.00	90.00	179.540	7125.00	1786.21S	1449.99W	==>	1969.41	
9300.00	90.00	179.540	7125.00	1886.20S	1449.18W	==>	2068.33	
9400.00	90.00	179.540	7125.00	1986.20S	1448.37W	==>	2167.26	
9500.00	90.00	179.540	7125.00	2086.20S	1447.56W	==>	2266.18	
9600.00	90.00	179.540	7125.00	2186.19S	1446.75W	==>	2365.11	
9700.00	90.00	179.540	7125.00	2286.19S	1445.94W	==>	2464.03	
9800.00	90.00	179.540	7125.00	2386.19S	1445.13W	==>	2562.96	
9900.00	90.00	179.540	7125.00	2486.18S	1444.31W	==>	2661.89	
10000.00	90.00	179.540	7125.00	2586.18S	1443.50W	==>	2760.81	
10100.00	90.00	179.540	7125.00	2686.18S	1442.69W	==>	2859.74	
10200.00	90.00	179.540	7125.00	2786.17S	1441.88W	==>	2958.66	
10300.00	90.00	179.540	7125.00	2886.17S	1441.07W	==>	3057.59	
10400.00	90.00	179.540	7125.00	2986.17S	1440.26W	==>	3156.51	
10500.00	90.00	179.540	7125.00	3086.17S	1439.45W	==>	3255.44	
10600.00	90.00	179.540	7125.00	3186.16S	1438.64W	==>	3354.37	
10700.00	90.00	179.540	7125.00	3286.16S	1437.83W	==>	3453.29	
10800.00	90.00	179.540	7125.00	3386.16S	1437.01W	==>	3552.22	
10900.00	90.00	179.540	7125.00	3486.15S	1436.20W	==>	3651.14	
11000.00	90.00	179.540	7125.00	3586.15S	1435.39W	==>	3750.07	
11100.00	90.00	179.540	7125.00	3686.15S	1434.58W	==>	3848.99	
11200.00	90.00	179.540	7125.00	3786.14S	1433.77W	==>	3947.92	
11300.00	90.00	179.540	7125.00	3886.14S	1432.96W	==>	4046.85	
11400.00	90.00	179.540	7125.00	3986.14S	1432.15W	==>	4145.77	
11500.00	90.00	179.540	7125.00	4086.13S	1431.34W	==>	4244.70	
11600.00	90.00	179.540	7125.00	4186.13S	1430.53W	==>	4343.62	
11700.00	90.00	179.540	7125.00	4286.13S	1429.71W	==>	4442.55	
11800.00	90.00	179.540	7125.00	4386.12S	1428.90W	==>	4541.47	
11900.00	90.00	179.540	7125.00	4486.12S	1428.09W	==>	4640.40	
12000.00	90.00	179.540	7125.00	4586.12S	1427.28W	==>	4739.33	
12100.00	90.00	179.540	7125.00	4686.11S	1426.47W	==>	4838.25	
12200.00	90.00	179.540	7125.00	4786.11S	1425.66W	==>	4937.18	
12300.00	90.00	179.540	7125.00	4886.11S	1424.85W	==>	5036.10	
12400.00	90.00	179.540	7125.00	4986.10S	1424.04W	==>	5135.03	
12500.00	90.00	179.540	7125.00	5086.10S	1423.23W	==>	5233.95	
12600.00	90.00	179.540	7125.00	5186.10S	1422.41W	==>	5332.88	
12700.00	90.00	179.540	7125.00	5286.09S	1421.60W	==>	5431.81	
12800.00	90.00	179.540	7125.00	5386.09S	1420.79W	==>	5530.73	
12900.00	90.00	179.540	7125.00	5486.09S	1419.98W	==>	5629.66	
13000.00	90.00	179.540	7125.00	5586.08S	1419.17W	==>	5728.58	
13100.00	90.00	179.540	7125.00	5686.08S	1418.36W	==>	5827.51	
13200.00	90.00	179.540	7125.00	5786.08S	1417.55W	==>	5926.43	
13300.00	90.00	179.540	7125.00	5886.07S	1416.74W	==>	6025.36	
13400.00	90.00	179.540	7125.00	5986.07S	1415.93W	==>	6124.29	
13500.00	90.00	179.540	7125.00	6086.07S	1415.11W	==>	6223.21	
13600.00	90.00	179.540	7125.00	6186.06S	1414.30W	==>	6322.14	
13700.00	90.00	179.540	7125.00	6286.06S	1413.49W	==>	6421.06	
13800.00	90.00	179.540	7125.00	6386.06S	1412.68W	==>	6519.99	
13900.00	90.00	179.540	7125.00	6486.05S	1411.87W	==>	6618.91	
14000.00	90.00	179.540	7125.00	6586.05S	1411.06W	==>	6717.84	
14100.00	90.00	179.540	7125.00	6686.05S	1410.25W	==>	6816.77	
14200.00	90.00	179.540	7125.00	6786.04S	1409.44W	==>	6915.69	
14300.00	90.00	179.540	7125.00	6886.04S	1408.63W	==>	7014.62	
14400.00	90.00	179.540	7125.00	6986.04S	1407.81W	==>	7113.54	
14500.00	90.00	179.540	7125.00	7086.03S	1407.00W	==>	7212.47	
14600.00	90.00	179.540	7125.00	7186.03S	1406.19W	==>	7311.39	
14700.00	90.00	179.540	7125.00	7286.03S	1405.38W	==>	7410.32	
14800.00	90.00	179.540	7125.00	7386.02S	1404.57W	==>	7509.25	
14900.00	90.00	179.540	7125.00	7486.02S	1403.76W	==>	7608.17	
15000.00	90.00	179.540	7125.00	7586.02S	1402.95W	==>	7707.10	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4974.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 187.940 degrees
Bottom hole distance is 10017.58 Feet on azimuth 187.94 degrees from Wellhead
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SYSDRILL
Well Design Combined Report
Wellbore: Lehl 30-5 (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
15100.00	90.00	179.540	7125.00	7686.01S	1402.14W	==>	7806.02	
15200.00	90.00	179.540	7125.00	7786.01S	1401.33W	==>	7904.95	
15300.00	90.00	179.540	7125.00	7886.01S	1400.52W	==>	8003.87	
15400.00	90.00	179.540	7125.00	7986.00S	1399.70W	==>	8102.80	
15500.00	90.00	179.540	7125.00	8086.00S	1398.89W	==>	8201.73	
15600.00	90.00	179.540	7125.00	8186.00S	1398.08W	==>	8300.65	
15700.00	90.00	179.540	7125.00	8285.99S	1397.27W	==>	8399.58	
15800.00	90.00	179.540	7125.00	8385.99S	1396.46W	==>	8498.50	
15900.00	90.00	179.540	7125.00	8485.99S	1395.65W	==>	8597.43	
16000.00	90.00	179.540	7125.00	8585.98S	1394.84W	==>	8696.35	
16100.00	90.00	179.540	7125.00	8685.98S	1394.03W	==>	8795.28	
16200.00	90.00	179.540	7125.00	8785.98S	1393.22W	==>	8894.21	
16300.00	90.00	179.540	7125.00	8885.97S	1392.40W	==>	8993.13	
16400.00	90.00	179.540	7125.00	8985.97S	1391.59W	==>	9092.06	
16500.00	90.00	179.540	7125.00	9085.97S	1390.78W	==>	9190.98	
16600.00	90.00	179.540	7125.00	9185.96S	1389.97W	==>	9289.91	
16700.00	90.00	179.540	7125.00	9285.96S	1389.16W	==>	9388.83	
16800.00	90.00	179.540	7125.00	9385.96S	1388.35W	==>	9487.76	
16900.00	90.00	179.540	7125.00	9485.95S	1387.54W	==>	9586.69	
17000.00	90.00	179.540	7125.00	9585.95S	1386.73W	==>	9685.61	
17100.00	90.00	179.540	7125.00	9685.95S	1385.92W	==>	9784.54	
17200.00	90.00	179.540	7125.00	9785.94S	1385.10W	==>	9883.46	
17300.00	90.00	179.540	7125.00	9885.94S	1384.29W	==>	9982.39	
17335.57	90.00	179.540	7125.00	9921.51S	1384.00W	==>	10017.58	

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 4974.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 187.940 degrees
Bottom hole distance is 10017.58 Feet on azimuth 187.94 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 15-Jul-2016



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
LEHL 30-5 BH - Rev 2	9921.51S	1384.00W	7125.00	40.00179000	-104.70375000	1244500.38	3223063.44
LEHL 30-5 EP - Rev 2	246.33S	1462.48W	7125.00	40.02835000	-104.70372000	1254175.19	3222984.97

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
505952	Planned	17335.57	7125.00	ISCWSA MWD	Rev 4 + SAG	

Notes



SYS DRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: Lehl 30-5 (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
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
Lehl 30-5 (PWB)	Jun-13-2016	Jul-15-2016

Well		
Name	Government ID	Last Revised
Lehl 30-5		Jun-13-2016

Slot						
Name	Latitude	Longitude	Grid Northing	Grid Easting	North	East
Slot 5	40.02899000	-104.69849000	1254421.5137	3224447.3963	47.09N	5684.67E

Installation						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Easting	Northing	Coord System Name	North Alignment
Lehl Pad - Rev 2 - 2016-07-15	40.02900000	-104.71878983	3218762.9369	1254374.4255	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]
Lehl 30-4	16.77	1509.19	1902.89	-2.62	2132.55	0.87	2116.14
Lehl 30-6	16.80	1567.04	2304.47	-171.26	17335.57	0.66	17335.57
Lehl 30-3	30.99	1509.19	1607.61	14.23	1820.87	1.31	17335.57
Lehl 30-7	33.60	1533.72	2207.88	12.90	2308.46	1.57	2329.40
Lehl 30-2	47.72	1509.19	1509.19	31.94	1656.82	1.97	17335.57
W Lutz 1	64.09	13208.61	13208.61	-86.32	13221.78	0.43	13208.61
Lehl 30-1	64.50	1509.19	1509.19	49.20	1558.40	2.72	17335.57
Lehl 30-8	78.50	1500.00	1500.00				
W Dreyer 1	85.35	15834.78	15834.78	-128.56	15846.46	0.40	15834.78
MARGUERITE B LEHL #A-1	176.05	9074.39	9074.39	95.08	9087.93	2.14	9104.33
M B LEHL A #1	216.01	9179.71	9179.71	127.34	9200.00	2.40	9219.16
W Sack-Dreyer 1	599.81	14508.17	14508.17	419.08	14501.31	3.32	14484.91
W Lochbuie 2H-31H D165	798.44	12702.59	12702.59	621.22	17335.57	3.72	17335.57
ELLS #XX 19-4D	1035.49	5249.34	5249.34	979.69	5380.58	16.31	6725.72
W Lochbuie 2G-31H D165	1128.37	13058.25	13058.25	914.16	17335.57	4.68	17335.57
W Adam Ten 1-A	1214.87	17149.06	17149.06	969.87	17149.06	4.96	17158.79
W Lochbuie 2F-31H D165	1375.95	14508.13	14508.13	1198.38	14698.16	6.32	17335.57
W Lutz 1A	1484.33	14488.08	14488.08	1303.06	14550.52	8.01	14747.38

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Vertical Section is from 0.00N 0.00E on azimuth 187.940 degrees
Prepared by IPT
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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: Lehl 30-5 (PWB)



Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W Lochbuie 21-31	1540.18	12976.33	12976.33	1395.33	13024.93	10.25	13303.81
W Adam Ten Ltd 1	1643.14	17335.57	17335.57	1490.75	17335.57	10.78	17335.57
GILMORE #1-30	1648.08	8357.60	8357.60	1579.84	8398.95	20.99	9169.95
W Lochbuie 2E-31H D165	1826.20	12963.66	12963.66	1611.85	17335.57	7.47	17335.57
W Eppinger 1	1914.18	16797.90	16797.90	1676.63	16863.52	7.92	17076.77
CHARLES M BROWN GAS UNIT #1	1915.03	1500.00	1500.00	1896.54	1541.99	47.96	6800.00
DECHANT #1-19	2170.85	7053.81	7053.81	2111.55	7070.21	34.85	7562.34
W Highland 01N-65W-29-1N	2225.16	17323.17	17323.17	1975.85	17335.57	8.92	17335.57
LEHL #1	2472.33	10849.99	10849.99	2353.48	10925.20	18.70	11745.41
W Sawyer/Powell 32-4	2621.82	15727.01	15727.01	2411.27	15764.44	12.36	15977.69
KILKER #1	2743.74	11490.22	11490.22	2611.07	11532.15	20.18	11975.07
W Dreyer 32-1	2763.45	14459.15	14459.15	2583.67	14501.31	15.18	14796.59
W Sack-Hiett 1	2793.74	16775.63	16775.63	2557.56	16814.30	11.74	17043.96





