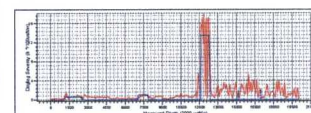
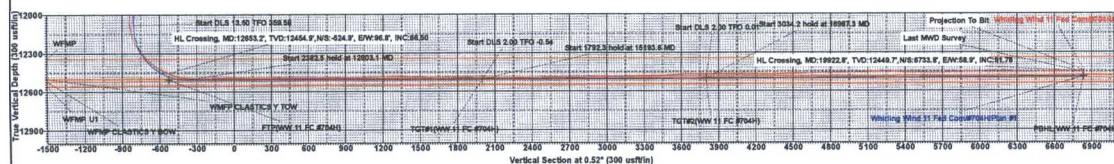


Plan #1

Azimuths to Grid North
 True North: -0.42°
 Magnetic North: 6.58°
 Magnetic Field
 Strength: 47905.6nT
 Dip Angle: 59.92°
 Date: 10/27/2016
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.58°
 To convert a Magnetic Direction to a True Direction, Add 7.00° E
 To convert a True Direction to a Grid Direction, Subtract 0.42°

KB = 25 @ 3369.0usft (H&P 465)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	383885.00	745189.00	32° 3' 10.600 N	103° 32' 30.997 W



Lee County, Ill (filed 27 Jan)
Whiting Vind 11 Fed Cir
6724H
HSP 485
OH
Plan 87
9-13 November 2018



Operator: EOG Resources
Lease Name: Whirling Wind 11 Fed Com #704H
Job Number: ID - 1424

Target KBTVD: 12450
Target Angle: 89.8°
Section Plane: 0.52°

Survey Company: Intrepid Directional Drilling Specialists

Declination Correction: 6.58

#	Survey Depth	Inc. (Deg.)	Azimuth (Deg.)	Course Length	TVD (Ft.)	Vertical Section	+N/-S (Ft.)	+E/-W (Ft.)	BUR	DLS	KBTVD
Tie In	0	0.0	0	0	0	0	0	0	0.0	0.0	0.00
MWD	134	0.3	34.4	134	134.0	0.3	0.3	0.2	0.2	0.2	134.00
2	314	0.3	110.7	180	314.0	0.5	0.5	0.9	0.0	0.2	314.00
3	493	0.8	82.2	179	493.0	0.5	0.5	2.6	0.3	0.3	492.99
4	686	1.3	80.9	193	686.0	1.1	1.0	6.1	0.3	0.3	685.95
5	872	1.1	73.3	186	871.9	2.0	1.9	9.9	-0.1	0.1	871.91
6	1058	1.4	94.6	186	1057.9	2.3	2.2	13.8	0.2	0.3	1057.86
7	1245	2.0	194.6	187	1244.8	-1.0	-1.1	15.3	0.3	1.4	1244.82
8	1431	1.9	182.7	186	1430.7	-7.2	-7.3	14.3	-0.1	0.2	1430.74
9	1619	3.0	184.0	188	1618.5	-15.2	-15.4	13.8	0.6	0.6	1618.59
10	1806	4.1	184.6	187	1805.2	-26.8	-26.9	13.0	0.6	0.6	1805.27
11	1992	4.6	170.4	186	1990.6	-40.8	-40.9	13.7	0.3	0.6	1990.79
12	2180	6.5	170.9	188	2177.8	-58.7	-58.8	16.6	1.0	1.0	2177.96
13	2367	7.8	173.5	187	2363.3	-81.7	-81.9	19.7	0.7	0.7	2363.58
14	2554	7.6	174.0	187	2548.6	-106.6	-106.8	22.5	-0.1	0.1	2548.98
15	2740	9.5	167.1	186	2732.5	-133.7	-134.0	27.2	1.0	1.2	2733.01
16	2929	8.4	167.2	189	2919.2	-162.3	-162.7	33.7	-0.6	0.6	2919.80
17	3116	9.5	164.2	187	3104.0	-190.4	-190.8	40.9	0.6	0.6	3104.62
18	3303	9.8	170.3	187	3288.3	-220.9	-221.4	47.8	0.2	0.6	3289.08
19	3490	8.7	169.6	187	3472.9	-250.5	-251.0	53.1	-0.6	0.6	3473.74
20	3677	9.0	173.6	187	3657.6	-278.9	-279.4	57.2	0.2	0.4	3658.62
21	3865	8.2	166.3	188	3843.5	-306.5	-307.0	62.1	-0.4	0.7	3844.60
22	4052	7.8	173.0	187	4028.7	-332.0	-332.6	66.8	-0.2	0.5	4029.86
23	4239	6.7	169.6	187	4214.2	-355.3	-355.9	70.3	-0.6	0.6	4215.44
24	4426	7.1	175.9	187	4399.8	-377.5	-378.2	73.1	0.2	0.5	4401.17
25	4613	8.3	174.3	187	4585.2	-402.4	-403.1	75.2	0.6	0.7	4586.56
26	4800	8.7	172.4	187	4770.1	-429.9	-430.6	78.5	0.2	0.3	4771.61
27	4986	8.6	169.6	186	4954.0	-457.4	-458.2	82.8	-0.1	0.2	4955.59
28	5172	8.6	172.6	186	5137.9	-484.9	-485.7	87.1	0.0	0.2	5139.59
29	5357	8.0	170.5	185	5321.0	-511.2	-512.1	91.0	-0.3	0.4	5322.74
30	5544	8.3	172.3	187	5506.1	-537.4	-538.3	95.0	0.2	0.2	5507.95
31	5731	8.3	175.5	187	5691.1	-564.2	-565.1	97.9	0.0	0.2	5693.08
32	5918	8.0	175.9	187	5876.2	-590.6	-591.6	99.8	-0.2	0.2	5878.28
33	6105	7.8	177.0	187	6061.4	-616.3	-617.2	101.4	-0.1	0.1	6063.60
34	6292	8.6	175.7	187	6246.5	-642.9	-643.8	103.2	0.4	0.4	6248.78
35	6479	8.9	175.5	187	6431.4	-671.2	-672.2	105.3	0.2	0.2	6433.70
36	6666	8.3	175.9	187	6616.3	-699.1	-700.1	107.4	-0.3	0.3	6618.69
37	6854	8.6	175.2	188	6802.2	-726.6	-727.6	109.6	0.2	0.2	6804.75
38	7040	8.0	174.3	186	6986.3	-753.3	-754.4	112.0	-0.3	0.3	6988.89
39	7227	6.8	173.7	187	7171.7	-777.2	-778.3	114.5	-0.6	0.6	7174.41
40	7414	5.3	170.0	187	7357.6	-796.7	-797.8	117.3	-0.8	0.8	7360.42
41	7601	3.3	158.2	187	7544.1	-810.2	-811.3	120.8	-1.1	1.2	7546.91
42	7788	1.8	153.4	187	7730.9	-817.8	-819.0	124.1	-0.8	0.8	7733.73
43	7976	0.9	136.5	188	7918.8	-821.5	-822.7	126.4	-0.5	0.5	7921.69
44	8163	1.1	123.7	187	8105.8	-823.5	-824.7	128.9	0.1	0.2	8108.67
45	8350	1.4	84.0	187	8292.8	-824.2	-825.5	132.7	0.2	0.5	8295.63
46	8537	0.3	16.5	187	8479.7	-823.5	-824.8	135.1	-0.6	0.7	8482.60
47	8724	1.3	233.4	187	8666.7	-824.3	-825.6	133.5	0.5	0.8	8669.59
48	8911	1.8	275.6	187	8853.6	-825.3	-826.5	128.9	0.3	0.6	8856.53
49	9098	1.6	264.6	187	9040.6	-825.4	-826.5	123.4	-0.1	0.2	9043.44
50	9286	1.1	273.9	188	9228.5	-825.5	-826.6	119.0	-0.3	0.3	9231.39
51	9473	1.1	280.0	187	9415.5	-825.1	-826.2	115.4	0.0	0.1	9418.35
52	9661	0.4	256.0	188	9603.5	-825.0	-826.0	113.0	-0.4	0.4	9606.33
53	9846	1.0	281.8	185	9788.4	-824.8	-825.9	110.8	0.3	0.4	9791.32

Operator: EOG Resources
Lease Name: Whirling Wind 11 Fed Com #704H
Job Number: ID - 1424

Target KBTVD: 12450
Target Angle: 89.8°
Section Plane: 0.52°
Declination Correction: 6.58

Survey Company: Intrepid Directional Drilling Specialists

#	Survey Depth	Inc. (Deg.)	Azimuth (Deg.)	Course Length	TVD (Ft.)	Vertical Section	+N/S (Ft.)	+E/W (Ft.)	BUR	DLS	KBTVD
54	10033	1.3	327.4	187	9975.4	-822.7	-823.7	108.0	0.2	0.5	9978.28
55	10219	1.9	267.5	186	10161.3	-821.1	-822.1	103.8	0.3	0.9	10164.21
56	10406	1.4	296.1	187	10348.3	-820.3	-821.2	98.7	-0.3	0.5	10351.13
57	10499	1.2	358.9	93	10441.2	-818.8	-819.8	97.6	-0.2	1.5	10444.10
58	10593	1.8	6.7	94	10535.2	-816.4	-817.3	97.8	0.6	0.7	10538.06
59	10780	1.2	323.9	187	10722.1	-811.9	-812.8	97.0	-0.3	0.7	10724.98
60	10967	0.6	168.9	187	10909.1	-811.3	-812.2	96.0	-0.3	0.9	10911.95
61	11154	1.5	210.8	187	11096.1	-814.4	-815.3	94.9	0.5	0.6	11098.93
62	11341	2.3	223.8	187	11283.0	-819.2	-820.1	91.1	0.4	0.5	11285.84
63	11528	3.5	216.5	187	11469.7	-826.6	-827.4	85.1	0.6	0.7	11472.62
64	11714	4.3	249.0	186	11655.3	-833.7	-834.4	75.2	0.4	1.2	11658.24
65	11759	3.7	243.4	45	11700.2	-835.0	-835.7	72.3	-1.3	1.6	11703.13
66	11832	3.6	246.5	73	11773.1	-837.0	-837.6	68.1	-0.1	0.3	11775.99
67	11925	1.6	48.0	93	11866.0	-837.3	-837.9	66.4	-2.2	5.5	11868.88
68	12019	0.9	193.3	94	11959.9	-837.1	-837.8	67.2	-0.7	2.5	11962.86
69	12117	1.2	2.8	98	12057.9	-836.9	-837.5	67.1	0.3	2.1	12060.85
70	12161	8.2	6.9	44	12101.8	-833.3	-833.9	67.5	15.9	15.9	12104.66
71	12208	15.1	11.6	47	12147.8	-823.9	-824.6	69.1	14.7	14.8	12150.64
72	12255	23.1	8.9	47	12192.1	-808.8	-809.5	71.8	17.0	17.1	12194.96
73	12302	30.1	8.8	47	12234.1	-788.0	-788.7	75.0	14.9	14.9	12236.89
74	12349	35.6	7.5	47	12273.6	-762.7	-763.4	78.6	11.7	11.8	12276.27
75	12393	42.9	2.9	44	12307.7	-735.0	-735.8	81.1	16.6	17.9	12310.23
76	12440	48.0	0.9	47	12340.6	-701.5	-702.3	82.1	10.9	11.3	12343.08
77	12486	48.4	0.7	46	12371.3	-667.2	-668.0	82.6	0.9	0.9	12373.62
78	12533	55.6	3.3	47	12400.2	-630.2	-631.0	84.0	15.3	15.9	12402.41
79	12580	63.0	6.9	47	12424.2	-590.0	-590.8	87.6	15.7	17.1	12426.25
80	12627	66.5	8.5	47	12444.2	-547.8	-548.7	93.3	7.4	8.1	12446.15
81	12673	66.5	8.3	46	12462.6	-506.0	-507.0	99.5	0.0	0.4	12464.35
82	12720	74.3	6.9	47	12478.3	-462.1	-463.1	105.3	16.6	16.8	12479.95
83	12765	81.9	5.2	45	12487.6	-418.3	-419.4	109.9	16.9	17.3	12489.07
84	12867	90.6	1.7	102	12494.3	-316.8	-317.9	116.0	8.5	9.2	12495.38
85	12960	91.7	1.2	93	12492.4	-223.8	-224.9	118.4	1.2	1.3	12493.19
86	13053	91.2	0.3	93	12490.1	-130.9	-132.0	119.6	-0.5	1.1	12490.51
87	13147	90.8	359.9	94	12488.4	-36.9	-38.0	119.8	-0.4	0.6	12488.54
88	13240	90.4	359.7	93	12487.4	56.1	55.0	119.4	-0.4	0.5	12487.25
89	13334	89.3	359.9	94	12487.7	150.1	149.0	119.1	-1.2	1.2	12487.16
90	13427	90.9	1.7	93	12487.5	243.1	242.0	120.4	1.7	2.6	12486.68
91	13520	88.5	359.9	93	12488.0	336.0	335.0	121.7	-2.6	3.2	12486.84
92	13614	89.0	359.6	94	12490.1	430.0	428.9	121.3	0.5	0.6	12488.56
93	13707	90.5	1.1	93	12490.5	523.0	521.9	121.9	1.6	2.3	12488.64
94	13801	89.3	359.8	94	12490.6	617.0	615.9	122.6	-1.3	1.9	12488.48
95	13894	91.3	0.5	93	12490.1	710.0	708.9	122.8	2.2	2.3	12487.67
96	13988	89.4	357.7	94	12489.6	803.9	802.8	121.4	-2.0	3.6	12486.77
97	14082	89.0	355.4	94	12490.9	897.7	896.7	115.7	-0.4	2.5	12487.75
98	14176	91.4	357.1	94	12490.6	991.4	990.4	109.6	2.6	3.1	12487.10
99	14269	93.0	358.2	93	12487.0	1084.2	1083.3	105.8	1.7	2.1	12483.20
100	14363	92.7	358.8	94	12482.3	1178.0	1177.1	103.3	-0.3	0.7	12478.20
101	14457	89.7	358.8	94	12480.3	1271.9	1271.1	101.3	-3.2	3.2	12475.90
102	14583	88.2	358.8	126	12482.7	1397.8	1397.0	98.7	-1.2	1.2	12477.77
103	14677	88.4	359.0	94	12485.4	1491.8	1490.9	96.9	0.2	0.3	12480.23
104	14770	89.3	0.1	93	12487.3	1584.7	1583.9	96.2	1.0	1.5	12481.78
105	14864	91.0	1.4	94	12487.1	1678.7	1677.9	97.4	1.8	2.3	12481.20
106	14958	88.1	359.6	94	12487.8	1772.7	1771.9	98.2	-3.1	3.6	12481.61
107	15052	88.6	359.6	94	12490.5	1866.6	1865.8	97.5	0.5	0.5	12483.99
108	15145	89.4	0.6	93	12492.1	1959.6	1958.8	97.7	0.9	1.4	12485.29
109	15239	89.5	0.2	94	12493.0	2053.6	2052.8	98.4	0.1	0.4	12485.86
110	15334	91.2	1.0	95	12492.5	2148.6	2147.8	99.4	1.8	2.0	12484.95

Operator: EOG Resources
Lease Name: Whirling Wind 11 Fed Com #704H
Job Number: ID - 1424

Target KBTVD: 12450
Target Angle: 89.8°
Section Plane: 0.52°
Declination Correction: 6.58

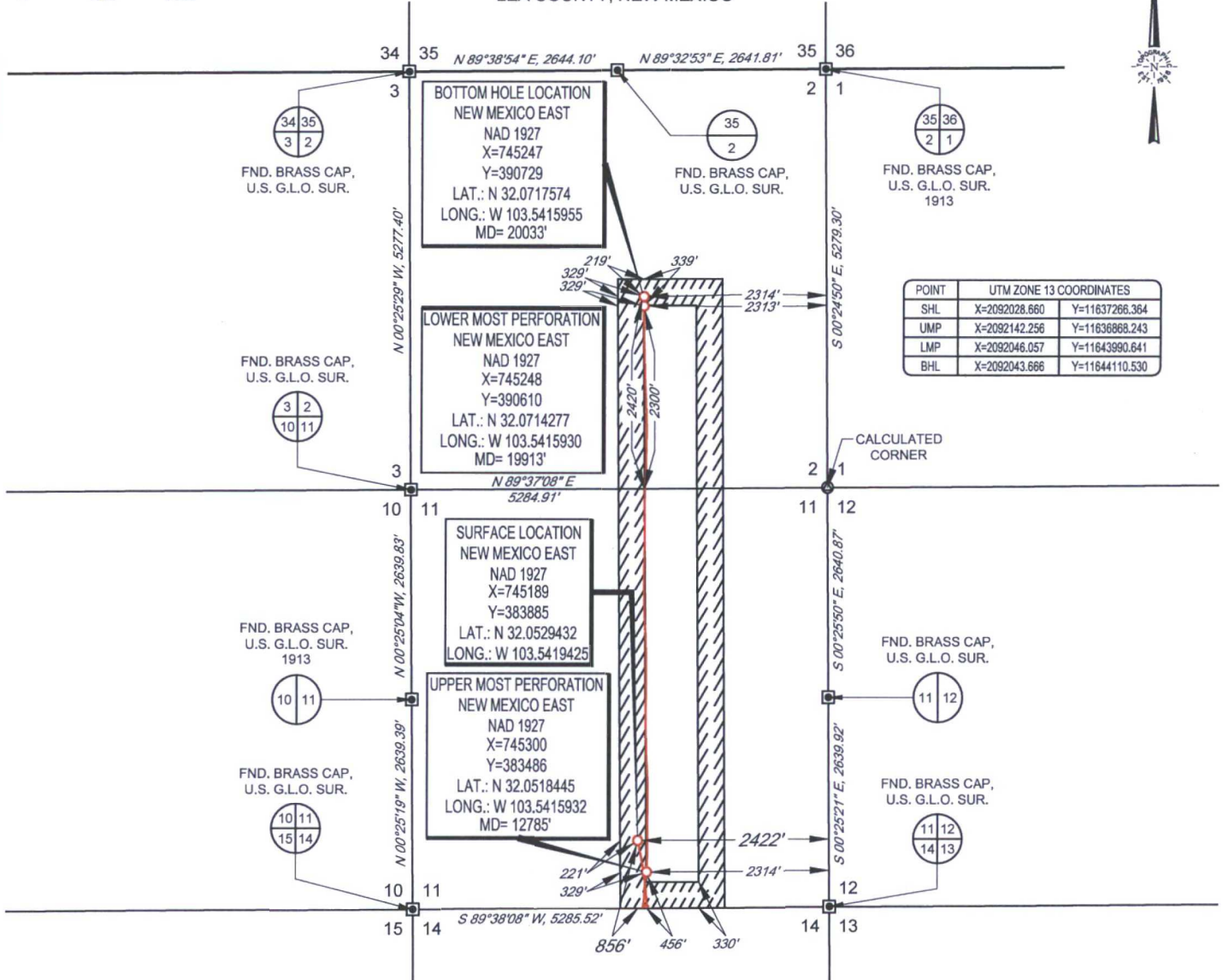
Survey Company: Intrepid Directional Drilling Specialists

#	Survey Depth	Inc. (Deg.)	Azimuth (Deg.)	Course Length	TVD (Ft.)	Vertical Section	+N/-S (Ft.)	+E/-W (Ft.)	BUR	DLS	KBTVD
111	15427	88.4	359.6	93	12492.8	2241.6	2240.7	99.8	-3.0	3.4	12484.95
112	15520	90.8	359.9	93	12493.4	2334.5	2333.7	99.4	2.6	2.6	12485.28
113	15614	90.7	358.4	94	12492.2	2428.5	2427.7	98.0	-0.1	1.6	12483.72
114	15708	91.3	359.3	94	12490.6	2522.4	2521.7	96.2	0.6	1.2	12481.75
115	15801	89.6	356.5	93	12489.8	2615.3	2614.6	92.8	-1.8	3.5	12480.70
116	15896	88.9	356.5	95	12491.1	2710.1	2709.4	87.0	-0.7	0.7	12481.61
117	15990	93.5	358.3	94	12489.1	2803.9	2803.2	82.7	4.9	5.3	12479.31
118	16083	92.0	358.8	93	12484.6	2896.7	2896.1	80.3	-1.6	1.7	12474.53
119	16177	88.8	357.4	94	12484.0	2990.6	2990.0	77.2	-3.4	3.7	12473.54
120	16271	89.5	358.9	94	12485.4	3084.5	3083.9	74.2	0.7	1.8	12474.61
121	16363	93.1	0.1	92	12483.3	3176.4	3175.9	73.4	3.9	4.1	12472.20
122	16457	90.6	0.1	94	12480.3	3270.4	3269.8	73.6	-2.7	2.7	12468.84
123	16552	89.6	359.5	95	12480.1	3365.3	3364.8	73.2	-1.1	1.2	12468.34
124	16646	93.0	1.7	94	12478.0	3459.3	3458.8	74.2	3.6	4.3	12465.88
125	16740	93.1	1.2	94	12473.0	3553.1	3552.6	76.6	0.1	0.5	12460.55
126	16834	91.8	1.1	94	12468.9	3647.1	3646.5	78.5	-1.4	1.4	12456.21
127	16928	90.0	360	94	12467.5	3741.0	3740.5	79.4	-1.9	2.2	12454.40
128	17021	90.2	359.8	93	12467.3	3834.0	3833.5	79.2	0.2	0.3	12453.92
129	17115	89.7	359.8	94	12467.4	3928.0	3927.5	78.9	-0.5	0.5	12453.67
130	17210	89.5	359.5	95	12468.0	4023.0	4022.5	78.3	-0.2	0.4	12454.00
131	17304	90.4	359.9	94	12468.1	4117.0	4116.4	77.8	1.0	1.0	12453.76
132	17397	88.7	359.1	93	12468.9	4210.0	4209.4	77.0	-1.8	2.0	12454.16
133	17493	90.4	1.6	96	12469.6	4305.9	4305.4	77.6	1.8	3.1	12454.58
134	17588	91.6	1.8	95	12468.0	4400.9	4400.4	80.4	1.3	1.3	12452.59
135	17681	91.4	2.3	93	12465.5	4493.8	4493.3	83.7	-0.2	0.6	12449.83
136	17775	92.6	3.0	94	12462.2	4587.7	4587.1	88.1	1.3	1.5	12446.22
137	17869	91.8	1.6	94	12458.6	4681.6	4680.9	91.8	-0.9	1.7	12442.29
138	17962	90.7	0.3	93	12456.6	4774.6	4773.9	93.4	-1.2	1.8	12439.93
139	18056	90.0	0.8	94	12456.0	4868.5	4867.9	94.3	-0.7	0.9	12439.03
140	18151	89.6	1.0	95	12456.4	4963.5	4962.9	95.8	-0.4	0.5	12439.03
141	18245	93.0	1.6	94	12454.2	5057.5	5056.8	97.9	3.6	3.7	12436.57
142	18339	92.7	359.9	94	12449.6	5151.4	5150.7	99.1	-0.3	1.8	12431.57
143	18433	88.9	359.3	94	12448.2	5245.3	5244.6	98.5	-4.0	4.1	12429.93
144	18526	88.0	358.8	93	12450.8	5338.2	5337.6	96.9	-1.0	1.1	12432.12
145	18620	89.7	359.0	94	12452.6	5432.2	5431.5	95.1	1.8	1.8	12433.68
146	18713	88.2	357.1	93	12454.3	5525.0	5524.4	92.0	-1.6	2.6	12435.06
147	18807	88.7	356.7	94	12456.9	5618.8	5618.3	86.9	0.5	0.7	12437.28
148	18900	91.7	358.1	93	12456.6	5711.7	5711.2	82.7	3.2	3.6	12436.63
149	18993	91.9	358.0	93	12453.6	5804.5	5804.1	79.5	0.2	0.2	12433.38
150	19087	91.6	358.4	94	12450.8	5898.4	5898.0	76.6	-0.3	0.5	12430.18
151	19182	91.0	359.4	95	12448.6	5993.4	5992.9	74.7	-0.6	1.2	12427.70
152	19275	90.2	358.8	93	12447.6	6086.3	6085.9	73.3	-0.9	1.1	12426.40
153	19369	89.8	357.7	94	12447.6	6180.2	6179.9	70.4	-0.4	1.2	12426.07
154	19463	88.5	357.9	94	12449.0	6274.1	6273.8	66.8	-1.4	1.4	12427.14
155	19557	89.0	358.1	94	12451.1	6368.0	6367.7	63.5	0.5	0.6	12428.86
156	19651	90.9	359.2	94	12451.2	6461.9	6461.7	61.3	2.0	2.3	12428.61
157	19745	90.0	359.4	94	12450.4	6555.9	6555.6	60.1	-1.0	1.0	12427.55
158	19839	89.8	359.7	94	12450.6	6649.9	6649.6	59.4	-0.2	0.4	12427.38
159	19932	92.0	359.6	93	12449.1	6742.9	6742.6	58.8	2.4	2.4	12425.60
160	19979	91.0	359.0	47	12447.9	6789.8	6789.6	58.3	-2.1	2.5	12424.20
TD	20034	91.0	359.0	55	12446.9	6844.8	6844.6	57.3	0.0	0.0	12423.05

SCALE: 1" = 2000'

0' 1000' 2000'

SECTION 11, TOWNSHIP 26-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: WHIRLING WIND 11 FED COM #704H
SECTION 11 TWP 26-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3344'
DESCRIPTION 856' FSL & 2422' FEL



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
FEBRUARY 1, 2017



WHIRLING WIND 11
FED COM #704H
AS-COMPLETED

REVISION:

DATE: 02/01/17

FILE: AD_WHIRLINGWIND11FEDCOM_704H

DRAWN BY: A.C.C.

SHEET: 1 OF 1

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS WELL LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.