



MWD SURVEY CERTIFICATION
Legacy Directional Drilling, LLC.

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 03 2018

State Of New Mexico

County Of Eddy

RECEIVED

I, Mark L. Miller certify that; I am employed by Legacy Directional Drilling, LLC.;
that I did on the day(s) of December 14, 2017 through March 27, 2018 conduct
or supervise the taking of a MWD survey from a depth of 1,069 feet to a depth of
21,852 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of Devon Energy Production Co. for the
Lusitano 27-34 FED COM 718H Well, A.P.I. No. 30-015-44429 in
Purple Sage, Wolfcamp Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Legacy Directional Drilling, LLC.

Surveyor's Signature

MLWD Technical Director

Title



Directional Survey Report

Company Name: Devon Energy Production Company, L.P.

Well Name: Lusitano 27-34 FED COM 718H

Field: Purple Sage, Wolfcamp

Rig ID: ICD 217

State/Prov: NM

County: Eddy

Location: SEC 27 / T25S / R31E

API/UWI: 30-015-44429

Survey Company: Legacy Directional

Job Number: LF170050

Latitude: 32° 6' 28.487" N

Longitude: 103° 45' 30.578" W

Proposed Azimuth: 179.85°

Declination: 6.68°

North Reference: GRID

KB: 3362 FT

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
Tie-In	982	1	316.72	981.93	9.15	-3.2	-9.16	0.00	0	9.69	340.72	0
1	1069	1.73	319.42	1068.90	10.70	-4.57	-10.71	0.84	87	11.64	336.85	70.6
2	1162	2.5	334.33	1161.84	13.59	-6.37	-13.61	1.01	93	15.01	334.91	77.7
3	1253	3.39	339.81	1252.72	17.91	-8.16	-17.93	1.02	91	19.68	335.52	84.9
4	1346	3.77	354.82	1345.54	23.53	-9.38	-23.56	1.08	93	25.33	338.27	84.9
5	1439	4.68	5.66	1438.29	30.36	-9.28	-30.38	1.30	93	31.74	343.00	92.0
6	1533	4.97	6.93	1531.96	38.21	-8.41	-38.24	0.33	94	39.13	347.58	92.0
7	1628	4.91	5.88	1626.60	46.34	-7.50	-46.36	0.11	95	46.95	350.81	99.1
8	1722	4.52	5.94	1720.28	54.03	-6.70	-54.05	0.41	94	54.44	352.93	99.1
9	1817	4.08	7.3	1815.02	61.10	-5.89	-61.12	0.48	95	61.39	354.50	99.1
10	1912	4.56	357.69	1909.75	68.23	-5.61	-68.24	0.91	95	68.46	355.30	99.1
11	2007	4.53	355.13	2004.45	75.74	-6.08	-75.76	0.22	95	75.98	355.41	99.1
12	2102	4.25	354.18	2099.17	82.98	-6.76	-83.00	0.30	95	83.26	355.35	99.1
13	2197	4.3	351.34	2193.91	90.00	-7.65	-90.02	0.23	95	90.33	355.14	109.0
14	2292	4.71	354.07	2288.61	97.40	-8.59	-97.43	0.49	95	97.78	354.96	106.3
15	2387	4.61	354.25	2383.30	105.08	-9.37	-105.11	0.11	95	105.50	354.90	106.3
16	2483	4.51	354.53	2478.99	112.68	-10.12	-112.70	0.11	96	113.13	354.87	113.4
17	2578	5.73	352.01	2573.61	121.09	-11.14	-121.12	1.31	95	121.60	354.75	113.4
18	2673	5.56	354.89	2668.15	130.37	-12.20	-130.40	0.35	95	130.94	354.65	113.4
19	2768	5.05	358.68	2762.75	139.14	-12.71	-139.17	0.65	95	139.72	354.78	120.6
20	2863	4.82	358.78	2857.39	147.31	-12.89	-147.34	0.24	95	147.87	355.00	120.6
21	2958	4.51	356.96	2952.08	155.03	-13.18	-155.06	0.36	95	155.59	355.14	120.6
22	3053	4.17	358.46	3046.81	162.21	-13.47	-162.24	0.38	95	162.77	355.25	120.6
23	3148	4.22	347.6	3141.55	169.08	-14.31	-169.11	0.84	95	169.68	355.16	120.6
24	3243	4.21	344.9	3236.30	175.86	-15.97	-175.90	0.21	95	176.58	354.81	120.6
25	3338	4.78	356.04	3331.01	183.17	-17.15	-183.22	1.09	95	183.97	354.65	127.7
26	3433	4.8	350.21	3425.67	191.04	-18.10	-191.09	0.51	95	191.89	354.59	127.7
27	3528	5.24	351.78	3520.31	199.25	-19.40	-199.30	0.49	95	200.19	354.44	127.7
28	3623	4.61	350.29	3614.96	207.31	-20.66	-207.36	0.68	95	208.33	354.31	127.7
29	3719	3.21	355.95	3710.73	213.79	-21.50	-213.84	1.51	96	214.87	354.26	127.7
30	3814	3.54	352.21	3805.57	219.35	-22.09	-219.41	0.42	95	220.46	354.25	120.6
31	3909	2.68	353.22	3900.43	224.46	-22.75	-224.52	0.91	95	225.61	354.21	127.7
32	4004	1.16	354.87	3995.37	227.62	-23.09	-227.68	1.60	95	228.79	354.21	127.7
33	4099	0.23	56.44	4090.36	228.69	-23.02	-228.75	1.13	95	229.84	354.25	127.7

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
34	4194	0.26	100.06	4185.36	228.75	-22.65	-228.81	0.19	95	229.87	354.35	127.7
35	4290	0.29	70.15	4281.36	228.80	-22.21	-228.86	0.15	96	229.87	354.46	127.7
36	4385	0.39	93.66	4376.36	228.86	-21.66	-228.92	0.18	95	229.88	354.59	127.7
37	4480	0.46	87.72	4471.36	228.85	-20.95	-228.91	0.09	95	229.81	354.77	127.7
38	4575	0.58	85.52	4566.35	228.91	-20.09	-228.96	0.13	95	229.79	354.88	127.7
39	4670	0.48	86.63	4661.35	228.97	-19.22	-229.02	0.11	95	229.77	355.20	127.7
40	4765	0.38	89	4756.35	229.00	-18.50	-229.04	0.11	95	229.74	355.38	127.7
41	4859	0.31	52.12	4850.35	229.16	-17.99	-229.20	0.24	94	229.86	355.51	127.7
42	4955	0.18	77.24	4946.35	229.35	-17.64	-229.40	0.17	96	230.03	355.60	127.7
43	5050	0.3	66.97	5041.34	229.48	-17.27	-229.53	0.13	95	230.13	355.70	127.7
44	5145	0.09	89.28	5136.34	229.58	-16.96	-229.62	0.23	95	230.21	355.77	134.9
45	5240	0.28	56.93	5231.34	229.71	-16.69	-229.75	0.22	95	230.31	355.84	134.9
46	5335	0.31	29.38	5326.34	230.06	-16.37	-230.10	0.15	95	230.64	355.93	134.9
47	5431	0.2	55.56	5422.34	230.38	-16.11	-230.42	0.16	96	230.94	356.00	134.9
48	5526	0.08	306.05	5517.34	230.51	-16.02	-230.55	0.25	95	231.07	356.02	134.9
49	5622	0.09	51.52	5613.34	230.60	-16.02	-230.64	0.14	96	231.15	356.03	134.9
50	5716	0.19	60.02	5707.34	230.72	-15.83	-230.76	0.11	94	231.26	356.08	134.9
51	5811	0.22	46.48	5802.34	230.93	-15.56	-230.97	0.06	95	231.45	356.15	134.9
52	5907	0.09	303.22	5898.34	231.09	-15.49	-231.13	0.27	96	231.61	356.17	134.9
53	6002	0.21	282.21	5993.34	231.17	-15.72	-231.21	0.14	95	231.71	356.11	134.9
54	6097	0.24	316.27	6088.34	231.35	-16.03	-231.39	0.14	95	231.91	356.04	134.9
55	6192	0.34	276.9	6183.34	231.53	-16.44	-231.57	0.23	95	232.11	355.94	134.9
56	6287	0.44	252.5	6278.34	231.45	-17.07	-231.50	0.20	95	232.08	355.78	134.9
57	6382	0.42	255.78	6373.33	231.26	-17.76	-231.30	0.03	95	231.94	355.61	134.9
58	6477	0.47	206.17	6468.33	230.82	-18.27	-230.87	0.40	95	231.55	355.48	138.0
59	6572	0.48	195.34	6563.33	230.09	-18.54	-230.14	0.09	95	230.84	355.39	145.0
60	6667	0.42	196.36	6658.32	229.37	-18.75	-229.42	0.06	95	230.14	355.33	145.0
61	6763	0.72	176.62	6754.32	228.43	-18.81	-228.48	0.37	96	229.21	355.29	145.0
62	6858	0.83	223.01	6849.31	227.33	-19.25	-227.38	0.65	95	228.15	355.16	138.0
63	6953	0.74	330.29	6944.31	227.36	-20.02	-227.42	1.33	95	228.24	354.97	145.0
64	7048	0.81	333.03	7039.30	228.49	-20.63	-228.55	0.08	95	229.42	354.84	145.0
65	7143	0.52	302.81	7134.29	229.33	-21.29	-229.38	0.47	95	230.31	354.69	145.0
66	7238	0.49	300.63	7229.29	229.77	-22.01	-229.82	0.04	95	230.82	354.53	138.0
67	7334	0.29	270.15	7325.29	229.98	-22.60	-230.04	0.29	96	231.09	354.39	138.0
68	7429	0.4	250	7420.28	229.86	-23.15	-229.92	0.17	95	231.03	354.25	145.0
69	7523	0.48	224.72	7514.28	229.47	-23.14	-229.53	0.22	94	230.70	354.09	142.0
70	7619	0.15	255.89	7610.28	229.16	-24.14	-229.22	0.37	96	230.42	353.99	145.0
71	7715	0.25	200.66	7706.28	228.93	-24.34	-228.99	0.21	96	230.22	353.93	138.0
72	7810	0.72	10.92	7801.28	229.92	-24.30	-229.38	1.02	95	230.60	353.95	145.0

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
73	7905	0.64	21.88	7896.27	230.40	-23.99	-230.46	0.16	95	231.64	354.06	145.0
74	8000	0.58	17.8	7991.27	231.35	-23.64	-231.41	0.08	95	232.55	354.16	145.0
75	8095	0.17	4.55	8086.26	231.95	-23.49	-232.01	0.44	95	233.13	354.22	124.0
76	8185	0.26	341.38	8176.26	232.27	-23.54	-232.34	0.14	90	233.46	354.21	124.0
77	8280	0.14	355.88	8271.26	232.59	-23.62	-232.66	0.14	95	233.79	354.20	131.0
78	8376	0.23	187.95	8367.26	232.52	-23.65	-232.58	0.38	96	233.72	354.19	131.0
79	8471	0.68	2.27	8462.26	232.90	-23.66	-232.96	0.96	95	234.09	354.20	131.0
80	8566	0.4	252.33	8557.26	233.36	-23.95	-233.42	0.95	95	234.58	354.14	131.0
81	8661	1.25	233.6	8652.25	232.64	-25.10	-232.71	0.93	95	233.99	353.84	131.0
82	8756	1.08	318.25	8747.23	232.70	-26.53	-232.76	1.66	95	234.20	353.50	138.0
83	8852	1.19	307.1	8843.21	233.97	-27.93	-234.04	0.26	96	235.63	353.19	131.0
84	8947	0.12	336.4	8938.21	234.66	-28.76	-234.73	1.14	95	236.41	353.01	120.6
85	9042	0.46	35.78	9033.21	235.06	-28.57	-235.13	0.43	95	236.79	353.07	127.7
86	9137	0.38	181	9128.20	235.05	-28.36	-235.13	0.84	95	236.76	353.12	127.7
87	9232	0.68	210.41	9223.20	234.25	-28.65	-234.33	0.42	95	236.00	353.03	127.7
88	9327	1.12	188.48	9318.19	232.85	-29.07	-232.92	0.58	95	234.65	352.88	127.7
89	9422	0.52	180.15	9413.18	231.50	-29.21	-231.57	0.64	95	233.33	352.81	134.9
90	9517	1.1	172	9508.17	231.98	-29.18	-232.05	1.71	95	233.81	352.83	134.9
91	9612	1.67	354.31	9603.15	234.27	-29.29	-234.34	0.63	95	236.09	352.87	134.9
92	9708	0.79	279.51	9699.13	235.77	-30.08	-235.65	1.72	96	237.68	352.73	134.9
93	9802	1.57	222.32	9793.11	234.92	-31.59	-235.01	1.41	94	237.04	352.34	134.9
94	9897	1.96	201.58	9888.07	232.45	-33.06	-232.54	0.78	95	234.79	351.91	142.0
95	9992	1.51	191.6	9983.02	229.71	-33.91	-229.80	0.57	95	232.20	351.60	142.0
96	10087	0.14	196.66	10078.01	228.38	-34.20	-228.46	1.44	95	230.92	351.48	142.0
97	10182	0.1	24.44	10173.01	226.34	-34.19	-228.43	0.25	95	230.89	351.48	142.0
98	10276	1.18	250.68	10267.00	226.09	-35.07	-228.19	1.33	94	230.78	351.26	142.0
99	10372	2.17	246.71	10362.96	227.05	-37.68	-227.15	1.04	96	230.15	350.58	142.0
100	10467	2.04	275.12	10457.90	226.49	-41.01	-226.60	1.10	95	230.17	349.74	142.0
101	10562	1.77	333.23	10552.86	227.95	-43.36	-228.06	1.96	95	232.04	349.23	142.0
102	10658	4.11	346.23	10648.72	232.62	-44.84	-232.73	2.52	96	236.90	349.09	149.1
103	10753	2.41	346.78	10743.57	237.87	-46.11	-237.99	1.79	95	242.30	349.03	142.0
104	10848	1.43	333.53	10838.51	240.87	-47.10	-240.99	1.13	95	245.43	348.94	149.1
105	10943	1.48	327.12	10933.48	242.96	-48.29	-243.09	0.18	95	247.72	348.76	149.1
106	11038	1.23	325.22	11028.45	244.83	-49.54	-244.96	0.27	95	249.79	348.56	149.1
107	11134	1.25	306.63	11124.43	246.30	-50.97	-246.44	0.42	96	251.52	348.31	149.1
108	11229	1.07	308.8	11219.41	247.48	-52.49	-247.61	0.20	95	252.98	348.03	134.9
109	11279	1.07	311.08	11269.40	248.08	-53.21	-248.21	0.09	50	253.72	347.90	142.0
110	11324	1.09	287.57	11314.40	248.48	-53.93	-248.62	0.98	45	254.27	347.75	142.0
111	11420	4.09	196.43	11410.31	245.47	-55.77	-245.62	4.43	96	251.73	347.20	142.0

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
112	11515	15.57	186.69	11503.76	229.51	-58.22	-229.66	12.17	95	236.78	345.77	142.0
113	11610	27.36	182.7	11592.02	194.91	-60.74	-195.07	12.50	95	204.16	342.69	149.1
114	11658	33.24	179.99	11633.45	170.72	-61.26	-170.88	12.57	48	181.38	340.26	149.1
115	11705	37.87	177.18	11671.68	143.41	-60.55	-143.57	10.44	47	155.67	337.11	149.1
116	11753	42.15	176.3	11708.44	112.61	-58.78	-112.76	8.99	48	127.03	332.43	149.1
117	11800	43.91	177.68	11742.79	80.58	-57.11	-80.73	4.25	47	98.77	324.68	149.1
118	11895	50.63	175.27	11807.22	10.99	-52.74	-11.12	7.31	95	53.87	281.77	149.1
119	11990	59.73	179.76	11861.43	-66.82	-49.53	66.69	10.33	95	83.18	216.55	163.4
120	12121	67.83	181.61	11919.26	-184.23	-51.00	184.09	6.31	131	191.16	195.47	163.4
121	12164	73.43	182.15	11933.52	-224.76	-52.34	224.62	13.08	43	230.77	193.11	163.4
122	12213	79	180.65	11945.19	-272.31	-53.49	272.17	11.75	49	277.52	191.11	163.4
123	12259	82.41	177.45	11952.62	-317.69	-52.73	317.55	10.10	46	322.03	189.42	170.6
124	12353	84.81	176.06	11963.08	-410.94	-47.44	410.82	2.95	94	413.67	186.59	170.6
125	12448	92.52	179.91	11965.29	-505.77	-44.11	505.65	9.07	95	507.69	184.98	170.6
126	12541	90.81	181.28	11962.59	-598.72	-45.08	598.60	2.36	93	600.42	184.31	170.6
127	12636	91.12	180.69	11960.99	-693.69	-46.71	693.57	0.70	95	695.26	183.85	170.6
128	12731	86.86	179.46	11962.67	-788.65	-46.83	788.53	4.67	95	790.04	183.40	170.6
129	12825	86.91	179.8	11967.77	-882.51	-46.23	882.39	0.37	94	883.72	183.00	177.7
130	12919	92.66	180.17	11968.13	-976.47	-46.20	976.35	6.13	94	977.57	182.71	177.7
131	13014	95.42	180.6	11961.43	-1071.23	-46.84	1071.10	2.94	95	1072.25	182.50	177.7
132	13108	89.22	178.89	11957.63	-1165.10	-46.42	1164.97	6.84	94	1166.02	182.28	177.7
133	13202	89.19	178.44	11958.94	-1259.06	-44.23	1258.94	0.48	94	1259.84	182.01	184.9
134	13297	91.68	179.88	11958.21	-1354.04	-42.84	1353.92	3.03	95	1354.72	181.81	184.9
135	13390	90.67	178.7	11956.31	-1447.01	-41.68	1446.90	1.67	93	1447.61	181.65	184.9
136	13484	91.99	177.83	11954.13	-1540.94	-38.84	1540.83	1.68	94	1541.43	181.44	184.9
137	13579	91.88	178.55	11950.92	-1635.84	-35.84	1635.74	0.77	95	1636.23	181.26	177.7
138	13673	89.83	179.38	11949.51	-1729.81	-34.14	1729.71	2.35	94	1730.14	181.13	184.9
139	13768	89.78	181.66	11949.84	-1824.80	-35.01	1824.70	2.40	95	1825.13	181.10	177.7
140	13863	91.29	183.29	11948.95	-1919.70	-39.11	1919.59	2.34	95	1920.09	181.17	177.7
141	13958	90.87	181.89	11947.16	-2014.58	-43.40	2014.46	1.54	95	2015.05	181.23	170.6
142	14055	88.77	182.2	11947.47	-2111.51	-46.86	2111.38	2.19	97	2112.03	181.27	170.6
143	14150	87.81	181.03	11950.30	-2206.43	-49.54	2206.29	1.59	95	2206.99	181.29	177.7
144	14245	91.71	178.92	11950.70	-2301.40	-49.49	2301.27	4.67	95	2301.94	181.23	177.7
145	14340	91.12	178.16	11948.35	-2396.34	-47.07	2396.21	1.01	95	2396.81	181.13	170.6
146	14434	88.71	176.14	11948.49	-2490.22	-42.40	2490.10	3.35	94	2490.58	180.98	184.9
147	14528	88.09	174.7	11951.12	-2583.88	-34.90	2583.78	1.67	94	2584.11	180.77	184.9
148	14622	91.63	176.57	11951.35	-2677.58	-27.75	2677.50	4.26	94	2677.73	180.59	184.9
149	14717	93.39	181.13	11947.18	-2772.44	-25.84	2772.37	5.14	95	2772.57	180.53	184.9
150	14811	90.11	178.6	11944.31	-2866.38	-25.62	2866.30	4.41	94	2866.49	180.51	184.9

Sy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
151	14905	92.97	182.06	11941.79	-2960.32	-26.16	2960.24	4.77	94	2960.44	180.51	184.9
152	15000	92.13	180.9	11937.56	-3055.19	-28.61	3055.11	1.51	95	3055.33	180.54	184.9
153	15094	87.25	180.79	11938.07	-3149.15	-29.99	3149.06	5.19	94	3149.30	180.55	192.0
154	15188	91.46	181.37	11939.13	-3243.11	-31.76	3243.01	4.52	94	3243.26	180.56	192.0
155	15283	92.94	181.7	11935.48	-3338.00	-34.31	3337.90	1.60	95	3338.18	180.59	192.0
156	15377	92.38	181.8	11931.12	-3431.86	-37.17	3431.75	0.61	94	3432.06	180.62	192.0
157	15471	89.22	180.51	11929.80	-3525.81	-39.07	3525.70	3.63	94	3526.03	180.63	192.0
158	15565	88.82	181.32	11931.41	-3619.79	-40.57	3619.67	0.96	94	3620.01	180.64	192.0
159	15660	86.86	180.52	11934.99	-3714.70	-42.09	3714.58	2.23	95	3714.94	180.65	199.1
160	15753	88.91	180.1	11938.42	-3807.63	-42.60	3807.51	2.25	93	3807.87	180.64	192.0
161	15847	91.37	181.35	11938.19	-3901.62	-43.79	3901.49	2.94	94	3901.86	180.64	199.1
162	15942	87.81	180.33	11938.87	-3996.59	-45.18	3996.45	3.90	95	3996.84	180.65	199.1
163	16036	91.74	178.15	11939.24	-4090.55	-43.93	4090.42	4.78	94	4090.79	180.62	199.1
164	16130	87.65	176.58	11939.74	-4184.43	-39.61	4184.31	4.66	94	4184.62	180.54	199.1
165	16224	88.35	175.87	11943.02	-4278.17	-33.43	4278.07	1.06	94	4278.30	180.45	199.1
166	16317	94.49	177.88	11940.72	-4370.95	-28.36	4370.86	6.95	93	4371.04	180.37	199.1
167	16412	92.49	176.49	11934.94	-4465.65	-23.70	4465.58	2.56	95	4465.72	180.30	199.1
168	16506	89.75	175.75	11933.10	-4559.41	-17.34	4559.35	3.02	94	4559.44	180.22	199.1
169	16600	90.67	178.28	11932.76	-4653.27	-12.45	4653.22	2.86	94	4653.29	180.15	199.1
170	16694	93.5	181.51	11929.34	-4747.19	-12.27	4747.14	4.57	94	4747.20	180.15	199.1
171	16789	92.8	180.87	11924.12	-4842.02	-14.24	4841.97	1.00	95	4842.04	180.17	206.3
172	16883	88.29	183.88	11923.22	-4935.90	-18.14	4935.84	5.77	94	4935.94	180.21	199.1
173	16977	88.55	190.17	11924.99	-5029.13	-29.63	5029.04	6.82	94	5029.22	180.34	199.1
174	17072	88.69	193.42	11925.62	-5122.11	-49.04	5121.97	3.42	95	5122.35	180.55	192.0
175	17166	87	184.47	11928.34	-5214.83	-63.64	5214.64	9.94	94	5215.21	180.70	199.1
176	17260	86.74	179.16	11931.84	-5308.68	-66.61	5308.48	5.94	94	5309.10	180.72	206.3
177	17355	87.9	177.02	11934.63	-5403.58	-63.45	5403.39	2.42	95	5403.95	180.67	192.0
178	17449	92.86	178.54	11934.00	-5497.47	-59.81	5497.30	5.52	94	5497.80	180.62	206.3
179	17544	93	177.88	11929.15	-5592.30	-56.84	5592.13	0.71	95	5592.59	180.58	206.3
180	17638	90.64	174.34	11926.16	-5686.02	-50.47	5685.86	4.52	94	5686.24	180.51	206.3
181	17732	92.86	176.13	11923.29	-5779.64	-42.66	5779.51	3.03	94	5779.80	180.42	206.3
182	17826	91.57	177.41	11919.66	-5873.41	-37.37	5873.30	1.93	94	5873.53	180.36	206.3
183	17920	92.35	177.52	11916.44	-5967.27	-33.22	5967.16	0.84	94	5967.36	180.32	213.4
184	18015	87.11	173.95	11916.89	-6061.95	-26.16	6061.87	6.67	95	6062.01	180.25	213.4
185	18111	90.31	176.66	11919.05	-6157.59	-18.30	6157.52	4.37	96	6157.61	180.17	199.1
186	18205	89.52	177.42	11919.19	-6251.46	-13.45	6251.40	1.17	94	6251.47	180.12	206.3
187	18299	88.57	179.39	11920.76	-6345.40	-10.83	6345.35	2.33	94	6345.41	180.10	213.4
188	18393	90.87	182.1	11921.22	-6439.38	-12.06	6439.33	3.78	94	6439.39	180.11	206.3
189	18488	90.31	179.16	11920.24	-6534.36	-13.10	6534.30	3.15	95	6534.37	180.11	213.4

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
190	18581	95.95	181.04	11915.16	-6627.18	-13.26	6627.12	6.39	93	6627.19	180.11	206.3
191	18675	90.92	182.17	11909.53	-6720.94	-15.89	6720.88	5.48	94	6720.96	180.14	206.3
192	18769	91.29	186.98	11907.72	-6814.60	-23.38	6814.51	5.13	94	6814.64	180.20	213.4
193	18864	87.79	177.41	11908.48	-6909.40	-27.02	6909.30	10.72	95	6909.45	180.22	206.3
194	18958	91.54	179.05	11909.03	-7003.33	-24.12	7003.24	4.35	94	7003.37	180.20	213.4
195	19052	92.74	179.94	11905.52	-7097.26	-23.29	7097.17	1.59	94	7097.30	180.19	220.6
196	19146	91.93	178.72	11901.69	-7191.17	-22.19	7191.09	1.56	94	7191.21	180.18	213.4
197	19240	88.12	178.37	11901.65	-7285.13	-19.80	7285.05	4.07	94	7285.15	180.16	213.4
198	19334	91.23	179.89	11902.18	-7379.10	-18.38	7379.03	3.68	94	7379.12	180.14	213.4
199	19429	85.8	177.03	11904.65	-7473.99	-15.83	7473.92	6.46	95	7474.00	180.12	220.6
200	19523	91.96	177.16	11906.48	-7567.80	-11.07	7567.75	6.55	94	7567.81	180.08	220.6
201	19617	88.88	175.88	11905.79	-7661.61	-5.36	7661.57	3.55	94	7661.62	180.04	220.6
202	19711	88.26	178.55	11908.14	-7755.46	-0.80	7755.44	2.92	94	7755.46	180.01	220.6
203	19805	87.78	181.96	11911.39	-7849.39	-1.21	7849.36	3.66	94	7849.39	180.01	220.6
204	19899	89.78	181.78	11913.39	-7943.32	-4.28	7943.28	2.14	94	7943.32	180.03	220.6
205	19994	87.9	181.31	11915.31	-8038.26	-6.84	8038.21	2.04	95	8038.26	180.05	220.6
206	20088	91.96	182.32	11915.43	-8132.19	-9.82	8132.14	4.45	94	8132.20	180.07	220.6
207	20182	92.41	182.25	11911.84	-8226.05	-13.56	8225.98	0.48	94	8226.06	180.09	220.6
208	20276	91.37	181.5	11908.74	-8319.94	-16.64	8319.87	1.36	94	8319.96	180.11	220.6
209	20371	91.06	181.43	11906.73	-8414.89	-19.06	8414.81	0.33	95	8414.91	180.13	220.6
210	20465	94.24	180.81	11902.38	-8508.76	-20.90	8508.68	3.45	94	8508.79	180.14	220.6
211	20559	95.03	181.02	11894.79	-8602.44	-22.40	8602.35	0.87	94	8602.47	180.15	220.6
212	20653	90.87	177.58	11889.95	-8696.27	-21.24	8696.19	5.74	94	8696.30	180.14	220.6
213	20747	91.56	176.72	11887.96	-8790.14	-16.57	8790.06	1.17	94	8790.15	180.11	213.4
214	20842	87.76	177.19	11888.52	-8884.98	-11.53	8884.92	4.03	95	8884.99	180.07	220.6
215	20936	90.93	188.22	11889.60	-8978.71	-15.96	8978.64	12.21	94	8978.73	180.10	220.6
216	21030	89.08	185.19	11889.59	-9072.06	-26.93	9071.95	3.78	94	9072.10	180.17	213.4
217	21124	86.89	180.5	11892.90	-9165.85	-31.59	9165.74	5.50	94	9165.90	180.20	213.4
218	21218	86.16	177.71	11898.59	-9259.66	-30.13	9259.55	3.06	94	9259.70	180.19	220.6
219	21312	86.78	177.69	11904.38	-9353.40	-26.37	9353.30	0.66	94	9353.44	180.16	220.6
220	21406	87.28	177.2	11909.25	-9447.18	-22.18	9447.09	0.74	94	9447.21	180.13	192.0
221	21500	88.07	177.3	11913.07	-9541.00	-17.67	9540.92	0.85	94	9541.01	180.11	213.4
222	21594	86.78	175.5	11917.29	-9634.71	-11.78	9634.65	2.35	94	9634.72	180.07	220.6
223	21688	92.02	176.76	11918.27	-9728.45	-5.44	9728.41	5.73	94	9728.46	180.03	220.6
224	21783	95.22	176.73	11912.28	-9823.10	-0.06	9823.07	3.37	95	9823.10	180.00	213.4
PTB	21852	95.22	176.73	11906.00	-9891.70	3.86	9891.68	0.00	69	9891.70	179.98	0.0



Company: Devon Energy
 Field: Eddy County, New Mexico (NAD 83)
 Location: Lusitano 27-34 FED COM
 Well: 718H
 OH
 Plan: Plan 7
 GL 3336 + 26' KB @ 3362.00usft (ICD217)



Azimuths to Grid North
 True North: -0.31°
 Magnetic North: 6.68°
 Magnetic Field
 Strength: 47809.4nT
 Dip Angle: 59.92°
 Date: 11/8/2017
 Model: IGRF2015



To convert a Magnetic Direction to a Grid Direction, Add 6.68°
 To convert a True Direction to a Grid Direction, Subtract 0.31°

PROJECT DETAILS: Eddy County, New Mexico (NAD 83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

WELL DETAILS: 718H

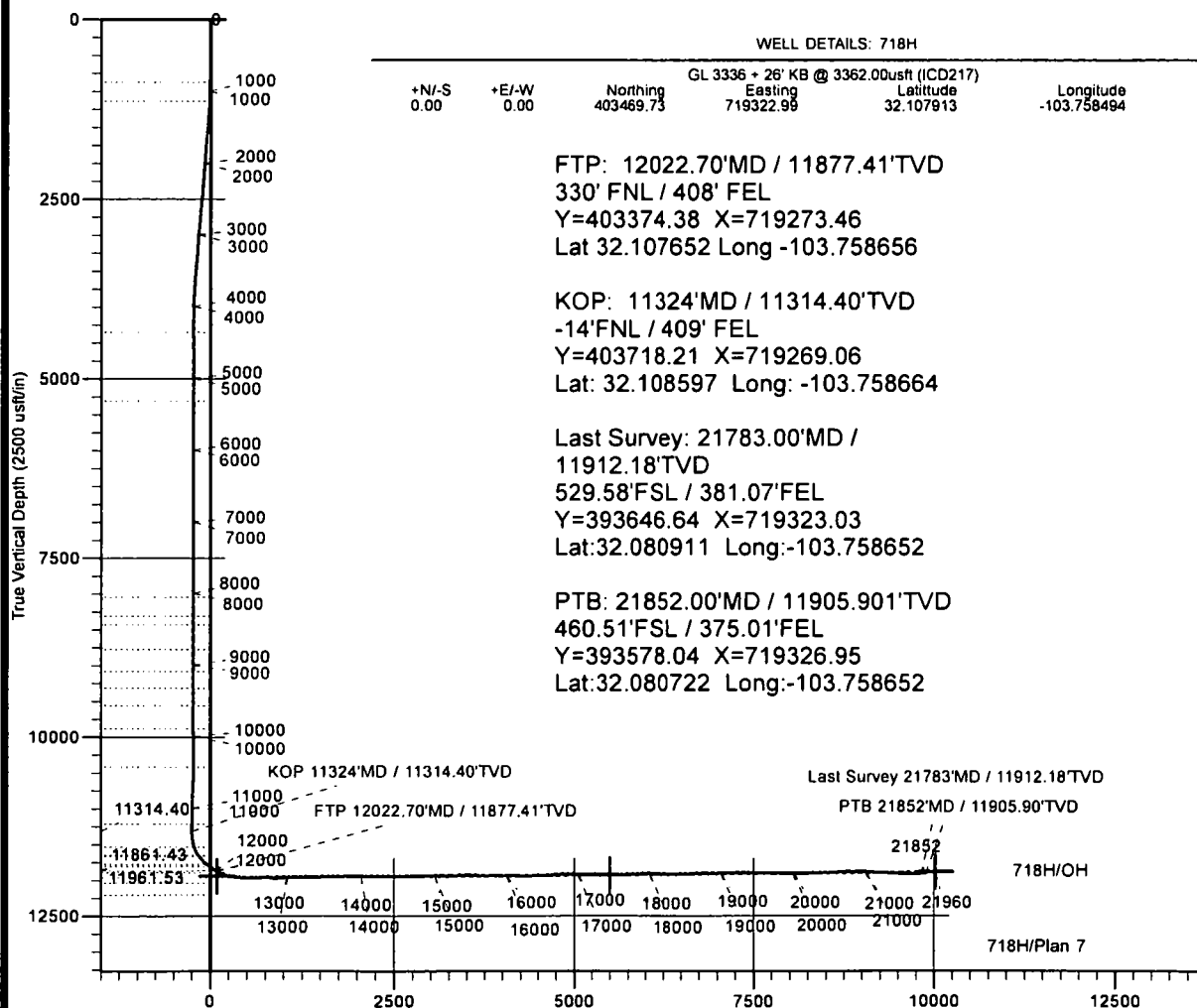
+N/-S	+E/-W	Northing	GL 3336 + 26' KB @ 3362.00usft (ICD217)	Easting	Latitude	Longitude
0.00	0.00	403469.73		719322.99	32.107913	-103.758494

FTP: 12022.70'MD / 11877.41'TVD
 330' FNL / 408' FEL
 Y=403374.38 X=719273.46
 Lat 32.107652 Long -103.758656

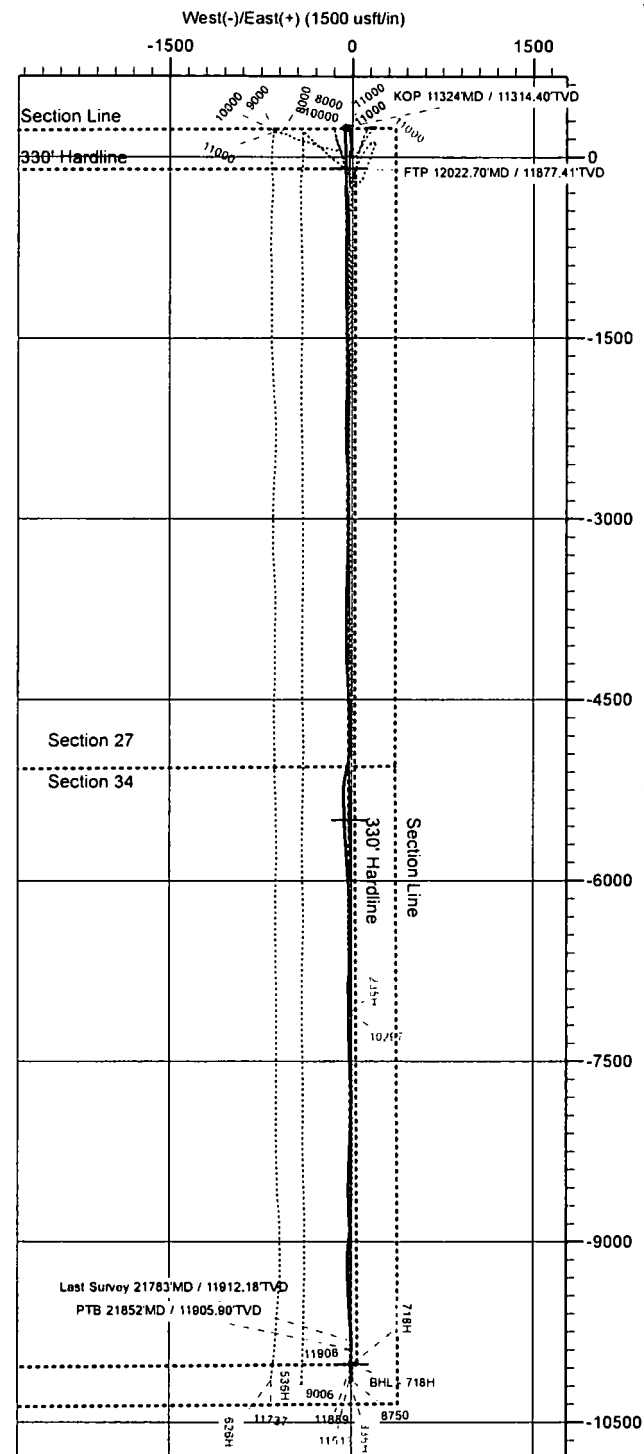
KOP: 11324'MD / 11314.40'TVD
 -14'FNL / 409' FEL
 Y=403718.21 X=719269.06
 Lat: 32.108597 Long: -103.758664

Last Survey: 21783.00'MD /
 11912.18'TVD
 529.58'FSL / 381.07'FEL
 Y=393646.64 X=719323.03
 Lat: 32.080911 Long: -103.758652

PTB: 21852.00'MD / 11905.90'TVD
 460.51'FSL / 375.01'FEL
 Y=393578.04 X=719326.95
 Lat: 32.080722 Long: -103.758652



Vertical Section at 179.85° (2500 usft/in)



Created By: Jenise Kirkpatrick

Date: 10-43, August 01 2018