

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)



March 14, 2019

Railroad Commission of Texas
Oil and Gas Division
PO Box 12967
Capital Station
Austin, Texas 78711

Attention: Pam Johns

Re:

CLIENT: Felix Energy Holdings II, LLC
WELL: UL Lead King 344035-16 F 6H
FIELD: Phantom (Wolfcamp)

RIG: Cactus 137
COUNTY: Ward
API NO: 42-475-37683
PERMIT: 845069
JOB NO: 18MLD1562

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Ali Mehio FE	UL Lead King 344035- 16 F 6H Original Hole	123.00 Ft to 24578.00 Ft	December 17, 2018 to March 8, 2019	TelePacer/SlimPulse Third Party Corrected

A plat of the bottom hole location is oriented both to the surface location and to the lease lines (or until line in case of pooling), is attached to the survey report.

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Micah Gillaspy
Field Service Manager

CC: Felix Energy Holdings II, LLC
Enclosures: [2]
County of Ward
State of Texas

UL Lead King 344035-16 F 6H MWD 0' to 24660' Definitive Survey
Geodetic Report
(Def Survey)



Report Date: March 11, 2019 - 07:52 AM
Client: Felix Energy (UL Lead King 344035-16 Pad) / UL Lead King 344035-16 F 6H
Field: TX Ward County (NAD 27 CZ) - 2018
Structure / Slot: Felix Energy (UL Lead King 344035-16 Pad) / UL Lead King 344035-16 F 6H
Well: UL Lead King 344035-16 F 6H - Cactus 137
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: UL Lead King 344035-16 F 6H MWD 0' to 24660' Definitive
Survey Date: October 29, 2018
Tort / AHD / DDI / ERD Ratio: 251.461 * / 13868.345 ft / 6.868 / 1.191
Coordinate Reference System: NAD27 Texas State Plane, Central Zone, US Feet
Location Lat / Long: N 31° 30' 44.48274", W 103° 9' 54.59460"
Location Grid N/E Y/X: N 682491.680 ftUS, E 1117617.660 ftUS
CRS Grid Convergence Angle: -1.4586 °
Grid Scale Factor: 0.99992139
Version / Patch: 2.10.302.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 76.292 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB = 25
TVD Reference Elevation: 2630.000 ft above MSL
Seabed / Ground Elevation: 2605.000 ft above MSL
Magnetic Declination: 7.072 °
Total Gravity Field Strength: 998.4903mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47442.669 nT
Magnetic Dip Angle: 59.411 °
Declination Date: February 12, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: -1.4586 °
Total Corr Mag North->Grid North: 8.5309 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	682491.68	1117617.66	31.512356	-103.165165	0.00	0.00
KB Adjusted	12.00	0.00	0.00	12.00	0.00	0.00	0.00	0.00	682491.68	1117617.66	31.512356	-103.165165	0.00	0.00
SLB_MWD	123.00	0.83	98.92	123.00	0.74	-0.12	0.79	0.75	682491.56	1117618.45	31.512356	-103.165163	0.80	98.92
Survey														
13 3/8" Casing	303.00	1.23	110.41	302.97	3.54	-1.00	3.89	0.25	682490.68	1117621.55	31.512354	-103.165153	4.02	104.41
	386.00	1.71	102.96	385.94	5.39	-1.59	5.93	0.62	682490.09	1117623.59	31.512352	-103.165146	6.14	104.99
	472.00	1.71	98.30	471.90	7.73	-2.06	8.45	0.16	682489.62	1117626.11	31.512351	-103.165138	8.70	103.71
	560.00	1.11	108.14	559.87	9.67	-2.52	10.56	0.73	682489.16	1117628.22	31.512350	-103.165131	10.86	103.40
	663.00	0.95	92.20	662.86	11.34	-2.86	12.37	0.32	682488.82	1117630.02	31.512349	-103.165125	12.69	103.02
	749.00	1.86	98.33	748.83	13.31	-3.09	14.46	1.07	682488.59	1117632.12	31.512349	-103.165119	14.79	102.06
	872.00	2.70	107.58	871.73	17.64	-4.25	19.20	0.74	682487.43	1117636.85	31.512346	-103.165103	19.66	102.50
	936.00	2.70	110.28	935.66	20.18	-5.23	22.05	0.20	682486.45	1117639.70	31.512343	-103.165094	22.66	103.35
	1030.00	2.71	114.23	1029.56	23.77	-6.91	26.15	0.20	682484.77	1117643.81	31.512339	-103.165081	27.05	104.80
	1121.00	2.86	125.85	1120.45	26.94	-9.12	29.95	0.64	682482.56	1117647.61	31.512333	-103.165068	31.31	106.94
	1211.00	2.99	143.72	1210.34	29.29	-12.33	33.16	1.02	682479.35	1117650.82	31.512325	-103.165058	35.38	110.40
	1303.00	3.28	149.89	1302.20	30.96	-16.54	35.90	0.48	682475.14	1117653.56	31.512313	-103.165049	39.53	114.74
	1395.00	3.22	143.52	1394.05	32.70	-20.90	38.76	0.40	682470.79	1117656.41	31.512302	-103.165039	44.03	118.33
	1487.00	3.87	159.43	1485.88	34.07	-25.88	41.38	1.28	682465.80	1117659.04	31.512288	-103.165030	48.81	122.02
	1579.00	4.10	166.09	1577.65	34.45	-31.98	43.27	0.56	682459.70	1117660.92	31.512271	-103.165024	53.80	126.47
	1674.00	4.27	168.63	1672.40	34.32	-38.74	44.78	0.26	682452.94	1117662.44	31.512253	-103.165018	59.21	130.87
	1768.00	5.20	183.48	1766.08	32.92	-46.43	45.21	1.63	682445.26	1117662.87	31.512232	-103.165016	64.80	135.76
	1863.00	6.32	195.46	1860.60	29.10	-55.76	43.66	1.72	682435.92	1117661.21	31.512206	-103.165021	70.76	142.01
	1958.00	6.97	194.72	1954.97	23.81	-66.38	40.70	0.69	682425.31	1117658.35	31.512177	-103.165029	77.86	148.49
	2052.00	6.78	194.91	2048.29	18.43	-77.26	37.82	0.20	682414.43	1117655.48	31.512147	-103.165038	86.02	153.92
2147.00	6.88	194.46	2142.62	13.06	-88.19	34.96	0.12	682403.50	1117652.61	31.512116	-103.165046	94.86	158.38	
2242.00	6.57	193.91	2236.96	7.86	-98.97	32.23	0.33	682392.72	1117649.89	31.512087	-103.165054	104.09	161.96	
2316.00	6.45	193.59	2310.48	3.99	-107.12	30.23	0.17	682384.57	1117647.89	31.512064	-103.165059	111.31	164.24	
2411.00	6.74	192.72	2404.86	-0.94	-117.74	27.75	0.32	682373.94	1117645.41	31.512035	-103.165067	120.97	166.74	
2506.00	6.70	185.48	2499.20	-5.24	-128.70	26.00	0.89	682362.99	1117643.65	31.512004	-103.165071	131.30	168.58	
2600.00	6.55	184.35	2592.58	-8.71	-139.50	25.07	0.21	682352.19	1117642.72	31.511975	-103.165073	141.74	169.81	
2694.00	6.46	183.45	2685.97	-11.93	-150.13	24.34	0.14	682341.56	1117642.00	31.511945	-103.165075	152.09	170.79	
2788.00	6.31	179.20	2779.39	-14.64	-160.57	24.10	0.53	682331.12	1117641.75	31.511917	-103.165075	162.37	171.47	
2883.00	6.14	173.52	2873.83	-16.45	-170.84	24.74	0.67	682320.85	1117642.40	31.511889	-103.165072	172.62	171.76	
2978.00	6.27	174.24	2968.27	-17.80	-181.05	25.84	0.16	682310.65	1117643.49	31.511861	-103.165068	182.88	171.88	
3073.00	6.37	177.85	3062.70	-19.58	-191.48	26.55	0.43	682300.22	1117644.21	31.511832	-103.165064	193.31	172.10	
3166.00	5.98	180.89	3155.16	-21.83	-201.48	26.67	0.55	682290.22	1117644.33	31.511804	-103.165063	203.23	172.46	
3261.00	5.89	194.59	3249.65	-25.39	-211.14	25.37	1.49	682280.55	1117643.03	31.511778	-103.165067	212.66	173.15	
3355.00	5.45	193.10	3343.19	-29.69	-220.16	23.14	0.49	682271.54	1117640.80	31.511753	-103.165073	221.37	174.00	
3450.00	5.17	191.99	3437.78	-33.58	-228.74	21.23	0.31	682262.96	1117638.89	31.511729	-103.165078	229.72	174.70	
3545.00	6.26	195.25	3532.31	-37.94	-237.92	18.98	1.20	682253.78	1117636.64	31.511704	-103.165085	238.68	175.44	
3640.00	6.35	193.45	3626.74	-42.85	-248.03	16.39	0.23	682243.67	1117634.05	31.511676	-103.165092	248.57	176.22	
3735.00	6.17	194.93	3721.17	-47.70	-258.07	13.86	0.25	682233.63	1117631.51	31.511648	-103.165100	258.44	176.93	
3829.00	5.77	195.30	3814.66	-52.41	-267.51	11.31	0.43	682224.19	1117628.97	31.511622	-103.165107	267.75	177.58	
3924.00	5.48	191.63	3909.20	-56.66	-276.56	9.13	0.49	682215.14	1117626.79	31.511597	-103.165113	276.71	178.11	
4019.00	4.93	191.55	4003.81	-60.35	-285.00	7.40	0.58	682206.70	1117625.06	31.511574	-103.165118	285.10	178.51	
4114.00	5.13	187.65	4098.45	-63.64	-293.21	6.02	0.42	682198.49	1117623.88	31.511551	-103.165122	293.27	178.82	
4208.00	5.16	188.35	4192.07	-66.75	-301.56	4.85	0.07	682190.15	1117622.50	31.511530	-103.165125	301.60	179.08	
4303.00	5.95	188.62	4286.62	-70.23	-310.65	3.49	0.83	682181.05	1117621.15	31.511503	-103.165129	310.67	179.36	
4398.00	6.10	179.37	4381.10	-73.24	-320.57	2.80	1.03	682171.14	1117620.46	31.511478	-103.165130	320.58	179.50	
4493.00	6.09	175.74	4475.56	-75.21	-330.64	3.23	0.41	682161.06	1117620.89	31.511446	-103.165128	330.66	179.44	
4587.00	5.69	183.92	4569.07	-77.44	-340.26	3.29	0.99	682151.44	1117620.95	31.511421	-103.165127	340.28	179.45	
4682.00	5.92	186.42	4663.58	-80.55	-349.83	2.42	0.36	682141.88	1117620.08	31.511395	-103.165129	349.84	179.60	
4776.00	6.43	186.51	4757.03	-84.04	-359.88	1.28	0.54	682131.83	1117618.94	31.511367	-103.165132	359.88	179.80	
4871.00	6.86	186.57	4851.39	-87.85	-370.80	0.02	0.45	682120.91	1117617.68	31.511337	-103.165135	370.80	180.00	
4966.00	6.37	186.74	4945.76	-91.65	-381.67	-1.24	0.52	682110.04	1117616.42	31.511307	-103.165138	381.67	180.19	
4998.00	6.19	186.13	4977.57	-92.86	-385.15	-1.64	0.60	682106.58	1117616.02	31.511298	-103.165139	385.15	180.24	
5061.00	5.86	185.27	5040.22	-95.06	-391.73	-2.29	0.54	682099.99	1117615.37	31.511287	-103.165141	391.73	180.34	
5120.00	5.55	184.38	5098.93	-96.92	-397.57	-2.79	0.54	682094.14	1117614.87	31.511264	-103.165142	397.58	180.40	
5214.00	6.69	183.45	5192.39	-99.95	-407.57	-3.46	1.22	682084.15	1117614.20	31.511236	-103.165143	407.58	180.49	
5308.00	6.65	183.03	5285.76	-103.13	-418.47	-4.08	0.07	682073.25	1117613.58	31.511206	-103.165144	418.49	180.56	
5402.00	6.55	183.21	5379.13	-106.26	-429.26	-4.67	0.11	682062.46	1117612.99	31.511176	-103.165145	429.28	180.62	
5498.00	6.24	181.86	5474.54	-109.25	-439.94	-5.15	0.36	682051.78	1117612.51	31.511147	-103.165146	439.97	180.67	
5593.00	6.02	190.42	5568.99	-112.68	-450.00	-6.21	0.99	682041.72	1117611.45	31.511119	-103.165148	450.04	180.79	
5688.00	5.94	190.75	5663.48	-116.75	-459.73	-8.03	0.09	682031.99	1117609.63	31.511092	-103.165153	459.80	181.00	
5782.00	5.86	189.68	5756.98	-120.67	-469.24	-9.75	0.14	682022.48	1117607.91	31.511066	-103.165158	469.34	181.19	
5878.00	5.83	188.52	5843.25	-124.25	-479.22	-11.03	0.19	682013.19	1117606.47	31.511041	-103.165164	479.22	181.34	
5973.00	5.83	190.04	5947.08	-127.82	-487.54	-12.64	0.60	682004.18	1117605.02	31.511016	-103.165166	487.70	181.49	
6067.00	5.83	190.89	6040.59	-131.73	-496.92	-14.38	0.09	681994.80	1117603.28	31.510990	-103.165171	497.13	181.66	
6163.00	5.68	190.32	6136.11	-135.69	-506.39	-16.15	0.17	681985.33	1117601.51	31.510964	-103.165176	506.64	181.83	
6257.00	5.42	190.16	6229.67	-139.38	-515.33	-17.77	0.28	681976.39	1117599.90	31.510939	-103.165180	515.64	181.9	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)
	8624.00	0.63	156.94	8591.85	-170.30	-622.06	-23.57	0.24	681869.67	117594.10	31.510645	-103.165190	622.50	182.17
	8718.00	0.63	145.50	8695.84	-173.02	-623.06	-23.02	0.15	681868.74	117594.02	31.510643	-103.165188	622.50	182.12
	8813.00	0.53	118.61	8780.94	-169.50	-623.67	-22.34	0.33	681868.06	117595.32	31.510641	-103.165186	624.07	182.05
	8896.00	0.73	73.49	8853.83	-168.78	-623.70	-21.60	0.71	681868.03	117596.06	31.510641	-103.165184	624.07	181.98
	8981.00	2.25	8.81	8948.80	-167.46	-621.68	-20.73	2.15	681870.05	117596.93	31.510646	-103.165181	622.03	181.91
	9076.00	2.08	13.16	9043.73	-165.97	-618.16	-20.06	0.25	681873.57	117597.61	31.510656	-103.165179	618.48	181.86
	9171.00	2.26	33.50	9138.67	-163.82	-614.92	-18.63	0.83	681876.81	117599.03	31.510665	-103.165175	615.20	181.74
	9266.00	1.08	46.57	9233.63	-161.67	-612.74	-16.94	1.30	681878.99	117600.72	31.510671	-103.165169	612.97	181.58
	9360.00	1.43	109.69	9327.61	-159.92	-612.53	-15.20	1.43	681879.20	117602.46	31.510672	-103.165164	612.72	181.42
	9456.00	0.76	115.19	9423.59	-158.42	-613.20	-13.49	0.71	681878.63	117604.17	31.510670	-103.165158	613.35	181.26
	9550.00	1.06	116.10	9517.98	-157.27	-613.85	-12.15	0.32	681877.88	117605.51	31.510669	-103.165154	613.97	181.13
	9645.00	0.48	124.88	9612.57	-156.33	-614.46	-11.03	0.62	681877.27	117606.63	31.510667	-103.165150	614.56	181.03
	9740.00	1.56	81.80	9707.56	-155.60	-614.62	-10.25	0.41	681877.11	117607.41	31.510667	-103.165148	614.71	180.96
	9835.00	0.62	54.97	9802.55	-153.89	-613.79	-8.69	1.21	681877.94	117608.97	31.510669	-103.165143	613.85	180.81
	9929.00	0.61	10.59	9896.53	-152.45	-612.53	-7.51	1.34	681879.20	117610.15	31.510672	-103.165139	612.58	180.70
	10024.00	1.36	225.85	9991.52	-153.21	-612.82	-8.22	1.99	681878.91	117609.44	31.510672	-103.165141	612.88	180.77
	10119.00	1.37	253.94	10086.50	-155.32	-613.92	-10.12	0.70	681877.81	117607.54	31.510668	-103.165147	614.00	180.94
	10214.00	0.95	241.31	10181.48	-157.21	-614.61	-11.91	0.52	681877.12	117605.75	31.510666	-103.165153	614.73	181.11
	10309.00	0.99	275.95	10276.46	-158.75	-614.91	-13.41	0.81	681876.82	117604.25	31.510666	-103.165158	615.05	181.25
	10403.00	2.25	221.86	10370.43	-161.03	-616.20	-15.45	1.97	681875.53	117602.21	31.510662	-103.165164	616.39	181.44
	10498.00	1.98	206.64	10465.36	-163.64	-619.05	-17.43	0.65	681872.68	117600.23	31.510654	-103.165171	619.30	181.61
	10591.00	2.08	260.04	10558.31	-166.36	-620.78	-19.82	1.96	681870.95	117597.85	31.510649	-103.165178	621.10	181.83
	10686.00	1.70	292.73	10653.26	-169.21	-620.53	-22.81	1.18	681871.20	117594.85	31.510649	-103.165188	620.95	182.11
	10781.00	1.72	319.25	10748.22	-171.00	-618.91	-25.04	0.83	681872.82	117592.62	31.510654	-103.165195	619.42	182.32
	10876.00	1.48	332.64	10843.19	-171.93	-616.74	-26.54	0.47	681874.99	117591.12	31.510660	-103.165200	617.31	182.46
	10970.00	0.60	39.63	10937.17	-171.83	-615.28	-26.78	1.45	681876.45	117590.88	31.510664	-103.165201	615.86	182.49
	11065.00	0.68	32.86	11032.17	-171.02	-614.91	-26.16	0.12	681877.30	117591.50	31.510665	-103.165199	614.98	182.44
	11142.00	0.48	43.82	11109.16	-170.41	-613.81	-25.69	0.30	681877.92	117591.97	31.510668	-103.165197	614.35	182.40
7 5/8" Casing	11190.00	0.56	28.01	11157.16	-170.09	-613.46	-25.44	0.35	681878.27	117592.22	31.510669	-103.165197	613.98	182.37
	11214.00	0.62	21.96	11181.16	-169.93	-613.23	-25.33	0.35	681878.50	117592.33	31.510669	-103.165196	613.75	182.37
	11248.00	0.86	350.21	11215.16	-169.81	-612.81	-25.31	1.37	681878.92	117592.35	31.510670	-103.165196	613.33	182.36
	11296.00	3.79	59.40	11263.12	-168.26	-611.65	-24.00	7.45	681880.08	117593.66	31.510674	-103.165192	612.12	182.25
	11343.00	9.85	69.96	11309.76	-162.78	-609.47	-18.88	13.11	681882.25	117598.78	31.510680	-103.165176	609.77	181.77
	11391.00	16.21	69.74	11356.51	-152.03	-605.74	-8.73	13.25	681885.98	117608.93	31.510691	-103.165144	605.81	180.83
	11439.00	24.98	74.16	11401.40	-135.21	-600.43	-7.30	19.54	681891.08	117625.05	31.510700	-103.165093	603.69	179.30
	11487.00	31.94	76.02	11443.57	-112.36	-594.81	-29.44	14.62	681896.92	117647.09	31.510724	-103.165022	595.53	177.17
	11534.00	37.51	73.59	11482.19	-85.61	-587.75	-55.25	12.21	681903.97	117672.90	31.510745	-103.164940	590.35	174.63
	11565.00	40.25	71.57	11506.32	-66.20	-581.92	-73.81	9.74	681909.81	117691.46	31.510762	-103.164881	586.58	172.77
Cross HL Heel	11603.63	44.09	68.95	11534.95	-40.42	-573.14	-98.20	10.93	681918.58	117715.85	31.510788	-103.164803	581.50	170.28
	11613.00	45.03	68.37	11541.62	-33.90	-570.75	-104.32	10.93	681920.97	117721.97	31.510795	-103.164784	580.21	169.64
	11660.00	51.78	68.46	11572.80	0.90	-557.83	-136.99	14.36	681933.90	117754.64	31.510833	-103.164680	574.40	166.20
	11708.00	60.09	67.53	11599.67	41.21	-542.93	-173.82	17.39	681948.79	117791.46	31.510876	-103.164563	570.07	162.25
	11755.00	67.68	67.49	11620.34	80.88	-526.80	-212.78	16.15	681964.92	117830.42	31.510923	-103.164440	568.15	158.01
	11803.00	75.58	68.76	11635.46	126.94	-505.02	-255.02	16.57	681987.87	117872.66	31.510987	-103.164306	561.07	153.43
	11850.00	84.39	71.63	11643.62	172.91	-494.20	-298.53	19.68	681997.52	117916.16	31.511019	-103.164167	577.37	148.87
	11898.00	90.55	75.17	11645.74	220.78	-480.59	-344.48	15.01	682011.13	117962.11	31.511060	-103.164021	591.30	144.37
	11945.00	91.55	75.15	11644.88	267.76	-468.64	-389.92	2.18	682023.08	118007.55	31.511096	-103.163876	609.64	140.24
	11993.00	92.13	75.36	11643.34	315.73	-456.43	-436.32	1.29	682035.29	118053.94	31.511133	-103.163728	631.43	136.29
	12041.00	92.85	76.77	11641.25	363.68	-444.88	-482.86	3.30	682046.84	118100.48	31.511167	-103.163580	656.56	132.66
	12109.00	94.85	75.85	11636.69	431.52	-428.82	-548.77	3.24	682062.89	118166.39	31.511216	-103.163370	696.45	128.00
	12216.00	92.82	74.94	11629.53	538.26	-401.90	-652.08	2.08	682099.81	118269.69	31.511297	-103.163041	765.98	121.65
	12312.00	92.65	75.14	11624.95	634.13	-377.15	-744.72	0.57	682114.56	118362.32	31.511372	-103.162748	834.77	116.86
	12407.00	92.65	75.12	11620.56	729.01	-352.80	-836.44	0.02	682138.91	118454.03	31.511445	-103.162453	907.80	112.87
	12502.00	92.93	75.20	11615.94	823.88	-328.49	-928.16	0.31	682163.21	118545.75	31.511518	-103.162161	984.58	109.49
	12597.00	93.10	75.47	11610.94	918.73	-304.48	-1019.94	0.34	682187.23	118637.52	31.511591	-103.161869	1064.42	106.62
	12693.00	92.82	75.30	11605.98	1014.59	-280.29	-1112.71	0.34	682211.42	118730.28	31.511664	-103.161573	1147.47	104.14
	12787.00	93.58	75.97	11600.73	1108.44	-257.00	-1203.63	1.08	682234.70	118821.19	31.511734	-103.161283	1230.76	102.05
	12883.00	92.99	74.53	11595.23	1204.26	-232.60	-1296.31	1.62	682259.10	118913.86	31.511808	-103.160986	1317.01	100.17
	12978.00	92.92	75.01	11590.34	1299.10	-207.68	-1387.85	0.51	682284.10	119005.40	31.511883	-103.160698	1440.30	98.51
	13074.00	91.96	75.06	11586.96	1480.27	-182.02	-1480.26	1.48	682309.67	119097.80	31.511967	-103.160402	1491.41	97.01
	13169.00	91.38	75.31	11583.48	1489.88	-156.86	-1571.63	1.55	682334.83	119189.36	31.512035	-103.160110	1579.63	95.70
	13265.00	91.65	74.97	11580.94	1585.83	-132.25	-1664.58	0.45	682359.44	119282.11	31.512109	-103.159815	1669.83	94.54
	13456.00	91.48	74.70	11575.72	1776.70	-82.30	-1848.86	0.17	682409.38	119466.37	31.512259	-103.159228	1850.69	92.55
	13551.00	92.03	75.32	11572.82	1871.63	-57.74	-1940.59	0.87	682433.94	119558.09	31.512333	-103.158936	1941.45	91.70
	13742.00	91.69	75.05	11566.62	2062.49	-8.93	-2125.14	0.23	682482.75	119742.63	31.512480	-103.158348	2125.16	89.24
	13837.00	91.31	72.78	11564.13	2157.37	17.38	-2216.38	2.42	682509.06	119833.86	31.512559	-103.158057	2216.45	90.55
	13933.00	91.51	72.88	11561.77	2253.17	45.71	-2308.08	0.23	682537.39	119925.55	31.512643	-103.157765	2308.53	88.87
	14029.00	91.72	73.22	11559.06	2348.97	73.69	-2399.87	0.42	682565.36	120017.34	31.512727	-103.157473	2401.00	88.24
	14124.00	91.58	73.86	11556.18	2440.92	100.59	-2490.98	0.67	682592.97	120108.39	31.512802	-103.157183	2492.69	87.69
	14220.00	91.58	73.21	11553.40	2539.67	127.79	-2582.96	0.70						

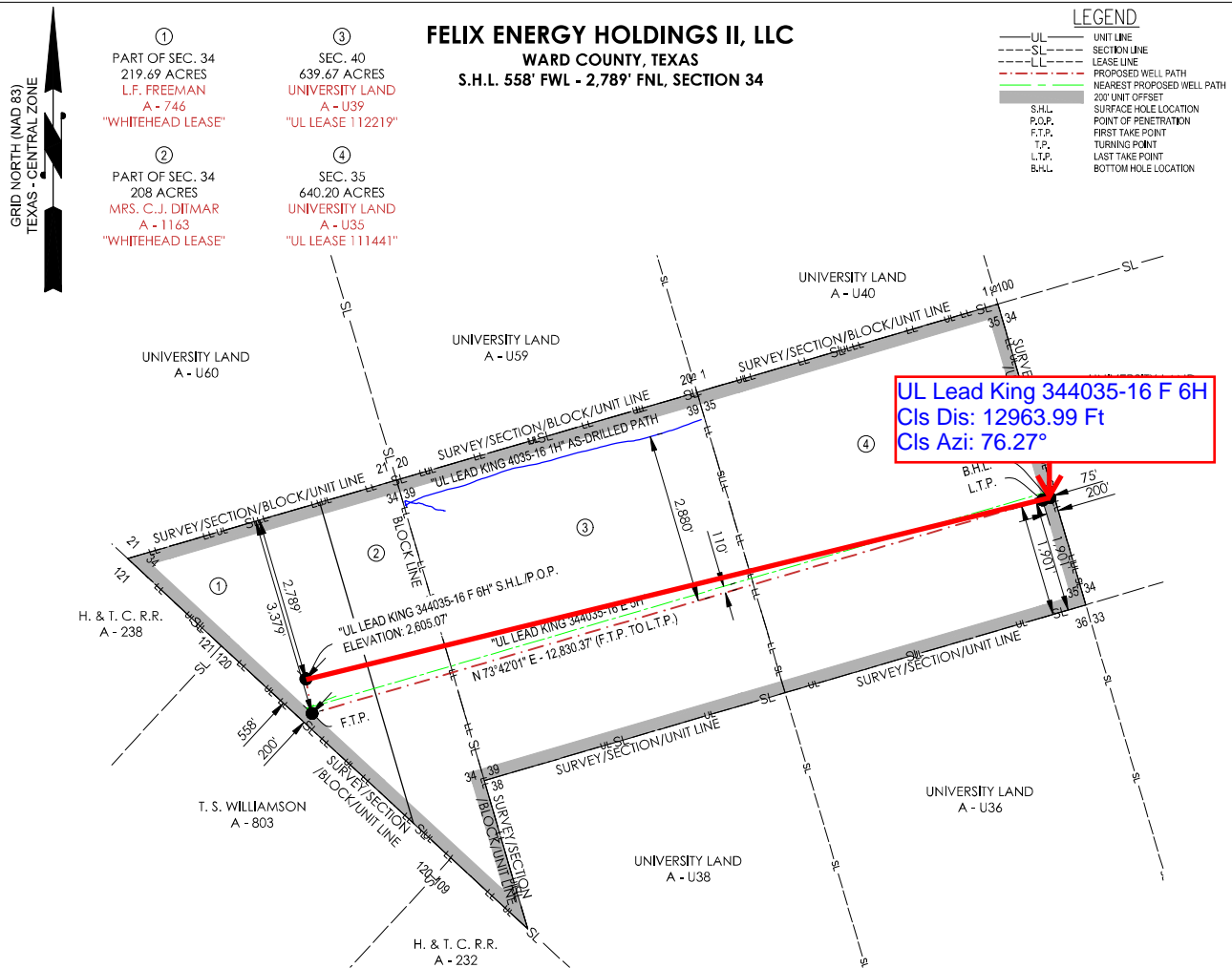
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)
	19945.00	92.00	73.86	11467.20	8256.75	1757.21	8070.21	0.24	684248.75	125687.22	31.517748	-103.139421	8259.30	77.72
	20042.00	92.37	73.79	11463.54	8352.59	1763.93	8162.34	0.39	684275.47	125779.34	31.517827	-103.139127	8355.01	77.67
	20138.00	92.44	74.14	11459.51	8448.43	1810.43	8254.53	0.37	684301.96	125871.52	31.517907	-103.138834	8450.73	77.63
	20233.00	92.27	73.97	11455.61	8543.28	1836.50	8345.79	0.25	684328.03	125962.78	31.517985	-103.138543	8545.47	77.59
	20329.00	91.96	73.67	11452.07	8639.12	1863.24	8437.93	0.45	684354.77	126054.91	31.518064	-103.138250	8641.20	77.55
	20425.00	92.20	73.74	11448.58	8734.96	1890.15	8530.01	0.26	684381.68	126146.98	31.518145	-103.137957	8736.92	77.51
	20520.00	92.34	73.86	11444.82	8829.79	1916.64	8621.17	0.19	684408.16	126238.13	31.518224	-103.137666	8831.65	77.47
	20616.00	92.10	73.27	11441.10	8925.61	1943.78	8713.18	0.66	684435.30	126330.13	31.518305	-103.137373	8927.36	77.42
	20712.00	93.27	74.45	11436.60	9021.42	1970.43	8805.29	1.73	684461.96	126422.24	31.518384	-103.137080	9023.06	77.39
	20807.00	92.54	74.07	11431.79	9116.24	1996.17	8896.61	0.87	684487.69	126513.55	31.518462	-103.136789	9117.80	77.35
	20902.00	92.41	73.04	11427.69	9211.04	2023.04	8987.63	1.09	684514.56	126604.57	31.518542	-103.136499	9212.51	77.31
	20998.00	92.75	73.70	11423.36	9306.82	2050.49	9079.52	0.77	684542.00	126696.45	31.518623	-103.136207	9308.18	77.27
	21093.00	93.27	73.84	11418.38	9401.59	2077.00	9170.61	0.57	684568.51	126787.53	31.518703	-103.135917	9402.88	77.24
	21189.00	92.68	75.36	11413.39	9497.42	2102.46	9263.04	1.70	684593.97	126879.95	31.518779	-103.135622	9498.64	77.21
	21285.00	91.34	74.60	11410.03	9593.33	2127.32	9355.70	1.60	684618.83	126972.60	31.518854	-103.135327	9594.51	77.19
	21380.00	91.44	74.30	11407.72	9688.25	2152.78	9447.19	0.33	684644.29	127064.09	31.518930	-103.135036	9689.37	77.16
	21476.00	91.65	74.38	11405.13	9784.16	2178.69	9539.60	0.23	684670.19	127156.49	31.519008	-103.134741	9785.22	77.14
	21572.00	91.34	74.21	11402.63	9880.07	2204.66	9631.98	0.37	684696.17	127248.86	31.519085	-103.134447	9881.07	77.11
	21667.00	91.34	74.20	11400.41	9974.98	2230.52	9723.37	0.01	684722.02	127340.24	31.519163	-103.134156	9975.93	77.08
	21763.00	91.41	74.32	11398.10	10070.89	2256.55	9815.74	0.14	684748.05	127432.61	31.519241	-103.133862	10071.78	77.05
	21858.00	91.58	74.08	11395.63	10165.80	2282.41	9907.12	0.31	684773.90	127523.98	31.519318	-103.133571	10166.63	77.03
	21954.00	91.44	74.09	11393.10	10261.69	2308.72	9999.41	0.15	684800.22	127616.26	31.519397	-103.133277	10262.48	77.00
	22050.00	91.00	73.53	11391.05	10357.58	2335.48	10091.58	0.74	684826.98	127708.43	31.519477	-103.132983	10358.31	76.97
	22145.00	90.86	73.86	11389.51	10452.47	2362.15	10182.75	0.38	684853.64	127799.59	31.519556	-103.132693	10453.14	76.94
	22241.00	90.76	73.87	11388.15	10548.38	2388.83	10274.96	0.10	684880.31	127891.79	31.519636	-103.132399	10548.99	76.91
	22337.00	90.52	73.75	11387.08	10644.28	2415.59	10367.14	0.28	684907.08	127983.97	31.519716	-103.132106	10644.85	76.88
	22434.00	89.62	73.57	11386.96	10741.18	2442.88	10460.23	0.95	684934.37	128077.04	31.519797	-103.131809	10741.69	76.85
	22529.00	89.90	74.33	11387.36	10836.10	2469.15	10551.52	0.85	684960.63	128168.33	31.519876	-103.131519	10836.57	76.83
	22624.00	89.55	74.59	11387.82	10931.05	2494.60	10643.05	0.46	684986.08	128259.85	31.519952	-103.131227	10931.49	76.81
	22719.00	88.45	73.91	11389.47	11025.97	2520.38	10734.46	1.36	685011.86	128351.26	31.520029	-103.130936	11026.38	76.79
	22815.00	87.73	73.77	11392.67	11121.83	2547.08	10826.62	0.76	685038.56	128443.41	31.520109	-103.130642	11122.20	76.76
	22910.00	88.11	74.12	11396.12	11216.68	2573.34	10917.85	0.54	685064.81	128534.63	31.520188	-103.130352	11212.02	76.74
	23005.00	89.11	74.12	11398.43	11311.59	2599.33	11009.20	1.05	685090.80	128625.97	31.520265	-103.130061	11311.90	76.72
	23100.00	89.59	74.30	11399.50	11406.52	2625.17	11100.61	0.54	685116.64	128717.37	31.520343	-103.129770	11406.80	76.69
	23195.00	90.45	74.18	11399.47	11502.46	2651.25	11193.00	0.90	685142.72	128809.76	31.520421	-103.129475	11502.71	76.67
	23291.00	91.62	74.67	11397.75	11597.39	2676.75	11284.49	1.34	685168.22	128901.24	31.520497	-103.129184	11597.62	76.66
	23386.00	89.86	74.24	11396.53	11692.33	2702.21	11376.01	1.91	685193.67	128992.75	31.520573	-103.128892	11692.54	76.64
	23482.00	89.90	73.78	11396.73	11788.25	2728.65	11468.29	0.48	685220.11	129085.03	31.520652	-103.128598	11788.44	76.62
	23577.00	90.79	74.38	11396.16	11883.18	2754.71	11559.65	1.13	685246.17	129176.37	31.520730	-103.128308	11883.34	76.60
	23673.00	90.07	74.51	11395.44	11979.12	2780.45	11652.13	0.76	685271.91	129268.85	31.520807	-103.128013	11979.27	76.58
	23770.00	89.86	71.97	11395.49	12075.98	2808.42	11745.00	2.63	685299.88	129361.71	31.520891	-103.127717	12076.10	76.55
	23866.00	89.86	72.47	11395.73	12171.73	2837.74	11836.41	0.52	685329.19	129453.12	31.520978	-103.127426	12171.83	76.52
	23961.00	89.97	72.65	11395.67	12266.53	2866.21	11927.05	0.22	685357.66	129543.74	31.521062	-103.127138	12266.60	76.49
	24057.00	90.00	72.61	11395.90	12362.34	2894.87	12018.67	0.05	685386.32	129635.36	31.521147	-103.126846	12362.39	76.46
	24152.00	89.79	71.93	11396.07	12457.10	2923.80	12109.15	0.75	685415.24	129725.84	31.521233	-103.126558	12457.14	76.43
	24248.00	89.83	72.54	11396.39	12552.86	2953.09	12200.58	0.64	685444.53	129817.25	31.521320	-103.126267	12552.88	76.39
	24344.00	90.03	72.57	11396.51	12648.66	2981.87	12292.16	0.21	685473.31	129908.83	31.521405	-103.125976	12648.67	76.36
	24439.00	89.86	72.58	11396.60	12743.46	3010.32	12382.80	0.18	685501.76	129999.46	31.521490	-103.125687	12743.46	76.34
	24476.62	89.86	72.62	11396.69	12781.00	3021.57	12418.70	0.09	685513.01	130003.36	31.521523	-103.125573	12781.00	76.33
	24534.00	89.86	72.67	11396.83	12838.26	3038.69	12473.47	0.09	685530.12	130090.12	31.521574	-103.125399	12838.26	76.31
Cross HL Toe														
Last SLB_MWD Survey	24578.00	89.45	72.55	11397.09	12882.17	3051.84	12515.45	0.97	685543.27	1130132.11	31.521613	-103.125265	12882.17	76.30
Projection to Bit	24660.00	89.45	72.55	11397.88	12963.99	3076.43	12593.68	0.00	685567.86	1130210.32	31.521686	-103.125016	12963.99	76.27

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	12.000	1/98.425	17.500	13.375	NAL_MWD_PLUS_0.5_DEG-Depth Only	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 24660' Definitive
	1	12.000	25.000	Act Stns	17.500	13.375	NAL_MWD_PLUS_0.5_DEG-Depth Only	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 24660' Definitive
	1	25.000	936.000	Act Stns	17.500	13.375	NAL_MWD_PLUS_0.5_DEG	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 936.000
	1	936.000	5061.000	Act Stns	12.250	10.750	NAL_MWD_PLUS_0.5_DEG	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 5061.000
	1	5061.000	8916.000	Act Stns	9.875	7.625	NAL_MWD_PLUS_0.5_DEG	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 8916.000
	1	8916.000	11190.000	Act Stns	8.750	7.625	NAL_MWD_PLUS_0.5_DEG	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 11190.000
	1	11190.000	24660.000	Act Stns	6.750	5.500	NAL_MWD_IFR1+MS	Original Hole / UL Lead King 344035-16 F 6H MWD 0' to 24660.000

...Original Hole/UL Lead King 344035-16 F 6H MWD 0' to 24660' Definitive



OPERATOR: FELIX ENERGY HOLDINGS II, LLC

WELL NAME: UL LEAD KING 344035-16 WELL NO: F 6H

TOPOGRAPHIC & VEGETATION: FLAT LOCATION WITH LOW LYING BRUSH

GOOD DRILL SITE: YES

REFERENCE STAKES OR ALTERNATE LOCATION
STAKES SET: NONE

BEST ACCESSIBILITY TO LOCATION: FROM SOUTH

DISTANCE & DIRECTION

FROM HWY JCT OR TOWN: ±2.8 MILES SOUTHWEST OF PYOTE, TX
FROM THE INTERSECTION OF PYOTE STREET AND 3RD STREET, HEAD EAST ON 3RD STREET FOR ±0.3 MILES, TURN RIGHT ONTO ROGERS STREET AND HEAD SOUTH FOR ±0.5 MILES, TURN RIGHT ONTO AVENUE EAST AND HEAD WEST FOR ±0.7 MILES, CONTINUE ONTO INTERSTATE 20 SERVICE ROAD AND CONTINUE WEST FOR ±1.8 MILES, TURN LEFT ONTO EXISTING LEASE ROAD AND HEAD SOUTH FOR ±0.6 MILES, TURN RIGHT AND HEAD WEST FOR ±0.4 MILES AND LOCATION IS ON THE RIGHT.

SURFACE HOLE LOCATION/POINT OF PENETRATION:

558' FWL & 2,789' FNL (SEC. 34)
GROUND ELEVATION: 2,605.07'
NAD 27 TEXAS CENTRAL ZONE
NORTHING: 682491.68, EASTING: 1117617.66
LATITUDE: N 31.51235635°, LONGITUDE: W 103.16516520°
NAD 83 TEXAS CENTRAL ZONE
NORTHING: 1052067.01, EASTING: 1414083.68
LATITUDE: N 31.51248993°, LONGITUDE: W 103.16560534°

FIRST TAKE POINT:

200' FWL & 3,379' FNL (SEC. 34)
NAD 27 TEXAS CENTRAL ZONE
NORTHING: 681907.54, EASTING: 1117722.17
LATITUDE: N 31.51075823°, LONGITUDE: W 103.16478225°

WELL PATH DATA

LINE	BEARING	DISTANCE
S.H.L./P.O.P. TO F.T.P.	S 10°08'37" E	593.42'
F.T.P. TO L.T.P.	N 73°42'01" E	12,830.37'
L.T.P. TO B.H.L.	N 73°42'01" E	125.00'

CALLS FROM SECTION LINE

S.H.L./P.O.P.	558' FWL, 2,789' FNL (SEC. 34)
F.T.P.	200' FWL, 3,379' FNL (SEC. 34)
L.T.P.	200' FEL, 1,901' FSL (SEC. 35)
B.H.L.	75' FEL, 1,901' FSL (SEC. 35)

LAST TAKE POINT:

200' FEL & 1,901' FSL (SEC. 35)
NAD 27 TEXAS CENTRAL ZONE
NORTHING: 685508.49, EASTING: 1130036.68
LATITUDE: N 31.52151074°, LONGITUDE: W 103.12556864°

BOTTOM HOLE LOCATION:

75' FEL & 1,901' FSL (SEC. 35)
NAD 27 TEXAS CENTRAL ZONE
NORTHING: 685543.58, EASTING: 1130156.66
LATITUDE: N 31.52161543°, LONGITUDE: W 103.12518656°

UNIT CORNERS

LOCATION	NAD27
W CORNER SEC.34	STATE PLANE TEXAS CENTRAL (32039) N = 684519.41 E = 1114611.45 LAT: 31.51771858° LONG -103.17497508°
NE CORNER SEC.35 BLK.16	N = 688809.03 E = 1129281.07 LAT: 31.53052976° LONG -103.12825896°
SE CORNER SEC.35 BLK.16	N = 683740.28 E = 1130761.47 LAT: 31.51670097° LONG -103.12310105°
SW CORNER SEC.40 BLK.16	N = 680775.95 E = 1120624.22 LAT: 31.50785089° LONG -103.15538073°
S CORNER SEC.34	N = 678279.10 E = 1121353.40 LAT: 31.50103939° LONG -103.15283966°



CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgeland Dr.
Conway, AR 72034

GENERAL NOTES

- THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
- BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
- COMBINED SCALE FACTOR AT S.H.L.: 0.99979682
- VERTICAL DATUM IS NAVD83
- AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

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www.craftontull.com

REVISION

"UL LEAD KING 344035-16 F 6H"

SECTION 34 - 427.69 ACRES
SECTION 40, BLOCK 16 - 639.67 ACRES
SECTION 35, BLOCK 16 - 640.20 ACRES
PROPOSED DRILL SITE
WARD COUNTY, TEXAS

SCALE: 1" = 2000'
PLOT DATE: 09-18-2018

CHECKED BY: HFD
DRAWN BY: L.DOW

APPROVED BY: A.LILEY
SHEET NO.: 1 OF 1



Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

I, Ali Mehio certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of December 17, 2018 through March 08, 2019, conduct or supervise the taking of the TelePacer/SlimPulse & Third Party Corrected surveys from a depth of 123.00 feet to a depth of 24578.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Felix Energy Holdings II, LLC for the UL Lead King 344035-16 F 6H Well (Original Hole) API No. 42-475-37683 in Texas; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.



Ali Mehio
FE