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April 6, 2018

The Railroad Commission of Texas  
Oil & Gas Division  
PO Box 12967  
Austin, TX 78711-2967

ConocoPhillips Company  
University UE A, 2401HL (Permit No: 832642)  
Survey: UL/ Abstract: U344  
Field: Andector (Wichita Albany)  
Andrews County, TX

API Number: 42-003-47662

Please find the attached survey performed on the above referenced well by MS Directional LLC;  
**Operator Number 592486.** Other information required by your office is as follows:

<u>Name of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Addison Bailey	Original Wellbore	324' – 14,963'	02/13/18 – 03/02/18	MWD

If any other information is required, please contact the undersigned at the letterhead address and telephone number.

Sincerely

Amber Greer  
MWD Operations Office Administrator/Regulatory

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V09.04.02

Company:	ConocoPhillips Company		
Well Name:	University UE A 2401HL		
Location:	Andrews County, TX		
Rig:	Trinidad #417	Magnetic Declination:	9.43
Job Number:	DDMO-180126		
API #:	42-003-47662		
Vertical Section Azimuth:	167.45	Proposed Direction:	167.45

REFERENCED TO GRID NORTH

Survey Calculation Method:	Minimum Curvature		
PTB:	MD	INC	AZM
	15,018	89.5	170.1
	TVD	N/S	E/W
	7423.89	-7568.38	1619.55
			VS
			7739.46

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/100	BUR/100'
TIE IN	0	0.00	0.00	0.00	0.00	0.00			0.00		
1	324	0.60	254.60	323.99	-0.45	-1.64	0.08	1.70	254.60	0.19	0.19
2	511	0.90	238.90	510.98	-1.47	-3.84	0.60	4.11	249.05	0.19	0.16
3	698	0.90	284.80	697.96	-1.85	-6.51	0.39	6.77	254.13	0.38	0.00
4	882	1.10	248.50	881.93	-2.13	-9.55	0.00	9.79	257.43	0.35	0.11
5	1,071	1.30	236.10	1070.89	-3.99	-13.02	1.07	13.62	252.96	0.17	0.11
6	1,260	1.30	240.00	1259.84	-6.26	-16.66	2.49	17.80	249.41	0.05	0.00
7	1,449	1.70	225.90	1448.78	-9.28	-20.53	4.60	22.53	245.67	0.29	0.21
8	1,484	2.00	229.80	1483.76	-10.04	-21.37	5.15	23.61	244.84	0.93	0.86
9	1,542	1.20	224.50	1541.74	-11.12	-22.57	5.95	25.16	243.76	1.40	-1.38
10	1,731	3.80	342.60	1730.60	-6.56	-25.83	0.79	26.65	255.76	2.38	1.38
11	1,920	4.00	341.70	1919.17	5.68	-29.77	-12.01	30.31	280.80	0.11	0.11
12	2,109	4.10	342.40	2107.69	18.38	-33.88	-25.30	38.55	298.47	0.06	0.05
13	2,298	4.30	348.10	2296.19	31.75	-37.39	-39.12	49.05	310.34	0.24	0.11
14	2,486	4.60	352.40	2483.62	46.12	-39.84	-53.67	60.94	319.18	0.24	0.16
15	2,674	4.70	353.30	2671.00	61.24	-41.73	-68.85	74.11	325.73	0.07	0.05
16	2,863	3.60	336.60	2859.51	74.38	-44.99	-82.38	86.93	328.83	0.86	-0.58
17	3,052	3.50	334.30	3048.15	85.02	-49.85	-93.82	98.56	329.61	0.09	-0.05
18	3,240	3.30	334.90	3235.82	95.09	-54.64	-104.69	109.67	330.12	0.11	-0.11
19	3,429	2.90	341.00	3424.54	104.54	-58.50	-114.75	119.80	330.77	0.27	-0.21
20	3,617	4.00	321.40	3612.20	114.16	-64.14	-125.37	130.95	330.67	0.85	0.59
21	3,805	3.40	326.60	3799.81	123.94	-71.30	-136.47	142.99	330.09	0.37	-0.32
22	3,993	1.30	296.00	3987.65	129.53	-76.29	-143.01	150.33	329.50	1.26	-1.12
23	4,182	1.60	328.50	4176.59	132.72	-79.59	-146.84	154.76	329.05	0.46	0.16
24	4,371	0.60	250.10	4365.56	134.63	-81.90	-149.21	157.59	328.69	0.84	-0.53
25	4,561	0.50	250.60	4555.55	134.02	-83.62	-148.99	157.97	328.04	0.05	-0.05
26	4,750	0.50	292.10	4744.55	134.06	-85.16	-149.36	158.82	327.57	0.19	0.00
27	4,940	0.60	283.40	4934.54	134.60	-86.90	-150.26	160.21	327.15	0.07	0.05
28	5,129	0.60	284.80	5123.53	135.08	-88.82	-151.15	161.66	326.67	0.01	0.00
29	5,318	0.50	270.60	5312.52	135.34	-90.60	-151.79	162.87	326.20	0.09	-0.05
30	5,507	1.20	69.20	5501.51	136.05	-89.57	-152.27	162.89	326.64	0.89	0.37
31	5,697	0.80	63.70	5691.48	137.35	-86.52	-152.87	162.33	327.79	0.22	-0.21
32	5,885	0.60	77.30	5879.46	138.15	-84.39	-153.18	161.88	328.58	0.14	-0.11
33	6,075	0.80	96.10	6069.45	138.22	-82.10	-152.76	160.76	329.29	0.16	0.11

V09.04.02

<b>Company:</b>	ConocoPhillips Company		
<b>Well Name:</b>	University UE A 2401HL		
<b>Location:</b>	Andrews County, TX		
<b>Rig:</b>	Trinidad #417	<b>Magnetic Declination:</b>	9.43
<b>Job Number:</b>	DDMO-180126		
<b>API #:</b>	42-003-47662		
<b>Vertical Section Azimuth:</b>	167.45	<b>Proposed Direction:</b>	167.45

REFERENCED TO GRID NORTH

<b>Survey Calculation Method:</b>	Minimum Curvature		
<b>PTB:</b>	<b>MD</b>	<b>INC</b>	<b>AZM</b>
	15,018	89.5	170.1
	<b>TVD</b>	<b>N/S</b>	<b>E/W</b>
	7423.89	-7568.38	1619.55
			<b>VS</b>
			7739.46

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Closure Azm	DLS/100	BUR/100'
34	6,264	0.60	87.80	6258.44	138.12	-79.80	-152.16	159.51	329.98	0.12	-0.11
35	6,453	1.00	71.30	6447.42	138.69	-77.24	-152.16	158.75	330.88	0.24	0.21
36	6,603	0.80	57.50	6597.40	139.67	-75.12	-152.66	158.59	331.73	0.20	-0.13
37	6,651	1.00	97.50	6645.39	139.80	-74.42	-152.63	158.37	331.97	1.34	0.42
38	6,715	5.30	159.00	6709.29	136.96	-72.81	-149.51	155.11	332.00	7.66	6.72
39	6,778	8.90	162.20	6771.80	129.60	-70.28	-141.78	147.43	331.53	5.75	5.71
40	6,841	13.50	165.10	6833.58	117.85	-66.89	-129.57	135.51	330.42	7.35	7.30
41	6,904	18.20	166.00	6894.17	101.19	-62.62	-112.38	119.00	328.25	7.47	7.46
42	6,967	22.70	169.50	6953.19	79.68	-58.02	-90.38	98.56	323.94	7.40	7.14
43	7,030	26.90	170.00	7010.36	53.68	-53.33	-63.98	75.67	315.19	6.67	6.67
44	7,093	31.50	169.60	7065.34	23.44	-47.88	-33.28	53.31	296.08	7.31	7.30
45	7,156	36.10	168.70	7117.68	-10.97	-41.27	1.74	42.70	255.12	7.34	7.30
46	7,219	40.80	169.40	7167.01	-49.42	-33.84	40.89	59.90	214.40	7.49	7.46
47	7,282	45.10	170.20	7213.11	-91.66	-26.26	83.77	95.35	195.98	6.88	6.83
48	7,345	50.20	170.70	7255.53	-137.56	-18.54	130.25	138.81	187.68	8.12	8.10
49	7,408	55.80	169.80	7293.43	-187.13	-10.01	180.48	187.39	183.06	8.96	8.89
50	7,460	60.10	168.80	7321.02	-230.42	-1.82	224.52	230.43	180.45	8.43	8.27
51	7,470	60.40	168.80	7325.98	-238.94	-0.13	233.20	238.94	180.03	3.00	3.00
52	7,533	61.30	169.10	7356.67	-292.94	10.41	288.20	293.12	177.96	1.49	1.43
53	7,596	61.70	169.00	7386.73	-347.30	20.93	343.55	347.93	176.55	0.65	0.63
54	7,659	62.00	169.50	7416.45	-401.87	31.29	399.07	403.08	175.55	0.85	0.48
55	7,722	64.40	168.20	7444.86	-457.03	42.17	455.28	458.97	174.73	4.23	3.81
56	7,785	70.60	168.20	7468.96	-513.98	54.07	513.45	516.82	174.00	9.84	9.84
57	7,848	76.00	168.70	7487.05	-573.08	66.14	573.76	576.88	173.42	8.61	8.57
58	7,912	81.50	168.60	7499.53	-634.60	78.49	636.49	639.43	172.95	8.60	8.59
59	7,975	87.00	167.80	7505.84	-695.93	91.30	699.14	701.90	172.53	8.82	8.73
60	8,038	87.80	167.60	7508.70	-757.42	104.71	762.08	764.63	172.13	1.31	1.27
61	8,101	89.10	166.90	7510.41	-818.84	118.61	825.05	827.39	171.76	2.34	2.06
62	8,227	90.10	166.70	7511.29	-941.51	147.38	951.04	952.98	171.10	0.81	0.79
63	8,353	91.00	166.90	7510.08	-1064.17	176.15	1077.02	1078.66	170.60	0.73	0.71
64	8,477	91.30	167.80	7507.59	-1185.14	203.30	1201.00	1202.45	170.27	0.76	0.24
65	8,600	91.20	167.80	7504.90	-1305.33	229.29	1323.97	1325.32	170.04	0.08	-0.08
66	8,722	91.10	167.30	7502.46	-1424.44	255.58	1445.94	1447.19	169.83	0.42	-0.08
67	8,845	91.80	167.50	7499.34	-1544.44	282.41	1568.90	1570.05	169.64	0.59	0.57

V09.04.02

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Job Number:	DDMO-180126		
API #:	42-003-47662		
Vertical Section Azimuth:	167.45	Proposed Direction:	167.45
Survey Calculation Method:	Minimum Curvature		

REFERENCED TO GRID NORTH

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	15,018	89.5	170.1	7423.89	-7568.38	1619.55	7739.46

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/100	BUR/100'
68	8,968	91.00	167.40	7496.34	-1664.46	309.13	1691.86	1692.92	169.48	0.66	-0.65
69	9,092	91.60	167.10	7493.52	-1785.37	336.48	1815.83	1816.80	169.33	0.54	0.48
70	9,218	92.00	167.60	7489.57	-1908.25	364.06	1941.77	1942.67	169.20	0.51	0.32
71	9,344	92.80	167.60	7484.29	-2031.20	391.10	2067.65	2068.51	169.10	0.63	0.63
72	9,470	91.20	166.40	7479.89	-2153.89	419.42	2193.57	2194.35	168.98	1.59	-1.27
73	9,596	91.70	166.70	7476.70	-2276.40	448.72	2319.51	2320.20	168.85	0.46	0.40
74	9,721	92.00	167.10	7472.67	-2398.08	477.04	2444.44	2445.07	168.75	0.40	0.24
75	9,848	92.90	167.50	7467.24	-2521.86	504.93	2571.32	2571.91	168.68	0.78	0.71
76	9,974	90.40	167.10	7463.61	-2644.72	532.62	2697.26	2697.82	168.61	2.01	-1.98
77	10,100	90.80	167.40	7462.29	-2767.60	560.43	2823.25	2823.77	168.55	0.40	0.32
78	10,226	90.90	167.60	7460.42	-2890.60	587.69	2949.24	2949.74	168.51	0.18	0.08
79	10,352	91.60	168.10	7457.68	-3013.75	614.21	3075.20	3075.70	168.48	0.68	0.56
80	10,478	92.20	168.20	7453.50	-3137.00	640.07	3201.12	3201.63	168.47	0.48	0.48
81	10,604	92.40	167.30	7448.44	-3260.03	666.78	3327.02	3327.52	168.44	0.73	0.16
82	10,730	92.40	167.50	7443.16	-3382.88	694.24	3452.91	3453.39	168.40	0.16	0.00
83	10,857	91.40	167.10	7438.95	-3506.71	722.15	3579.84	3580.29	168.36	0.85	-0.79
84	10,982	90.30	167.00	7437.10	-3628.51	750.15	3704.82	3705.24	168.32	0.88	-0.88
85	11,108	90.30	166.10	7436.44	-3751.05	779.46	3830.80	3831.18	168.26	0.71	0.00
86	11,235	90.80	166.60	7435.22	-3874.46	809.43	3957.77	3958.11	168.20	0.56	0.39
87	11,361	89.40	166.30	7435.00	-3996.95	838.95	4083.75	4084.05	168.15	1.14	-1.11
88	11,487	90.00	166.40	7435.66	-4119.39	868.68	4209.72	4209.98	168.09	0.48	0.48
89	11,613	90.30	166.70	7435.33	-4241.93	897.99	4335.70	4335.94	168.05	0.34	0.24
90	11,764	90.70	167.10	7434.01	-4389.00	932.21	4486.69	4486.90	168.01	0.37	0.26
91	11,891	91.20	167.30	7431.91	-4512.82	960.35	4613.67	4613.87	167.99	0.42	0.39
92	12,017	90.10	167.50	7430.48	-4635.78	987.83	4739.66	4739.86	167.97	0.89	-0.87
93	12,143	89.80	167.90	7430.59	-4758.89	1014.67	4865.66	4865.86	167.96	0.40	-0.24
94	12,270	89.00	168.50	7431.92	-4883.19	1040.64	4992.64	4992.85	167.97	0.79	-0.63
95	12,397	89.20	169.00	7433.91	-5007.74	1065.42	5119.59	5119.82	167.99	0.42	0.16
96	12,523	90.00	169.40	7434.79	-5131.50	1089.02	5245.53	5245.79	168.02	0.71	0.63
97	12,649	90.70	169.90	7434.02	-5255.45	1111.66	5371.43	5371.73	168.06	0.68	0.56
98	12,774	90.10	171.00	7433.15	-5378.71	1132.40	5496.26	5496.62	168.11	1.00	-0.48
99	12,899	89.70	169.30	7433.37	-5501.86	1153.78	5621.11	5621.54	168.16	1.40	-0.32
100	13,025	90.10	167.70	7433.59	-5625.33	1178.90	5747.09	5747.53	168.16	1.31	0.32
101	13,151	90.20	166.00	7433.26	-5748.02	1207.57	5873.07	5873.49	168.14	1.35	0.08

V09.04.02

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Rig:	Trinidad #417	Magnetic Declination:	9.43
Job Number:	DDMO-180126		
API #:	42-003-47662		
Vertical Section Azimuth:	167.45	Proposed Direction:	167.45

REFERENCED TO GRID NORTH ▼

Survey Calculation Method:	Minimum Curvature		
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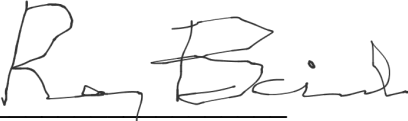
PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	15,018	89.5	170.1	7423.89	-7568.38	1619.55	7739.46

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Closure Azm	DLS/100	BUR/100'
102	13,277	91.40	166.30	7431.50	-5870.34	1237.72	5999.03	5999.41	168.09	0.98	0.95
103	13,404	90.60	166.30	7429.28	-5993.71	1267.80	6125.98	6126.32	168.06	0.63	-0.63
104	13,530	91.10	166.00	7427.41	-6116.03	1297.96	6251.93	6252.24	168.02	0.46	0.40
105	13,656	91.40	165.70	7424.66	-6238.18	1328.75	6377.85	6378.12	167.98	0.34	0.24
106	13,782	89.20	166.40	7424.00	-6360.45	1359.12	6503.81	6504.04	167.94	1.83	-1.75
107	13,908	90.00	166.60	7424.88	-6482.97	1388.54	6629.78	6630.00	167.91	0.65	0.63
108	14,034	90.70	167.20	7424.11	-6605.68	1417.09	6755.78	6755.98	167.89	0.73	0.56
109	14,158	91.00	166.60	7422.28	-6726.44	1445.20	6879.76	6879.94	167.87	0.54	0.24
110	14,283	90.00	166.70	7421.18	-6848.06	1474.06	7004.74	7004.91	167.85	0.80	-0.80
111	14,410	89.90	167.40	7421.30	-6971.83	1502.52	7131.73	7131.90	167.84	0.56	-0.08
112	14,535	89.90	168.00	7421.51	-7093.96	1529.15	7256.73	7256.90	167.84	0.48	0.00
113	14,661	89.80	168.50	7421.84	-7217.32	1554.80	7382.72	7382.89	167.84	0.40	-0.08
114	14,786	89.70	169.40	7422.39	-7340.00	1578.76	7507.67	7507.87	167.86	0.72	-0.08
115	14,911	89.70	170.00	7423.04	-7462.98	1601.11	7632.57	7632.80	167.89	0.48	0.00
116	14,963	89.50	170.10	7423.41	-7514.20	1610.10	7684.52	7684.76	167.91	0.43	-0.38
PTB:	15,018	89.50	170.10	7423.89	-7568.38	1619.55	7739.46	7739.72	167.92	0.00	0.00

MS Directional Survey Data Certification

MS Directional Job Number: DDMO-180126  
Survey Type: MWD  
Operating Company: ConocoPhillips Company  
Well Name & Number: University UE A 2401HL  
Location: Andrews County, TX  
API Number: 42-003-47662  
Tie In Depth: Surface  
Surveyed Depths: 324' – 14,963' MD  
Projected TD Survey: 15,018' MD  
Dates Performed: 02/13/2018 – 03/02/2018

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional.

Digitally signed by:   
MWD Surveyor Name: Addison Bailey  
Date: 04-06-2018  
Email: abailey@msdir.com

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