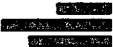




HOBBS OCD

OCT 15 2018

RECEIVED


devon

Fighting Okra 18-19 Fed No. 41H

Lea County, NM

March 14, 2018

Job No. LNM5163518

Survey Completion Report



PRODIRECTIONAL

Survey Certification Letter

March 14, 2018


devon

Operator Name: Devon Energy Corp.
Well Name: Fighting Okra 18-19 Fed No. 41H
County/Parish: Lea County,
State: NM
Rig Name: Cactus 126
Job Number: LNM5163518

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

Surveyor	Surveyed Depths	Projection to Bit	Dates Performed	Type of Survey
ProDirectional	141' MD – 18,592' MD	18,650' MD	01/31/18 – 02/14/18	MWD

Sincerely,



Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com

The Standard of Excellence in Directional Supervision



Devon Energy Corp.

Lea County, NM

Fighting Okra 18-19 Fed

No. 41H

OH

Survey: ProDirectional

Survey Report

14 March, 2018





ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project	Lea County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Fighting Okra 18-19 Fed		
Site Position:		Northing:	382,643.65 usft
From:	Map	Easting:	798,304.66 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.0492541
		Longitude:	-103.5039442
		Grid Convergence:	0.44 °

Well	41H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32.0444267
		Longitude:	-103.5164711
		Ground Level:	3,357.50 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	1/31/2018	6.78
			Dip Angle
			(°)
			59.72
			Field Strength
			(nT)
			47,832.60

Design	Surveys 141-18650 MD		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			179.58

Survey Program	Date	3/14/2018		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
141.00	18,650.00	Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM



ProDirectional
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	380,857.92	794,436.65
141.00	0.40	229.90	141.00	0.31	-0.32	-0.38	0.49	229.90	380,857.60	794,436.27
Pro MWD First Survey: 141' MD										
220.00	0.50	226.60	220.00	0.73	-0.73	-0.84	1.11	228.88	380,857.19	794,435.81
282.00	0.50	240.50	281.99	1.04	-1.05	-1.27	1.65	230.40	380,856.87	794,435.38
374.00	0.40	218.60	373.99	1.49	-1.50	-1.82	2.36	230.51	380,856.42	794,434.83
466.00	0.30	227.60	465.99	1.90	-1.91	-2.20	2.91	228.97	380,856.01	794,434.45
558.00	0.30	223.80	557.99	2.23	-2.25	-2.54	3.39	228.51	380,855.67	794,434.11
649.00	0.20	224.30	648.99	2.51	-2.53	-2.82	3.79	228.03	380,855.39	794,433.83
741.00	0.30	203.80	740.99	2.85	-2.87	-3.03	4.17	226.53	380,855.05	794,433.62
834.00	0.30	232.50	833.99	3.22	-3.24	-3.32	4.64	225.68	380,854.68	794,433.33
881.00	0.20	204.20	880.98	3.37	-3.39	-3.45	4.84	225.50	380,854.53	794,433.20
981.00	0.10	262.90	980.98	3.53	-3.56	-3.61	5.07	225.38	380,854.36	794,433.04
1,073.00	0.70	272.10	1,072.98	3.52	-3.55	-4.25	5.54	230.13	380,854.37	794,432.40
1,165.00	0.70	274.60	1,164.98	3.44	-3.48	-5.37	6.40	237.03	380,854.44	794,431.28
1,257.00	0.60	295.70	1,256.97	3.18	-3.23	-6.37	7.14	243.10	380,854.69	794,430.28
1,349.00	0.70	273.70	1,348.96	2.93	-2.98	-7.36	7.94	247.93	380,854.94	794,429.29
1,440.00	0.70	258.80	1,439.96	3.00	-3.06	-8.46	9.00	250.13	380,854.86	794,428.19
1,531.00	0.30	258.80	1,530.95	3.14	-3.21	-9.24	9.78	250.83	380,854.71	794,427.41
1,622.00	0.80	283.80	1,621.95	3.03	-3.11	-10.09	10.56	252.89	380,854.81	794,426.56
1,716.00	0.40	320.70	1,715.94	2.62	-2.70	-10.94	11.26	256.15	380,855.22	794,425.71
1,810.00	0.80	327.00	1,809.94	1.81	-1.89	-11.50	11.65	260.66	380,856.03	794,425.15
1,904.00	1.00	343.00	1,903.93	0.47	-0.56	-12.10	12.11	267.37	380,857.36	794,424.55
1,998.00	2.30	1.80	1,997.89	-2.20	2.11	-12.28	12.46	279.77	380,860.03	794,424.37
2,092.00	2.90	355.40	2,091.79	-6.46	6.37	-12.41	13.95	297.17	380,864.29	794,424.24
2,186.00	3.60	1.90	2,185.64	-11.78	11.69	-12.50	17.12	313.07	380,869.61	794,424.15
2,280.00	3.50	359.70	2,279.46	-17.60	17.51	-12.42	21.47	324.65	380,875.43	794,424.23



ProDirectional
Survey Report



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Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
2,374.00	3.40	2.50	2,373.29	-23.25	23.16	-12.31	26.23	332.00	380,881.08	794,424.34
2,468.00	3.50	357.70	2,467.12	-28.90	28.81	-12.31	31.33	336.87	380,886.73	794,424.34
2,562.00	4.10	358.30	2,560.91	-35.13	35.04	-12.52	37.21	340.34	380,892.96	794,424.13
2,657.00	5.00	0.20	2,655.61	-42.66	42.57	-12.61	44.40	343.50	380,900.49	794,424.04
2,751.00	5.10	2.70	2,749.25	-50.93	50.84	-12.40	52.33	346.30	380,908.76	794,424.25
2,845.00	5.50	4.30	2,842.84	-59.59	59.51	-11.86	60.68	348.73	380,917.43	794,424.79
2,939.00	5.70	357.60	2,936.40	-68.75	68.66	-11.72	69.66	350.31	380,926.58	794,424.93
3,033.00	6.20	356.40	3,029.89	-78.48	78.39	-12.23	79.34	351.13	380,936.31	794,424.42
3,127.00	6.00	358.40	3,123.36	-88.46	88.37	-12.69	89.28	351.83	380,946.29	794,423.96
3,222.00	5.80	359.90	3,217.85	-98.23	98.14	-12.84	98.97	352.55	380,956.06	794,423.81
3,316.00	5.80	358.80	3,311.37	-107.73	107.63	-12.94	108.41	353.14	380,965.55	794,423.71
3,410.00	6.30	356.50	3,404.85	-117.62	117.53	-13.36	118.29	353.52	380,975.45	794,423.29
3,504.00	6.20	356.60	3,498.29	-127.84	127.74	-13.98	128.51	353.76	380,985.66	794,422.67
3,598.00	6.00	354.40	3,591.76	-137.81	137.70	-14.76	138.49	353.88	380,995.62	794,421.89
3,692.00	5.50	354.00	3,685.28	-147.18	147.07	-15.71	147.91	353.90	381,004.99	794,420.94
3,786.00	6.40	356.90	3,778.78	-156.90	156.78	-16.46	157.64	354.01	381,014.70	794,420.19
3,880.00	6.20	356.20	3,872.21	-167.20	167.08	-17.08	167.95	354.16	381,025.00	794,419.57
3,975.00	5.90	359.80	3,966.68	-177.20	177.08	-17.44	177.94	354.38	381,035.00	794,419.21
4,069.00	6.00	350.30	4,060.18	-186.88	186.75	-18.28	187.65	354.41	381,044.67	794,418.37
4,163.00	5.90	349.40	4,153.67	-196.49	196.35	-20.00	197.36	354.18	381,054.27	794,416.65
4,257.00	5.70	347.90	4,247.19	-205.81	205.66	-21.87	206.82	353.93	381,063.58	794,414.78
4,351.00	5.80	348.60	4,340.72	-215.05	214.88	-23.78	216.19	353.68	381,072.80	794,412.87
4,445.00	6.60	355.40	4,434.17	-225.10	224.92	-25.15	226.32	353.62	381,082.84	794,411.50
4,539.00	6.20	357.50	4,527.58	-235.56	235.38	-25.81	236.79	353.74	381,093.30	794,410.84
4,633.00	5.60	0.70	4,621.08	-245.22	245.03	-25.97	246.41	353.95	381,102.95	794,410.68
4,727.00	5.40	358.30	4,714.65	-254.22	254.04	-26.05	255.37	354.15	381,111.96	794,410.60
4,821.00	5.20	352.30	4,808.25	-262.87	262.68	-26.75	264.04	354.19	381,120.60	794,409.90



ProDirectional
Survey Report



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Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
4,916.00	5.30	352.20	4,902.85	-271.49	271.30	-27.92	272.73	354.12	381,129.22	794,408.73
5,010.00	4.80	350.30	4,996.49	-279.68	279.47	-29.18	280.99	354.04	381,137.39	794,407.47
5,103.00	5.10	347.60	5,089.14	-287.56	287.35	-30.72	288.98	353.90	381,145.27	794,405.93
5,214.00	4.90	348.10	5,199.72	-297.04	296.80	-32.76	298.61	353.70	381,154.72	794,403.89
5,289.00	4.30	348.90	5,274.47	-302.94	302.70	-33.96	304.60	353.60	381,160.62	794,402.69
5,383.00	5.10	353.90	5,368.16	-310.56	310.31	-35.08	312.29	353.55	381,168.23	794,401.57
5,477.00	6.40	358.80	5,461.68	-319.96	319.70	-35.63	321.68	353.64	381,177.62	794,401.02
5,571.00	6.60	0.20	5,555.08	-330.60	330.34	-35.72	332.27	353.83	381,188.26	794,400.93
5,665.00	6.60	356.70	5,648.46	-341.39	341.14	-36.02	343.03	353.97	381,199.06	794,400.63
5,759.00	6.30	356.80	5,741.86	-351.94	351.68	-36.62	353.58	354.06	381,209.60	794,400.03
5,853.00	5.70	355.90	5,835.35	-361.75	361.49	-37.24	363.40	354.12	381,219.41	794,399.41
5,947.00	5.40	354.50	5,928.91	-370.81	370.54	-38.00	372.49	354.15	381,228.46	794,398.65
6,041.00	5.40	354.70	6,022.49	-379.63	379.35	-38.83	381.33	354.16	381,237.27	794,397.82
6,135.00	5.00	355.40	6,116.10	-388.12	387.84	-39.56	389.85	354.18	381,245.76	794,397.09
6,230.00	4.60	355.60	6,210.77	-396.05	395.76	-40.19	397.80	354.20	381,253.68	794,396.46
6,324.00	4.20	357.50	6,304.49	-403.25	402.96	-40.63	405.00	354.24	381,260.88	794,396.02
6,418.00	3.70	357.10	6,398.27	-409.72	409.43	-40.93	411.47	354.29	381,267.35	794,395.72
6,512.00	3.70	357.40	6,492.07	-415.78	415.49	-41.22	417.53	354.33	381,273.41	794,395.43
6,606.00	3.60	357.80	6,585.88	-421.76	421.47	-41.47	423.50	354.38	381,279.39	794,395.18
6,700.00	3.50	354.80	6,679.70	-427.57	427.27	-41.85	429.32	354.41	381,285.19	794,394.80
6,794.00	3.00	341.90	6,773.55	-432.77	432.47	-42.87	434.59	354.34	381,290.39	794,393.78
6,888.00	2.00	326.50	6,867.46	-436.49	436.18	-44.54	438.44	354.17	381,294.10	794,392.11
6,982.00	0.80	324.40	6,961.43	-438.40	438.08	-45.83	440.47	354.03	381,296.00	794,390.82
7,076.00	0.50	324.10	7,055.42	-439.27	438.94	-46.45	441.39	353.96	381,296.86	794,390.20
7,171.00	0.50	314.80	7,150.42	-439.90	439.57	-46.99	442.07	353.90	381,297.49	794,389.66
7,265.00	0.50	314.90	7,244.42	-440.49	440.15	-47.57	442.71	353.83	381,298.07	794,389.08
7,359.00	0.20	269.00	7,338.42	-440.78	440.44	-48.02	443.05	353.78	381,298.36	794,388.63



ProDirectional
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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
7,453.00	0.50	229.00	7,432.41	-440.51	440.16	-48.50	442.83	353.71	381,298.08	794,388.15
7,546.00	0.50	169.60	7,525.41	-439.84	439.50	-48.73	442.19	353.67	381,297.42	794,387.92
7,640.00	0.70	172.40	7,619.41	-438.87	438.53	-48.58	441.21	353.68	381,296.45	794,388.07
7,734.00	0.60	176.80	7,713.40	-437.81	437.47	-48.48	440.14	353.68	381,295.39	794,388.17
7,829.00	0.90	170.70	7,808.39	-436.57	436.23	-48.33	438.90	353.68	381,294.15	794,388.32
7,923.00	1.00	168.00	7,902.38	-435.04	434.70	-48.04	437.35	353.69	381,292.62	794,388.61
8,017.00	1.00	168.70	7,996.36	-433.43	433.09	-47.71	435.71	353.71	381,291.01	794,388.94
8,111.00	1.00	163.00	8,090.35	-431.84	431.51	-47.31	434.09	353.74	381,289.43	794,389.34
8,205.00	1.00	171.30	8,184.34	-430.24	429.91	-46.94	432.47	353.77	381,287.83	794,389.71
8,299.00	1.30	176.20	8,278.32	-428.37	428.04	-46.75	430.58	353.77	381,285.96	794,389.90
8,393.00	1.30	170.50	8,372.29	-426.25	425.92	-46.50	428.45	353.77	381,283.84	794,390.15
8,487.00	0.70	204.80	8,466.28	-424.68	424.35	-46.57	426.89	353.74	381,282.27	794,390.08
8,581.00	0.80	212.70	8,560.27	-423.61	423.27	-47.16	425.89	353.64	381,281.19	794,389.49
8,675.00	0.90	213.50	8,654.26	-422.45	422.11	-47.92	424.82	353.52	381,280.03	794,388.73
8,769.00	1.20	215.20	8,748.24	-421.03	420.69	-48.90	423.52	353.37	381,278.61	794,387.75
8,863.00	1.20	180.90	8,842.22	-419.25	418.90	-49.48	421.81	353.26	381,276.82	794,387.17
8,957.00	0.60	134.70	8,936.21	-417.92	417.57	-49.15	420.45	353.29	381,275.49	794,387.50
9,051.00	0.30	119.60	9,030.21	-417.44	417.10	-48.58	419.92	353.36	381,275.02	794,388.07
9,145.00	0.30	168.50	9,124.21	-417.08	416.74	-48.32	419.53	353.39	381,274.66	794,388.33
9,238.00	0.60	207.70	9,217.21	-416.41	416.07	-48.50	418.88	353.35	381,273.99	794,388.15
9,332.00	0.80	227.40	9,311.20	-415.54	415.19	-49.21	418.09	353.24	381,273.11	794,387.44
9,426.00	0.50	313.70	9,405.20	-415.38	415.03	-49.99	418.03	353.13	381,272.95	794,386.66
9,520.00	0.80	333.50	9,499.19	-416.26	415.90	-50.58	418.96	353.07	381,273.82	794,386.07
9,614.00	1.00	302.40	9,593.18	-417.29	416.92	-51.56	420.10	352.95	381,274.84	794,385.09
9,708.00	1.50	294.00	9,687.16	-418.24	417.86	-53.38	421.26	352.72	381,275.78	794,383.27
9,797.00	1.90	283.10	9,776.12	-419.07	418.67	-55.88	422.38	352.40	381,276.59	794,380.77
9,897.00	5.30	191.60	9,875.96	-414.94	414.52	-58.43	418.62	351.98	381,272.44	794,378.22



ProDirectional
Survey Report



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Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
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Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
9,991.00	17.10	185.40	9,968.01	-396.88	396.44	-60.61	401.05	351.31	381,254.36	794,376.04
10,085.00	26.50	187.40	10,055.19	-362.27	361.81	-64.62	367.54	349.87	381,219.73	794,372.03
10,179.00	36.80	185.60	10,135.10	-313.37	312.86	-70.08	320.61	347.37	381,170.78	794,366.57
10,273.00	47.90	180.50	10,204.48	-250.28	249.75	-73.15	260.24	343.68	381,107.67	794,363.50
10,367.00	63.80	174.80	10,257.11	-172.85	172.34	-69.60	185.87	338.01	381,030.26	794,367.05
10,461.00	71.40	171.00	10,292.92	-86.62	86.20	-58.79	104.34	325.70	380,944.12	794,377.86
10,555.00	77.60	169.90	10,318.03	2.76	-3.08	-43.76	43.87	265.97	380,854.84	794,392.89
10,649.00	85.80	171.40	10,331.58	94.57	-94.78	-28.67	99.02	196.83	380,763.14	794,407.98
10,673.00	90.10	170.70	10,332.44	118.28	-118.47	-24.94	121.07	191.89	380,739.45	794,411.71
10,767.00	94.50	171.50	10,328.67	211.16	-211.24	-10.41	211.50	182.82	380,646.68	794,426.24
10,855.00	92.53	171.78	10,323.27	298.15	-298.14	2.35	298.15	179.55	380,559.78	794,439.00
330' FWL: 10855' MD										
10,861.00	92.40	171.80	10,323.01	304.08	-304.07	3.21	304.09	179.40	380,553.85	794,439.86
10,955.00	90.70	171.80	10,320.47	397.18	-397.07	16.61	397.42	177.60	380,460.85	794,453.26
11,049.00	90.40	171.10	10,319.57	490.23	-490.02	30.59	490.97	176.43	380,367.90	794,467.24
11,143.00	89.10	172.90	10,319.98	583.40	-583.10	43.67	584.73	175.72	380,274.82	794,480.32
11,237.00	90.10	175.80	10,320.64	677.00	-676.63	52.92	678.70	175.53	380,181.29	794,489.57
11,331.00	87.90	175.90	10,322.28	770.78	-770.36	59.72	772.67	175.57	380,087.56	794,496.37
11,425.00	87.30	176.10	10,326.21	864.51	-864.05	66.27	866.59	175.61	379,993.87	794,502.92
11,519.00	87.70	176.00	10,330.31	958.25	-957.74	72.74	960.50	175.66	379,900.18	794,509.39
11,613.00	89.30	176.70	10,332.77	1,052.06	-1,051.51	78.72	1,054.45	175.72	379,806.41	794,515.37
11,707.00	88.40	178.50	10,334.66	1,145.98	-1,145.41	82.66	1,148.38	175.87	379,712.51	794,519.31
11,801.00	89.30	179.80	10,336.55	1,239.96	-1,239.37	84.05	1,242.22	176.12	379,618.55	794,520.70
11,895.00	90.00	180.50	10,337.12	1,333.95	-1,333.37	83.81	1,336.00	176.40	379,524.55	794,520.46
11,989.00	89.80	180.70	10,337.29	1,427.93	-1,427.36	82.82	1,429.77	176.68	379,430.56	794,519.47
12,083.00	89.10	180.60	10,338.19	1,521.91	-1,521.35	81.76	1,523.55	176.92	379,336.57	794,518.41
12,177.00	88.90	180.20	10,339.83	1,615.89	-1,615.34	81.10	1,617.37	177.13	379,242.58	794,517.75



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
12,271.00	90.40	181.10	10,340.40	1,709.87	-1,709.33	80.03	1,711.20	177.32	379,148.59	794,516.68
12,365.00	90.10	182.00	10,339.99	1,803.81	-1,803.29	77.49	1,804.95	177.54	379,054.63	794,514.14
12,459.00	91.30	181.70	10,338.84	1,897.73	-1,897.23	74.46	1,898.69	177.75	378,960.69	794,511.11
12,553.00	91.60	180.80	10,336.46	1,991.65	-1,991.18	72.41	1,992.49	177.92	378,866.74	794,509.06
12,647.00	90.60	182.80	10,334.66	2,085.56	-2,085.11	69.46	2,086.26	178.09	378,772.81	794,506.11
12,741.00	91.70	182.80	10,332.77	2,179.39	-2,178.98	64.86	2,179.94	178.29	378,678.94	794,501.51
12,836.00	90.60	181.90	10,330.87	2,274.26	-2,273.87	60.97	2,274.69	178.46	378,584.05	794,497.62
12,929.00	88.80	180.20	10,331.35	2,367.22	-2,366.85	59.27	2,367.59	178.57	378,491.07	794,495.92
13,024.00	90.10	180.10	10,332.27	2,462.21	-2,461.84	59.02	2,462.55	178.63	378,396.08	794,495.67
13,118.00	92.00	181.30	10,330.54	2,556.17	-2,555.81	57.87	2,556.47	178.70	378,302.11	794,494.52
13,212.00	90.10	180.50	10,328.82	2,650.12	-2,649.78	56.39	2,650.38	178.78	378,208.14	794,493.04
13,306.00	89.70	180.20	10,328.98	2,744.11	-2,743.78	55.82	2,744.35	178.83	378,114.14	794,492.47
13,400.00	89.40	180.40	10,329.72	2,838.10	-2,837.78	55.33	2,838.31	178.88	378,020.14	794,491.98
13,494.00	89.40	180.10	10,330.71	2,932.09	-2,931.77	54.92	2,932.28	178.93	377,926.15	794,491.57
13,588.00	88.60	179.50	10,332.35	3,026.08	-3,025.75	55.24	3,026.26	178.95	377,832.17	794,491.89
13,682.00	89.80	178.60	10,333.66	3,120.06	-3,119.73	56.80	3,120.25	178.96	377,738.19	794,493.45
13,776.00	90.50	179.50	10,333.41	3,214.05	-3,213.71	58.36	3,214.24	178.96	377,644.21	794,495.01
13,870.00	90.90	180.30	10,332.27	3,308.05	-3,307.71	58.53	3,308.22	178.99	377,550.21	794,495.18
13,964.00	91.30	180.40	10,330.46	3,402.02	-3,401.69	57.95	3,402.18	179.02	377,456.23	794,494.60
14,058.00	90.30	179.30	10,329.15	3,496.01	-3,495.67	58.20	3,496.16	179.05	377,362.25	794,494.85
14,152.00	90.40	179.40	10,328.57	3,590.00	-3,589.67	59.26	3,590.16	179.05	377,268.25	794,495.91
14,246.00	88.30	178.60	10,329.64	3,683.99	-3,683.64	60.90	3,684.14	179.05	377,174.28	794,497.55
14,340.00	89.10	178.00	10,331.77	3,777.94	-3,777.57	63.69	3,778.11	179.03	377,080.35	794,500.34
14,434.00	89.80	178.60	10,332.68	3,871.91	-3,871.53	66.48	3,872.10	179.02	376,986.39	794,503.13
14,528.00	89.00	178.20	10,333.66	3,965.88	-3,965.48	69.11	3,966.09	179.00	376,892.44	794,505.76
14,622.00	88.70	178.80	10,335.55	4,059.85	-4,059.43	71.57	4,060.06	178.99	376,798.49	794,508.22
14,717.00	88.80	177.40	10,337.62	4,154.79	-4,154.35	74.71	4,155.03	178.97	376,703.57	794,511.36



ProDirectional Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
14,811.00	88.30	176.90	10,340.00	4,248.68	-4,248.21	79.39	4,248.95	178.93	376,609.71	794,516.04
14,905.00	91.30	177.30	10,340.33	4,342.58	-4,342.08	84.14	4,342.89	178.89	376,515.84	794,520.79
14,999.00	91.20	177.10	10,338.28	4,436.47	-4,435.94	88.73	4,436.83	178.85	376,421.98	794,525.38
15,093.00	91.20	177.30	10,336.31	4,530.37	-4,529.81	93.32	4,530.77	178.82	376,328.11	794,529.97
15,187.00	90.40	177.50	10,334.99	4,624.29	-4,623.70	97.59	4,624.73	178.79	376,234.22	794,534.24
15,281.00	90.90	178.80	10,333.93	4,718.25	-4,717.64	100.62	4,718.72	178.78	376,140.28	794,537.27
15,375.00	89.40	178.40	10,333.68	4,812.24	-4,811.61	102.92	4,812.71	178.77	376,046.31	794,539.57
15,469.00	90.10	178.50	10,334.09	4,906.22	-4,905.58	105.46	4,906.71	178.77	375,952.34	794,542.11
15,563.00	88.60	178.70	10,335.16	5,000.20	-4,999.54	107.76	5,000.70	178.77	375,858.38	794,544.41
15,657.00	90.00	179.20	10,336.31	5,094.18	-5,093.51	109.48	5,094.69	178.77	375,764.41	794,546.13
15,751.00	89.70	177.90	10,336.55	5,188.16	-5,187.48	111.86	5,188.69	178.76	375,670.44	794,548.51
15,846.00	89.80	178.20	10,336.97	5,283.13	-5,282.43	115.09	5,283.68	178.75	375,575.49	794,551.74
15,940.00	87.70	177.10	10,339.02	5,377.05	-5,376.32	118.94	5,377.63	178.73	375,481.60	794,555.59
16,033.00	88.80	178.60	10,341.86	5,469.96	-5,469.21	122.43	5,470.58	178.72	375,388.71	794,559.08
16,128.00	89.20	180.20	10,343.52	5,564.94	-5,564.18	123.42	5,565.55	178.73	375,293.74	794,560.07
16,222.00	90.20	181.00	10,344.01	5,658.92	-5,658.17	122.44	5,659.50	178.76	375,199.75	794,559.09
16,316.00	90.80	181.40	10,343.19	5,752.88	-5,752.15	120.47	5,753.41	178.80	375,105.77	794,557.12
16,410.00	90.20	181.20	10,342.37	5,846.83	-5,846.12	118.34	5,847.32	178.84	375,011.80	794,554.99
16,504.00	91.30	182.10	10,341.14	5,940.76	-5,940.07	115.63	5,941.20	178.88	374,917.85	794,552.28
16,598.00	90.80	182.10	10,339.42	6,034.65	-6,033.99	112.19	6,035.04	178.93	374,823.93	794,548.84
16,692.00	90.40	182.10	10,338.43	6,128.56	-6,127.92	108.74	6,128.89	178.98	374,730.00	794,545.39
16,786.00	88.30	181.90	10,339.50	6,222.46	-6,221.86	105.46	6,222.75	179.03	374,636.06	794,542.11
16,880.00	87.80	181.40	10,342.70	6,316.34	-6,315.76	102.76	6,316.60	179.07	374,542.16	794,539.41
16,974.00	88.10	181.10	10,346.06	6,410.24	-6,409.68	100.71	6,410.47	179.10	374,448.24	794,537.36
17,068.00	87.40	181.10	10,349.75	6,504.14	-6,503.59	98.91	6,504.34	179.13	374,354.33	794,535.56
17,162.00	88.30	181.00	10,353.27	6,598.04	-6,597.51	97.19	6,598.22	179.16	374,260.41	794,533.84
17,256.00	88.00	179.20	10,356.31	6,691.98	-6,691.45	97.02	6,692.16	179.17	374,166.47	794,533.67



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
17,350.00	89.90	178.30	10,358.03	6,785.95	-6,785.41	99.07	6,786.13	179.16	374,072.51	794,535.72
17,444.00	90.40	178.50	10,357.79	6,879.93	-6,879.37	101.70	6,880.12	179.15	373,978.55	794,538.35
17,539.00	89.60	178.30	10,357.79	6,974.91	-6,974.33	104.35	6,975.11	179.14	373,883.59	794,541.00
17,633.00	91.60	178.60	10,356.80	7,068.88	-7,068.29	106.89	7,069.10	179.13	373,789.63	794,543.54
17,727.00	91.40	178.80	10,354.34	7,162.84	-7,162.23	109.02	7,163.06	179.13	373,695.69	794,545.67
17,821.00	91.10	178.30	10,352.29	7,256.80	-7,256.18	111.40	7,257.03	179.12	373,601.74	794,548.05
17,915.00	91.90	178.70	10,349.83	7,350.75	-7,350.11	113.86	7,351.00	179.11	373,507.81	794,550.51
18,009.00	90.90	179.90	10,347.53	7,444.72	-7,444.08	115.01	7,444.96	179.11	373,413.84	794,551.66
18,103.00	90.30	179.90	10,346.55	7,538.71	-7,538.07	115.17	7,538.95	179.12	373,319.85	794,551.82
18,197.00	91.10	180.30	10,345.40	7,632.70	-7,632.06	115.01	7,632.93	179.14	373,225.86	794,551.66
18,291.00	89.80	179.60	10,344.66	7,726.69	-7,726.06	115.09	7,726.91	179.15	373,131.86	794,551.74
18,385.00	89.60	179.00	10,345.15	7,820.69	-7,820.05	116.24	7,820.91	179.15	373,037.87	794,552.89
18,479.00	90.00	179.40	10,345.48	7,914.69	-7,914.04	117.55	7,914.91	179.15	372,943.88	794,554.20
18,519.00	89.82	179.33	10,345.54	7,954.69	-7,954.04	118.00	7,954.91	179.15	372,903.88	794,554.65
330' FSL: 18519' MD										
18,592.00	89.50	179.20	10,345.98	8,027.68	-8,027.03	118.93	8,027.91	179.15	372,830.89	794,555.58
Final Survey: 18592' MD										
18,650.00	89.50	179.20	10,346.48	8,085.68	-8,085.02	119.74	8,085.91	179.15	372,772.90	794,556.39
Final TD: 18650' MD										



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Fighting Okra 18-19 Fed
Well: 41H
Wellbore: OH
Design: Surveys 141-18650 MD

Local Co-ordinate Reference: Well 41H
TVD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
MD Reference: GL 3357.5'+KB 25.5' @ 3383.00usft (Cactus 126)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
141.00	141.00	-0.32	-0.38	Pro MWD First Survey: 141' MD
10,855.00	10,323.27	-298.14	2.35	330' FWL: 10855' MD
18,519.00	10,345.54	-7,954.04	118.00	330' FSL: 18519' MD
18,592.00	10,345.98	-8,027.03	118.93	Final Survey: 18592' MD
18,650.00	10,346.48	-8,085.02	119.74	Final TD: 18650' MD