

Devon

SURVEY REPORT

Snapping 12-1 Fed 521H

Cactus 167

This survey is correct to the best of my knowledge and is supported by actual field data.

Arfreda Zavala

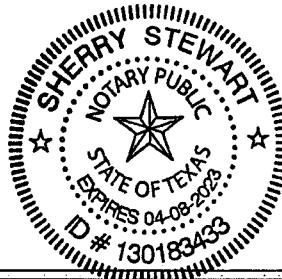
Notarized this data 6 of June, 2019.

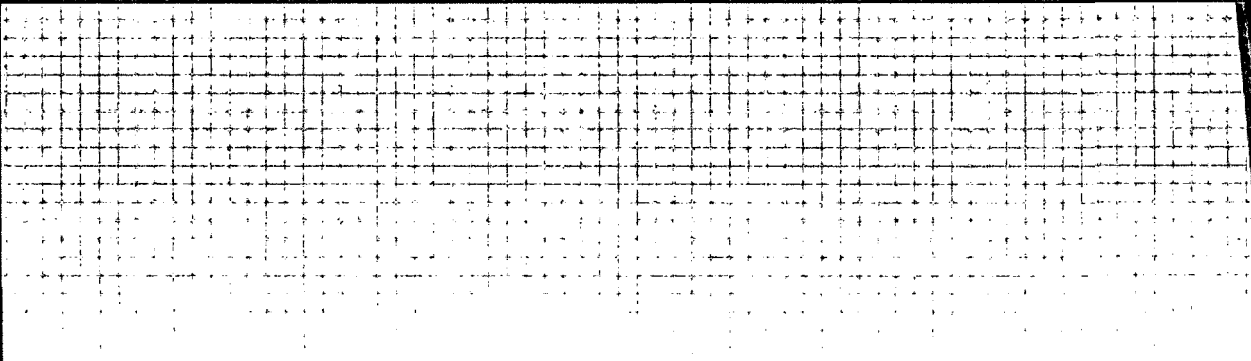
Sherry Stewart

Notary Signature

County of Midland

State of Texas





Devon Energy

Eddy County, NM (NAD83 NME)

Snapping 12-1 Fed

521H

OH

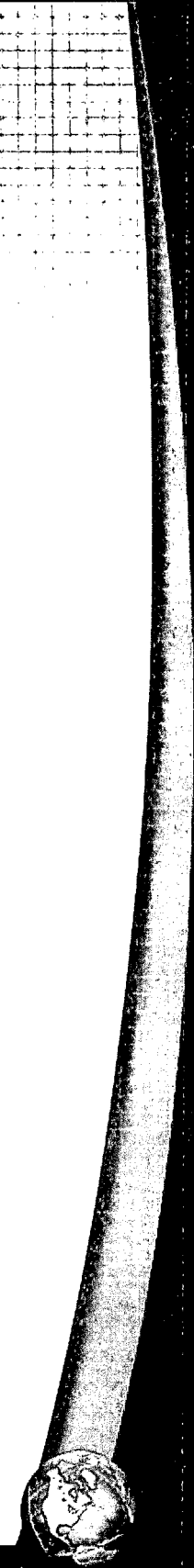
Survey: SDI Survey #1

Standard Survey Report

09 November, 2018



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Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 521H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB = 24' @ 3260.00usft (Cactus 167)
Site:	Snapping 12-1 Fed	MD Reference:	KB = 24' @ 3260.00usft (Cactus 167)
Well:	521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Project	Eddy County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site	Snapping 12-1 Fed		
Site Position:		Northing:	385,529.86 usft
From:	Map	Easting:	726,878.08 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 30.551 N
		Longitude:	103° 44' 3.900 W
		Grid Convergence:	0.32 °

Well	521H		
Well Position	+N/-S	0.00 usft	Northing: 385,524.61 usft
	+E/-W	0.00 usft	Easting: 725,868.30 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 3' 30.555 N
		Longitude:	103° 44' 15.634 W
		Ground Level:	3,236.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	12/31/2009	7.81
			Dip Angle (°)
			60.06
			Field Strength (nT)
			48,676

Design	OH		
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
			(bearing)
			356.32

Survey Program	Date	11/9/2018		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
227.00	16,412.00	SDI Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(bearing)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
227.00	1.91	140.87	226.96	-2.93	2.39	-3.08	0.84	0.84	0.00	
328.00	1.68	142.67	327.91	-5.42	4.35	-5.69	0.23	-0.23	1.78	
418.00	1.55	154.82	417.87	-7.57	5.67	-7.92	0.41	-0.14	13.50	
510.00	1.47	157.39	509.84	-9.78	6.65	-10.19	0.11	-0.09	2.79	
601.00	0.95	160.96	600.82	-11.57	7.34	-12.02	0.58	-0.57	3.92	
692.00	0.34	279.32	691.82	-12.24	7.32	-12.69	1.26	-0.67	130.07	
783.00	0.47	302.57	782.81	-12.00	6.74	-12.41	0.23	0.14	25.55	
875.00	0.53	320.20	874.81	-11.47	6.15	-11.84	0.18	0.07	19.16	
967.00	0.64	11.81	966.81	-10.64	5.98	-11.00	0.56	0.12	56.10	

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Well:	521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,018.00	0.76	45.06	1,017.80	-10.12	6.28	-10.50	0.82	0.24		65.20
1,241.00	0.64	67.15	1,240.79	-8.59	8.48	-9.12	0.13	-0.05		9.91
1,333.00	0.94	41.53	1,332.78	-7.83	9.45	-8.42	0.50	0.33		-27.85
1,425.00	2.20	340.81	1,424.75	-5.60	9.37	-6.19	2.09	1.37		-66.00
1,516.00	2.26	344.27	1,515.68	-2.22	8.31	-2.75	0.16	0.07		3.80
1,607.00	1.76	341.95	1,606.62	0.84	7.39	0.36	0.56	-0.55		-2.55
1,702.00	1.22	341.01	1,701.59	3.18	6.61	2.75	0.57	-0.57		-0.99
1,797.00	1.12	324.54	1,796.57	4.89	5.74	4.51	0.37	-0.11		-17.34
1,893.00	1.28	291.89	1,892.55	6.06	4.20	5.77	0.72	0.17		-34.01
1,988.00	1.04	305.65	1,987.53	6.95	2.52	6.78	0.39	-0.25		14.48
2,084.00	1.12	270.09	2,083.51	7.46	0.87	7.39	0.69	0.08		-37.04
2,178.00	0.95	254.05	2,177.50	7.25	-0.80	7.29	0.36	-0.18		-17.06
2,274.00	1.67	271.09	2,273.47	7.06	-2.96	7.23	0.84	0.75		17.75
2,369.00	2.55	254.44	2,368.41	6.52	-6.38	6.91	1.12	0.93		-17.53
2,465.00	2.86	235.89	2,464.30	4.60	-10.42	5.26	0.96	0.32		-19.32
2,560.00	3.17	239.04	2,559.17	1.92	-14.64	2.86	0.37	0.33		3.32
2,655.00	3.17	248.68	2,654.03	-0.38	-19.34	0.86	0.56	0.00		10.15
2,750.00	3.61	232.14	2,748.86	-3.17	-24.14	-1.62	1.12	0.46		-17.41
2,845.00	4.09	226.29	2,843.65	-7.35	-28.95	-5.48	0.65	0.51		-6.16
2,941.00	4.34	211.20	2,939.39	-12.82	-33.31	-10.66	1.18	0.26		-15.72
3,037.00	5.22	203.61	3,035.06	-19.93	-36.94	-17.52	1.13	0.92		-7.91
3,132.00	4.91	217.60	3,129.69	-27.11	-41.15	-24.42	1.34	-0.33		14.73
3,228.00	3.89	230.80	3,225.41	-32.43	-46.18	-29.40	1.49	-1.06		13.75
3,323.00	4.32	238.50	3,320.17	-36.33	-51.73	-32.94	0.73	0.45		8.11
3,419.00	5.51	239.93	3,415.81	-40.53	-58.80	-36.67	1.25	1.24		1.49
3,515.00	5.69	235.27	3,511.35	-45.55	-66.70	-41.18	0.51	0.19		-4.85
3,610.00	5.33	233.79	3,605.91	-50.84	-74.13	-45.98	0.41	-0.38		-1.56
3,706.00	6.30	223.80	3,701.42	-57.28	-81.38	-51.94	1.46	1.01		-10.41
3,801.00	5.59	227.08	3,795.91	-64.19	-88.37	-58.39	0.83	-0.75		3.45
3,896.00	6.11	223.61	3,890.42	-71.00	-95.25	-64.74	0.66	0.55		-3.65
3,991.00	6.70	220.70	3,984.82	-78.87	-102.35	-72.13	0.71	0.62		-3.06
4,086.00	6.57	226.87	4,079.19	-86.78	-109.93	-79.55	0.76	-0.14		6.49
4,185.00	6.10	228.95	4,177.58	-94.11	-118.03	-86.34	0.53	-0.47		2.10
4,281.00	6.34	228.57	4,273.02	-100.97	-125.85	-92.68	0.25	0.25		-0.40
4,376.00	6.50	229.84	4,367.42	-107.91	-133.89	-99.09	0.23	0.17		1.34
4,471.00	6.67	230.37	4,461.80	-114.89	-142.25	-105.52	0.19	0.18		0.56
4,566.00	6.63	228.87	4,556.16	-122.02	-150.63	-112.10	0.19	-0.04		-1.58
4,661.00	6.21	234.76	4,650.56	-128.59	-158.96	-118.12	0.82	-0.44		6.20
4,756.00	5.74	239.61	4,745.05	-133.96	-167.25	-122.95	0.73	-0.49		5.11
4,851.00	5.74	241.42	4,839.57	-138.63	-175.52	-127.08	0.19	0.00		1.91
4,947.00	5.90	238.31	4,935.07	-143.52	-183.94	-131.42	0.37	0.17		-3.24
5,041.00	6.00	235.59	5,028.57	-148.84	-192.10	-136.20	0.32	0.11		-2.89
5,137.00	5.85	235.47	5,124.06	-154.45	-200.27	-141.27	0.16	-0.16		-0.13
5,232.00	5.39	232.54	5,218.60	-159.90	-207.80	-146.24	0.57	-0.48		-3.08

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,328.00	5.69	235.02	5,314.15	-165.37	-215.28	-151.22	0.40	0.31	2.58	
5,423.00	6.00	236.44	5,408.66	-170.82	-223.28	-156.14	0.36	0.33	1.49	
5,519.00	6.22	238.00	5,504.11	-176.35	-231.87	-161.10	0.29	0.23	1.63	
5,614.00	6.15	237.37	5,598.56	-181.82	-240.52	-166.01	0.10	-0.07	-0.66	
5,710.00	6.20	234.56	5,694.00	-187.60	-249.07	-171.23	0.32	0.05	-2.93	
5,805.00	6.65	234.40	5,788.40	-193.78	-257.73	-176.83	0.47	0.47	-0.17	
5,901.00	6.21	235.76	5,883.80	-199.93	-266.54	-182.41	0.48	-0.46	1.42	
5,996.00	6.28	236.47	5,978.24	-205.69	-275.12	-187.61	0.11	0.07	0.75	
6,092.00	6.00	234.36	6,073.69	-211.52	-283.57	-192.88	0.37	-0.29	-2.20	
6,187.00	5.98	232.39	6,168.17	-217.43	-291.53	-198.27	0.22	-0.02	-2.07	
6,283.00	5.80	234.18	6,263.66	-223.32	-299.42	-203.64	0.27	-0.19	1.86	
6,378.00	5.83	230.00	6,358.17	-229.23	-307.01	-209.05	0.45	0.03	-4.40	
6,472.00	6.19	228.53	6,451.66	-235.66	-314.46	-214.99	0.42	0.38	-1.56	
6,568.00	5.65	233.61	6,547.14	-241.89	-322.15	-220.71	0.78	-0.56	5.29	
6,663.00	5.55	234.11	6,641.69	-247.36	-329.63	-225.69	0.12	-0.11	0.53	
6,758.00	5.70	232.61	6,736.23	-252.91	-337.10	-230.76	0.22	0.16	-1.58	
6,853.00	4.93	235.82	6,830.82	-258.07	-344.23	-235.45	0.87	-0.81	3.38	
6,949.00	5.30	233.53	6,926.44	-263.02	-351.21	-239.94	0.44	0.39	-2.39	
7,044.00	5.03	235.13	7,021.06	-268.01	-358.15	-244.47	0.32	-0.28	1.68	
7,139.00	4.88	238.60	7,115.70	-272.50	-365.02	-248.51	0.35	-0.16	3.65	
7,234.00	4.42	243.23	7,210.39	-276.25	-371.73	-251.83	0.62	-0.48	4.87	
7,327.00	3.68	244.91	7,303.16	-279.13	-377.64	-254.32	0.81	-0.80	1.81	
7,422.00	3.10	249.57	7,397.99	-281.32	-382.81	-256.17	0.68	-0.61	4.91	
7,518.00	3.03	241.93	7,493.85	-283.42	-387.48	-257.97	0.43	-0.07	-7.96	
7,613.00	2.53	244.16	7,588.74	-285.52	-391.58	-259.80	0.54	-0.53	2.35	
7,708.00	1.98	237.05	7,683.67	-287.33	-394.84	-261.39	0.65	-0.58	-7.48	
7,804.00	1.10	222.21	7,779.63	-288.91	-396.85	-262.84	1.00	-0.92	-15.46	
7,899.00	0.54	270.22	7,874.62	-289.58	-397.91	-263.45	0.88	-0.59	50.54	
7,995.00	0.50	232.70	7,970.62	-289.84	-398.70	-263.65	0.35	-0.04	-39.08	
8,085.00	0.61	233.21	8,060.61	-290.36	-399.40	-264.13	0.12	0.12	0.57	
8,185.00	0.84	226.79	8,160.61	-291.18	-400.36	-264.88	0.24	0.23	-6.42	
8,280.00	14.11	359.72	8,254.68	-280.02	-400.92	-253.71	15.47	13.97	139.93	
8,327.00	20.10	359.95	8,299.58	-266.20	-400.96	-239.92	12.75	12.74	0.49	
8,376.00	25.74	359.30	8,344.70	-247.13	-401.10	-220.87	11.52	11.51	-1.33	
8,423.00	30.89	359.13	8,386.06	-224.84	-401.40	-198.61	10.96	10.96	-0.36	
8,471.00	35.77	0.30	8,426.15	-198.48	-401.52	-172.30	10.25	10.17	2.44	
8,518.00	40.07	3.16	8,463.23	-169.62	-400.61	-143.56	9.88	9.15	6.09	
8,567.00	45.13	2.98	8,499.28	-136.51	-398.84	-110.63	10.33	10.33	-0.37	
8,614.00	49.16	0.74	8,531.24	-102.09	-397.74	-76.35	9.26	8.57	-4.77	
8,663.00	52.97	0.38	8,562.03	-63.98	-397.37	-38.34	7.80	7.78	-0.73	
8,710.00	55.55	0.21	8,589.48	-25.83	-397.18	-0.29	5.50	5.49	-0.36	
8,758.00	57.54	1.57	8,615.94	14.20	-396.55	39.63	4.77	4.15	2.83	
8,773.55	58.00	2.00	8,624.24	27.35	-396.14	52.72	3.80	2.97	2.79	

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Design:	OH	Database:	Midland District

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Pen.TgtTop									
8,805.00	58.94	2.87	8,640.68	54.13	-395.00	79.37	3.80	2.98	2.75
8,853.00	62.45	2.93	8,664.17	95.93	-392.88	120.95	7.31	7.31	0.13
8,900.00	63.72	358.99	8,685.46	137.82	-392.19	162.71	7.95	2.70	-8.38
8,948.00	67.31	357.37	8,705.35	181.47	-393.58	206.36	8.08	7.48	-3.38
8,995.00	74.88	358.82	8,720.56	225.88	-395.05	250.77	16.37	16.11	3.09
9,020.00	78.98	359.97	8,726.22	250.23	-395.30	275.08	17.00	16.40	4.60
9,053.00	83.02	0.24	8,731.38	282.81	-395.24	307.60	12.27	12.24	0.82
9,100.00	89.53	1.70	8,734.43	329.68	-394.45	354.32	14.19	13.85	3.11
9,145.00	91.14	2.00	8,734.17	374.65	-392.99	399.11	3.64	3.58	0.67
9,192.00	91.81	1.67	8,732.96	421.61	-391.49	445.87	1.59	1.43	-0.70
9,282.00	92.83	1.14	8,729.31	511.51	-389.29	535.44	1.28	1.13	-0.59
9,374.00	94.84	0.23	8,723.16	603.29	-388.19	626.97	2.40	2.18	-0.99
9,466.00	88.92	359.70	8,720.14	695.20	-388.24	718.69	6.46	-6.43	-0.58
9,558.00	88.99	359.60	8,721.82	787.19	-388.81	810.52	0.13	0.08	-0.11
9,649.00	89.73	358.40	8,722.84	878.16	-390.39	901.41	1.55	0.81	-1.32
9,740.00	90.67	359.07	8,722.52	969.14	-392.40	992.33	1.27	1.03	0.74
9,835.00	89.73	358.67	8,722.19	1,064.12	-394.28	1,087.23	1.08	-0.99	-0.42
9,930.00	87.85	357.58	8,724.20	1,159.04	-397.38	1,182.16	2.29	-1.98	-1.15
10,025.00	89.02	357.34	8,726.79	1,253.91	-401.59	1,277.10	1.26	1.23	-0.25
10,120.00	91.38	357.50	8,726.46	1,348.81	-405.87	1,372.08	2.49	2.48	0.17
10,216.00	90.34	357.59	8,725.02	1,444.71	-409.98	1,468.04	1.09	-1.08	0.09
10,311.00	90.13	359.31	8,724.63	1,539.67	-412.55	1,562.97	1.82	-0.22	1.81
10,397.76	89.03	358.60	8,725.26	1,626.41	-414.13	1,649.63	1.51	-1.26	-0.82
AP1[S(521H)]									
10,406.00	88.93	358.53	8,725.41	1,634.65	-414.34	1,657.87	1.51	-1.26	-0.82
10,502.00	87.37	358.85	8,728.51	1,730.57	-416.53	1,753.73	1.66	-1.63	0.33
10,598.00	87.15	359.70	8,733.10	1,826.45	-417.75	1,849.50	0.91	-0.23	0.89
10,692.00	88.62	359.38	8,736.56	1,920.38	-418.50	1,943.28	1.60	1.56	-0.34
10,788.00	91.01	359.02	8,736.87	2,016.36	-419.84	2,039.15	2.52	2.49	-0.38
10,882.00	89.19	359.44	8,736.71	2,110.35	-421.10	2,133.03	1.99	-1.94	0.45
10,978.00	90.74	1.88	8,736.77	2,206.33	-420.00	2,228.74	3.01	1.61	2.54
11,073.00	91.21	2.41	8,735.15	2,301.25	-416.44	2,323.24	0.75	0.49	0.56
11,168.00	89.56	1.36	8,734.51	2,396.19	-413.32	2,417.78	2.06	-1.74	-1.11
11,264.00	88.66	359.47	8,736.01	2,492.17	-412.62	2,513.52	2.18	-0.94	-1.97
11,359.00	88.92	358.59	8,738.01	2,587.14	-414.23	2,608.39	0.97	0.27	-0.93
11,454.00	90.24	359.87	8,738.71	2,682.12	-415.51	2,703.26	1.94	1.39	1.35
11,549.00	89.19	359.82	8,739.18	2,777.12	-415.76	2,798.08	1.11	-1.11	-0.05
11,645.00	87.58	357.14	8,741.89	2,873.04	-418.31	2,893.96	3.26	-1.68	-2.79
11,740.00	86.91	354.46	8,746.45	2,967.66	-425.26	2,988.84	2.90	-0.71	-2.82
11,836.00	90.60	354.34	8,748.54	3,063.17	-434.62	3,084.75	3.85	3.84	-0.13
11,931.00	91.85	357.47	8,746.51	3,157.89	-441.40	3,179.71	3.55	1.32	3.29
12,027.00	93.32	359.89	8,742.18	3,253.75	-443.61	3,275.52	2.95	1.53	2.52
12,122.00	93.54	2.15	8,736.49	3,348.56	-441.93	3,370.02	2.39	0.23	2.38

Scientific Drilling, Intl

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 521H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB = 24' @ 3260.00usft (Cactus 167)
Site:	Snapping 12-1 Fed	MD Reference:	KB = 24' @ 3260.00usft (Cactus 167)
Well:	521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,217.00	93.12	2.42	8,730.97	3,443.33	-438.14	3,464.35	0.53	-0.44	0.28
12,312.00	91.44	2.42	8,727.20	3,538.16	-434.14	3,558.73	1.77	-1.77	0.00
12,408.00	89.16	1.55	8,726.69	3,634.10	-430.81	3,654.26	2.54	-2.38	-0.91
12,503.00	87.68	1.43	8,729.31	3,729.03	-428.34	3,748.83	1.56	-1.56	-0.13
12,598.00	87.68	1.02	8,733.16	3,823.93	-426.31	3,843.41	0.43	0.00	-0.43
12,694.00	87.08	359.39	8,737.55	3,919.82	-425.97	3,939.08	1.81	-0.63	-1.70
12,789.00	88.69	357.69	8,741.05	4,014.72	-428.39	4,033.94	2.46	1.69	-1.79
12,885.00	91.51	357.46	8,740.89	4,110.62	-432.45	4,129.91	2.95	2.94	-0.24
12,981.00	90.71	357.87	8,739.03	4,206.53	-436.36	4,225.86	0.94	-0.83	0.43
13,075.00	90.64	358.25	8,737.92	4,300.47	-439.54	4,319.81	0.41	-0.07	0.40
13,171.00	89.23	358.39	8,738.03	4,396.42	-442.36	4,415.75	1.48	-1.47	0.15
13,266.00	91.45	358.60	8,737.46	4,491.38	-444.85	4,510.67	2.35	2.34	0.22
13,362.00	89.93	359.68	8,736.31	4,587.36	-446.29	4,606.55	1.94	-1.58	1.13
13,457.00	92.19	0.81	8,734.55	4,682.33	-445.89	4,701.30	2.66	2.38	1.19
13,552.00	90.64	2.05	8,732.20	4,777.27	-443.52	4,795.89	2.09	-1.63	1.31
13,647.00	88.99	2.12	8,732.51	4,872.20	-440.06	4,890.40	1.74	-1.74	0.07
13,743.00	89.16	1.34	8,734.06	4,968.15	-437.16	4,985.96	0.83	0.18	-0.81
13,838.00	88.59	359.73	8,735.93	5,063.12	-436.28	5,080.68	1.80	-0.60	-1.69
13,933.00	90.27	359.21	8,736.87	5,158.11	-437.15	5,175.53	1.85	1.77	-0.55
13,956.64	90.25	358.71	8,736.76	5,181.74	-437.58	5,199.14	2.11	-0.07	-2.10
AP2[S521H]									
14,029.00	90.20	357.19	8,736.48	5,254.06	-440.17	5,271.47	2.11	-0.07	-2.10
14,124.00	89.80	355.62	8,736.48	5,348.87	-446.13	5,366.47	1.71	-0.42	-1.65
14,219.00	91.64	354.50	8,735.28	5,443.50	-454.31	5,461.43	2.27	1.94	-1.18
14,314.00	89.13	357.96	8,734.64	5,538.27	-460.55	5,556.41	4.50	-2.64	3.64
14,410.00	90.23	358.73	8,735.18	5,634.23	-463.32	5,652.35	1.40	1.15	0.80
14,506.00	89.40	0.34	8,735.49	5,730.22	-464.10	5,748.19	1.89	-0.86	1.68
14,601.00	89.63	0.31	8,736.29	5,825.21	-463.56	5,842.96	0.24	0.24	-0.03
14,690.00	89.90	359.80	8,736.66	5,914.21	-463.48	5,931.77	0.65	0.30	-0.57
14,786.00	90.40	0.55	8,736.41	6,010.21	-463.18	6,027.55	0.94	0.52	0.78
14,881.00	88.11	359.50	8,737.64	6,105.20	-463.14	6,122.33	2.65	-2.41	-1.11
14,977.00	86.78	358.71	8,741.92	6,201.08	-464.64	6,218.12	1.61	-1.39	-0.82
15,072.00	86.78	359.04	8,747.26	6,295.92	-466.50	6,312.88	0.35	0.00	0.35
15,168.00	87.59	0.06	8,751.97	6,391.80	-467.26	6,408.61	1.36	0.84	1.06
15,263.00	88.02	359.65	8,755.61	6,486.73	-467.50	6,503.36	0.63	0.45	-0.43
15,359.00	89.29	0.02	8,757.87	6,582.70	-467.77	6,599.15	1.38	1.32	0.39
15,454.00	89.73	0.03	8,758.68	6,677.69	-467.73	6,693.94	0.46	0.46	0.01
15,459.27	89.71	360.00	8,758.70	6,682.96	-467.73	6,699.20	0.70	-0.31	-0.62
AP3[S521H]									
15,550.00	89.43	359.43	8,759.38	6,773.69	-468.18	6,789.77	0.70	-0.31	-0.63
15,645.00	90.44	359.37	8,759.49	6,868.68	-469.18	6,884.63	1.07	1.06	-0.06
15,740.00	90.37	359.51	8,758.82	6,963.67	-470.11	6,979.49	0.16	-0.07	0.15
15,836.00	89.90	358.91	8,758.59	7,059.66	-471.43	7,075.37	0.79	-0.49	-0.63

Scientific Drilling, Intl

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 521H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB = 24' @ 3260.00usft (Cactus 167)
Site:	Snapping 12-1 Fed	MD Reference:	KB = 24' @ 3260.00usft (Cactus 167)
Well:	521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,931.00	91.14	358.30	8,757.73	7,154.63	-473.74	7,170.28	1.45	1.31	-0.64	
16,027.00	91.18	358.53	8,755.79	7,250.57	-476.40	7,266.20	0.24	0.04	0.24	
16,122.00	91.68	358.41	8,753.42	7,345.51	-478.93	7,361.10	0.54	0.53	-0.13	
16,218.00	90.30	357.23	8,751.76	7,441.42	-482.58	7,457.05	1.89	-1.44	-1.23	
16,313.00	90.17	357.73	8,751.37	7,536.33	-486.76	7,552.03	0.54	-0.14	0.53	
16,320.46	90.18	357.75	8,751.34	7,543.79	-487.06	7,559.49	0.33	0.09	0.31	
BHL Plat[S521H]										
16,345.00	90.20	357.83	8,751.26	7,568.31	-488.00	7,584.02	0.33	0.09	0.31	
FINAL MWD Survey (16345.00' MD)										
16,400.43	90.20	357.83	8,751.07	7,623.69	-490.10	7,639.43	0.00	0.00	0.00	
BHL.Final[S521H]										
16,412.00	90.20	357.83	8,751.03	7,635.26	-490.54	7,651.00	0.00	0.00	0.00	
FINAL Proj. to Bit (16412.00' MD)										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
16,345.00	8,751.26	7,568.31	-488.00	FINAL MWD Survey (16345.00' MD)	
16,412.00	8,751.03	7,635.26	-490.54	FINAL Proj. to Bit (16412.00' MD)	

Checked By: _____ Approved By: _____ Date: _____