

Devon

SURVEY REPORT

Chincoteague 8-5 Fed State Com 521H

Cactus 167

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

Notarized this data 6th of January, 2020

Sherry Stewart

Notary Signature

County of Midland

State of Texas





Scientific Drilling

Devon Energy

Lea County, NM (NAD83 NME)

Chincoteague 8-5 Fed Com

#521H

OH

Survey: SDI Survey #1

Standard Survey Report

19 December, 2019



Scientific Drilling

www.scientificdrilling.com



Company:	Devon Energy	Local Co-ordinate Reference:	Well #521H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB=24' @ 3464.00usft (Cactus 167)
Site:	Chincoteague 8-5 Fed Com	MD Reference:	KB=24' @ 3464.00usft (Cactus 167)
Well:	#521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland

Project	Lea 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	Chincoteague 8-5 Fed Com		
Site Position:		Northing:	417,469.39 usft
From:	Map	Easting:	736,452.27 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 8' 46.075 N
		Longitude:	103° 42' 10.477 W
		Grid Convergence:	0.34 °

Well	#521H		
Well Position	+N/-S	0.00 usft	Northing: 417,469.39 usft
	+E/-W	0.00 usft	Easting: 736,452.27 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 8' 46.075 N
		Longitude:	103° 42' 10.477 W
		Ground Level:	3,440.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	11/7/2019	6.63
			Dip Angle (°) 59.75
			Field Strength (nT) 47,781.90000000

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (bearing) 359.58

Survey Program	Date	12/6/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
111.00	15,468.00	SDI Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
111.00	0.48	102.04	111.00	-0.10	0.45	-0.10	0.43	0.43	0.00	
201.00	0.48	238.78	201.00	-0.37	0.50	-0.37	0.99	0.00	151.93	
291.00	0.70	231.74	290.99	-0.91	-0.25	-0.90	0.26	0.24	-7.82	
382.00	0.65	241.10	381.99	-1.50	-1.14	-1.49	0.13	-0.05	10.29	
473.00	0.87	245.19	472.98	-2.04	-2.22	-2.02	0.25	0.24	4.49	
565.00	0.97	263.40	564.97	-2.42	-3.63	-2.40	0.33	0.11	19.79	
655.00	1.04	253.38	654.95	-2.74	-5.17	-2.71	0.21	0.08	-11.13	
744.00	1.16	267.15	743.94	-3.02	-6.84	-2.97	0.33	0.13	15.47	
772.00	1.02	266.90	771.93	-3.05	-7.37	-2.99	0.50	-0.50	-0.89	

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

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)
884.00	0.93	286.17	883.92	-2.85	-9.24	-2.78	0.30	-0.08	17.21
975.00	1.00	290.25	974.90	-2.37	-10.70	-2.29	0.11	0.08	4.48
1,065.00	1.01	280.81	1,064.89	-1.95	-12.21	-1.86	0.18	0.01	-10.49
1,156.00	1.09	277.50	1,155.87	-1.68	-13.86	-1.58	0.11	0.09	-3.64
1,247.00	1.10	274.95	1,246.86	-1.49	-15.59	-1.38	0.05	0.01	-2.80
1,339.00	1.21	274.93	1,338.84	-1.34	-17.43	-1.21	0.12	0.12	-0.02
1,431.00	0.74	248.82	1,430.83	-1.47	-18.96	-1.33	0.69	-0.51	-28.38
1,523.00	0.77	205.69	1,522.82	-2.24	-19.78	-2.09	0.60	0.03	-46.88
1,613.00	0.88	198.92	1,612.81	-3.44	-20.26	-3.29	0.16	0.12	-7.52
1,709.00	0.81	196.16	1,708.80	-4.79	-20.69	-4.63	0.08	-0.07	-2.88
1,804.00	0.77	196.21	1,803.79	-6.04	-21.06	-5.89	0.04	-0.04	0.05
1,899.00	0.48	176.05	1,898.78	-7.05	-21.21	-6.90	0.38	-0.31	-21.22
1,995.00	1.14	181.14	1,994.77	-8.41	-21.20	-8.25	0.69	0.69	5.30
2,090.00	2.30	185.21	2,089.73	-11.25	-21.39	-11.10	1.23	1.22	4.28
2,185.00	4.13	193.30	2,184.58	-16.48	-22.35	-16.32	1.98	1.93	8.52
2,281.00	4.95	193.62	2,280.27	-23.87	-24.12	-23.69	0.85	0.85	0.33
2,376.00	6.35	196.26	2,374.81	-32.90	-26.56	-32.70	1.50	1.47	2.78
2,471.00	8.45	199.76	2,469.01	-44.51	-30.39	-44.29	2.26	2.21	3.68
2,566.00	10.26	204.18	2,562.75	-58.80	-36.21	-58.53	2.05	1.91	4.65
2,661.00	10.47	204.55	2,656.20	-74.37	-43.27	-74.05	0.23	0.22	0.39
2,755.00	10.60	205.62	2,748.61	-89.93	-50.55	-89.56	0.25	0.14	1.14
2,850.00	10.99	206.76	2,841.93	-105.90	-58.41	-105.47	0.47	0.41	1.20
2,945.00	10.59	205.12	2,935.25	-121.89	-66.19	-121.40	0.53	-0.42	-1.73
3,041.00	10.95	207.66	3,029.56	-137.95	-74.17	-137.40	0.62	0.38	2.65
3,136.00	11.15	209.39	3,122.80	-153.95	-82.87	-153.33	0.41	0.21	1.82
3,230.00	11.19	209.76	3,215.02	-169.78	-91.85	-169.11	0.09	0.04	0.39
3,326.00	10.68	209.33	3,309.28	-185.62	-100.83	-184.88	0.54	-0.53	-0.45
3,422.00	10.18	211.01	3,403.69	-200.65	-109.56	-199.84	0.61	-0.52	1.75
3,517.00	10.47	207.44	3,497.15	-215.51	-117.87	-214.64	0.74	0.31	-3.76
3,612.00	9.99	207.86	3,590.64	-230.45	-125.69	-229.53	0.51	-0.51	0.44
3,707.00	10.92	207.44	3,684.06	-245.72	-133.69	-244.74	0.98	0.98	-0.44
3,802.00	10.50	203.36	3,777.41	-261.66	-141.27	-260.61	0.91	-0.44	-4.29
3,898.00	10.43	201.66	3,871.81	-277.76	-147.95	-276.67	0.33	-0.07	-1.77
3,993.00	9.80	201.81	3,965.34	-293.26	-154.12	-292.12	0.66	-0.66	0.16
4,089.00	10.63	199.41	4,059.81	-309.20	-160.10	-308.02	0.97	0.86	-2.50
4,184.00	10.98	197.20	4,153.13	-326.11	-165.69	-324.88	0.57	0.37	-2.33
4,279.00	11.47	194.23	4,246.31	-343.90	-170.69	-342.64	0.80	0.52	-3.13
4,374.00	11.05	202.19	4,339.49	-361.49	-176.45	-360.19	1.69	-0.44	8.38
4,469.00	10.46	201.68	4,432.82	-377.93	-183.07	-376.58	0.63	-0.62	-0.54
4,565.00	9.97	201.35	4,527.30	-393.77	-189.32	-392.37	0.51	-0.51	-0.34
4,623.00	9.92	201.89	4,584.43	-403.08	-193.01	-401.66	0.18	-0.09	0.93
4,739.00	10.42	212.89	4,698.62	-421.17	-202.43	-419.67	1.73	0.43	9.48
4,834.00	10.63	214.16	4,792.02	-435.63	-212.01	-434.07	0.33	0.22	1.34
4,929.00	10.17	212.06	4,885.46	-449.99	-221.39	-448.35	0.63	-0.48	-2.21

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

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)	
5,025.00	11.15	216.98	4,979.80	-464.59	-231.47	-462.88	1.39	1.02	5.13	
5,120.00	13.32	217.28	5,072.64	-480.64	-243.62	-478.84	2.29	2.28	0.32	
5,215.00	14.26	211.50	5,164.90	-499.32	-256.37	-497.43	1.75	0.99	-6.08	
5,309.00	14.11	210.89	5,256.04	-519.02	-268.30	-517.04	0.23	-0.16	-0.65	
5,405.00	13.14	208.40	5,349.34	-538.67	-279.50	-536.60	1.18	-1.01	-2.59	
5,500.00	12.09	208.35	5,442.04	-556.92	-289.36	-554.78	1.11	-1.11	-0.05	
5,596.00	11.67	205.21	5,535.99	-574.55	-298.27	-572.35	0.80	-0.44	-3.27	
5,691.00	10.74	202.12	5,629.17	-591.45	-305.69	-589.19	1.16	-0.98	-3.25	
5,786.00	10.23	203.21	5,722.59	-607.40	-312.35	-605.09	0.58	-0.54	1.15	
5,882.00	10.16	203.41	5,817.07	-623.00	-319.07	-620.65	0.08	-0.07	0.21	
5,977.00	10.29	208.40	5,910.56	-638.16	-326.44	-635.75	0.94	0.14	5.25	
6,072.00	11.68	212.88	6,003.82	-653.70	-335.70	-651.22	1.72	1.46	4.72	
6,168.00	10.96	215.14	6,097.96	-669.32	-346.22	-666.77	0.88	-0.75	2.35	
6,262.00	9.90	213.22	6,190.40	-683.39	-355.79	-680.76	1.19	-1.13	-2.04	
6,357.00	9.57	214.06	6,284.03	-696.76	-364.69	-694.07	0.38	-0.35	0.88	
6,452.00	9.19	210.08	6,377.76	-709.87	-372.92	-707.12	0.79	-0.40	-4.19	
6,546.00	11.97	211.12	6,470.16	-724.71	-381.72	-721.90	2.96	2.96	1.11	
6,641.00	11.92	212.59	6,563.10	-741.41	-392.09	-738.52	0.32	-0.05	1.55	
6,736.00	11.77	213.46	6,656.08	-757.76	-402.72	-754.79	0.25	-0.16	0.92	
6,830.00	11.46	203.13	6,748.16	-774.35	-411.68	-771.31	2.23	-0.33	-10.99	
6,926.00	11.53	197.08	6,842.24	-792.29	-418.24	-789.21	1.26	0.07	-6.30	
7,021.00	11.07	197.26	6,935.40	-810.08	-423.74	-806.95	0.49	-0.48	0.19	
7,117.00	10.24	197.18	7,029.74	-827.03	-428.99	-823.87	0.86	-0.86	-0.08	
7,212.00	9.58	197.95	7,123.32	-842.62	-433.92	-839.42	0.71	-0.69	0.81	
7,308.00	8.87	197.93	7,218.08	-857.26	-438.66	-854.02	0.74	-0.74	-0.02	
7,403.00	9.50	202.58	7,311.87	-871.47	-443.93	-868.19	1.02	0.66	4.89	
7,496.00	9.70	205.59	7,403.56	-885.62	-450.26	-882.30	0.58	0.22	3.24	
7,591.00	9.23	205.91	7,497.27	-899.69	-457.04	-896.32	0.50	-0.49	0.34	
7,686.00	8.45	205.93	7,591.14	-912.82	-463.43	-909.40	0.82	-0.82	0.02	
7,781.00	8.08	205.22	7,685.15	-925.14	-469.32	-921.68	0.40	-0.39	-0.75	
7,876.00	7.96	202.95	7,779.22	-937.24	-474.73	-933.73	0.36	-0.13	-2.39	
7,971.00	7.51	202.55	7,873.36	-949.03	-479.68	-945.49	0.48	-0.47	-0.42	
8,065.00	5.85	197.76	7,966.72	-959.27	-483.49	-955.70	1.86	-1.77	-5.10	
8,160.00	3.09	234.99	8,061.44	-965.35	-487.07	-961.75	4.07	-2.91	39.19	
8,256.00	1.09	230.67	8,157.37	-967.41	-489.90	-963.79	2.09	-2.08	-4.50	
8,351.00	0.72	218.51	8,252.36	-968.45	-490.97	-964.83	0.44	-0.39	-12.80	
8,446.00	0.70	210.72	8,347.35	-969.42	-491.63	-965.79	0.10	-0.02	-8.20	
8,509.00	0.82	337.84	8,410.35	-969.33	-492.00	-965.70	2.16	0.19	201.78	
8,603.00	10.23	358.47	8,503.81	-960.34	-492.48	-956.71	10.07	10.01	21.95	
8,650.00	16.18	354.14	8,549.55	-949.65	-493.26	-946.01	12.82	12.66	-9.21	
8,699.00	22.08	355.63	8,595.82	-933.66	-494.66	-930.01	12.08	12.04	3.04	
8,746.00	27.88	358.78	8,638.41	-913.85	-495.57	-910.19	12.66	12.34	6.70	
8,794.00	33.11	2.02	8,679.76	-889.51	-495.34	-885.85	11.42	10.90	6.75	

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8,841.00	38.34	2.88	8,717.90	-862.10	-494.16	-858.45	11.18	11.13	1.83
8,889.00	43.90	0.85	8,754.05	-830.56	-493.16	-826.93	11.91	11.58	-4.23
8,936.00	48.35	358.61	8,786.62	-796.70	-493.35	-793.06	10.07	9.47	-4.77
8,985.00	51.72	358.33	8,818.09	-759.16	-494.35	-755.52	6.89	6.88	-0.57
9,032.00	55.82	358.26	8,845.86	-721.27	-495.48	-717.62	8.72	8.72	-0.15
9,080.00	60.18	358.37	8,871.29	-680.59	-496.68	-676.93	9.09	9.08	0.23
9,127.00	63.22	358.58	8,893.57	-639.23	-497.78	-635.56	6.48	6.47	0.45
9,174.00	66.71	359.44	8,913.45	-596.66	-498.51	-592.99	7.61	7.43	1.83
9,222.00	69.27	0.48	8,931.44	-552.16	-498.53	-548.49	5.70	5.33	2.17
9,270.00	71.29	1.49	8,947.64	-506.99	-497.76	-503.32	4.65	4.21	2.10
9,318.00	74.58	1.76	8,961.72	-461.12	-496.45	-457.47	6.88	6.85	0.56
9,365.00	76.76	0.95	8,973.35	-415.60	-495.38	-411.96	4.93	4.64	-1.72
9,396.88	79.81	0.94	8,979.83	-384.40	-494.86	-380.76	9.55	9.55	-0.02
FTP[Chin#521H]									
9,412.00	81.25	0.94	8,982.32	-369.48	-494.62	-365.85	9.55	9.55	-0.02
9,460.00	83.55	0.82	8,988.66	-321.91	-493.89	-318.29	4.80	4.79	-0.25
9,555.00	89.33	0.38	8,994.56	-227.14	-492.90	-223.52	6.10	6.08	-0.46
9,650.00	91.14	0.21	8,994.17	-132.15	-492.41	-128.54	1.91	1.91	-0.18
9,745.00	89.77	358.51	8,993.42	-37.16	-493.47	-33.55	2.30	-1.44	-1.79
9,840.00	90.44	357.72	8,993.24	57.78	-496.59	61.42	1.09	0.71	-0.83
9,935.00	88.93	359.04	8,993.76	152.74	-499.28	156.39	2.11	-1.59	1.39
10,031.00	88.49	357.75	8,995.93	248.67	-501.97	252.35	1.42	-0.46	-1.34
10,125.00	89.09	356.00	8,997.91	342.51	-507.09	346.22	1.97	0.64	-1.86
10,218.00	88.39	357.38	8,999.96	435.33	-512.46	439.07	1.66	-0.75	1.48
10,314.00	88.69	359.02	9,002.40	531.25	-515.47	535.01	1.74	0.31	1.71
10,409.00	89.83	358.04	9,003.63	626.21	-517.91	629.99	1.58	1.20	-1.03
10,504.00	90.20	0.94	9,003.60	721.19	-518.75	724.97	3.08	0.39	3.05
10,600.00	91.34	0.59	9,002.31	817.17	-517.47	820.94	1.24	1.19	-0.36
10,694.00	89.19	0.74	9,001.88	911.16	-516.38	914.92	2.29	-2.29	0.16
10,790.00	89.09	0.64	9,003.32	1,007.14	-515.23	1,010.89	0.15	-0.10	-0.10
10,885.00	90.50	0.03	9,003.66	1,102.14	-514.67	1,105.88	1.62	1.48	-0.64
10,980.00	88.99	0.99	9,004.08	1,197.13	-513.82	1,200.86	1.88	-1.59	1.01
11,097.00	89.46	0.52	9,005.67	1,314.11	-512.28	1,317.83	0.57	0.40	-0.40
11,192.00	87.51	3.55	9,008.18	1,409.00	-508.91	1,412.69	3.79	-2.05	3.19
11,287.00	86.61	3.84	9,013.05	1,503.67	-502.80	1,507.32	1.00	-0.95	0.31
11,382.00	86.68	4.20	9,018.61	1,598.28	-496.15	1,601.87	0.39	0.07	0.38
11,476.00	88.46	2.63	9,022.60	1,692.02	-490.56	1,695.57	2.52	1.89	-1.67
11,510.48	88.37	2.37	9,023.55	1,726.46	-489.05	1,730.00	0.79	-0.25	-0.75
Ap1[Chin#521H]									
11,572.00	88.22	1.91	9,025.38	1,787.90	-486.76	1,791.42	0.79	-0.25	-0.75
11,667.00	88.93	359.40	9,027.74	1,882.86	-485.67	1,886.37	2.74	0.75	-2.64
11,763.00	89.19	359.20	9,029.31	1,978.84	-486.84	1,982.36	0.34	0.27	-0.21
11,857.00	89.06	359.34	9,030.75	2,072.82	-488.04	2,076.34	0.20	-0.14	0.15
11,952.00	89.09	359.26	9,032.28	2,167.80	-489.20	2,171.33	0.09	0.03	-0.08

Company:	Devon Energy	Local Co-ordinate Reference:	Well #521H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB=24' @ 3464.00usft (Cactus 167)
Site:	Chincoteague 8-5 Fed Com	MD Reference:	KB=24' @ 3464.00usft (Cactus 167)
Well:	#521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland

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)
12,047.00	89.26	359.15	9,033.65	2,262.78	-490.52	2,266.32	0.21	0.18	-0.12
12,142.00	89.33	358.89	9,034.82	2,357.76	-492.14	2,361.31	0.28	0.07	-0.27
12,237.00	89.29	358.45	9,035.96	2,452.73	-494.35	2,456.29	0.47	-0.04	-0.46
12,331.00	89.60	358.68	9,036.87	2,546.69	-496.70	2,550.27	0.41	0.33	0.24
12,427.00	89.60	358.36	9,037.54	2,642.66	-499.18	2,646.25	0.33	0.00	-0.33
12,522.00	89.63	358.06	9,038.18	2,737.61	-502.15	2,741.22	0.32	0.03	-0.32
12,616.00	89.73	357.62	9,038.71	2,831.54	-505.69	2,835.17	0.48	0.11	-0.47
12,712.00	89.66	357.74	9,039.22	2,927.46	-509.58	2,931.12	0.14	-0.07	0.13
12,807.00	89.06	357.74	9,040.28	3,022.38	-513.32	3,026.06	0.63	-0.63	0.00
12,902.00	88.42	357.26	9,042.37	3,117.27	-517.47	3,120.98	0.84	-0.67	-0.51
12,998.00	87.72	356.76	9,045.60	3,213.08	-522.47	3,216.83	0.90	-0.73	-0.52
13,093.00	87.62	358.03	9,049.46	3,307.90	-526.79	3,311.68	1.34	-0.11	1.34
13,188.00	89.56	359.67	9,051.80	3,402.85	-528.69	3,406.63	2.67	2.04	1.73
13,284.00	89.50	359.71	9,052.59	3,498.84	-529.21	3,502.63	0.08	-0.06	0.04
13,379.00	91.58	0.79	9,051.69	3,593.83	-528.80	3,597.61	2.47	2.19	1.14
13,474.00	91.58	0.29	9,049.07	3,688.79	-527.90	3,692.56	0.53	0.00	-0.53
13,512.48	91.62	0.34	9,048.00	3,727.26	-527.69	3,731.02	0.17	0.11	0.14
Ap2[Chin#521H]									
13,569.00	91.68	0.42	9,046.37	3,783.75	-527.31	3,787.52	0.17	0.11	0.14
13,663.00	91.58	0.82	9,043.70	3,877.71	-526.30	3,881.46	0.44	-0.11	0.43
13,758.00	91.41	0.91	9,041.22	3,972.66	-524.86	3,976.41	0.20	-0.18	0.09
13,852.00	93.09	0.23	9,037.53	4,066.58	-523.93	4,070.31	1.93	1.79	-0.72
13,948.00	93.22	0.04	9,032.25	4,162.44	-523.70	4,166.16	0.24	0.14	-0.20
14,043.00	93.43	0.25	9,026.74	4,257.28	-523.46	4,261.00	0.31	0.22	0.22
14,138.00	91.61	0.01	9,022.56	4,352.18	-523.25	4,355.90	1.93	-1.92	-0.25
14,233.00	90.70	359.69	9,020.64	4,447.16	-523.50	4,450.88	1.02	-0.96	-0.34
14,329.00	91.21	359.91	9,019.04	4,543.15	-523.83	4,546.86	0.58	0.53	0.23
14,424.00	90.81	359.64	9,017.37	4,638.13	-524.20	4,641.85	0.51	-0.42	-0.28
14,520.00	91.07	359.48	9,015.80	4,734.11	-524.94	4,737.84	0.32	0.27	-0.17
14,614.00	90.80	358.84	9,014.26	4,828.09	-526.32	4,831.82	0.74	-0.29	-0.68
14,710.00	91.47	358.56	9,012.36	4,924.05	-528.50	4,927.79	0.76	0.70	-0.29
14,805.00	92.52	358.93	9,009.05	5,018.97	-530.58	5,022.72	1.17	1.11	0.39
14,901.00	93.69	358.96	9,003.85	5,114.81	-532.34	5,118.57	1.22	1.22	0.03
14,996.00	91.84	0.26	8,999.27	5,209.69	-532.99	5,213.45	2.38	-1.95	1.37
15,091.00	91.65	0.36	8,996.38	5,304.64	-532.47	5,308.40	0.23	-0.20	0.11
15,187.00	92.32	359.74	8,993.05	5,400.58	-532.39	5,404.34	0.95	0.70	-0.65
15,283.00	91.68	357.18	8,989.70	5,496.48	-534.97	5,500.26	2.75	-0.67	-2.67
15,378.00	90.34	354.41	8,988.03	5,591.20	-541.93	5,595.02	3.24	-1.41	-2.92
15,473.00	90.84	354.90	8,987.05	5,685.78	-550.78	5,689.67	0.74	0.53	0.52
15,568.00	91.78	358.07	8,984.88	5,780.56	-556.60	5,784.49	3.48	0.99	3.34
15,663.00	91.18	359.59	8,982.42	5,875.51	-558.54	5,879.45	1.72	-0.63	1.60
15,759.00	91.07	1.47	8,980.54	5,971.48	-557.65	5,975.41	1.96	-0.11	1.96
15,815.36	91.27	1.52	8,979.38	6,027.81	-556.18	6,031.73	0.37	0.36	0.09

Company:	Devon Energy	Local Co-ordinate Reference:	Well #521H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB=24' @ 3464.00usft (Cactus 167)
Site:	Chincoteague 8-5 Fed Com	MD Reference:	KB=24' @ 3464.00usft (Cactus 167)
Well:	#521H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland

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)
Ap3[Chin#521H]									
15,854.00	91.41	1.56	8,978.48	6,066.43	-555.14	6,070.33	0.37	0.36	0.09
15,949.00	91.14	2.12	8,976.37	6,161.35	-552.09	6,165.24	0.65	-0.28	0.59
16,044.00	90.54	1.28	8,974.97	6,256.30	-549.28	6,260.16	1.09	-0.63	-0.88
16,115.07	90.36	1.15	8,974.42	6,327.35	-547.77	6,331.20	0.31	-0.25	-0.18
Ap4[Chin#521H]									
16,139.00	90.30	1.11	8,974.28	6,351.28	-547.29	6,355.12	0.31	-0.25	-0.18
16,234.00	90.54	1.41	8,973.58	6,446.25	-545.21	6,450.08	0.40	0.25	0.32
16,329.00	90.03	0.50	8,973.11	6,541.24	-543.62	6,545.05	1.10	-0.54	-0.96
16,424.00	89.83	0.65	8,973.22	6,636.23	-542.67	6,640.03	0.26	-0.21	0.16
16,519.00	90.03	0.32	8,973.34	6,731.23	-541.86	6,735.02	0.41	0.21	-0.35
16,614.00	89.70	0.03	8,973.56	6,826.23	-541.57	6,830.01	0.46	-0.35	-0.31
16,709.00	90.07	0.48	8,973.76	6,921.23	-541.15	6,925.01	0.61	0.39	0.47
16,804.00	90.54	0.63	8,973.25	7,016.22	-540.23	7,019.99	0.52	0.49	0.16
16,898.00	90.97	0.72	8,972.01	7,110.20	-539.12	7,113.96	0.47	0.46	0.10
16,994.00	91.34	0.85	8,970.08	7,206.18	-537.81	7,209.92	0.41	0.39	0.14
17,034.00	91.48	0.82	8,969.09	7,246.16	-537.23	7,249.90	0.36	0.35	-0.08
FINAL MWD Survey (17034.00' MD)									
17,099.00	91.48	0.82	8,967.41	7,311.13	-536.30	7,314.87	0.00	0.00	0.00
FINAL Proj. to Bit (17099.00' MD) - BHL[Chin#521H] - LTP[Chin#521H]									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
17,034.00	8,969.09	7,246.16	-537.23	FINAL MWD Survey (17034.00' MD)
17,099.00	8,967.41	7,311.13	-536.30	FINAL Proj. to Bit (17099.00' MD)

Checked By: _____	Approved By: _____	Date: _____
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