



**Santo Petroleum**  
Lea County, NM (NAD 83 - NME  
Ocotillo Sunrise  
#411H  
OH

Design: OH

**End Of Well Report**

17 April, 2020





# Wellbenders

End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

Well #411H  
 RKB=25' @ 3359.00ust (ICD 228)  
 RKB=25' @ 3359.00ust (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

## Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
158.00	0.09	96.06	158.00	-0.01	0.12	0.01	158.00	96.06	0.06
251.00	0.48	98.78	251.00	-0.08	0.58	0.09	93.00	98.35	0.42
341.00	0.31	121.98	341.00	-0.27	1.16	0.28	90.00	107.85	0.26
430.00	0.40	92.72	429.99	-0.41	1.67	0.42	89.00	105.45	0.22
520.00	0.62	105.64	519.99	-0.56	2.46	0.58	90.00	100.58	0.27
614.00	0.40	128.31	613.99	-0.90	3.20	0.92	94.00	114.50	0.31
705.00	0.31	117.15	704.99	-1.20	3.67	1.24	91.00	123.44	0.12
886.00	0.40	102.91	885.98	-1.57	4.72	1.61	181.00	109.12	0.07
1,006.00	0.22	276.23	1,005.98	-1.64	4.90	1.68	120.00	110.94	0.52
1,144.00	0.48	94.47	1,143.98	-1.65	5.22	1.70	138.00	92.98	0.51
1,238.00	0.62	182.27	1,237.98	-2.19	5.59	2.24	94.00	145.35	0.82
1,332.00	0.31	124.88	1,331.97	-2.85	5.78	2.89	94.00	163.92	0.56
1,426.00	0.40	140.00	1,425.97	-3.24	6.20	3.29	94.00	133.40	0.14
1,520.00	0.48	107.92	1,519.97	-3.62	6.78	3.67	94.00	122.46	0.27
1,614.00	0.22	80.23	1,613.97	-3.71	7.34	3.77	94.00	99.31	0.32
1,708.00	0.09	96.67	1,707.97	-3.68	7.59	3.75	94.00	84.98	0.14
1,802.00	0.31	106.60	1,801.97	-3.77	7.90	3.83	94.00	104.37	0.24
1,896.00	1.01	267.44	1,895.96	-3.88	7.32	3.94	94.00	259.36	1.39
1,990.00	3.21	268.06	1,989.89	-4.00	3.86	4.03	94.00	267.91	2.34
2,085.00	5.58	258.65	2,084.61	-5.00	-3.33	4.97	95.00	262.09	2.60
2,178.00	7.69	254.52	2,176.98	-7.55	-13.76	7.44	93.00	256.26	2.32
2,273.00	9.10	257.77	2,270.96	-10.84	-27.23	10.62	95.00	256.28	1.57
2,367.00	8.31	253.11	2,363.88	-14.39	-40.99	14.05	94.00	255.54	1.13
2,461.00	7.60	251.44	2,456.97	-18.34	-53.38	17.90	94.00	252.31	0.79
2,555.00	7.91	251.71	2,550.11	-22.35	-65.42	21.81	94.00	251.58	0.33
2,649.00	7.78	253.20	2,643.23	-26.22	-77.65	25.58	94.00	252.45	0.26



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME)  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

**Well #411H**  
 RKB=25' @ 3359.00ust (ICD 228)  
 RKB=25' @ 3359.00ust (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
2,743.00	7.21	251.71	2,736.43	-29.91	-89.34	29.17	94.00	252.48	0.64
2,837.00	6.81	251.53	2,829.73	-33.52	-100.23	32.70	94.00	251.62	0.43
2,931.00	6.51	254.08	2,923.09	-36.75	-110.64	35.84	94.00	252.78	0.45
3,025.00	6.68	253.11	3,016.47	-39.80	-120.99	38.81	94.00	253.59	0.22
3,119.00	6.99	251.27	3,109.80	-43.23	-131.64	42.15	94.00	252.17	0.40
3,213.00	6.81	254.17	3,203.12	-46.58	-142.42	45.41	94.00	252.70	0.42
3,307.00	6.11	256.98	3,296.53	-49.23	-152.66	47.98	94.00	255.50	0.82
3,401.00	6.20	260.23	3,389.98	-51.22	-162.53	49.88	94.00	258.62	0.38
3,495.00	7.21	260.94	3,483.34	-53.01	-173.36	51.59	94.00	260.61	1.08
3,589.00	7.78	260.76	3,576.54	-54.96	-185.47	53.44	94.00	260.85	0.61
3,683.00	7.38	262.52	3,669.72	-56.77	-197.73	55.14	94.00	261.62	0.49
3,777.00	7.52	255.40	3,762.92	-59.10	-209.67	57.38	94.00	258.93	0.99
3,872.00	7.52	247.31	3,857.11	-63.07	-221.42	61.25	95.00	251.35	1.11
3,966.00	6.51	250.56	3,950.41	-67.22	-232.12	65.31	94.00	248.82	1.15
4,060.00	7.21	247.14	4,043.73	-71.28	-242.58	69.29	94.00	248.76	0.86
4,154.00	8.40	249.95	4,136.86	-75.93	-254.47	73.84	94.00	248.65	1.33
4,248.00	8.09	248.02	4,229.89	-80.76	-267.05	78.56	94.00	249.00	0.44
4,342.00	7.21	248.72	4,323.05	-85.37	-278.68	83.08	94.00	248.35	0.94
4,436.00	6.42	247.05	4,416.39	-89.56	-289.02	87.19	94.00	247.93	0.87
4,530.00	6.68	248.63	4,509.77	-93.60	-298.95	91.15	94.00	247.86	0.34
4,624.00	6.51	251.62	4,603.15	-97.28	-309.10	94.74	94.00	250.11	0.41
4,719.00	5.89	248.72	4,697.60	-100.74	-318.75	98.13	95.00	250.24	0.73
4,813.00	6.90	253.11	4,791.01	-104.13	-328.65	101.44	94.00	251.09	1.19
4,907.00	6.90	258.47	4,884.33	-106.90	-339.58	104.11	94.00	255.79	0.68
5,001.00	5.58	252.76	4,977.77	-109.39	-349.48	106.52	94.00	255.92	1.55
5,095.00	6.11	249.25	5,071.28	-112.51	-358.52	109.57	94.00	250.93	0.68
5,189.00	7.78	256.81	5,164.59	-115.74	-369.40	112.70	94.00	253.48	2.02



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME)  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ustf (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ustf (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

**Well #411H**  
 RKB=25' @ 3359.00ustf (ICD 228)  
 RKB=25' @ 3359.00ustf (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (ustf)	Inc (°)	Azi (azimuth) (°)	TVD (ustf)	N/S (ustf)	E/W (ustf)	V. Sec (ustf)	CL (ustf)	CL Azi (°)	DLeg (°/100ft)
5,283.00	7.91	258.65	5,257.71	-118.46	-381.93	115.33	94.00	257.74	0.30
5,377.00	7.38	259.71	5,350.88	-120.81	-394.22	117.58	94.00	259.16	0.58
5,471.00	7.60	259.62	5,444.07	-123.01	-406.27	119.68	94.00	259.66	0.23
5,565.00	8.70	258.12	5,537.12	-125.60	-419.34	122.15	94.00	258.82	1.19
5,659.00	8.70	259.62	5,630.04	-128.34	-433.29	124.78	94.00	258.87	0.24
5,753.00	8.40	261.11	5,723.00	-130.68	-447.07	127.01	94.00	260.35	0.40
5,848.00	8.48	259.62	5,816.97	-133.02	-460.81	129.23	95.00	260.36	0.25
5,942.00	8.09	259.53	5,909.99	-135.47	-474.13	131.57	94.00	259.58	0.42
6,036.00	8.31	260.67	6,003.03	-137.77	-487.34	133.77	94.00	260.11	0.29
6,130.00	7.38	257.07	6,096.15	-140.22	-499.93	136.12	94.00	258.98	1.12
6,223.00	7.30	254.43	6,188.38	-143.15	-511.44	138.95	93.00	255.76	0.37
6,317.00	7.21	251.62	6,281.63	-146.61	-522.79	142.32	94.00	253.03	0.39
6,411.00	6.59	252.67	6,374.95	-150.08	-533.54	145.69	94.00	252.12	0.67
6,505.00	7.38	251.97	6,468.25	-153.55	-544.43	149.08	94.00	252.30	0.85
6,599.00	7.91	254.08	6,561.42	-157.19	-556.39	152.62	94.00	253.06	0.64
6,693.00	8.00	255.66	6,654.51	-160.59	-568.95	155.92	94.00	254.87	0.25
6,787.00	7.78	253.47	6,747.62	-164.02	-581.38	159.24	94.00	254.58	0.40
6,881.00	7.52	255.22	6,840.79	-167.40	-593.43	162.52	94.00	254.33	0.37
6,975.00	7.52	255.40	6,933.98	-170.52	-605.33	165.55	94.00	255.31	0.03
7,070.00	7.69	254.96	7,028.14	-173.73	-617.49	168.66	95.00	255.18	0.19
7,164.00	7.38	253.55	7,121.33	-177.08	-629.35	171.91	94.00	254.27	0.38
7,258.00	7.12	256.28	7,214.56	-180.17	-640.80	174.90	94.00	254.89	0.46
7,352.00	6.90	253.38	7,307.88	-183.16	-651.87	177.81	94.00	254.85	0.44
7,446.00	6.42	254.87	7,401.24	-186.15	-662.35	180.71	94.00	254.10	0.54
7,540.00	6.51	256.37	7,494.64	-188.78	-672.60	183.25	94.00	255.63	0.20
7,635.00	5.80	253.90	7,589.10	-191.38	-682.45	185.77	95.00	255.21	0.80
7,729.00	6.51	252.15	7,682.55	-194.33	-692.09	188.64	94.00	252.97	0.78



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME)  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ustf (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ustf (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

**Well #411H**  
 RKB=25' @ 3359.00ustf (ICD 228)  
 RKB=25' @ 3359.00ustf (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
7,823.00	6.99	253.20	7,775.90	-197.61	-702.63	191.84	94.00	252.69	0.53
7,917.00	6.68	252.85	7,869.23	-200.88	-713.33	195.02	94.00	253.03	0.33
8,011.00	7.21	251.88	7,962.54	-204.33	-724.16	198.38	94.00	252.35	0.58
8,105.00	7.69	252.06	8,055.75	-208.10	-735.75	202.06	94.00	251.97	0.51
8,199.00	6.99	252.67	8,148.98	-211.74	-747.20	205.60	94.00	252.35	0.75
8,293.00	6.81	253.82	8,242.30	-215.00	-758.01	208.77	94.00	253.24	0.24
8,388.00	6.81	252.76	8,336.63	-218.24	-768.80	211.92	95.00	253.29	0.13
8,482.00	6.90	253.47	8,429.96	-221.49	-779.53	215.09	94.00	253.12	0.13
8,576.00	7.12	256.37	8,523.25	-224.47	-790.61	217.98	94.00	254.94	0.44
8,671.00	6.59	255.05	8,617.57	-227.27	-801.60	220.68	95.00	255.74	0.58
8,765.00	8.00	253.90	8,710.81	-230.47	-813.09	223.79	94.00	254.42	1.51
8,859.00	8.09	253.20	8,803.89	-234.20	-825.71	227.42	94.00	253.55	0.14
8,954.00	7.21	252.15	8,898.04	-237.96	-837.78	231.08	95.00	252.71	0.94
9,048.00	6.68	252.94	8,991.35	-241.37	-848.63	234.40	94.00	252.53	0.57
9,142.00	5.80	252.41	9,084.79	-244.41	-858.38	237.36	94.00	252.69	0.94
9,236.00	6.29	257.51	9,178.27	-246.96	-867.94	239.83	94.00	255.06	0.77
9,330.00	5.71	256.63	9,271.75	-249.15	-877.51	241.95	94.00	257.09	0.62
9,424.00	6.02	252.15	9,365.26	-251.74	-886.75	244.46	94.00	254.33	0.59
9,518.00	6.68	253.73	9,458.69	-254.79	-896.69	247.42	94.00	252.98	0.73
9,612.00	6.02	255.14	9,552.11	-257.58	-906.71	250.14	94.00	254.40	0.72
9,706.00	6.29	252.50	9,645.57	-260.40	-916.38	252.87	94.00	253.79	0.42
9,801.00	7.30	249.86	9,739.90	-264.04	-927.01	256.43	95.00	251.08	1.11
9,895.00	6.90	245.91	9,833.18	-268.40	-937.77	260.70	94.00	247.94	0.67
9,989.00	7.38	249.51	9,926.45	-272.82	-948.58	265.03	94.00	247.77	0.70
10,083.00	6.20	250.13	10,019.79	-276.66	-959.01	268.78	94.00	249.79	1.26
10,178.00	6.51	248.02	10,114.20	-280.42	-968.83	272.46	95.00	249.05	0.41
10,270.00	5.10	242.65	10,205.73	-284.25	-977.30	276.22	92.00	245.66	1.64



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

**Well #411H**  
 RKB=25' @ 3359.00ust (ICD 228)  
 RKB=25' @ 3359.00ust (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
10,365.00	3.69	247.58	10,300.45	-287.35	-983.88	279.27	95.00	244.72	1.54
10,459.00	3.21	244.15	10,394.28	-289.65	-989.04	281.53	94.00	245.98	0.56
10,553.00	3.12	253.11	10,488.14	-291.54	-993.86	283.38	94.00	248.57	0.53
10,647.00	2.51	247.05	10,582.02	-293.09	-998.20	284.89	94.00	250.41	0.72
10,741.00	2.90	248.02	10,675.92	-294.78	-1,002.30	286.55	94.00	247.57	0.42
10,836.00	2.51	250.74	10,770.81	-296.37	-1,006.49	288.10	95.00	249.28	0.43
10,930.00	2.68	247.14	10,864.72	-297.90	-1,010.46	289.60	94.00	248.88	0.25
11,024.00	1.89	239.93	10,958.64	-299.53	-1,013.83	291.21	94.00	244.16	0.89
11,118.00	2.02	220.07	11,052.59	-301.58	-1,016.24	293.23	94.00	229.67	0.73
11,212.00	2.29	208.73	11,146.52	-304.49	-1,018.21	296.13	94.00	214.04	0.54
11,307.00	2.59	198.71	11,241.43	-308.19	-1,019.81	299.81	95.00	203.41	0.55
11,401.00	2.02	205.30	11,335.36	-311.70	-1,021.20	303.31	94.00	201.60	0.67
11,495.00	2.29	231.14	11,429.29	-314.37	-1,023.37	305.97	94.00	219.04	1.06
11,590.00	2.68	239.75	11,524.20	-316.68	-1,026.76	308.25	95.00	235.78	0.57
11,684.00	2.59	245.38	11,618.11	-318.68	-1,030.59	310.21	94.00	242.52	0.29
11,778.00	2.11	259.18	11,712.03	-319.89	-1,034.22	311.39	94.00	251.57	0.79
11,831.00	1.89	266.65	11,764.99	-320.12	-1,036.05	311.61	53.00	262.71	0.64
11,903.00	1.93	273.40	11,836.95	-320.12	-1,038.45	311.59	72.00	270.06	0.32
11,953.00	2.11	282.98	11,886.92	-319.86	-1,040.19	311.32	50.00	278.40	0.76
12,000.00	2.90	220.92	11,933.89	-320.56	-1,041.81	312.01	47.00	246.53	5.68
12,047.00	6.24	196.75	11,980.73	-323.91	-1,043.32	315.34	47.00	204.37	8.05
12,094.00	10.99	183.83	12,027.19	-330.83	-1,044.36	322.25	47.00	188.51	10.85
12,142.00	16.27	178.12	12,073.83	-342.12	-1,044.45	333.55	48.00	180.43	11.34
12,189.00	19.61	173.29	12,118.54	-356.54	-1,043.31	347.97	47.00	175.49	7.77
12,237.00	22.16	172.67	12,163.38	-373.52	-1,041.21	364.97	48.00	172.96	5.33
12,284.00	26.29	174.34	12,206.23	-392.68	-1,039.05	384.15	47.00	173.57	8.91
12,331.00	30.51	175.49	12,247.57	-414.94	-1,037.09	406.42	47.00	174.95	9.05



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

Well #411H  
 RKB=25' @ 3359.00ust (ICD 228)  
 RKB=25' @ 3359.00ust (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
12,378.00	36.05	175.13	12,286.85	-440.64	-1,034.97	432.13	47.00	175.30	11.79
12,426.00	40.98	175.31	12,324.39	-470.41	-1,032.49	461.93	48.00	175.22	10.27
12,473.00	46.08	178.39	12,358.46	-502.72	-1,030.75	494.25	47.00	176.92	11.75
12,520.00	49.68	179.88	12,389.98	-537.57	-1,030.24	529.10	47.00	179.16	8.01
12,567.00	52.23	179.79	12,419.58	-574.07	-1,030.13	565.60	47.00	179.83	5.43
12,615.00	54.96	179.97	12,448.07	-612.70	-1,030.05	604.23	48.00	179.88	5.70
12,662.00	57.86	179.09	12,474.07	-651.84	-1,029.72	643.38	47.00	179.52	6.36
12,709.00	60.41	177.86	12,498.18	-692.17	-1,028.64	683.71	47.00	178.47	5.87
12,803.00	63.84	177.95	12,542.12	-775.19	-1,025.61	766.75	94.00	177.91	3.65
12,898.00	71.93	181.29	12,577.86	-863.11	-1,025.10	854.68	95.00	179.67	9.12
12,994.00	80.46	183.40	12,600.75	-956.17	-1,028.94	947.70	96.00	182.36	9.14
13,057.00	86.26	184.45	12,608.03	-1,018.57	-1,033.23	1,010.06	63.00	183.93	9.35
13,105.00	85.82	183.57	12,611.35	-1,066.34	-1,036.57	1,057.80	48.00	184.01	2.05
13,200.00	89.16	182.78	12,615.51	-1,161.09	-1,041.83	1,152.50	95.00	183.17	3.61
13,294.00	90.04	182.87	12,616.16	-1,254.97	-1,046.46	1,246.35	94.00	182.83	0.94
13,389.00	89.60	182.34	12,616.46	-1,349.87	-1,050.78	1,341.21	95.00	182.61	0.73
13,484.00	87.93	183.04	12,618.51	-1,444.74	-1,055.24	1,436.04	95.00	182.69	1.91
13,579.00	87.67	182.08	12,622.16	-1,539.58	-1,059.48	1,530.83	95.00	182.56	1.05
13,673.00	86.70	182.16	12,626.77	-1,633.40	-1,062.95	1,624.62	94.00	182.12	1.04
13,767.00	88.90	181.46	12,630.38	-1,727.27	-1,065.92	1,718.47	94.00	181.81	2.46
13,861.00	89.96	180.67	12,631.32	-1,821.25	-1,067.66	1,812.43	94.00	181.06	1.41
13,955.00	90.75	178.65	12,630.73	-1,915.24	-1,067.11	1,906.42	94.00	179.66	2.31
14,050.00	89.08	178.65	12,630.88	-2,010.21	-1,064.87	2,001.41	95.00	178.65	1.76
14,145.00	87.93	178.47	12,633.35	-2,105.15	-1,062.48	2,096.36	95.00	178.56	1.23
14,239.00	87.14	178.56	12,637.40	-2,199.03	-1,060.05	2,190.26	94.00	178.51	0.85
14,334.00	89.08	178.74	12,640.53	-2,293.95	-1,057.81	2,285.19	95.00	178.65	2.05
14,428.00	89.96	178.30	12,641.32	-2,387.91	-1,055.38	2,379.17	94.00	178.52	1.05



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME)  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

**Well #411H**  
 RKB=25' @ 3359.00ust (ICD 228)  
 RKB=25' @ 3359.00ust (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
14,522.00	89.69	177.95	12,641.60	-2,481.86	-1,052.31	2,473.14	94.00	178.13	0.47
14,616.00	89.60	177.95	12,642.19	-2,575.80	-1,048.95	2,567.11	94.00	177.95	0.10
14,710.00	89.34	177.95	12,643.06	-2,669.73	-1,045.58	2,661.07	94.00	177.95	0.28
14,804.00	89.52	177.95	12,643.99	-2,763.67	-1,042.22	2,755.03	94.00	177.95	0.19
14,898.00	89.78	178.30	12,644.57	-2,857.62	-1,039.14	2,849.00	94.00	178.13	0.46
14,992.00	90.31	179.79	12,644.49	-2,951.60	-1,037.58	2,942.99	94.00	179.04	1.68
15,087.00	89.96	179.26	12,644.27	-3,046.60	-1,036.79	3,037.99	95.00	179.52	0.67
15,182.00	89.78	180.06	12,644.48	-3,141.59	-1,036.23	3,132.99	95.00	179.66	0.86
15,277.00	89.16	180.23	12,645.36	-3,236.59	-1,036.47	3,227.98	95.00	180.14	0.68
15,371.00	87.23	180.14	12,648.32	-3,330.54	-1,036.77	3,321.92	94.00	180.19	2.06
15,466.00	88.11	180.49	12,652.19	-3,425.46	-1,037.29	3,416.83	95.00	180.32	1.00
15,560.00	87.49	180.32	12,655.79	-3,519.38	-1,037.96	3,510.75	94.00	180.41	0.68
15,654.00	86.70	179.62	12,660.56	-3,613.26	-1,037.91	3,604.63	94.00	179.97	1.12
15,748.00	88.46	179.09	12,664.53	-3,707.17	-1,036.85	3,698.54	94.00	179.35	1.96
15,843.00	88.90	178.39	12,666.72	-3,802.12	-1,034.76	3,793.50	95.00	178.74	0.87
15,938.00	89.69	179.26	12,667.88	-3,897.09	-1,032.81	3,888.49	95.00	178.83	1.24
16,032.00	89.78	179.26	12,668.32	-3,991.08	-1,031.60	3,982.49	94.00	179.26	0.10
16,126.00	88.72	178.74	12,669.55	-4,085.06	-1,029.96	4,076.47	94.00	179.00	1.26
16,221.00	89.96	178.91	12,670.64	-4,180.03	-1,028.01	4,171.46	95.00	178.83	1.32
16,315.00	88.99	179.18	12,671.51	-4,274.01	-1,026.45	4,265.45	94.00	179.04	1.07
16,410.00	87.85	177.77	12,674.12	-4,368.94	-1,023.92	4,360.39	95.00	178.48	1.91
16,505.00	89.25	177.16	12,676.53	-4,463.81	-1,019.72	4,455.30	95.00	177.46	1.61
16,598.00	91.89	178.65	12,675.60	-4,556.73	-1,016.32	4,548.24	93.00	177.90	3.26
16,692.00	90.66	178.65	12,673.51	-4,650.68	-1,014.10	4,642.21	94.00	178.65	1.31
16,786.00	88.64	177.33	12,674.09	-4,744.62	-1,010.81	4,736.17	94.00	177.99	2.57
16,881.00	89.25	179.44	12,675.84	-4,839.56	-1,008.13	4,831.12	95.00	178.39	2.31
16,975.00	88.02	179.26	12,678.07	-4,933.52	-1,007.07	4,925.10	94.00	179.35	1.32



# Wellbenders

## End Of Well Report

**Company:** Santo Petroleum  
**Project:** Lea County, NM (NAD 83 - NIME)  
**Site:** Ocotillo Sunrise  
**Well:** #411H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:**  
**TVD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**MD Reference:** RKB=25' @ 3359.00ust (ICD 228)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WBDS\_SQL\_2

**Well #411H**  
 RKB=25' @ 3359.00ust (ICD 228)  
 RKB=25' @ 3359.00ust (ICD 228)  
 Grid  
 Minimum Curvature  
 WBDS\_SQL\_2

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
17,069.00	88.81	181.20	12,680.67	-5,027.48	-1,007.44	5,019.05	94.00	180.23	2.23
17,163.00	87.41	180.06	12,683.77	-5,121.42	-1,008.48	5,112.97	94.00	180.63	1.92
17,258.00	89.87	181.20	12,686.03	-5,216.38	-1,009.52	5,207.92	95.00	180.63	2.85
17,353.00	85.65	180.76	12,689.74	-5,311.27	-1,011.14	5,302.80	95.00	180.98	4.47
17,448.00	88.72	180.76	12,694.41	-5,406.14	-1,012.40	5,397.65	95.00	180.76	3.23
17,543.00	89.60	178.21	12,695.80	-5,501.11	-1,011.55	5,492.63	95.00	179.48	2.84
17,638.00	89.60	177.16	12,696.46	-5,596.03	-1,007.71	5,587.58	95.00	177.68	1.11
17,732.00	89.87	175.49	12,696.90	-5,689.83	-1,001.69	5,681.43	94.00	176.32	1.80
17,781.00	88.46	175.57	12,697.61	-5,738.68	-997.87	5,730.30	49.00	175.53	2.88
17,849.00	88.46	175.57	12,699.44	-5,806.45	-992.62	5,798.11	68.00	175.57	0.00
<b>Final Station Closure Distance= 5890.68 /Direction= 189.70 - Projection to Bit: 17849.00' MD/ 12699.44' TVD - TD: Latitude = 32.123903 / Longitude = -103.455541 - TD: Y= 409918.85 / X= 813080.88</b>									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
17,849.00	12,699.44	-5,806.45	-992.62	Final Station Closure Distance= 5890.68 /Direction= 189.70
17,849.00	12,699.44	-5,806.45	-992.62	Projection to Bit: 17849.00' MD/ 12699.44' TVD
17,849.00	12,699.44	-5,806.45	-992.62	TD: Latitude = 32.123903 / Longitude = -103.455541
17,849.00	12,699.44	-5,806.45	-992.62	TD: Y= 409918.85 / X= 813080.88

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_