



Burnett Oil Company, INC

Eddy County, NM

Sec.11, T.17 S., R. 31 E.

Nosler 12 Federal MO 8H

30-015-44276

Wellbore #1

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 05 2017

Survey: Survey #1

RECEIVED

Standard Survey Report

15 August, 2017

**Please provide signature
page for directional survey**





Integrity Directional Services, LLC

Survey Report



Company: Burnett Oil Company, INC
Project: Eddy County, NM
Site: Sec.11, T.17 S., R. 31 E.
Well: Nosler 12 Federal MO 8H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Nosler 12 Federal MO 8H
TVD Reference: KB=17.5' @ 3967.51ft (UNK)
MD Reference: KB=17.5' @ 3967.51ft (UNK)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Project	Eddy County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec.11, T.17 S., R. 31 E.		
Site Position:		Northing:	671,071.9000 usft
From:	Map	Easting:	654,016.5000 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32° 50' 37.8849 N
		Longitude:	103° 49' 54.6710 W
		Grid Convergence:	0.27 °

Well	Nosler 12 Federal MO 8H		
Well Position	+N/-S	0.00 ft	Northing: 671,071.9000 usft
	+E/-W	0.00 ft	Easting: 654,016.5000 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	32° 50' 37.8849 N
		Longitude:	103° 49' 54.6710 W
		Ground Level:	3,950.01 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	10/18/2016	7.19
			Dip Angle (°)
			60.60
			Field Strength (nT)
			48,343

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction (°)
			95.12

Survey Program	Date 8/15/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name
815.00	9,248.00	Survey #1 (Wellbore #1)	MWD
			Description
			MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
646.00	4.20	208.00	645.65	-12.93	-9.22	-8.03	0.00	0.00	0.00
815.00	4.18	209.60	814.20	-23.75	-15.17	-12.99	0.07	-0.01	0.95
1st MWD Survey									
878.00	5.05	229.47	877.00	-27.55	-18.41	-15.88	2.87	1.38	31.54
973.00	3.43	235.88	971.73	-31.86	-23.94	-21.00	1.77	-1.71	6.75
1,068.00	1.71	215.32	1,066.64	-34.61	-27.11	-23.91	2.03	-1.81	-21.64
1,193.00	1.49	94.20	1,191.61	-36.25	-26.57	-23.23	2.23	-0.18	-96.90
1,256.00	1.49	100.53	1,254.59	-36.46	-24.95	-21.59	0.26	0.00	10.05
1,351.00	2.15	89.81	1,349.54	-36.68	-21.95	-18.59	0.78	0.69	-11.28
1,445.00	2.29	63.44	1,443.48	-35.84	-18.51	-15.23	1.09	0.15	-28.05
1,540.00	1.93	53.95	1,538.41	-34.05	-15.52	-12.42	0.53	-0.38	-9.99



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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,634.00	2.02	53.51	1,632.36	-32.13	-12.91	-9.99	0.10	0.10	-0.47
1,728.00	2.11	50.43	1,726.29	-30.04	-10.24	-7.52	0.15	0.10	-3.28
1,822.00	2.33	45.95	1,820.22	-27.61	-7.53	-5.04	0.30	0.23	-4.77
1,959.00	2.24	50.08	1,957.12	-23.96	-3.48	-1.32	0.14	-0.07	3.01
2,067.00	2.07	44.10	2,065.04	-21.20	-0.50	1.39	0.26	-0.16	-5.54
2,161.00	1.71	40.94	2,158.99	-18.92	1.60	3.28	0.40	-0.38	-3.36
2,256.00	1.63	37.07	2,253.95	-16.77	3.34	4.83	0.15	-0.08	-4.07
2,350.00	1.27	40.24	2,347.92	-14.91	4.82	6.13	0.39	-0.38	3.37
2,444.00	0.62	49.55	2,441.90	-13.79	5.88	7.09	0.71	-0.69	9.90
2,540.00	0.62	17.03	2,537.90	-12.95	6.43	7.56	0.36	0.00	-33.88
2,634.00	0.48	26.79	2,631.89	-12.12	6.75	7.81	0.18	-0.15	10.38
2,728.00	0.79	24.59	2,725.89	-11.17	7.20	8.17	0.33	0.33	-2.34
2,823.00	0.70	23.27	2,820.88	-10.05	7.70	8.57	0.10	-0.09	-1.39
2,918.00	0.84	358.23	2,915.87	-8.82	7.91	8.67	0.38	0.15	-26.36
3,012.00	1.14	336.43	3,009.86	-7.27	7.52	8.14	0.51	0.32	-23.19
3,106.00	1.27	346.36	3,103.84	-5.40	6.90	7.35	0.26	0.14	10.56
3,201.00	1.10	331.24	3,198.82	-3.58	6.21	6.50	0.37	-0.18	-15.92
3,296.00	1.19	332.82	3,293.80	-1.90	5.32	5.47	0.10	0.09	1.66
3,390.00	1.49	327.23	3,387.77	-0.01	4.21	4.20	0.35	0.32	-5.95
3,485.00	1.89	328.25	3,482.73	2.36	2.72	2.50	0.42	0.42	1.07
3,675.00	0.57	39.80	3,672.69	5.76	1.68	1.16	0.94	-0.69	37.66
3,769.00	0.35	64.93	3,766.69	6.24	2.24	1.67	0.31	-0.23	26.73
3,863.00	0.31	25.82	3,860.69	6.59	2.61	2.01	0.24	-0.04	-41.61
3,958.00	0.35	351.81	3,955.68	7.11	2.68	2.03	0.21	0.04	-35.80
4,052.00	0.75	14.17	4,049.68	7.99	2.79	2.06	0.48	0.43	23.79
4,146.00	0.88	16.95	4,143.67	9.27	3.15	2.31	0.14	0.14	2.96
4,240.00	0.79	210.83	4,237.67	9.41	3.03	2.17	1.76	-0.10	-176.72
4,334.00	1.14	218.22	4,331.65	8.12	2.11	1.38	0.39	0.37	7.86
4,429.00	0.13	192.02	4,426.65	7.27	1.51	0.85	1.08	-1.06	-27.58
4,523.00	0.09	353.65	4,520.65	7.24	1.48	0.83	0.23	-0.04	171.95
4,616.00	0.44	46.30	4,613.65	7.56	1.73	1.05	0.42	0.38	56.61
4,708.00	1.85	152.03	4,705.63	6.49	2.68	2.09	2.19	1.53	114.92
4,770.00	2.20	161.88	4,767.59	4.47	3.52	3.11	0.79	0.56	15.89
4,800.00	3.96	166.01	4,797.55	2.92	3.95	3.67	5.91	5.87	13.77
4,831.00	7.87	167.06	4,828.38	-0.19	4.68	4.68	12.62	12.61	3.39
4,861.00	10.90	167.85	4,857.97	-4.96	5.74	6.16	10.11	10.10	2.63
4,891.00	13.76	170.32	4,887.28	-11.25	6.94	7.91	9.69	9.53	8.23
4,922.00	18.20	170.75	4,917.07	-19.67	8.34	10.06	14.33	14.32	1.39
4,953.00	21.41	171.28	4,946.23	-30.04	9.97	12.62	10.37	10.35	1.71
4,984.00	22.59	172.51	4,974.98	-41.54	11.61	15.27	4.09	3.81	3.97
5,015.00	24.22	173.65	5,003.42	-53.76	13.09	17.83	5.46	5.26	3.68
5,046.00	26.95	173.22	5,031.38	-67.06	14.62	20.55	8.83	8.81	-1.39
5,076.00	30.55	170.84	5,057.68	-81.35	16.64	23.83	12.59	12.00	-7.93



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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,107.00	33.41	169.35	5,083.97	-97.52	19.47	28.10	9.57	9.23	-4.81
5,138.00	34.46	167.68	5,109.69	-114.47	22.92	33.05	4.53	3.39	-5.39
5,168.00	35.34	162.49	5,134.30	-131.04	27.34	38.93	10.32	2.93	-17.30
5,199.00	36.31	155.81	5,159.45	-147.97	33.80	46.88	12.99	3.13	-21.55
5,230.00	37.85	151.59	5,184.18	-164.71	42.09	56.63	9.59	4.97	-13.61
5,261.00	40.00	148.17	5,208.30	-181.55	51.87	67.88	9.80	6.94	-11.03
5,291.00	42.77	144.21	5,230.81	-198.01	62.92	80.35	12.70	9.23	-13.20
5,322.00	45.23	140.70	5,253.11	-215.07	76.05	94.95	11.17	7.94	-11.32
5,353.00	47.15	137.00	5,274.57	-231.90	90.77	111.12	10.61	6.19	-11.94
5,384.00	48.22	133.23	5,295.45	-248.13	106.94	128.68	9.63	3.45	-12.16
5,414.00	48.48	127.86	5,315.39	-262.69	123.97	146.93	13.40	0.87	-17.90
5,445.00	49.80	122.85	5,335.68	-276.24	143.08	167.18	12.94	4.26	-16.16
5,476.00	52.13	119.16	5,355.21	-288.63	163.72	188.84	11.91	7.52	-11.90
5,506.00	54.90	117.84	5,373.04	-300.13	184.92	210.98	9.89	9.23	-4.40
5,537.00	58.59	115.82	5,390.04	-311.82	208.05	235.06	13.09	11.90	-6.52
5,568.00	61.54	112.83	5,405.51	-322.87	232.53	260.43	12.66	9.52	-9.65
5,598.00	63.69	109.93	5,419.31	-332.57	257.33	286.00	11.18	7.17	-9.67
5,629.00	65.49	107.12	5,432.62	-341.46	283.88	313.24	10.04	5.81	-9.06
5,659.00	67.91	104.66	5,444.48	-349.00	310.37	340.30	11.04	8.07	-8.20
5,690.00	69.93	102.46	5,455.63	-355.78	338.49	368.91	9.29	6.52	-7.10
5,721.00	72.92	101.50	5,465.51	-361.88	367.23	398.08	10.08	9.65	-3.10
5,753.00	76.09	100.00	5,474.06	-367.62	397.52	428.76	10.89	9.91	-4.69
5,784.00	77.93	96.84	5,481.03	-372.04	427.40	458.92	11.57	5.94	-10.19
5,816.00	79.91	94.29	5,487.18	-375.09	458.65	490.31	9.97	6.19	-7.97
5,847.00	82.90	92.62	5,491.81	-376.93	489.24	520.95	11.02	9.65	-5.39
5,879.00	85.10	90.07	5,495.15	-377.68	521.05	552.70	10.49	6.88	-7.97
5,890.00	85.49	89.82	5,496.06	-377.67	532.02	563.62	4.20	3.55	-2.26
Cross 330' 5890 MD 5496.06 TVD -377.67 S 532.02 E N: 670694.2 E: 654548.5									
5,891.76	85.55	89.78	5,496.19	-377.66	533.77	565.37	4.20	3.55	-2.26
Nosler 12 Federal MO 8H LP Rev01									
5,910.00	86.20	89.37	5,497.51	-377.53	551.96	583.47	4.20	3.55	-2.26
6,005.00	90.55	85.15	5,500.20	-372.98	646.77	677.50	6.38	4.58	-4.44
6,099.00	90.11	87.61	5,499.66	-367.05	740.58	770.40	2.66	-0.47	2.62
6,193.00	89.93	89.54	5,499.63	-364.71	834.54	863.78	2.06	-0.19	2.05
6,288.00	89.67	89.54	5,499.96	-363.95	929.54	958.33	0.27	-0.27	0.00
6,383.00	89.93	89.10	5,500.29	-362.82	1,024.53	1,052.84	0.54	0.27	-0.46
6,477.00	89.98	89.10	5,500.36	-361.35	1,118.52	1,146.32	0.05	0.05	0.00
6,572.00	90.16	89.37	5,500.25	-360.08	1,213.51	1,240.82	0.34	0.19	0.28
6,666.00	90.11	89.54	5,500.03	-359.18	1,307.51	1,334.36	0.19	-0.05	0.18
6,760.00	89.98	89.81	5,499.95	-358.65	1,401.50	1,427.93	0.32	-0.14	0.29
6,854.00	89.89	89.81	5,500.06	-358.34	1,495.50	1,521.53	0.10	-0.10	0.00
6,948.00	90.02	89.81	5,500.13	-358.03	1,589.50	1,615.13	0.14	0.14	0.00
7,043.00	90.46	90.33	5,499.73	-358.14	1,684.50	1,709.75	0.72	0.46	0.55
7,137.00	91.69	89.19	5,497.97	-357.75	1,778.48	1,803.32	1.78	1.31	-1.21



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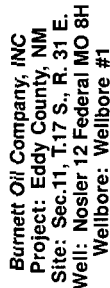
Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,232.00	91.69	88.93	5,495.17	-356.19	1,873.43	1,897.75	0.27	0.00	-0.27
7,353.00	91.47	90.25	5,491.83	-355.33	1,994.38	2,018.14	1.11	-0.18	1.09
7,447.00	90.55	90.25	5,490.18	-355.74	2,088.36	2,111.78	0.98	-0.98	0.00
7,542.00	89.23	90.33	5,490.36	-356.22	2,183.36	2,206.44	1.39	-1.39	0.08
7,636.00	89.54	89.63	5,491.37	-356.18	2,277.35	2,300.06	0.81	0.33	-0.74
7,731.00	90.77	88.66	5,491.11	-354.77	2,372.34	2,394.54	1.65	1.29	-1.02
7,825.00	91.91	87.79	5,488.91	-351.86	2,466.26	2,487.83	1.53	1.21	-0.93
7,919.00	91.60	87.70	5,486.03	-348.16	2,560.15	2,581.01	0.34	-0.33	-0.10
8,013.00	90.86	87.96	5,484.02	-344.60	2,654.06	2,674.22	0.83	-0.79	0.28
8,108.00	91.69	88.66	5,481.90	-341.80	2,748.99	2,768.53	1.14	0.87	0.74
8,201.00	91.47	88.75	5,479.34	-339.70	2,841.93	2,860.91	0.26	-0.24	0.10
8,296.00	91.74	90.25	5,476.68	-338.87	2,936.89	2,955.41	1.60	0.28	1.58
8,390.00	91.65	90.86	5,473.90	-339.78	3,030.84	3,049.07	0.66	-0.10	0.65
8,485.00	91.03	91.48	5,471.67	-341.72	3,125.79	3,143.82	0.92	-0.65	0.65
8,580.00	90.24	92.00	5,470.62	-344.60	3,220.74	3,238.65	1.00	-0.83	0.55
8,674.00	90.42	90.33	5,470.08	-346.51	3,314.72	3,332.42	1.79	0.19	-1.78
8,768.00	90.29	88.58	5,469.50	-345.62	3,408.71	3,425.95	1.87	-0.14	-1.86
8,862.00	90.33	88.40	5,468.99	-343.14	3,502.67	3,519.32	0.20	0.04	-0.19
8,956.00	90.11	88.40	5,468.63	-340.52	3,596.64	3,612.68	0.23	-0.23	0.00
9,052.00	89.93	88.49	5,468.59	-337.91	3,692.60	3,708.02	0.21	-0.19	0.09
9,184.00	89.36	88.31	5,469.41	-334.23	3,824.55	3,839.11	0.45	-0.43	-0.14
Last MWD Survey 9184 MD/5469.41 TVD -334.23 S 3824.55 E N; 6710737.6 E: 657841.0 - Nosler 12 Federal MO 8H BHL Rev01									
9,248.00	89.36	88.31	5,470.13	-332.34	3,888.52	3,902.66	0.00	0.00	0.00
PTB 9248 MD/5470.13 TVD -332.34 S 3888.52 E N: 670739.5 E: 657905.0									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
815.00	814.20	-23.75	-15.17	1st MWD Survey
5,890.00	5,496.06	-377.67	532.02	Cross 330' 5890 MD 5496.06 TVD -377.67 S 532.02 E N: 670694.2 E: 654548.1
9,184.00	5,469.41	-334.23	3,824.55	Last MWD Survey 9184 MD/5469.41 TVD -334.23 S 3824.55 E N; 6710737.6 E
9,248.00	5,470.13	-332.34	3,888.52	PTB 9248 MD/5470.13 TVD -332.34 S 3888.52 E N: 670739.5 E: 657905.0

Checked By: _____ Approved By: _____ Date: _____



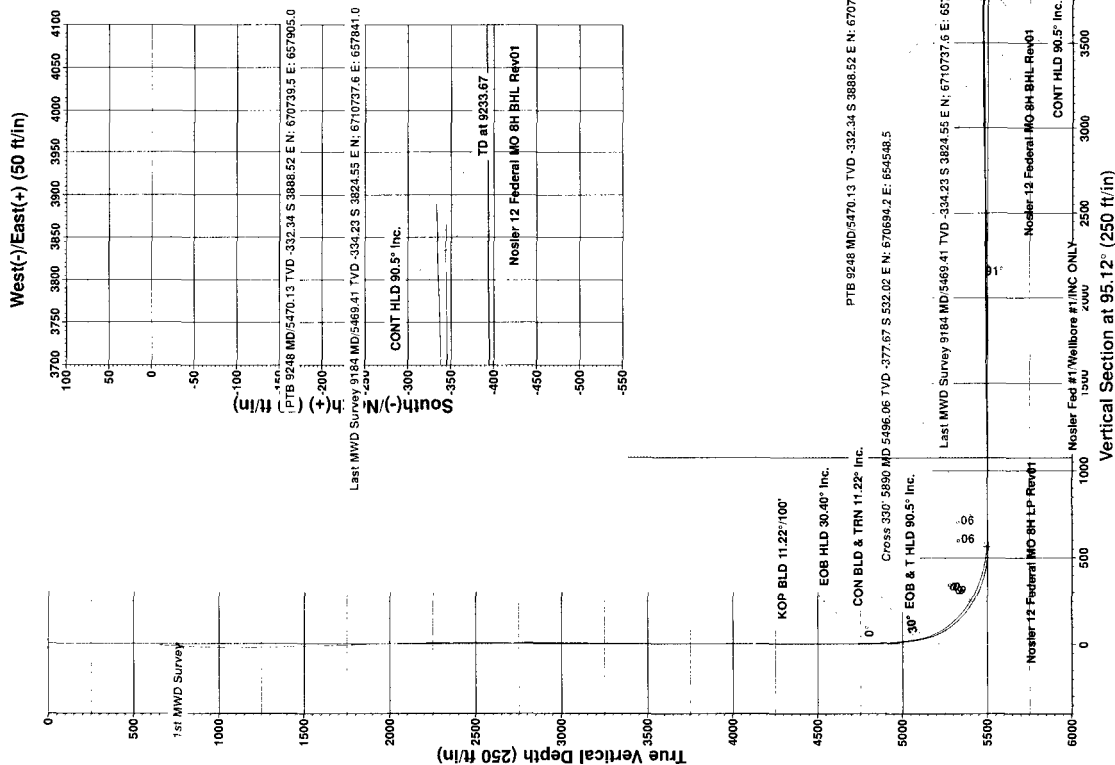
WELL DETAILS: Nosler 12 Federal MO 8H

Ground Elevation:: 3950.01
 RKB Elevation: KB=17.5' @ 3967.51ft (UNK)
 Rig Name: UNK

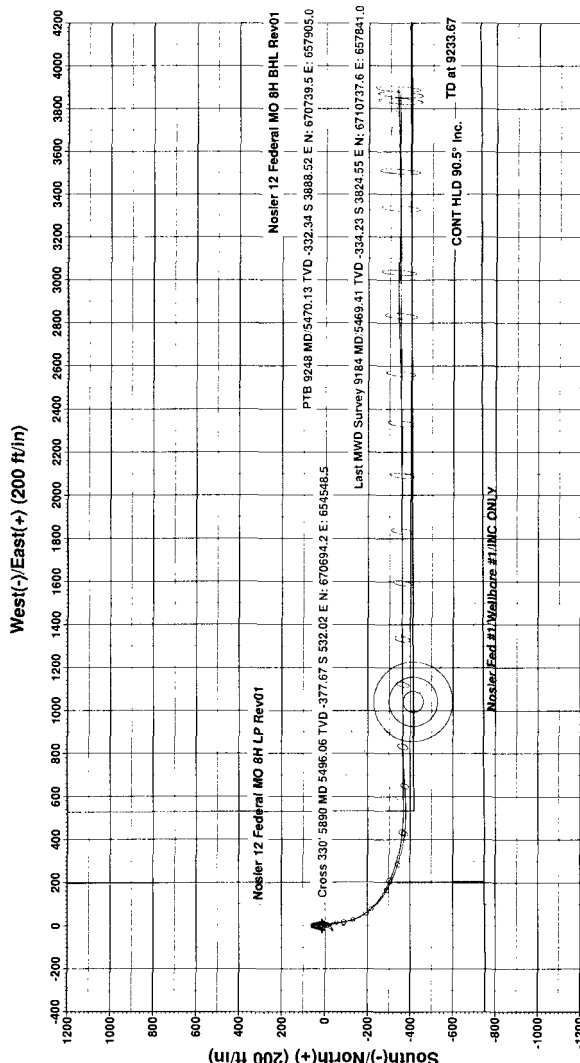
Plan: Plan #7 (Nosler 12 Federal MO 8H/Wellbore #1)
0.00

0.00	Northing	Easting	Latitude	Longitude
671071.9000	654016.5000	32° 50' 37.8849 N	103° 49' 54.6710 W	

INTEGRITY
— Directional Services —



Section Details										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	0.00	
3	5106.55	34.40	169.87	5088.47	-87.90	15.71	11.22	169.87	23.49	
4	5145.37	34.40	169.87	5120.49	-109.49	19.56	0.00	0.00	29.26	
5	5902.24	90.50	89.61	5502.00	-366.20	533.27	11.22	-81.66	563.84	Nosler 12 Federal MO 8H LP Rev01
6	9203.67	90.50	89.61	5473.19	-343.60	3834.51	0.00	0.00	3849.89	Nosler 12 Federal MO 8H BHL Rev01
7	9233.67	90.50	89.61	5472.93	-343.60	3864.51	0.00	0.00	3879.75	



PROJECT DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact solution)
Date: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

