

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION
OCD Artesia
JUN 11 2015

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			5. Lease Serial No. NMNM121474		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			6. If Indian, Allottee or Tribe Name		
2. Name of Operator COG PRODUCTION LLC			8. Lease Name and Well No. RIDGE NOSE FEDERAL COM 1H		
3. Address 2208 W MAIN ST ARTESIA, NM 88210			9. API Well No. 30-015-42391		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface Sec 31 T26S R29E Mer NMP SWNE 200FSL 2310FEL At top prod interval reported below Sec 30 T26S R29E Mer NMP At total depth NWNE 374FNL 2300FEL			10. Field and Pool, or Exploratory BRUSHY DRAW; DELAWARE		
14. Date Spudded 02/10/2015			11. Sec., T., R., M., or Block and Survey or Area Sec 31 T26S R29E Mer NMP		
15. Date T.D. Reached 03/04/2015			12. County or Parish EDDY		
16. Date Completed ☐ D & A ☒ Ready to Prod. 04/14/2015			13. State NM		
17. Elevations (DF, KB, RT, GL)* 2901 GL					
18. Total Depth: MD 13030 TVD 6377		19. Plug Back T.D.: MD 13027 TVD 6377		20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) NONE			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J55	54.5	0	405		1000		0	
12.250	9.625 J55	40.0	0	2605		1300		0	
7.875	5.500 P110	17.0	0	13030		2750		4020	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	5741							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) DELAWARE	6545	12980	6545 TO 12980	0.430	459	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
6545 TO 12980	SEE IN REMARKS

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity
05/04/2015	05/10/2015	24	→	273.0	369.0	3640.0		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
SI	320	180.0	→	273	369	3640		POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity
			→					
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
SI			→					

ACCEPTED FOR RECORD
ELECTRIC PUMP SUB-SURFACE
MAY 27 2015
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #302164 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Reclamation
Date: 11/10/15

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)

FLARED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
LAMAR	2622	2676		RUSTLER	768
BELL CANYON	2677	3528		TOS	945
CHERRY CANYON	3529	4762		BOS	2441
BRUSHY CANYON	4763	6381		LAMAR	2622
				BELL CANYON	2677
				CHERRY CANYON	3529
				BRUSHY CANYON	4763

32. Additional remarks (include plugging procedure):

Perfs 7 1/2" Sand (#) Fluid (gal)
 12723-129803000 200008 173184
 12337-125945982 200197 190572
 11950-122086048 197265 191184
 11564-118226048 198770 189294
 11178-114366048 198875 186606
 10792-110506006 199871 186228
 10406-106635982 199141 183516

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Survey
 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #302164 Verified by the BLM Well Information System.

For COG PRODUCTION LLC, sent to the Carlsbad

Committed to AFMSS for processing by DEBORAH HAM on 05/21/2015 ()

Name(please print) STORMI DAVIS

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 05/19/2015

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

Additional data for transaction #302164 that would not fit on the form

32. Additional remarks, continued

10020-10277 6024 199682 185278
9630-9896 6024 200380 181040
9248-9505 6048 200777 234024
8862-9119 6024 200998 180114
8475-8733 6048 199941 181734
8089-8347 5898 200210 178098
7703-7961 6006 196254 179046
7317-7575 6048 198057 176988
6931-7188 6048 196626 175980
6545-6802 9954 198784 182070
Totals 103236 3385836 3154956

Surveys are attached.



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 11 2015
RECEIVED

March 9, 2015

COG, LLC
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

RE: Ridge Nose Federal Com 1H
200' FSL & 2310' FEL
Sec. 30, T26S, R29E
Eddy County, New Mexico

Dear Sir,

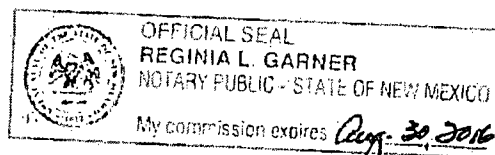
The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 9th day of March, 2015.

Notary Public

RIDGE NOSE FED COM #1-H

Date	Depth	Deviation	Direction	TVD	Horiz Disp
2/11/2015	149	0.20	0.00	0.00	0.00
2/11/2015	378	0.90	0.00	0.00	0.00
2/13/2015	605	0.30	0.00	0.00	0.00
2/13/2015	970	0.70	0.00	0.00	0.00
2/13/2015	1122	1.10	0.00	0.00	0.00
2/13/2015	1355	1.10	0.00	0.00	0.00
2/13/2015	1509	1.10	0.00	0.00	0.00
2/14/2015	1760	1.80	0.00	0.00	0.00
2/14/2015	1859	1.90	0.00	0.00	0.00
2/14/2015	1950	3.00	0.00	0.00	0.00
2/14/2015	1974	3.00	0.00	0.00	0.00
2/14/2015	1976	3.10	56.00	1975.00	30.11
2/14/2015	2067	3.20	67.20	2065.90	32.49
2/14/2015	2098	3.30	62.10	2096.85	33.25
2/15/2015	2128	2.80	61.40	2126.00	34.10
2/15/2015	2158	1.80	49.60	2156.00	34.68
2/15/2015	2189	1.10	50.50	2187.00	35.20
2/15/2015	2439	1.30	103.80	2437.00	0.00
2/15/2015	2502	1.30	250.50	2500.00	0.00
2/15/2015	2534	1.60	251.40	2532.00	0.00
2/17/2015	2752	0.50	0.00	0.00	0.00
2/17/2015	2902	0.60	0.00	0.00	0.00
2/17/2015	3306	0.30	0.00	0.00	0.00
2/18/2015	3756	0.01	0.00	0.00	0.00
2/18/2015	4191	1.10	0.00	0.00	0.00
2/18/2015	4690	0.40	0.00	0.00	0.00
2/18/2015	5172	2.30	0.00	0.00	0.00
2/18/2015	5235	2.10	0.00	0.00	0.00
2/19/2015	5326	1.50	159.40	5325.00	65.13
2/19/2015	5358	0.90	163.60	5357.00	65.76
2/19/2015	5389	0.60	165.30	5388.00	66.15
2/19/2015	5597	1.00	150.50	5578.00	0.00
2/20/2015	5696	7.20	72.30	5695.00	15.94
2/20/2015	5727	4.00	20.40	5726.00	14.82
2/20/2015	5759	7.70	16.70	5757.00	11.72
2/20/2015	5822	14.90	16.80	5819.00	0.00
2/20/2015	5981	33.10	8.80	5964.00	0.00
2/20/2015	6044	39.30	5.80	6014.00	0.00
2/20/2015	6075	42.10	5.50	6038.00	0.00
2/20/2015	6202	52.40	0.20	6124.00	0.00
2/21/2015	6297	57.80	359.00	6178.00	290.99
2/21/2015	6329	61.80	360.00	6194.00	318.64

Date	Depth	Deviation	Direction	TVD	Horiz Disp
2/21/2015	6360	64.80	0.50	6208.00	340.40
2/21/2015	6516	74.20	5.00	6264.00	0.00
2/21/2015	6609	79.50	4.20	6285.00	0.00
2/21/2015	6704	85.40	3.10	6297.00	0.00
2/21/2015	6736	87.40	2.80	6299.00	0.00
2/22/2015	6767	88.50	2.60	6300.00	738.75
2/22/2015	6797	89.30	2.70	6300.00	768.72
2/22/2015	6832	89.40	2.50	6301.00	803.69
2/22/2015	6985	88.30	0.80	6305.00	0.00
2/22/2015	7168	88.80	0.30	6309.00	0.00
2/22/2015	7260	88.70	359.80	6311.00	0.00
2/22/2015	7443	90.10	359.90	6311.00	0.00
2/22/2015	7659	90.00	359.50	6312.00	0.00
2/23/2015	7664	89.80	359.10	6312.00	1635.80
2/23/2015	7760	89.20	359.30	6313.00	1731.46
2/23/2015	7854	88.60	357.70	6315.00	1825.43
2/23/2015	8045	88.70	0.10	6319.00	0.00
2/23/2015	8140	89.80	359.70	6320.00	0.00
2/23/2015	8235	90.50	359.70	6320.00	0.00
2/23/2015	8330	90.50	359.70	6319.00	0.00
2/23/2015	8518	89.30	359.40	6322.00	0.00
2/24/2015	8709	88.80	358.60	6323.00	268.27
2/24/2015	8804	89.40	358.10	632.50	2775.20
2/24/2015	8899	89.90	358.60	6325.00	2870.45
2/24/2015	9089	90.20	358.90	6326.00	0.00
2/24/2015	9185	89.10	359.00	6327.00	0.00
2/24/2015	9375	85.80	356.70	6335.00	0.00
2/24/2015	9470	87.20	358.00	0.00	0.00
2/24/2015	9565	87.60	358.50	0.00	0.00
2/25/2015	9661	91.00	0.40	6346.00	0.00
2/25/2015	9755	92.10	0.20	6344.00	0.00
2/25/2015	9942	91.00	0.40	6340.00	0.00
2/25/2015	10035	91.10	1.30	6339.00	0.00
2/25/2015	10129	90.70	0.90	6337.00	0.00
2/25/2015	10223	88.80	0.90	6338.00	0.00
2/26/2015	10410	90.20	359.70	6340.00	0.00
2/26/2015	10598	88.40	0.10	6341.00	0.00
2/27/2015	10724	88.10	359.90	6345.00	0.00
2/27/2015	10818	88.10	0.10	6348.00	0.00
2/27/2015	10912	88.30	359.70	6351.00	0.00
2/27/2015	11006	87.80	359.60	6354.00	0.00
2/28/2015	11099	88.40	1.20	6358.00	0.00
2/28/2015	11193	89.50	2.00	6359.00	0.00
2/28/2015	11287	89.50	1.80	6360.00	0.00
2/28/2015	11382	89.90	1.40	6361.00	0.00

Date	Depth	Deviation	Direction	TVD	Horiz Disp
2/28/2015	11476	90.50	1.30	6360.70	0.00
2/28/2015	11570	89.70	0.70	6360.00	0.00
3/1/2015	11663	90.10	359.80	6360.00	5632.61
3/1/2015	11757	88.60	3593.00	6361.00	5726.59
3/1/2015	11851	89.20	358.70	6363.00	0.00
3/1/2015	11946	89.50	358.20	0.00	0.00
3/1/2015	11946	89.50	358.20	6364.65	5915.49
3/1/2015	12039	90.00	357.80	6365.05	6008.42
3/2/2015	12133	89.40	365.60	6365.00	6102.28
3/2/2015	12228	88.10	355.40	6367.00	6197.05
3/2/2015	12332	88.00	355.70	6371.00	0.00
3/4/2015	12413	87.30	356.60	6774.00	3481.42
3/4/2015	12601	89.20	358.50	6380.00	0.00
3/4/2015	12695	89.90	357.90	6380.78	6663.07
3/4/2015	12788	90.20	357.60	6380.70	6755.97
3/4/2015	12883	90.90	357.20	6379.79	6850.85
3/5/2015	12974	91.10	356.80	6378.00	6941.68



March 2, 2015

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 11 2015

RECEIVED

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

Attn: Kanicia Castillo

RE: Ridge Nose Federal Com 1H

Please find enclosed a copy of the survey from 0' to 5570' ran on the above referenced well.

Sincerely,

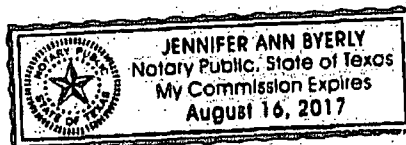
Keith Havelka
Operations

STATE OF TEXAS §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 2 day of March, A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas

VES Survey International
P.O. Box 261021 Corpus Christi, TX 78426
T (361) 767-0602 F (361) 767-0612
www.vessurvey.com





Company: Cog Operating LLC
Lease/Well: Ridge Nose Federal Com /1H

Rig Name: Silver Oak 1
State/County: New Mexico /Eddy
Latitude: 32.00; Longitude: -104.02
GRID North is 0.16 Degrees East of True North
VS-Azi: 0.29 Degrees



Depth Reference : 17 ft

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: survey.ut

Minimum Curvature Method

Report Date/Time: 3/2/2015 / 16:28

VES Survey International

(432) 563-5444

West Texas

Surveyor: Javier Estrada

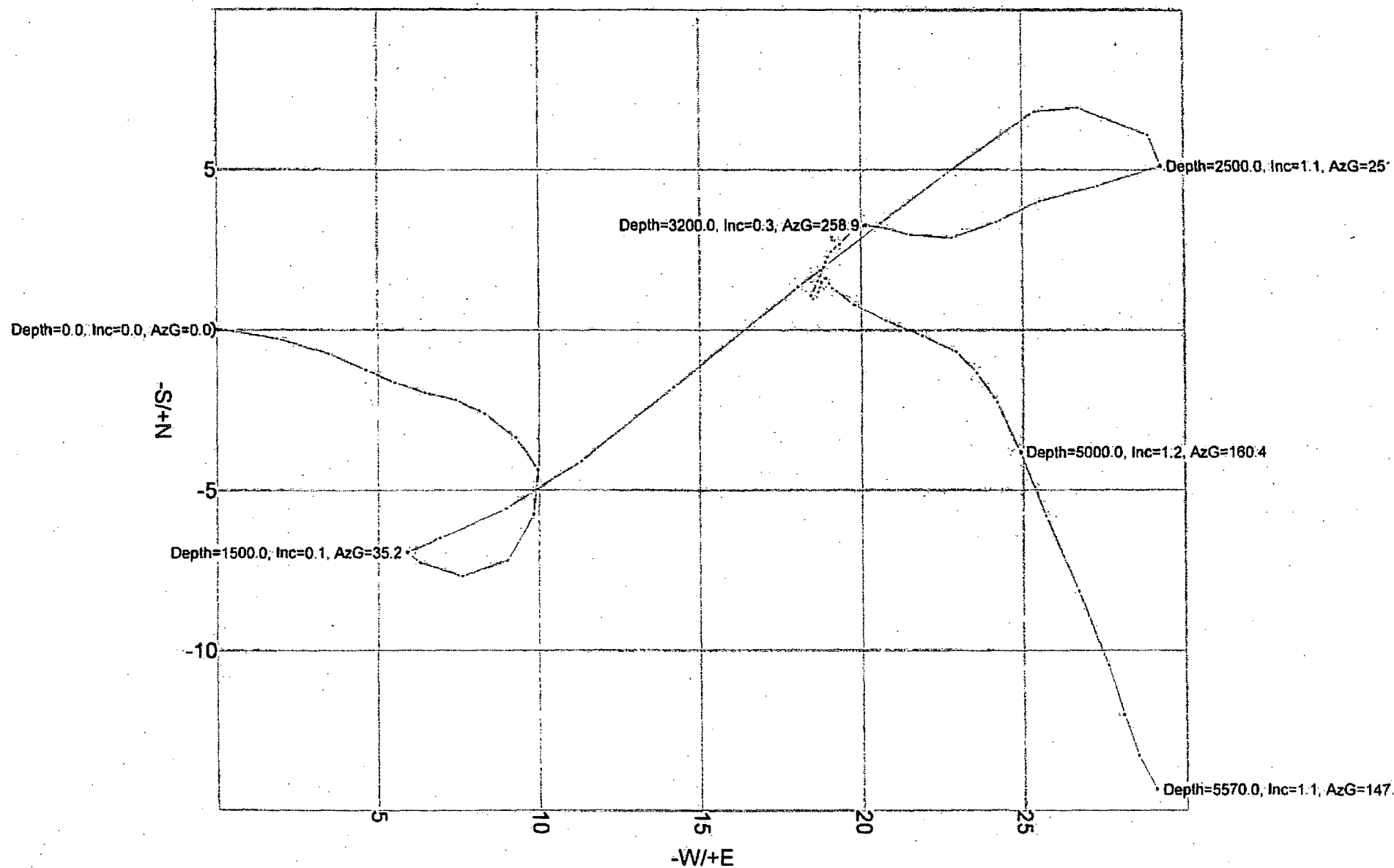
Ridge Nose Federal Com 1H / API 30-015-42391

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.56	94.64	100.00	-0.04	0.49	-0.04	0.49	94.64	0.56
200.00	1.04	101.89	199.99	-0.27	1.86	-0.26	1.88	98.12	0.49
300.00	0.88	111.76	299.97	-0.74	3.46	-0.72	3.54	102.03	0.23
400.00	0.58	117.36	399.97	-1.25	4.62	-1.23	4.79	105.18	0.31
500.00	0.56	108.38	499.96	-1.64	5.53	-1.61	5.77	106.51	0.09
600.00	0.58	108.35	599.96	-1.95	6.47	-1.92	6.76	106.78	0.02
700.00	0.56	97.68	699.95	-2.17	7.44	-2.14	7.75	106.31	0.11
800.00	0.64	131.15	799.95	-2.61	8.34	-2.56	8.74	107.35	0.36
900.00	0.77	124.83	899.94	-3.36	9.31	-3.31	9.89	109.82	0.15
1000.00	0.72	169.27	999.93	-4.36	9.97	-4.31	10.88	113.59	0.56
1100.00	0.94	197.61	1099.92	-5.76	9.84	-5.71	11.40	120.32	0.46
1200.00	0.97	220.29	1199.91	-7.19	9.05	-7.14	11.55	128.46	0.38
1300.00	1.01	280.53	1299.89	-7.67	7.63	-7.63	10.82	135.16	1.00
1400.00	0.58	300.60	1399.89	-7.25	6.32	-7.22	9.62	138.91	0.51
1500.00	0.07	35.19	1499.88	-6.95	5.92	-6.92	9.13	139.55	0.59
1600.00	1.21	67.62	1599.88	-6.50	6.94	-6.46	9.50	133.14	1.15
1700.00	1.37	64.64	1699.85	-5.58	9.00	-5.54	10.59	121.82	0.18
1800.00	1.81	51.57	1799.81	-4.09	11.32	-4.03	12.03	109.85	0.57

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	2.39	50.87	1899.74	-1.79	14.17	-1.72	14.29	97.19	0.58
2000.00	3.33	51.38	1999.62	1.34	18.06	1.43	18.11	85.76	0.94
2100.00	3.23	53.60	2099.45	4.82	22.60	4.94	23.11	77.95	0.16
2200.00	0.72	57.63	2199.39	6.83	25.40	6.86	26.30	74.94	2.51
2300.00	0.96	104.96	2299.38	6.95	26.74	7.09	27.63	75.42	0.71
2400.00	1.71	116.21	2399.35	6.08	28.89	6.22	29.52	78.12	0.79
2500.00	1.12	251.92	2499.34	5.11	29.30	5.28	29.74	80.10	2.63
2600.00	1.23	252.28	2599.31	4.48	27.34	4.62	27.71	80.69	0.11
2700.00	0.89	259.13	2699.30	4.01	25.55	4.14	25.87	81.08	0.36
2800.00	0.89	228.98	2799.29	3.35	24.20	3.47	24.43	82.12	0.46
2900.00	0.91	271.46	2899.27	2.86	22.82	2.97	23.00	82.86	0.65
3000.00	0.53	278.69	2999.27	2.95	21.57	3.06	21.77	82.21	0.38
3100.00	0.42	293.81	3099.26	3.17	20.77	3.27	21.01	81.33	0.17
3200.00	0.35	258.94	3199.26	3.26	20.14	3.36	20.40	80.81	0.24
3300.00	0.25	220.25	3299.26	3.04	19.70	3.14	19.94	81.24	0.22
3400.00	0.34	225.18	3399.26	2.66	19.36	2.76	19.54	82.16	0.10
3500.00	0.10	249.95	3499.26	2.42	19.06	2.52	19.22	82.75	0.26
3600.00	0.33	196.22	3599.26	2.12	18.90	2.21	19.02	83.61	0.29
3700.00	0.39	207.11	3699.25	1.53	18.66	1.63	18.73	85.31	0.09
3800.00	0.19	202.44	3799.25	1.07	18.44	1.17	18.48	86.67	0.20
3900.00	0.17	64.20	3899.25	0.98	18.51	1.08	18.54	86.96	0.33
4000.00	0.16	11.65	3999.25	1.18	18.67	1.28	18.71	86.38	0.14
4100.00	0.21	27.45	4099.25	1.48	18.79	1.57	18.84	85.50	0.07
4200.00	0.06	98.68	4199.25	1.64	18.93	1.73	19.00	85.06	0.20
4300.00	0.40	159.43	4299.25	1.30	19.10	1.40	19.15	86.11	0.37
4400.00	0.68	107.73	4399.25	0.79	19.79	0.89	19.81	87.71	0.54
4500.00	0.59	127.48	4499.24	0.30	20.77	0.40	20.77	89.18	0.24
4600.00	0.83	103.33	4599.23	-0.18	21.88	-0.07	21.88	90.48	0.38
4700.00	0.56	133.00	4699.23	-0.68	22.94	-0.56	22.95	91.70	0.44
4800.00	0.49	140.60	4799.22	-1.34	23.57	-1.22	23.61	93.25	0.10
4900.00	0.79	148.18	4899.22	-2.26	24.20	-2.13	24.31	95.33	0.32
5000.00	1.18	160.39	4999.20	-3.82	24.92	-3.69	25.21	98.71	0.44
5100.00	1.28	156.79	5099.18	-5.82	25.70	-5.69	26.35	102.75	0.13
5200.00	1.63	156.55	5199.15	-8.15	26.71	-8.02	27.93	106.97	0.35
5300.00	1.23	162.18	5299.11	-10.47	27.60	-10.33	29.52	110.78	0.43
5400.00	0.62	165.38	5399.10	-12.02	28.07	-11.87	30.53	113.18	0.61
5500.00	0.91	158.03	5499.09	-13.28	28.50	-13.14	31.44	114.98	0.31
5570.00	1.08	147.18	5569.08	-14.35	29.07	-14.20	32.42	116.28	0.36



VES Survey International
(432) 563-5444
West Texas
Surveyor: Javier Estrada
Ridge Nose Federal Com 1H / API 30-015-42391



VES Survey Date: 2/19/2015



NM OIL CONSERVATION
ARTESIA DISTRICT

JUN. 11 2015

RECEIVED

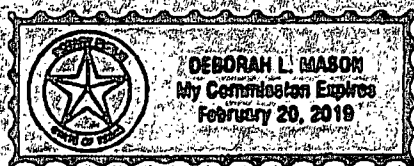
State of New Mexico
County of Lea

I, Donald D. Mason, certify that: I am employed by Terra Directional Services LLC; that I did on the day(s) of 03/16/2015 through 03/21/2015 conduct or supervise the taking of a MVD survey from a depth of 1265 feet to a depth 5342 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Terra Directional Services LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Concho Oil & Gas for the Macho Nacho 7 State SWD 1 Well API 30-025-42463 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Terra Directional Services LLC.

Donald D. Mason
President

State of Texas
County of Burnet

Before me, a notary public, on this day personally appeared Donald D. Mason, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.



Notary Public's Signature



Customer Name: COG
Well Name: Ridge Nose Federal Com #1H
API Number: 30-015-42391
County / Parish: Eddy Co, NM

M.W.D. Operator: Justin Campos
Directional Driller: John Overton
Total Magnetic Correction: 7.17
Job #: NM-515

Vertical Section: 0.29

Tie In Survey(s) Provided By:

VES

	Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS
Tie - In										
0	5570.00	1.08	147.18	5569.08	-14.20	-14.35	29.07	32.42	116.28	0.36
1	5636.00	1.20	147.60	5635.07	-15.31	-15.46	29.78	33.55	117.43	0.18
2	5664.00	1.20	141.60	5663.06	-15.78	-15.93	30.12	34.07	117.88	0.45
3	5696.00	1.20	72.30	5695.06	-15.94	-16.09	30.64	34.61	117.71	4.26
4	5727.00	4.00	20.40	5726.02	-14.82	-14.98	31.33	34.73	115.56	10.95
5	5759.00	7.70	16.70	5757.85	-11.72	-11.88	32.34	34.45	110.18	11.62
6	5791.00	11.30	15.10	5789.41	-6.63	-6.80	33.77	34.45	101.38	11.28
7	5822.00	14.90	16.80	5819.60	0.13	-0.05	35.71	35.71	90.08	11.68
8	5854.00	18.80	18.90	5850.22	8.97	8.77	38.57	39.56	77.19	12.33
9	5886.00	22.20	17.10	5880.19	19.64	19.43	42.02	46.30	65.18	10.80
10	5918.00	25.90	14.20	5909.40	32.22	31.99	45.52	55.63	54.90	12.13
11	5950.00	29.80	11.90	5937.69	46.80	46.55	48.87	67.49	46.39	12.64
12	5981.00	33.10	8.80	5964.14	62.72	62.46	51.76	81.12	39.65	11.85
13	6012.00	36.60	6.70	5989.57	80.28	80.01	54.13	96.60	34.08	11.93
14	6044.00	39.30	5.80	6014.80	99.85	99.57	56.27	114.37	29.47	8.61
15	6075.00	42.10	5.50	6038.30	119.98	119.68	58.26	133.11	25.95	9.05
16	6107.00	44.70	5.90	6061.55	141.86	141.56	60.44	153.92	23.12	8.17
17	6138.00	47.40	6.40	6083.07	164.06	163.75	62.83	175.39	20.99	8.79
18	6170.00	50.50	3.70	6104.08	188.11	187.78	64.94	198.69	19.08	11.59
19	6202.00	52.40	0.20	6124.03	213.11	212.78	65.79	222.72	17.18	10.41
20	6234.00	54.40	359.40	6143.10	238.80	238.47	65.69	247.35	15.40	6.56
21	6265.00	55.80	359.20	6160.84	264.22	263.89	65.38	271.87	13.92	4.55
22	6297.00	57.80	359.00	6178.36	290.99	290.67	64.96	297.84	12.60	6.27
23	6329.00	61.80	360.00	6194.46	318.64	318.32	64.72	324.83	11.49	12.79
24	6360.00	64.80	0.50	6208.38	346.33	346.01	64.85	352.03	10.61	9.78
25	6392.00	66.20	1.90	6221.65	375.44	375.12	65.46	380.79	9.90	5.92
26	6424.00	67.60	2.90	6234.21	404.86	404.52	66.69	409.99	9.36	5.23
27	6455.00	69.90	3.90	6245.44	433.70	433.36	68.41	438.73	8.97	8.01
28	6485.00	72.10	4.80	6255.21	462.00	461.64	70.56	467.01	8.69	7.86
29	6516.00	74.20	5.00	6264.20	491.57	491.20	73.10	496.61	8.46	6.80
30	6545.00	75.90	4.90	6271.68	519.49	519.12	75.51	524.58	8.28	5.87
31	6577.00	77.80	4.50	6278.96	550.56	550.17	78.07	555.68	8.08	6.06
32	6609.00	79.50	4.20	6285.25	581.85	581.45	80.44	586.99	7.88	5.39
33	6641.00	81.90	3.80	6290.42	613.36	612.95	82.65	618.50	7.68	7.60
34	6672.00	84.00	3.30	6294.23	644.08	643.66	84.55	649.19	7.48	6.96
35	6704.00	85.40	3.10	6297.18	675.90	675.47	86.33	680.97	7.28	4.42
36	6736.00	87.40	2.80	6299.19	707.80	707.36	87.97	712.81	7.09	6.32
37	6770.00	88.50	2.60	6300.41	741.75	741.30	89.57	746.70	6.89	3.29
38	6800.00	89.30	2.70	6300.99	771.72	771.27	90.96	776.61	6.73	2.69
39	6832.00	89.40	2.50	6301.35	803.69	803.23	92.41	808.53	6.56	0.70
40	6863.00	88.90	1.90	6301.81	834.67	834.21	93.60	839.44	6.40	2.52
41	6894.00	88.10	1.40	6302.62	865.65	865.18	94.49	870.33	6.23	3.04
42	6985.00	88.30	0.80	6305.48	956.59	956.12	96.24	960.95	5.75	0.69
43	7077.00	88.90	0.20	6307.73	1048.57	1048.09	97.04	1052.57	5.29	0.92
44	7168.00	88.80	0.30	6309.55	1139.55	1139.07	97.44	1143.23	4.89	0.16

45	7260.00	88.70	359.80	6311.56	1231.52	1231.05	97.52	1234.90	4.53	0.55
46	7352.00	90.40	359.30	6312.28	1323.51	1323.04	96.80	1326.57	4.18	1.93
47	7443.00	90.10	359.90	6311.89	1414.50	1414.03	96.16	1417.30	3.89	0.74
48	7505.00	89.50	359.80	6312.10	1476.50	1476.03	96.00	1479.15	3.72	0.98
49	7569.00	90.00	359.50	6312.38	1540.49	1540.03	95.61	1542.99	3.55	0.91
50	7664.00	89.80	359.10	6312.55	1635.48	1635.02	94.45	1637.75	3.31	0.47
51	7760.00	89.20	359.30	6313.38	1731.46	1731.01	93.11	1733.51	3.08	0.66
52	7854.00	88.60	359.70	6315.19	1825.43	1824.99	92.29	1827.32	2.89	0.77
53	7950.00	89.00	0.80	6317.20	1921.41	1920.96	92.71	1923.20	2.76	1.22
54	8045.00	88.70	0.10	6319.11	2016.39	2015.94	93.45	2018.11	2.65	0.80
55	8140.00	89.80	359.70	6320.35	2111.38	2110.93	93.29	2112.99	2.53	1.23
56	8235.00	90.50	359.70	6320.10	2206.37	2205.93	92.79	2207.88	2.41	0.74
57	8330.00	90.50	359.70	6319.27	2301.36	2300.92	92.29	2302.77	2.30	0.00
58	8424.00	88.90	0.20	6319.76	2395.36	2394.92	92.21	2396.69	2.20	1.78
59	8518.00	89.30	359.40	6321.24	2489.34	2488.91	91.88	2490.60	2.11	0.95
60	8613.00	89.40	359.10	6322.32	2584.32	2583.89	90.64	2585.48	2.01	0.33
61	8709.00	88.80	358.60	6323.83	2680.27	2679.86	88.71	2681.33	1.90	0.81
62	8804.00	89.40	358.10	6325.32	2775.21	2774.81	85.98	2776.14	1.77	0.82
63	8899.00	89.90	358.60	6325.90	2870.15	2869.77	83.24	2870.97	1.66	0.74
64	8994.00	89.60	359.00	6326.31	2965.12	2964.74	81.25	2965.86	1.57	0.53
65	9089.00	90.20	358.90	6326.48	3060.09	3059.73	79.51	3060.76	1.49	0.64
66	9185.00	89.10	359.00	6327.07	3156.06	3155.71	77.75	3156.67	1.41	1.15
67	9280.00	87.50	358.40	6329.88	3250.98	3250.64	75.60	3251.52	1.33	1.80
68	9375.00	85.80	356.70	6335.44	3345.70	3345.38	71.55	3346.15	1.23	2.53
69	9470.00	87.20	358.00	6341.24	3440.40	3440.10	67.16	3440.76	1.12	2.01
70	9565.00	87.60	358.50	6345.54	3535.24	3534.96	64.26	3535.54	1.04	0.67
71	9661.00	91.00	0.40	6346.72	3631.20	3630.93	63.34	3631.48	1.00	4.06
72	9755.00	92.10	0.20	6344.17	3725.17	3724.89	63.84	3725.44	0.98	1.19
73	9848.00	90.50	0.60	6342.06	3818.14	3817.86	64.49	3818.40	0.97	1.77
74	9942.00	91.00	0.40	6340.83	3912.13	3911.85	65.31	3912.39	0.96	0.57
75	10035.00	91.10	1.30	6339.13	4005.11	4004.82	66.68	4005.38	0.95	0.97
76	10129.00	90.70	0.90	6337.65	4099.09	4098.79	68.49	4099.36	0.96	0.60
77	10223.00	88.80	0.90	6338.06	4193.08	4192.78	69.97	4193.36	0.96	2.02
78	10316.00	89.10	0.50	6339.77	4286.06	4285.75	71.10	4286.34	0.95	0.54
79	10410.00	90.20	359.70	6340.34	4380.05	4379.75	71.27	4380.33	0.93	1.45
80	10504.00	90.00	359.50	6340.18	4474.05	4473.75	70.61	4474.30	0.90	0.30
81	10598.00	88.40	0.10	6341.49	4568.03	4567.73	70.28	4568.27	0.88	1.82
82	10662.00	88.00	0.40	6343.50	4632.00	4631.70	70.56	4632.24	0.87	0.78
83	10724.00	88.10	359.90	6345.61	4693.96	4693.66	70.72	4694.20	0.86	0.82
84	10818.00	88.10	0.10	6348.73	4787.91	4787.61	70.72	4788.13	0.85	0.21
85	10912.00	88.30	359.70	6351.68	4881.86	4881.57	70.56	4882.08	0.83	0.48
86	11006.00	87.80	359.60	6354.88	4975.80	4975.51	69.98	4976.00	0.81	0.54
87	11100.00	88.40	1.20	6358.00	5069.74	5069.45	70.64	5069.94	0.80	1.82
88	11194.00	89.50	2.00	6359.72	5163.70	5163.40	73.26	5163.92	0.81	1.45
89	11287.00	89.50	1.80	6360.53	5256.66	5256.34	76.35	5256.90	0.83	0.22
90	11382.00	89.90	1.40	6361.03	5351.63	5351.30	79.00	5351.89	0.85	0.60
91	11476.00	90.50	1.30	6360.70	5445.62	5445.28	81.22	5445.88	0.85	0.65
92	11570.00	89.70	0.70	6360.53	5539.61	5539.26	82.86	5539.88	0.86	1.06
93	11663.00	90.10	359.80	6360.70	5632.61	5632.26	83.26	5632.87	0.85	1.06
94	11757.00	88.60	359.30	6361.76	5726.59	5726.25	82.52	5726.84	0.83	1.68
95	11851.00	89.20	358.70	6363.57	5820.55	5820.21	80.88	5820.78	0.80	0.90
96	11946.00	89.50	358.20	6364.65	5915.49	5915.17	78.31	5915.69	0.76	0.61
97	12039.00	90.00	357.80	6365.05	6008.42	6008.11	75.07	6008.58	0.72	0.69
98	12133.00	89.40	356.60	6365.54	6102.28	6102.00	70.48	6102.41	0.66	1.43
99	12228.00	88.10	356.40	6367.62	6197.05	6196.80	64.68	6197.13	0.60	1.38
100	12322.00	88.00	355.70	6370.81	6290.73	6290.52	58.21	6290.79	0.53	0.75
101	12413.00	87.30	356.60	6374.55	6381.42	6381.24	52.10	6381.45	0.47	1.25
102	12507.00	88.40	357.90	6378.07	6475.22	6475.06	47.60	6475.23	0.42	1.81
103	12601.00	89.20	358.50	6380.04	6569.13	6568.99	44.64	6569.14	0.39	1.06
104	12695.00	89.90	357.90	6380.78	6663.07	6662.94	41.69	6663.07	0.36	0.98

105	12788.00	90.20	357.60	6380.70	6755.97	6755.87	38.04	6755.97	0.32	0.46
106	12883.00	90.90	357.20	6379.79	6850.85	6850.76	33.73	6850.85	0.28	0.85
107	12974.00	91.10	356.80	6378.20	6941.68	6941.63	28.97	6941.69	0.24	0.49
PTB	13030.00	91.10	356.80	6377.12	6997.57	6997.53	25.84	6997.58	0.21	0.00