

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 13 2017

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

RECEIVED

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address COG Operating LLC 2208 W. Main Street Artesia, NM 88210		² OGRID Number 229137
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 015-43291	⁵ Pool Name Purple Sage; Wolfcamp (Gas)	⁶ Pool Code 98220
⁷ Property Code 315067	⁸ Property Name Caverns Federal Com	⁹ Well Number 4H

II. ¹⁰ Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
D	21	26S	25E		400	North	460	West	Eddy

¹¹ Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
4	33	26S	25E		213	South	372	West	Eddy
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 8/17/17	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
16696	Oxy USA Inc PO Box 4294 Houston, TX 77210	O
	Lucid Energy	G

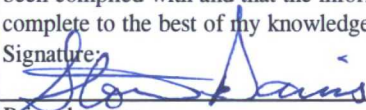
IV. Well Completion Data

²¹ Spud Date 3/20/17	²² Ready Date 7/12/17	²³ TD 19315'	²⁴ PBTD 19195'	²⁵ Perforations 7617-19170'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
26"	20"	386'	750		
17 1/2"	13 3/8"	1240'	950		
12 1/4"	9 5/8"	6830'	1125		
8 1/2"	5 1/2"	19315'	3350		
	2 7/8"	6954'			

V. Well Test Data

³¹ Date New Oil 9/1/17	³² Gas Delivery Date 8/17/17	³³ Test Date 10/14/17	³⁴ Test Length 24 Hrs	³⁵ Tbg. Pressure 460#	³⁶ Csg. Pressure 380#
³⁷ Choke Size	³⁸ Oil 61	³⁹ Water 4987	⁴⁰ Gas 5762		⁴¹ Test Method Flowing

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: 

Printed name:
Stormi Davis

Title:
Regulatory Analyst

E-mail Address:
sdavis@concho.com

Date:
11/8/17

Phone:
575-748-6946

OIL CONSERVATION DIVISION

Approved by:



Title:

Geologist

Approval Date:

11-27-2017

Pending BLM approvals will subsequently be reviewed and scanned

NM OIL CONSERVATION

ARTESIA DISTRICT

Form 3160-4
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NOV 13 2017

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG RECEIVED

5. Lease Serial No.
NMNM104667

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____		7. Unit or CA Agreement Name and No.	
2. Name of Operator COG OPERATING LLC		8. Lease Name and Well No. CAVERNS FEDERAL COM 4H	
Contact: STORMI DAVIS E-Mail: sdavis@concho.com			
3. Address 2208 WEST MAIN ARTESIA, NM 88210		9. API Well No. 30-015-43291	
3a. Phone No. (include area code) Ph: 575-748-6946			
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 21 T26S R25E Mer NMP At surface NWNW 400FNL 460FWL At top prod interval reported below Sec 33 T26S R25E Mer NMP At total depth Lot 4 213FSL 372FWL		10. Field and Pool, or Exploratory PURPLE SAGE; WOLFCAMP	
		11. Sec., T., R., M., or Block and Survey or Area Sec 21 T26S R25E Mer NMP	
		12. County or Parish EDDY	
		13. State NM	
14. Date Spudded 03/20/2017		15. Date T.D. Reached 04/26/2017	
		16. Date Completed ☐ D & A ☒ Ready to Prod. 07/12/2017	
17. Elevations (DF, KB, RT, GL)* 3727 GL			
18. Total Depth: MD 19315 TVD 7500		19. Plug Back T.D.: MD 19195 TVD 7502	
20. Depth Bridge Plug Set: MD 19195 TVD 7502			
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
26.000	20.000 J55	94.0	0	386		750		0	
17.500	13.375 J55	54.5	0	1240		950		0	
12.250	9.625 L80	47.0	0	6830		1125		0	
8.500	5.500 P110	20.0	0	19315		3350		0	

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	6954	6944						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	7617	19170	7617 TO 19115	0.430	3388	OPEN
B)			19160 TO 19170		60	OPEN
C)						
D)						

26. Perforation Record

Depth Interval	Amount and Type of Material
7617 TO 19115	SEE ATTACHED

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	Production Method
07/17/2017	10/14/2017	24	→	61.0	5762.0	4987.0			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	460	380.0	→	61	5762	4987		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	Production Method
			→						Pending BLM approvals will subsequently be reviewed and scanned
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

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

ELECTRONIC SUBMISSION #394494 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPE...

PC 11-28-17

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.)
SOLD

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	1245	1295		TOS	389
BELL CANYON	1296	2118		BOS	1020
CHERRY CANYON	2119	3232		LAMAR	1245
BRUSHY CANYON	3233	4629		BELL CANYON	1296
BONE SPRING LM	4630	5374		CHERRY CANYON	2119
1ST BONE SPRING	5375	5840		BRUSHY CANYON	3233
2ND BONE SPRING	5841	6959		BONE SPRING LM	4630
3RD BONE SPRING	6960	7252		1ST BONE SPRING	5375

32. Additional remarks (include plugging procedure):
Additional Tops:

2nd Bone Spring: 5841'
3rd Bone Spring: 6960'
Wolfcamp: 7253'
Penn: 7826'

AMENDED TO CHANGE ITEM #46 - TEST DATA

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 #394494 Verified by the BLM Well Information System.
For COG OPERATING LLC, sent to the Carlsbad

Name (please print) STORMI DAVIS

Title PREPARER

Signature _____ (Electronic Submission)

Date 11/09/2017

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 #394494 that would not fit on the form

32. Additional remarks, continued

CAVERNS FEDERAL COM #4H (30-015-43291)

Perfs	7 1/2% Acid (Gal)	15% Acid (Gal)	Sand (#)	Fluid (Gal)
1	2520	798	300400	446124
2	1470	798	298722	301266
3	1470	756	301919	305634
4	1512	798	297481	311010
5	1499	840	300091	309737
6	1386	126	299209	295092
7	1554	756	299693	298578
8	1554	756	300127	316848
9	1499	756	299944	308309
10	1499	798	298863	300455
11	1499	798	300862	291761
12	1512	1344	298417	300930
13	1512	1512	300778	298830
14	1512	756	301625	306264
15	1499	840	301481	292685
16	1512	840	301230	294084
17	1512	714	301271	298704
18	1470	882	300856	286860
19	1386	756	301740	299292
20	1470	882	299179	301686
21	1554	924	301130	287490
22	1470	2394	301163	279468
23	1512	756	301375	294966
24	1499	756	301006	290669
25	1499	756	300855	304067
26	1499	798	300486	306293
27	1512	756	291177	294252
28	1512	756	301649	299502
29	1499	798	299373	293357
30	1499	882	298241	298103
31	1499	1512	299804	299195
32	1512	966	299633	297696
33	1512	756	300008	292320
34	1499	756	298932	292223
35	1512	756	300234	295512
36	1470	798	298644	295386
37	1512	798	299628	293286
38	1512	1218	300367	292152
39	1499	798	300212	290207
40	1499	1806	300000	290291
41	1499	798	298974	304151
42	1512	798	299992	292656
43	1512	798	300012	287322
44	1499	756	299981	288737
45	1499	798	295922	286469
46	1499	798	298240	287939
47	1499	756	297534	287771
48	1512	756	298697	284466
49	1512	756	300174	285558
50	1499	756	300027	285839
51	1499	798	299569	282143
52	1512	714	170272	342090
53	1512	798	220959	545496
54	1512	756	128916	363552
55	1499	756	241092	480719
56	1512	756	299520	522144
57	1499	756	261225	349931
58	1499	756	298421	306167
59	1512	798	295859	788508
60	1499	756	300358	293441
61	1499	798	299595	295583
62	1512	2310	8482	146160
63	1499	756	10287	176513
64	1470	2940	299928	341250
65	1428	2772	32244	356958
66	1512	798	298966	291816
67	1499	756	299176	461483
68	1512	756	297820	312144
69	1499	756	300224	301043
70	1499	756	300102	293861
71	1499	798	301528	261731
72	1512	2688	300007	294420
73	1512	756	301097	297192
74	1554	756	299997	288624
75	1512	798	299484	304080
76	1512	840	300980	291438
77	1512	798	300478	278880
Totals	116579	72492	21753944	24208871

CAVERNS FEDERAL COM 4H

Stage 1	Distance Between Perfs	Shots	Stage 2	Distance Between Perfs	Shots	Stage 3	Distance Between Perfs	Shots	Stage 4	Distance Between Perfs	Shots	Stage 5	Distance Between Perfs	Shots
From Bottom to Top	19,115	14	18,970	19	6	18,918	24	6	18,664	26	6	18,521	18	6
	19,101	18	18,962	19	6	18,902	19	6	18,652	18	6	18,500	16	6
	19,093	19	18,953	19	6	18,893	18	6	18,643	19	6	18,494	19	6
	19,084	19	18,914	19	6	18,785	19	6	18,635	19	6	18,465	19	6
	19,045	19	18,895	22	6	18,746	18	5	18,586	20	5	18,446	18	5
	19,028	19	18,873	15	5	18,727	21	5	18,576	17	5	18,428	19	5
	19,008	18	18,858	16	5	18,706	16	5	18,559	20	5	18,409	19	5
	18,989	5	18,842	5	5	18,690	18,939	5	18,539	18,930	5	18,390	19	5
Plug to Plug	142	44	Plug to Plug	154	44	Plug to Plug	146	44	Plug to Plug	149	44	Plug to Plug	159	44
Frac Plug	19,122	Total Shots	Frac Plug	18,880	Total Shots	Frac Plug	18,828	Total Shots	Frac Plug	18,680	Total Shots	Frac Plug	18,531	Total Shots

Stage 6	Distance Between Perfs	Shots	Stage 7	Distance Between Perfs	Shots	Stage 8	Distance Between Perfs	Shots	Stage 9	Distance Between Perfs	Shots	Stage 10	Distance Between Perfs	Shots
From Bottom to Top	18,363	27	18,218	23	6	18,072	25	6	17,918	32	6	17,773	24	6
	18,353	21	18,203	18	6	18,054	19	6	17,904	23	6	17,754	18	6
	18,352	16	18,185	6	6	18,036	19	6	17,881	15	6	17,736	19	6
	18,316	20	18,166	19	6	18,016	19	6	17,866	17	6	17,717	19	6
	18,298	18	18,147	6	5	17,997	18	5	17,849	20	5	17,698	19	5
	18,278	19	18,128	18	5	17,979	19	5	17,829	19	5	17,679	18	5
	18,259	18	18,110	13	5	17,960	10	5	17,810	13	5	17,661	19	5
	18,241	5	18,097	5	5	17,950	17,787	5	17,787	13	5	17,642	19	5
Plug to Plug	146	44	Plug to Plug	145	44	Plug to Plug	146	44	Plug to Plug	143	44	Plug to Plug	144	44
Frac Plug	18,372	Total Shots	Frac Plug	18,226	Total Shots	Frac Plug	18,081	Total Shots	Frac Plug	17,935	Total Shots	Frac Plug	17,782	Total Shots

Stage 11	Distance Between Perfs	Shots	Stage 12	Distance Between Perfs	Shots	Stage 13	Distance Between Perfs	Shots	Stage 14	Distance Between Perfs	Shots	Stage 15	Distance Between Perfs	Shots
From Bottom to Top	17,619	23	17,469	23	6	17,313	30	6	17,157	31	6	17,005	24	6
	17,605	19	17,455	19	6	17,305	18	6	17,166	19	6	17,000	13	6
	17,586	19	17,436	23	6	17,287	19	6	17,137	19	6	16,987	19	6
	17,567	17	17,413	14	6	17,268	20	6	17,118	19	6	16,968	18	6
	17,550	20	17,399	18	5	17,248	18	5	17,099	18	5	16,950	19	5
	17,531	19	17,381	20	5	17,230	21	5	17,081	19	5	16,931	19	5
	17,511	19	17,361	18	5	17,209	8	5	17,062	13	5	16,912	18	5
	17,492	5	17,343	5	5	17,201	5	5	17,049	5	5	16,894	5	5
Plug to Plug	151	44	Plug to Plug	156	44	Plug to Plug	135	44	Plug to Plug	152	44	Plug to Plug	159	44
Frac Plug	17,628	Total Shots	Frac Plug	17,477	Total Shots	Frac Plug	17,321	Total Shots	Frac Plug	17,166	Total Shots	Frac Plug	17,034	Total Shots

Stage 16	Distance Between Perfs	Shots	Stage 17	Distance Between Perfs	Shots	Stage 18	Distance Between Perfs	Shots	Stage 19	Distance Between Perfs	Shots	Stage 20	Distance Between Perfs	Shots
From Bottom to Top	16,866	28	16,725	19	6	16,573	24	6	16,419	31	6	16,272	23	6
	16,856	18	16,707	19	6	16,557	19	6	16,407	19	6	16,252	13	6
	16,838	19	16,688	19	6	16,538	18	6	16,388	18	6	16,239	18	6
	16,819	21	16,669	19	6	16,519	18	5	16,370	19	5	16,221	20	6
	16,798	17	16,650	19	5	16,501	19	5	16,351	19	5	16,201	18	5
	16,781	18	16,631	16	5	16,482	24	5	16,332	18	5	16,183	19	5
	16,763	19	16,613	18	5	16,464	8	5	16,314	19	5	16,164	19	5
	16,744	5	16,597	16	5	16,450	5	5	16,295	5	5	16,145	5	5
Plug to Plug	140	44	Plug to Plug	154	44	Plug to Plug	146	44	Plug to Plug	155	44	Plug to Plug	144	44
Frac Plug	16,875	Total Shots	Frac Plug	16,735	Total Shots	Frac Plug	16,581	Total Shots	Frac Plug	16,435	Total Shots	Frac Plug	16,280	Total Shots

Stage 21	Distance Between Perfs	Shots	Stage 22	Distance Between Perfs	Shots	Stage 23	Distance Between Perfs	Shots	Stage 24	Distance Between Perfs	Shots	Stage 25	Distance Between Perfs	Shots
From Bottom to Top	16,127	18	15,977	19	6	15,817	29	6	15,678	18	6	15,528	19	6
	16,108	15	15,958	19	6	15,809	20	6	15,659	19	6	15,511	21	6
	16,093	23	15,939	18	6	15,789	18	6	15,640	19	6	15,490	18	6
	16,070	20	15,921	19	6	15,771	23	6	15,621	18	6	15,472	19	6
	16,050	17	15,902	19	5	15,748	14	5	15,603	19	5	15,453	19	5
	16,033	19	15,883	18	5	15,734	17	5	15,584	19	5	15,434	18	5
	16,014	18	15,865	19	5	15,717	21	5	15,565	18	5	15,416	19	5
	15,996	5	15,846	5	5	15,696	5	5	15,547	5	5	15,397	5	5
Plug to Plug	150	44	Plug to Plug	159	44	Plug to Plug	140	44	Plug to Plug	150	44	Plug to Plug	149	44
Frac Plug	16,136	Total Shots	Frac Plug	15,986	Total Shots	Frac Plug	15,827	Total Shots	Frac Plug	15,687	Total Shots	Frac Plug	15,537	Total Shots

Stage 26	Distance Between Perfs	Shots	Stage 27	Distance Between Perfs	Shots	Stage 28	Distance Between Perfs	Shots	Stage 29	Distance Between Perfs	Shots	Stage 30	Distance Between Perfs	Shots
From Bottom to Top	15,373	24	15,229	17	6	15,070	28	6	14,929	19	6	14,780	15	6
	15,359	18	15,209	18	6	15,060	19	6	14,910	18	6	14,762	20	6
	15,341	19	15,191	19	6	15,041	18	6	14,892	19	6	14,742	19	6
	15,322	19	15,172	18	6	15,023	23	6	14,873	19	6	14,723	18	6
	15,303	18	15,154	5	5	15,000	15	5	14,854	19	5	14,705	19	5
	15,285	19	15,135	19	5	14,985	15	5	14,835	18	5	14,686	19	5
	15,266	19	15,116	18	5	14,970	22	5	14,817	22	5	14,667	18	5
	15,247	5	15,098	5	5	14,948	5	5	14,795	5	5	14,649	5	5
Plug to Plug	150	44	Plug to Plug	159	44	Plug to Plug	140	44	Plug to Plug	150	44	Plug to Plug	144	44
Frac Plug	15,386	Total Shots	Frac Plug	15,236	Total Shots	Frac Plug	15,079	Total Shots	Frac Plug	14,939	Total Shots	Frac Plug	14,786	Total Shots

Stage 31	Distance Between Perfs	Shots	Stage 32	Distance Between Perfs	Shots	Stage 33	Distance Between Perfs	Shots	Stage 34	Distance Between Perfs	Shots	Stage 35	Distance Between Perfs	Shots
From Bottom to Top	14,614	35	14,460	19	6	14,330	22	6	14,189	31	6	14,031	19	6
	14,608	17	14,461	18	6	14,312	19	6	14,162	20	6	14,012	18	6
	14,591	17	14,443	19	6	14,293	18	6	14,142	17	6	13,994	19	6
	14,574	22	14,424	19	6	14,275	18	6	14,123	23	6	13,975	19	6
	14,552	16	14,405	18	5	14,256	18	5	14,102	15	5	13,956	19	5
	14,536	16	14,387	19	5	14,237	19	5	14,087	16	5	13,937	18	5
	14,520	21	14,368	16	5	14,218	18	5	14,071	21	5	13,919	22	5
	14,499	5	14,352	5	5	14,200	5	5	14,050	5	5	13,897	5	5
Plug to Plug	135	44	Plug to Plug	150	44	Plug to Plug	163	44	Plug to Plug	136	44	Plug to Plug	150	44
Frac Plug	14,625	Total Shots	Frac Plug	14,480	Total Shots	Frac Plug	14,340	Total Shots	Frac Plug	14,177	Total Shots	Frac Plug	14,041	Total Shots

Stage 36	Distance Between Perfs	Shots	Stage 37	Distance Between Perfs	Shots	Stage 38	Distance Between Perfs	Shots	Stage 39	Distance Between Perfs	Shots	Stage 40	Distance Between Perfs	Shots
From Bottom to Top	13,881	16	13,727	24	6	13,582	19	6	13,428	23	6	13,283	19	6
	13,863	19	13,713	19	6	13,563	18	6	13,414	19	6	13,264	19	6
	13,844	19	13,694	18	6	13,545	18	6	13,395	19	6	13,245	18	6
	13,825	18	13,676	19	6	13,526	19	6	13,376	19	6	13,227	19	6
	13,807	19	13,657	18	5	13,507	16	5	13,357	18	5	13,208	21	5
	13,789	19	13,638	18	5	13,491	21	5	13,339	15	5	13,187	16	5
	13,769	18	13,620	19	5	13,470	19	5	13,324	22	5	13,171	16	5
	13,751	5	13,601	5	5	13,451	5	5	13,302	5	5	13,155	5	5
Plug to Plug	150	44	Plug to Plug	150	44	Plug to Plug	155	44	Plug to Plug	144	44	Plug to Plug	152	44
Frac Plug	13,891	Total Shots	Frac Plug	13,741	Total Shots	Frac Plug	13,591	Total Shots	Frac Plug	13,436	Total Shots	Frac Plug	13,292	Total Shots

CAVERNS FEDERAL COM 4H

From Bottom to Top	Stage 41	Distance Between Perfs	23	Shots	6	Stage 42	Distance Between Perfs	22	Shots *	6	Stage 43	Distance Between Perfs	18	Shots	6	Stage 44	Distance Between Perfs	17	Shots	6	Stage 45	Distance Between Perfs	28	Shots	6
	13.132					12.980					12.834					12.684					12.555				
	13.114	18	6	12.965	19	6	12.915	19	6	12.815	19	6	12.660	13	6	12.516	23	6	12.461	15	6	12.316	23	6	
	13.096	18	6	12.946	19	6	12.946	19	6	12.796	18	6	12.647	18	6	12.497	18	6	12.437	16	6	12.287	16	6	
	13.077	19	6	12.927	18	6	12.877	18	6	12.727	19	6	12.578	22	6	12.428	22	6	12.431	22	6	12.478	21	6	
From Bottom to Top	13.058	18	5	12.908	19	5	12.858	19	5	12.758	19	5	12.608	18	5	12.458	18	5	12.459	18	5	12.482	19	5	
	13.040	19	5	12.880	19	5	12.840	19	5	12.740	18	5	12.590	19	5	12.440	19	5	12.591	19	5	12.441	19	5	
	13.021	19	5	12.861	19	5	12.821	19	5	12.721	18	5	12.571	21	5	12.421	21	5	12.572	19	5	12.422	19	5	
	13.002	5	5	12.842	19	5	12.802	19	5	12.702	21	5	12.552	19	5	12.402	19	5	12.553	19	5	12.403	19	5	
	Plug to Plug	147	44	12.882	150	44	12.802	150	44	12.701	150	44	12.551	160	44	12.453	160	44	12.553	138	44	12.453	138	44	
Frac Plug		13.140	Total Shots	12.993	Total Shots	44	Frac Plug	12.993	Total Shots	44	Frac Plug	12.883	Total Shots	44	Frac Plug	12.693	Total Shots	44	Frac Plug	12.593	Total Shots	44	Frac Plug	12.593	Total Shots
From Bottom to Top	Stage 46	Distance Between Perfs	18	Shots	6	Stage 47	Distance Between Perfs	19	Shots	6	Stage 48	Distance Between Perfs	19	Shots	6	Stage 49	Distance Between Perfs	20	Shots	6	Stage 50	Distance Between Perfs	23	Shots	6
	12.985					12.235					12.085					11.936					11.782				
	12.966	19	6	12.216	19	6	12.166	19	6	12.016	19	6	11.867	22	6	11.717	22	6	11.567	18	6	11.417	18	6	
	12.947	18	6	12.198	19	6	12.148	19	6	11.998	21	6	11.848	17	6	11.698	17	6	11.548	19	6	11.398	19	6	
	12.929	25	6	12.179	24	6	12.129	24	6	11.979	20	6	11.829	20	6	11.679	20	6	11.529	18	6	11.379	18	6	
From Bottom to Top	12.910	12	5	12.165	13	5	12.115	13	5	11.965	18	5	11.815	19	5	11.665	19	5	11.515	19	5	11.365	18	5	
	12.895	12	5	12.142	19	5	12.092	19	5	11.942	20	5	11.792	19	5	11.642	19	5	11.492	19	5	11.342	19	5	
	12.873	19	5	12.123	19	5	12.073	19	5	11.923	17	5	11.773	18	5	11.623	18	5	11.473	19	5	11.323	19	5	
	12.854	5	5	12.104	5	5	11.954	5	5	11.804	5	5	11.654	5	5	11.504	5	5	11.354	5	5	11.204	5	5	
	Plug to Plug	150	44	12.104	149	44	12.024	149	44	11.923	150	44	11.823	155	44	11.655	155	44	11.655	158	44	11.487	158	44	
Frac Plug		12.984	Total Shots	12.244	Total Shots	44	Frac Plug	12.244	Total Shots	44	Frac Plug	12.085	Total Shots	44	Frac Plug	11.945	Total Shots	44	Frac Plug	11.780	Total Shots	44	Frac Plug	11.780	Total Shots
From Bottom to Top	Stage 51	Distance Between Perfs	31	Shots	6	Stage 52	Distance Between Perfs	18	Shots	6	Stage 53	Distance Between Perfs	21	Shots	6	Stage 54	Distance Between Perfs	21	Shots	6	Stage 55	Distance Between Perfs	18	Shots	6
	11.624					11.487					11.331					11.185					11.038				
	11.618	19	6	11.467	19	6	11.417	19	6	11.316	18	6	11.166	14	6	11.016	14	6	10.866	19	6	10.716	19	6	
	11.599	19	6	11.448	18	6	11.398	18	6	11.297	19	6	11.147	24	6	10.997	24	6	10.847	18	6	10.697	18	6	
	11.580	16	6	11.430	19	6	11.380	19	6	11.281	19	6	11.131	18	6	10.981	18	6	10.831	19	6	10.681	19	6	
From Bottom to Top	11.564	21	5	11.411	19	5	11.362	19	5	11.262	18	5	11.113	19	5	10.963	19	5	10.813	20	5	10.663	20	5	
	11.543	19	5	11.392	19	5	11.342	19	5	11.242	19	5	11.094	19	5	10.943	18	5	10.793	18	5	10.643	18	5	
	11.524	19	5	11.373	21	5	11.323	21	5	11.223	19	5	11.075	19	5	10.925	23	5	10.775	23	5	10.625	23	5	
	11.505	5	5	11.352	5	5	11.302	5	5	11.202	5	5	11.052	5	5	10.902	5	5	10.752	5	5	10.602	5	5	
	Plug to Plug	138	44	11.352	156	44	11.272	156	44	11.171	143	44	11.071	150	44	10.971	150	44	10.871	150	44	10.771	150	44	
Frac Plug		11.832	Total Shots	11.486	Total Shots	44	Frac Plug	11.486	Total Shots	44	Frac Plug	11.340	Total Shots	44	Frac Plug	11.197	Total Shots	44	Frac Plug	11.057	Total Shots	44	Frac Plug	11.057	Total Shots
From Bottom to Top	Stage 56	Distance Between Perfs	14	Shots	6	Stage 57	Distance Between Perfs	22	Shots	6	Stage 58	Distance Between Perfs	18	Shots	6	Stage 59	Distance Between Perfs	28	Shots	6	Stage 60	Distance Between Perfs	24	Shots	6
	10.688					10.735					10.589					10.439					10.284				
	10.670	19	6	10.720	15	6	10.570	19	6	10.420	18	6	10.270	18	6	10.120	18	6	9.970	19	6	9.820	19	6	
	10.651	19	6	10.705	23	6	10.551	23	6	10.401	14	6	10.251	24	6	10.101	24	6	9.951	19	6	9.801	19	6	
	10.633	19	6	10.682	18	6	10.532	18	6	10.382	23	6	10.232	24	6	10.082	24	6	9.932	18	6	9.782	18	6	
From Bottom to Top	10.614	5	5	10.664	19	5	10.614	19	5	10.514	19	5	10.364	14	5	10.214	14	5	10.064	24	5	9.914	24	5	
	10.794	18	5	10.645	18	5	10.595	18	5	10.495	19	5	10.345	15	5	10.195	14	5	10.045	14	5	9.895	14	5	
	10.776	19	5	10.627	20	5	10.577	20	5	10.477	18	5	10.327	22	5	10.177	22	5	10.027	17	5	9.877	17	5	
	10.757	5	5	10.607	5	5	10.557	5	5	10.457	5	5	10.307	5	5	10.157	5	5	10.007	5	5	9.857	5	5	
	Plug to Plug	147	44	10.607	152	44	10.527	152	44	10.427	160	44	10.327	139	44	10.177	139	44	10.027	150	44	9.877	150	44	
Frac Plug		10.887	Total Shots	10.780	Total Shots	44	Frac Plug	10.780	Total Shots	44	Frac Plug	10.588	Total Shots	44	Frac Plug	10.438	Total Shots	44	Frac Plug	10.288	Total Shots	44	Frac Plug	10.288	Total Shots
From Bottom to Top	Stage 61	Distance Between Perfs	20	Shots	6	Stage 62	Distance Between Perfs	20	Shots	14	Stage 63	Distance Between Perfs	38	Shots	14	Stage 64	Distance Between Perfs	38	Shots	14	Stage 65	Distance Between Perfs	37	Shots	14
	10.140					9.989					9.836					9.685					9.538				
	10.121	19	6	9.963	42	12	9.813	37	12	9.663	37	12	9.513	41	12	9.363	41	12	9.213	38	12	9.063	38	12	
	10.102	18	6	9.941	37	10	9.791	37	10	9.641	38	10	9.491	32	10	9.341	32	10	9.191	37	10	9.041	37	10	
	10.084	19	6	9.924	8	8	9.774	8	8	9.624	8	8	9.474	8	8	9.324	8	8	9.174	8	8	9.024	8	8	
From Bottom to Top	10.065	19	5	9.905	19	5	9.855	19	5	9.755	19	5	9.605	29	5	9.455	29	5	9.305	37	5	9.155	37	5	
	10.046	14	5	9.886	19	5	9.836	19	5	9.736	19	5	9.586	29	5	9.436	29	5	9.286	37	5	9.136	37	5	
	10.027	23	5	9.867	19	5	9.817	19	5	9.717	19	5	9.567	29	5	9.417	29	5	9.267	37	5	9.117	37	5	
	10.009	5	5	9.848	19	5	9.798	19	5	9.698	19	5	9.548	29	5	9.398	29	5	9.248	37	5	9.098	37	5	
	Plug to Plug	148	44	9.848	145	44	9.768	145	44	9.668	151	44	9.568	150	44	9.468	150	44	9.368	151	44	9.268	151	44	
Frac Plug		10.149	Total Shots	10.000	Total Shots	44	Frac Plug	10.000	Total Shots	44	Frac Plug	9.855	Total Shots	44	Frac Plug	9.704	Total Shots	44	Frac Plug	9.554	Total Shots	44	Frac Plug	9.554	Total Shots
From Bottom to Top	Stage 66	Distance Between Perfs	38	Shots	14	Stage 67	Distance Between Perfs	38	Shots	14	Stage 68	Distance Between Perfs	38	Shots	14	Stage 69	Distance Between Perfs	38	Shots	14	Stage 70	Distance Between Perfs	42	Shots	14
	9.384					9.233					9.083					8.932					8.782				
	9.366	37	12	9.193	35	12	9.043	37	12	8.893	42	12	8.743	42	12	8.593	42	12	8.443	38	12	8.293	38	12	
	9.346	38	10	9.173	37	10	9.023	37	10	8.873	38	10	8.723	42	10	8.573	42	10	8.423	37	10	8.273	37	10	
	9.309	38	8	9.153	8	8	9.003	8	8	8.853	8	8	8.703	8	8	8.553	8	8	8.403	37	8	8.253	37	8	
From Bottom to Top	9.271	8	8	9.121	8	8	8.971	8	8	8.821	8	8	8.671	8	8	8.521	8	8	8.371	8	8				

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

5. Lease Serial No.
NMNM104667

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other Instructions on page 2

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
CAVERNS FEDERAL COM 4H

2. Name of Operator
COG OPERATING LLC

Contact: STORMI DAVIS
E-Mail: sdavis@concho.com

9. API Well No.
30-015-43291

3a. Address
2208 WEST MAIN
ARTESIA, NM 88210

3b. Phone No. (include area code)
Ph: 575-748-6946

10. Field and Pool or Exploratory Area
PURPLE SAGE; WOLFCAMP

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 21 T26S R25E Mer NMP NWNW 400FNL 460FWL

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

3/21/17 TD 26" hole @ 386'. Set 20" 94# J-55 csg @ 386'. Cmt w/500 sx Class C. Tailed in w/250 sx. Circ 195 sx to surface. WOC 18 hrs. Test csg to 800# for 30 mins. Drilled out 5' below FS w/10# brine - no loss of circ.

3/23/17 TD 17 1/2" hole @ 1240'. Set 13 3/8" 54.5# J-55 csg @ 1240'. Cmt w/700 sx Class C. Tailed in w/250 sx. Circ 162 sx to surface. WOC 18 hrs. Test csg to 1500# for 30 mins. Drilled out 5' below FS w/10# brine - no loss of circ.

3/29/17 TD 12 1/4" hole @ 6830'. Set 9 5/8" 47# L-80 csg @ 6830'. Cmt w/725 sx Class H. Tailed in w/400 sx. Circ 118 sx to surface. WOC 18 hrs. Test csg to 1500# for 30 mins. Drilled out 5' below FS w/10# brine - no loss of circ.

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 28 2017

Accepted For Record
NMOCD *[Signature]*

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #375912 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad

Name (Printed/Typed) STORMI DAVIS

Title PREPARER

Signature (Electronic Submission)

Date 05/11/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title _____ Date _____
Office _____

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.

(Instructions on page 2)

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