

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

June 24, 2016

RECEIVED OGD

2016 JUN 27 P 2:42

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
BEU NIGHTCAP 6 FED COM #3H
Bone Spring 2 Sand
Lea County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is a commercial well in the Bone Spring 2 Sand. Please indicate your concurrence to the above Commercial Determination. Upon your execution hereof, Bass will submit a participating area for the well.

Should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____

ECONOMIC PROJECTION

Date: 6/15/2016

Lior: 1343502

3:53:00PM

Project Name: 7-1-2015 NSAI Review For BOPCO, LP

As Of Date: 06/01/2014

Lease Name: 1343502/NIGHTCAP 6 FED COM/3H/BC

Partner: All cases

Discount Rate (%): 5.00

Reserv Cat: Proved Producing

Case Type: LEASE CASE

1343502/NIGHTCAP 6 FED COM/3H/BON

Field: LUSK, BONE SPRING (SOUTH)

Archive Set: BOPCO 1/2016

Operator: COG OPERATING LLC

Cum Oil (Mbbbl): 0.00

Reservoir: Bone Spring 2 Sand

Cum Gas (MMcf): 0.00

Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2015	130.957	174.069	170.588	0.000	107.713	140.309	0.000
2016	55.851	115.532	113.221	0.000	45.937	93.125	0.000
2017	31.550	70.418	69.010	0.000	25.950	56.761	0.000
2018	22.914	52.126	51.083	0.000	18.847	42.016	0.000
2019	18.215	41.846	41.009	0.000	14.982	33.730	0.000
2020	15.263	35.275	34.569	0.000	12.554	28.433	0.000
2021	13.133	30.477	29.867	0.000	10.802	24.566	0.000
2022	11.589	26.974	26.434	0.000	9.532	21.742	0.000
2023	10.396	24.250	23.765	0.000	8.551	19.547	0.000

Rem	115.260	270.152	264.749	0.000	94.801	217.757	0.000
Total	425.128	841.118	824.295	0.000	349.669	677.985	0.000
Jlt	425.128	841.118					

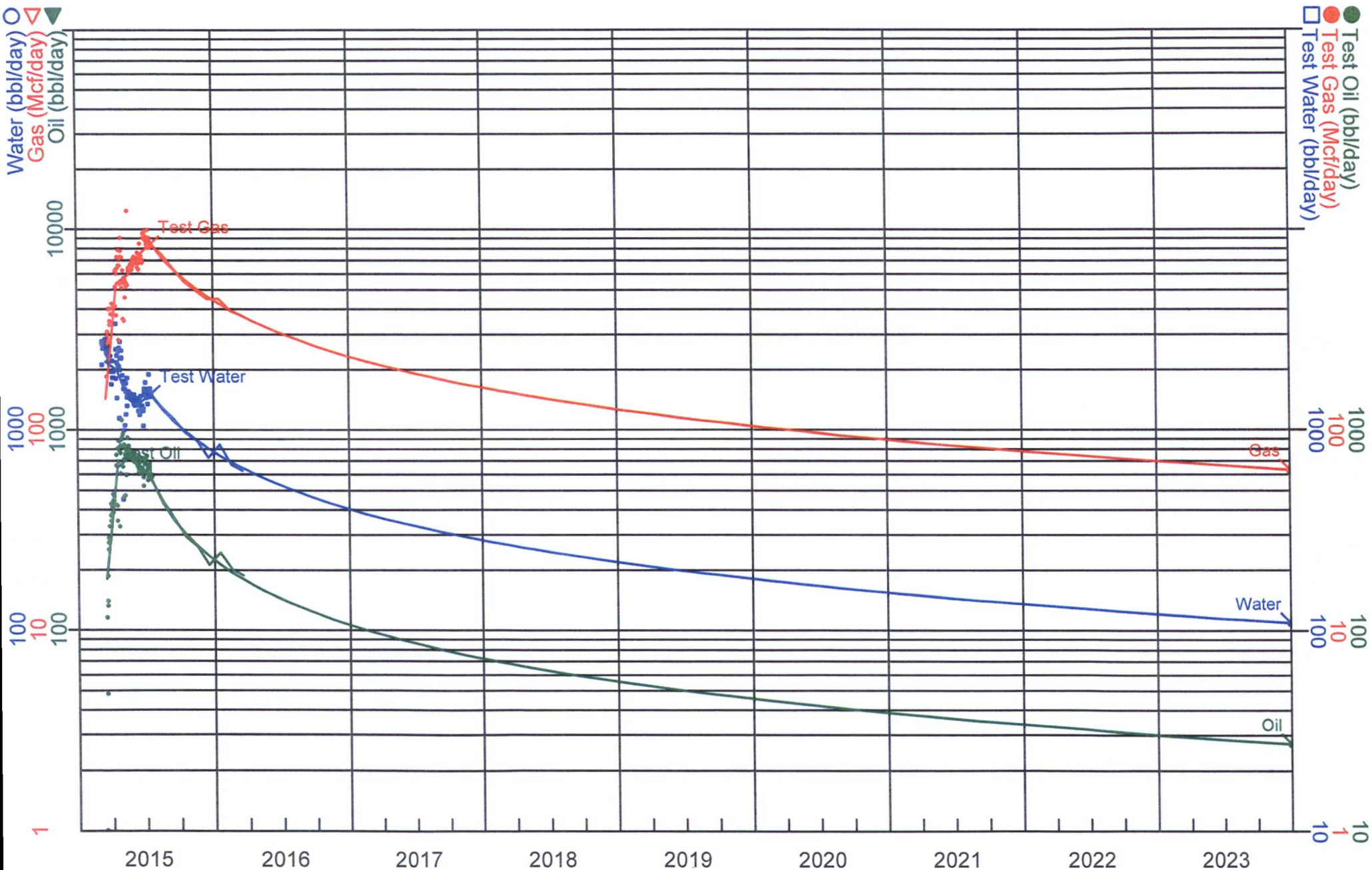
Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015	46.95	2.26	0.00	5,057.06	316.96	0.00	5,374.02
2016	39.57	2.05	0.00	1,817.78	191.05	0.00	2,008.83
2017	47.66	2.68	0.00	1,236.71	152.32	0.00	1,389.03
2018	48.31	2.63	0.00	910.53	110.58	0.00	1,021.11
2019	49.08	2.62	0.00	735.27	88.22	0.00	823.48
2020	49.93	2.67	0.00	626.84	76.03	0.00	702.87
2021	50.76	2.79	0.00	548.36	68.64	0.00	617.01
2022	51.46	2.93	0.00	490.49	63.72	0.00	554.22
2023	52.21	3.08	0.00	446.43	60.12	0.00	506.55
Rem	52.99	3.72	0.00	5,023.55	810.93	0.00	5,834.49
Total	48.31	2.86	0.00	16,893.03	1,938.57	0.00	18,831.60

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2014	0.00	0.00	5,910.85	0.00	-5,910.85	-5,910.85	-5,910.85	-5,910.85
2015	161.13	6.75	80.00	705.85	4,420.29	-1,490.56	4,192.89	-1,717.96
2016	144.05	6.03	0.00	605.20	1,253.55	-237.01	1,133.35	-584.61
2017	99.78	4.17	0.00	500.11	784.97	547.96	676.71	92.10
2018	73.34	3.06	0.00	458.01	486.70	1,034.67	399.43	491.53
2019	59.13	2.47	0.00	434.38	327.49	1,362.16	255.92	747.45
2020	50.48	2.11	0.00	419.29	230.99	1,593.15	171.89	919.34
2021	44.33	1.85	250.00	230.68	90.15	1,683.30	61.63	980.97
2022	39.84	1.66	0.00	133.84	378.88	2,062.18	255.50	1,236.47
2023	36.43	1.52	0.00	127.59	341.02	2,403.20	219.01	1,455.48
Rem	420.56	17.50	0.00	2,438.44	2,957.99	2,957.99	1,353.61	1,353.61
Total	1,129.06	47.12	6,240.85	6,053.38	5,361.18	5,361.18	2,809.09	2,809.09

Major Phase:	Oil	Working Int:	1.00000000	Present Worth Profile (M\$)	
Perfs:	0	Revenue Int:	0.82250273		
Initial Rate:	17,374.00 bbl/month	Disc. Initial Invest. (m\$):	6,164.892	5.00%	2,809.09
Abandonment:	143.92 bbl/month	Internal ROR (%):	18.70	9.00%	1,626.14
Initial Decline:	98.05 % year b = 1.200	ROI Investment (disc/undisc):	1.46 / 1.86	10.00%	1,396.31
Seg Ratio:	1.50 Mcf/bbl	Years to Payout:	3.14	12.00%	992.08
End Ratio:	2.35 Mcf/bbl	Abandonment Date:	04/09/2049	15.00%	492.26
Forecast Start:	07/01/2015			20.00%	-149.12
		Initial	1st Rev.	30.00%	-1,029.38
		Working Interest:	0.00000000	40.00%	-1,630.48
		Revenue Interest:	0.00000000	50.00%	-2,080.93
		Rev. Date:		60.00%	-2,436.99

1343502/NIGHTCAP 6 FED COM/3H/BON
Oper: COG OPERATING LLC
Major Phase: Oil

Field: LUSK, BONE SPRING (SOUTH)
LEA, NM
ECL Date: 04/09/2049



Proj Oil Cum: 0.00 Mbbl
Oil Rem: 425.13 Mbbl

Proj Gas Cum: 0.00 MMcf
Gas Rem: 841.12 MMcf

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU NIGHTCAP 6 FED COM 3H FORMATION _____ BONE SPRING

LOCATION _____ UNIT, 330 FEET FROM NORTH LINE & 2020 FEET FROM WEST LINE

SECTION 6 TOWNSHIP 20S RANGE 32E COUNTY LEA NEW MEXICO

SPUD DATE 7/28/2014 COMPLETION DATE 3/5/2015 INITIAL PRODUCTION 3/22/2015

PERFORATIONS 9607-18930

BHL: 340' FSL & 1994' FWL SEC 7 T20S R32E

STIMULATION:

ACID _____

FRACTURE See Attached

POTENTIAL (3/22/2015): 288 BOPD, 308 MCFPD, 2361 BWPD

(Attach Copy of C-105: Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160	
Porosity (Φ), %	8.0%	
Water saturation (Sw), %	48%	
Net Thickness (H), ft	302.33	
Temperature (T), Fahrenheit	151	
Bottom Hole pressure (P), psia	4,894	
Recovery factor (RF), %	12%	
Recoverable oil, MBO *(See eq. below)	996.5	

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((7758 \text{ rb/ac-ft}) (\text{por}) (1-S_w)/(\text{Boi rbo/stb})(\text{RF})(A) (h))/1000 \text{ bo/Mbo}$ Boi = 1.88 rb/stb

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO	3/31/2016	150,177	BBL Oil	210,996	MCF Gas
INITIAL RATE (qi)		600	BOPD		
ECONOMIC LIMIT (ql)		1	BOPD		
HYPERBOLIC DECLINE RATE, dy		n = 1.2, d = 98%/yr			
REMAINING MBO (Q) =		275			
ULTIMATE RECOVERABLE MBO		425			

(Attach plot showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,364,340 (to the depth of formation completed)COMPLETION COST \$3,546,510GROSS TOTAL COST \$5,910,580

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-5910.9
2	130.957	5374.0	873.7	4192.9
3	55.851	2008.8	755.3	1133.4
4	31.550	1389.0	604.1	676.7
5	22.914	1021.1	534.4	399.4
6	18.215	823.5	496.0	255.9
7	15.263	702.9	471.9	171.9
8	13.133	517.0	276.9	61.6
9	11.589	554.2	175.3	255.5
10	10.396	506.6	165.5	219.0
REMAINDER	115.260	5834.5	2876.5	1353.6
TOTAL	425.128	18731.6	7229.6	2809.1

WELL IS COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM107392

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
COG OPERATING LLC

Contact: STORMI DAVIS

8. Lease Name and Well No.
NIGHTCAP 6 FEDERAL COM 3H

3. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE
MIDLAND, TX 79701-4287

3a. Phone No. (include area code)
Ph: 575.748.6946

9. API Well No.
30-025-41589-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
Sec 6 T20S R32E Mer NMP
At surface Lot 3 330FNL 2020FWL

APR 15 2015

10. Field and Pool, or Exploratory
LUSK

11. Sec., T., R., M., or Block and Survey
or Area Sec 6 T20S R32E Mer NMP

At top prod interval reported below
Sec 7 T20S R32E Mer NMP
At total depth SESW 340FSL 1994FWL

RECEIVED

12. County or Parish
LEA

13. State
NM

14. Date Spudded
07/28/2014

15. Date T.D. Reached
12/06/2014

16. Date Completed
☐ D & A ☒ Ready to Prod.
03/04/2015

17. Elevations (DF, KB, RT, GL)*
3514 GL

18. Total Depth: MD 19065
TVD 9466

19. Plug Back T.D.: MD 18970
TVD 9460

20. Depth Bridge Plug Set: MD 18970
TVD 9460

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
20.000	16.000 J55	65.0	0	935		900		0	
14.750	13.375 L80	68.0	0	2895		1100		0	
12.250	9.625 J55	36.0	0	4300	2960	1425		0	
8.750	5.500 P110	17.0	0	19060		3800		1430	

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	8854							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING SOUTH	9607	18930	9607 TO 18870	0.000	1116	OPEN (41460) BS, south
B)			18920 TO 18930		60	OPEN
C)						
D)						

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

Depth Interval	Amount and Type of Material
9607 TO 18870	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	Production Method
03/05/2015	03/22/2015	24	→	288.0	308.0	2361.0			ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
SI	330	80.0	→	288	308	2361		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
			→						
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

APR 14 2015

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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

ELECTRONIC SUBMISSION #297587 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

APR 22 2015

gm

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Curr. 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 Curr. 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
CAPITAN REEF	3067	4399		RUSTLER	842
BELL CANYON	4400	4481		TOP OF SALT	940
CHERRY CANYON	4482	5579		BASE OF SALT	2652
BRUSHY CANYON	5580	7339		YATES	2777
BONE SPRING LIME	7340	8418		SEVEN RIVERS	3037
BONE SPRING 1ST	8419	9289		CAPITAN REEF	3067
BONE SPRING 2ND	9290	9466		BELL CANYON	4400
				CHERRY CANYON	4482

32. Additional remarks (include plugging procedure):

Perfs 7.1/2" Sand (#) Fluid (gal)
18864-18870 7056 450130 414902
18372-18568 6048 450159 391398
18068-18266 5964 451847 390936
17762-17964 6090 450939 387912
17460-17662 6132 450064 386694
17158-17360 6006 451483 447636
16855-17058 6258 450115 383250

33. Circle enclosed attachments:

- Electrical/Mechanical Logs (1 full set req'd.)
- Geologic Report
- DST Report
- Directional Survey
- Sundry Notice for plugging and cement verification
- Core Analysis
- 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 #297587 Verified by the BLM Well Information System.
For COG OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by LINDA JIMENEZ on 04/13/2015 (15LJ0936SE)

Name(please print) STORMI DAVIS

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 04/08/2015

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.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

Additional data for transaction #297587 that would not fit on the form

32. Additional remarks, continued

16554-16756 6048 450195 384048
16252-16454 6048 450785 384510
15950-16152 6024 448759 382344
15648-15849 6090 447703 377966
15345-15547 6048 451369 378194
15044-15245 6174 446754 376236
14742-14948 6048 452433 379932
14439-14641 6024 450315 377604
14136-14339 6006 450210 382536
13836-14037 6006 451156 373464
13534-13735 5982 449376 379320
13232-13433 6048 448375 373404
12930-13132 6048 450716 375072
12628-12829 6006 448409 371070
12331-12527 6006 449638 370566
12023-12225 6048 450930 373506
11721-11923 6048 450463 371808
11419-11623 6048 441434 371514
11118-11327 6048 432533 365232
10815-11017 6048 448000 367836
10513-10715 6048 449891 369054
10211-10412 6342 451871 368424
9909-10110 5628 448905 366222
9607-9808 6048 457076 366558
Totals 188465 13,932.033 11,789,145

Additional Tops:

Brushy Canyon 5580
Bone Spring Lm 7340
1st Bone Spring 8419
2nd Bone Spring 9290

Surveys attached.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Hraznis Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

APR 14 2015

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-41589		² Pool Code 41460		³ Pool Name Lusk; Bone Spring, South	
⁴ Property Code 40118		⁵ Property Name Nightcap 6 Federal Com			⁶ Well Number 3H
⁷ OGRID No. 229137		⁸ Operator Name COG Operating LLC			⁹ Elevation 3514' GR

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
3	6	20S	32E		330	North	2020	West	Lea

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	7	20S	32E		340	South	1994	West	Lea

¹² Dedicated Acres 319.96	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16 2020' SHL Sec 6-T20S-R32E		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stormi Davis</i> 4/7/15 Signature Date Stormi Davis Printed Name sdavis@concho.com E-mail Address	
1994' BHL Sec 7-T20S-R32E Producing Area 9607-18930'		18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number	

APR 21 2015



CURRENT WELL SKETCH

API: 30-025-41589
SPUD: 7/28/2014
FRR: 12/10/2014
RIG: Precision #105

Nightcap 6 Fed No. 3H

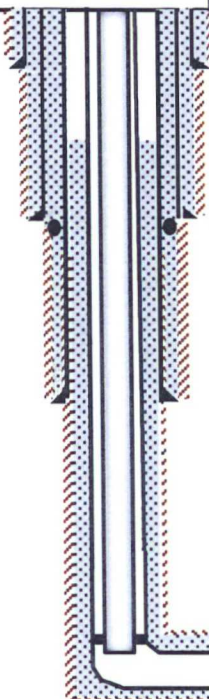
Williams Sink Field
Lea County

Sec 6-20S-32E

SHL: 330' FSL & 2,020' FWL
BHL: 340' FSL & 1,994' FWL (est.)
Sec 7-20S-32E
GL: 3,515'
KB: 3,533'
ZERO: 18'

HOLE SIZE	MW (ppg)	BHST (F)	Evaluation
20.00"	8.9		No Logs
14.75"	8.4		No Logs
12.25"	8.4		No logs
8.75"	9	152F (estimated)	Mud logs

Tubing Detail (Top to Bottom)			
Joints	Description	Length	Depth
	KB		18.00
1	Tubing Hanger	0.50	18.50
258	2-7/8" L-80 Tbg	8,389.35	8,407.85
5	Halliburton Pump - 1750	101.35	8,509.20
4	Intake/Gas Separator	5.25	8,514.45
2	Seal	16.65	8,531.10
2	Motor - 300 hp	44.00	8,575.10
1	Sensor	2.40	8,577.50
1	Desander	4.80	8,582.30
8	2-7/8" L-80 Tbg	260.58	8,842.88
	Bull Plug	0.76	8,843.64
	EOT:		8,843.64



Surface Casing @ 935'
16.00" 65 ppf J-55 BTC
Circulated 331 sx cement

Intermediate Casing #1 @ 2,895'
13.375" 68 ppf L-80 Ultra FJ

Intermediate Casing #2 @ 4,300'
9.625' 36 ppf/40 ppf J-55 BTC
DV Tool @ 2,960' (2 Stage Cement Design)
stg 1: 46 sx circulated
stg 2: 147 sx circulated

Frac Summary:

31 Stage Frac (18,870' - 9,607')
3 Clusters/Stage; 100' Perf Spacing

13.9M lbs. Proppant
11.7 gal. Fluid

Production Casing @ 19,060'
5.5" 17 ppf P-110 TXP
FC (PBTD) 19,016'
Notes: Conventional Shoe
Circulated: 0 sx cement

MJ: 8,707'
Floatation Collar: 9,728'

KOP @ 8,853'
EOC @ 10,271'
EOL @ 19,060'

Average TVD in Lateral 9,435'

Updated by C Albo
Date: 6/23/16