

UNITED STATES **Carlsbad Field Office**
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT **OCD Artesia**

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

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM121474
2. Name of Operator COG PRODUCTION LLC		6. If Indian, Allottee or Tribe Name
Contact: AMANDA AVERY E-Mail: aavery@concho.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 2208 W MAIN STREET ARTESIA, NM 88210	3b. Phone No. (include area code) Ph: 575.748.6940	8. Well Name and No. Multiple--See Attached
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Multiple--See Attached		9. API Well No. Multiple--See Attached
		10. Field and Pool or Exploratory Area PURPLE SAGE-WOLFCAMP (GAS)
		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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Onshore Order Variance
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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 recompleat 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.

COG Operating LLC requests permission to install a Vapor Combustor Unit (VCU) at the Copperhead 31 Federal Com #3H tank battery. This request is due to the fact that the cost of installing and operating equipment necessary to capture the gas exceeds the value of the gas over the life of the facility. COG Operating LLC understands that the following conditions apply:

- COG Operating LLC may be required to provide economic justification and provide volume verification to the Authorized Officer upon request.
- COG Operating LLC will comply with ~~NTL-4A~~ requirements. *SEE COAS*
- If volume being combusted is less than 50 MCF of gas per day, it is considered unavoidably lost, therefore, no royalty obligation shall be accrued and will not be required to be reported.
 - Unavoidably Lost production shall mean (1) those gas vapors which are released (in this case combusted) from low-pressure storage tanks.
- Essentially all measured combusted volumes over 50 MCF will require payment of royalties and

OC 2-15-18
Accepted for record - NMOCD
NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 15 2018
RECEIVED

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

**Electronic Submission #403447 verified by the BLM Well Information System
For COG PRODUCTION LLC, sent to the Carlsbad
Committed to AFMSS for processing by DUNCAN WHITLOCK on 02/06/2018 (18DW0064SE)**

Name (Printed/Typed) AMANDA AVERY	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 02/06/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>J.D. Whitlock</i>	Title <i>TLPE7</i>	Date <i>2/6/18</i>
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.		Office <i>CF0</i>

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)

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

Additional data for EC transaction #403447 that would not fit on the form

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

NMNM136878
 NMNM137596

Wells/Facilities, continued

Agreement	Lease	Well/Fac Name, Number	API Number	Location
NMNM136878	NMNM121474	COPPERHEAD 31 FEDERAL COMB	31-015-43924-00-S1	Sec 30 T26S R29E NENE 349FNL 773FEL 32.019787 N Lat, 104.017212 W Lon
NMNM137596	NMNM121474	COPPERHEAD 31 FEDERAL COMB	31-015-44118-00-S1	Sec 30 T26S R29E NWNE 210FNL 1650FEL 32.020309 N Lat, 104.020523 W Lon
NMNM136878		FAC COP313 COPPERHEAD 31-3 FED FACILITY		Sec 30 T26S R29E Mer NMP NENE
NMNM137596		FAC COP313 COPPERHEAD 31-3 FED FACILITY		Sec 30 T26S R29E Mer NMP NENE

32. Additional remarks, continued

- 33**
- volumes need to be reported on OGOR B reports as disposition code ~~08~~
5. Per 43 CFR 3162.7-5(d)/Onshore Order No.3.III.I.1, site facility diagram must be submitted within 60 days of equipment installation.
 6. This approval does not authorize any additional surface disturbance.
 7. Subject to like approval from NMOCD

Attached are the following:
 Site Security Diagram of the current tank battery, as well as the location of the VCU and the manifold line connecting the tanks to the VCU.
 Contact name and number to retrieve information on volumes being combusted.
 Specification sheet(s) for the VCU

COPPERHEAD 31 FEDERAL COM 3H BATTERY
 NENE SECTION 30, T265, R29E, UNIT A
 EDDY COUNTY, NM

WELLS:
 COPPERHEAD 31 FEDERAL COM #003H: 30-015-43974
 COPPERHEAD 31 FEDERAL COM #021H: 30-015-44118

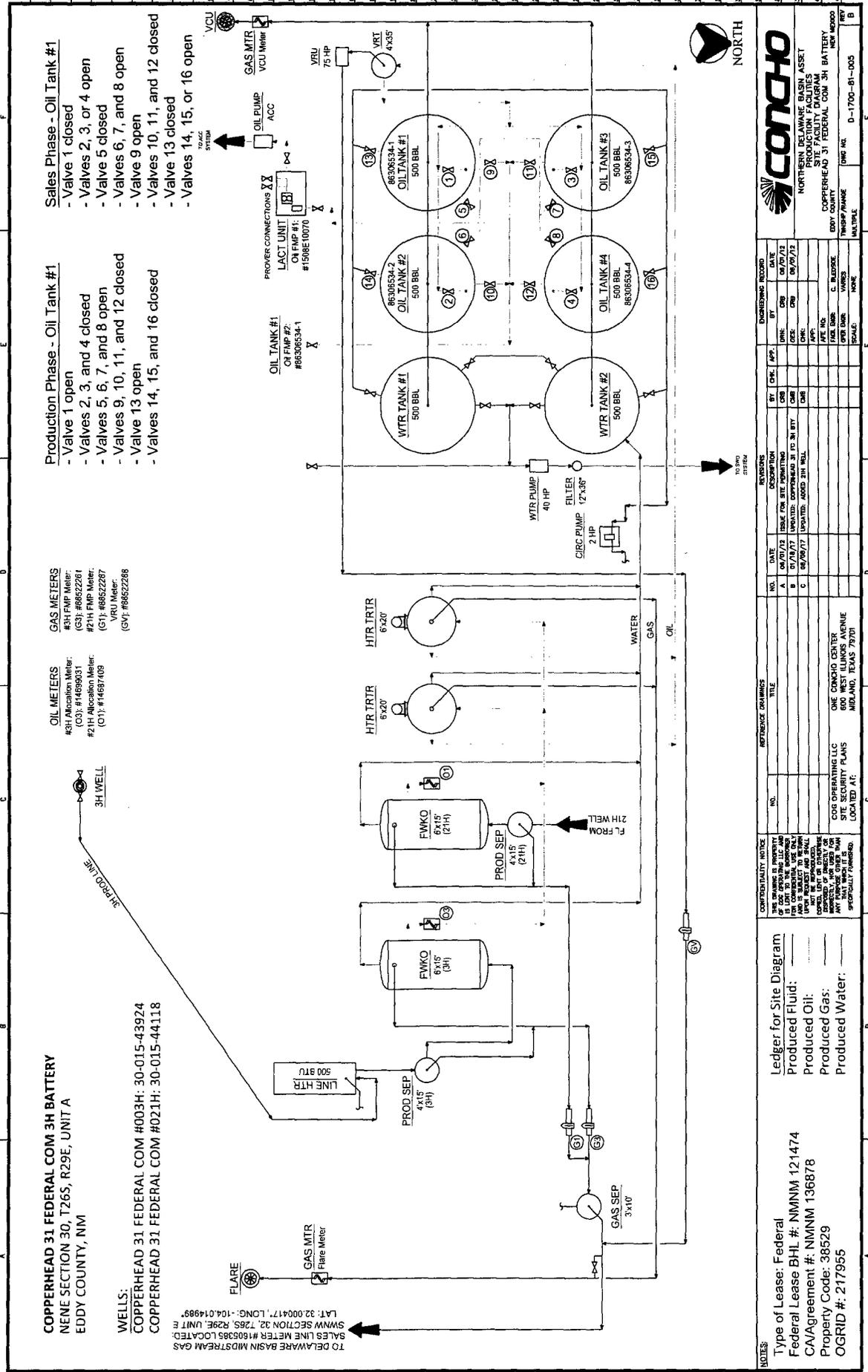
TO DELAWARE BASIN MIDSTREAM GAS
 SALES LINE METER #1805935 LOCATED:
 S3W4 SECTION 32, T265, R29E, UNIT E
 LAT: 32.000417°, LONG: -104.014999°

OIL METERS
 #3H Allocation Meter:
 (C3): #14899031
 #21H Allocation Meter:
 (O1): #14697409

GAS METERS
 #3H FMP Meter:
 (G3): #68522261
 #21H FMP Meter:
 (G1): #68522267
 VRU Meter:
 (GV): #68522268

Production Phase - Oil Tank #1
 - Valve 1 open
 - Valves 2, 3, and 4 closed
 - Valves 5, 6, 7, and 8 open
 - Valves 9, 10, 11, and 12 closed
 - Valve 13 open
 - Valves 14, 15, and 16 closed

Sales Phase - Oil Tank #1
 - Valve 1 closed
 - Valves 2, 3, or 4 open
 - Valve 5 closed
 - Valves 6, 7, and 8 open
 - Valve 9 open
 - Valves 10, 11, and 12 closed
 - Valve 13 closed
 - Valves 14, 15, or 16 open



CONFIDENTIALITY NOTICE
 IF YOU ARE NOT AN EMPLOYEE OF THE COMPANY, YOU ARE NOT TO DISCLOSE OR PROVIDE TO ANY OTHER PERSON ANY INFORMATION CONTAINED HEREIN OR ANY PART THEREOF TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF THE COMPANY. ANY VIOLATION OF THIS NOTICE IS SUBJECT TO PENALTY.

NO.	DATE	BY	REVISIONS
A	06/10/13	CHK	ISSUE FOR SET CONNECTION
B	07/18/17	CHK	ISSUE FOR COMPLETION OF PD 31 BTY
C	08/09/17	CHK	UNSATISFACTORY, ADDITIONAL 31H WELL

COG OPERATING LLC
 ONE CONCHO CENTER
 1000 WEST 10TH STREET
 MIDLAND, TEXAS 79701

COG OPERATING LLC
 SECURITY PLANS
 LOCATED AT:

Ledger for Site Diagram
 Produced Fluid:
 Produced Oil:
 Produced Gas:
 Produced Water:

Type of Lease: Federal
 Federal Lease BHL #: NMMN 121474
 CA/Agreement #: NMMN 136878
 Property Code: 38529
 OGRID #: 217955

CONCHO
 NORTHERN DELAWARE BASIN ASSET
 SOUTHWESTERN ENERGY SERVICES
 COUNTRY CLUB DRIVE
 COPENHAGEN, NE 68018

DRY COUNTY: COPPERHEAD 31 FEDERAL COM 3H BATTERY
 NEARBY FRAME: MULTIPLE
 PNC NO: D-1700-81-003

ENGINERING RECORD	BY	DATE
CHK	CHK	06/10/13
CHK	CHK	07/18/17
CHK	CHK	08/09/17

APPROVALS	DATE	BY
CHK	06/10/13	CHK
CHK	07/18/17	CHK
CHK	08/09/17	CHK

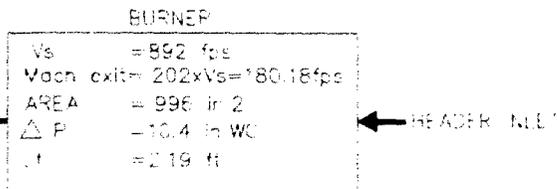
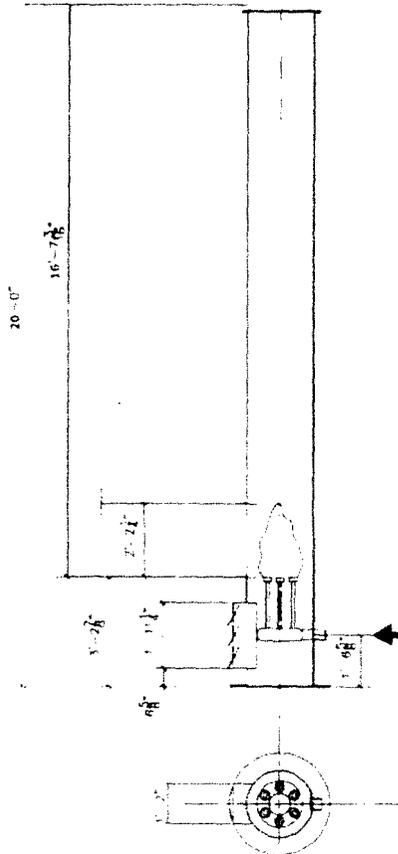
APPROVALS	DATE	BY
CHK	06/10/13	CHK
CHK	07/18/17	CHK
CHK	08/09/17	CHK

THERMAL OXIDATION CALCULATIONS

Flow Rate 1.157 SCFS
 Temperature (vapor) 585 deg. R
 P_{av} 10 in. W.C.
 Temperature (air) 545 deg. R
 Hgt:D Ratio 8.5
 Diameter 24 in.
 Ambient air density 0.0716 lb/ft³

	C	H	
Formula	36.6		
MW avg	42.00		
H:C Ratio	0.1667		
Mass flow	0.1283	Lbs/sec	
Air required	2.1810	Lbs/sec	29.0694 SCFS
CO ₂	0.4030	Lbs/sec	3.47 SCFS
H ₂ O	0.1649	Lbs/sec	6.94 SCFS
N ₂	1.72	Lbs/sec	23.59 SCFS
Exit Mass	2.2909	Lbs/sec	34.0052 SCFS
MW	28.72		
Heat input	2576	BTU/sec.	
Temperature rise	1049.10	deg. F/sec	
Total Volume	92.11	ACFS	
Stack Area	3.14	SF	
Velocity	29.32	fps	
Stack height	21.68	ft	
Residence	0.76	sec.	

Paraff ΔP 0.1935 in WC
 Area req'd (air intake) 273 in.²
 Grill size 14x23 in



△	REVISED FOR FINAL DATA	8/14/14
REV	DESCRIPTION	DATE

Edge CXV 24" Combustor Data Sheet

**BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972**

**CONDITIONS OF APPROVAL TO INSTALL
VAPOR COMBUSTOR UNIT (VCU)**

**COG Production LLC
Copperhead 31 Federal Com 3H & 21H
3001543924 & 3001544118, Lease-NM121474, CA-NM136878 & NM137596**

- 1. This approval only authorizes combustion of tank vapors, not gas production from the vapor recovery tower or any gas that should be routed through the VRU.**
- 2. Comply with 43 CFR 3179 requirements.**
- 3. If tank vapor volume being combusted is less than 50 MCF of gas per day, it is considered "unavoidably lost", therefore, no royalty obligation shall be accrued and will not be required to be reported.**
 - a. "Unavoidably Lost" production shall mean (1) those gas vapors which are released (in this case combusted) from low-pressure storage tanks.**
- 4. Essentially all measured tank vapor combusted volumes over 50 MCF will require payment of royalties and volumes need to be reported on OGOR "B" reports as disposition code "33".**
- 5. This approval does not authorize any additional surface disturbance.**
- 6. Any gas that is combusted other than tank vapors will require payment of royalties and volumes need to be reported on OGOR "B" reports as disposition code "33".**
- 7. Subject to like approval from NMOCD.**