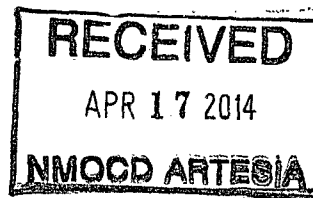


District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1906 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-131
Revised July 18, 2013



APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address COG Production LLC 2208 West Main Street Artesia, NM 88210		OGRID Number 217955 APL Number 30-015-42327
Property Code 38348	Property Name Copperhead Fee A	Well No 3H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
2	31	26S	29E		415	South	990	West	Eddy

*** Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
2	30	26S	29E		1650	North	380	West	Eddy

9. Pool Information

Pool Name	Pool Code
Wildcat G-03 S262932E: Bone Spring	97876

Additional Well Information

Work Type New Well	Well Type Oil	Cable/Rotary	Lease Type Fee	Ground Level Elevation 2923.4'
Multiple N	Proposed Depth 13660'	Formation Bone Spring	Contractor	Spud Date 4/27/2014
Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water		

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.5	13.375	48	350'	300	
Intmd	12.25	9.625	36	2600	750	
Production	8.75	5.5	17	13660'	2000	2400

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 350' with Fresh Water. Run 13-3/8", 48#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 2600' with Brine, and run 9-5/8", 36#, J55 csg and cement to surface. Drill 8-3/4" curve and lateral with cut brine to approx 13,660' MD. Run 5-1/2", 17#, P-110 csg and cement to 2,400' in 1 stage.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable. Signature: <i>Mayte Reyes</i>		OIL CONSERVATION DIVISION	
Printed name: Mayte Reyes		Approved By: <i>J. C. Shepard</i> Title: "Geologist"	
Title: Regulatory Analyst		Approved Date: 4-17-2014 Expiration Date: 4-17-2016	
E-mail Address: mreyes1@concho.com			
Date: 4/17/2014	Phone: 575-748-6945	Conditions of Approval Attached	

DISTRICT I
1625 N. FRENCH DR., HOBBES, NM 86240
Phone: (575) 353-6181 Fax: (575) 353-0720

DISTRICT II
1501 W. GRAND AVENUE, ARTESIA, NM 88210
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
11885 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
11885 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015- 42327	Pool Code 97876	Pool Name Wildcat G-03 S262932E; Bone Spring
Property Code 38348	Property Name COPPERHEAD FEE A	Well Number 3H
GRID No. 217955	Operator Name COG PRODUCTION, LLC	Elevation 2923.4

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	31	26-S	29-E		415	SOUTH	990	WEST	EDDY

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
2	30	26-S	29-E		1650	NORTH	380	WEST	EDDY

Dedicated Acres 188.55	Joint or Infill 183.57	Consolidation Code	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

NAD 27 PROPOSED BOTTOM HOLE LOCATION
Y=370130.9 N
X=593489.8 E

NAD 27 SURFACE LOCATION
Y=364256.6 N
X=594413.5 E
LAT.=32.016299° N
LONG.=104.030468° W

NAD 27 SURFACE LOCATION
Y=363837.0 N
X=593436.0 E

NAD 27 SURFACE LOCATION
Y=363843.3 N
X=594760.6 E

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature *Melanie J Parker* Date **4/17/14**

Printed Name
Melanie J Parker

E-mail Address
mparker@concho.com

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.

JANUARY 18, 2013

Date of Survey

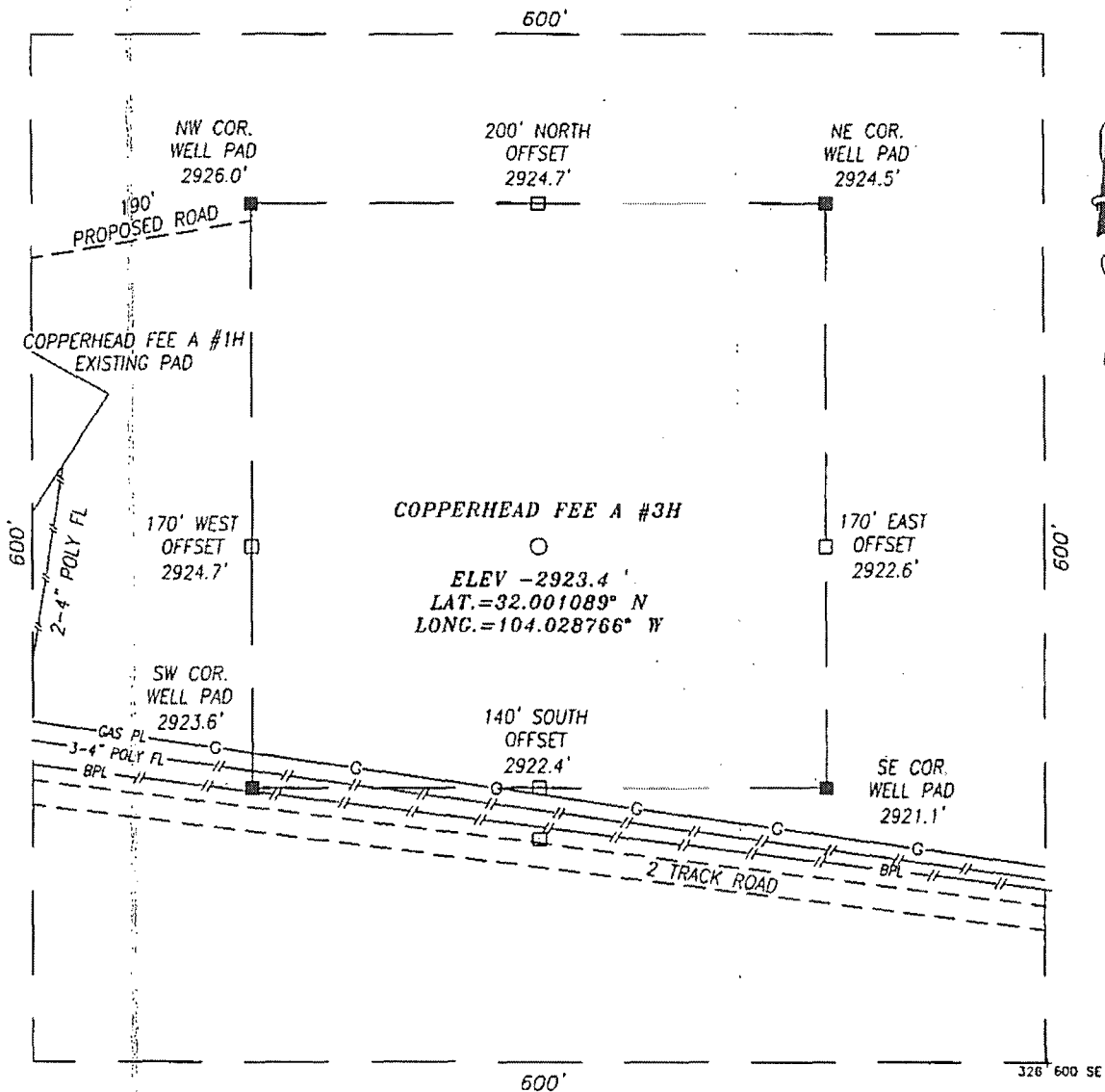
Signature & Seal of Professional Surveyor

CHAD L. HARCROW
NEW MEXICO
17777
LICENSED PROFESSIONAL SURVEYOR

Chad L. Harcrow **2/11/13**

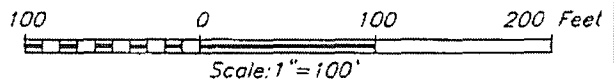
Certificate No. CHAD HARCROW 17777
W.O. # 13-003 DRAWN BY: VD

SECTION 31, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

HEADING SOUTH ON HWY 285 APPROX. 1.0 MILES PAST MM1 TURN LEFT (EAST) ONTO CATFISH RD. GO APPROX. 0.1 MILES THEN TURN LEFT (NORTH) ONTO CALICHE RD AND GO 250 FEET TO THE EXISTING COPPERHEAD FEE A #1H PAD. PROPOSED WELL IS APPROX. 350' EAST OF PAD.



HARCROW SURVEYING, LLC
1107 WATSON, ARTESIA, N.M. 88210
PH: (575) 513-2570 FAX: (575) 746-2158
chad_harcrow77@yahoo.com

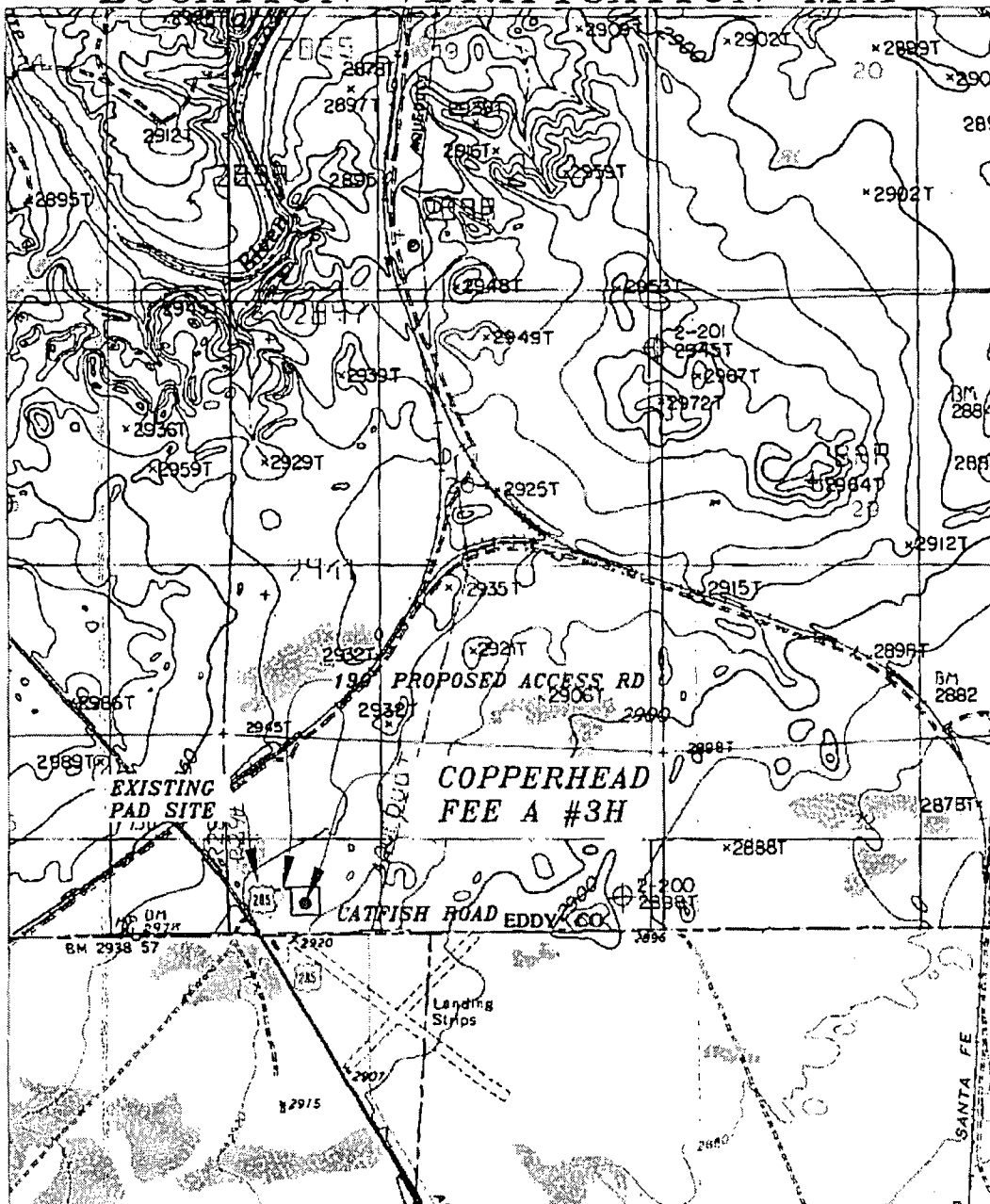


COG PRODUCTION, LLC

COPPERHEAD FEE A #3H WELL
LOCATED 415 FEET FROM THE SOUTH LINE
AND 990 FEET FROM THE WEST LINE OF SECTION 31,
TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

SURVEY DATE: 1/18/2013	PAGE: 1 OF 1
DRAFTING DATE: 1/23/2013	
APPROVED BY: CH	DRAWN BY: VD FILE: 13-003

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

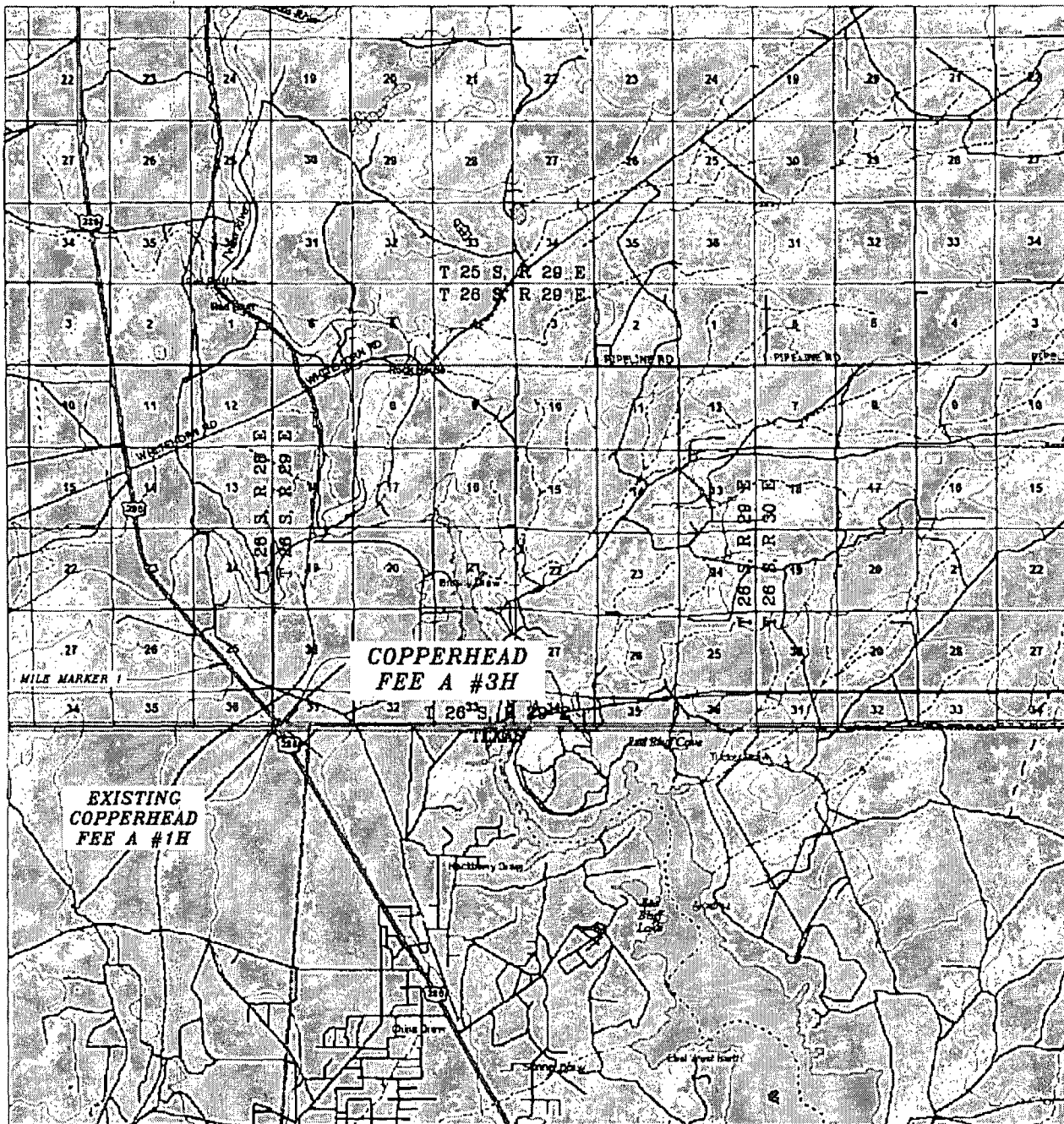
SEC. 31 TWP. 26-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 415' FSL & 990' FWL
 ELEVATION 2923.4'
 OPERATOR COG PRODUCTION, LLC
 LEASE COPPERHEAD
 U.S.G.S. TOPOGRAPHIC MAP
 RED BLUFF, N.M.

HARCROW SURVEYING, LLC
 1107 WATSON, ARTESIA N.M. 88210
 PH: (575) 513-2570 FAX: (575) 746-2158
 chad_harcrow77@yahoo.com



COG PRODUCTION, LLC		
SURVEY DATE: JAN. 18, 2013	PAGE: 1	OF 1
DRAFTING DATE: FEB. 07, 2013		
APPROVED BY: CH	DRAWN BY: DDSI	FILE: 13-003

VICINITY MAP



SEC. 31 TWP. 26-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 415' FSL & 990' FWL
 ELEVATION 2923.4'
 OPERATOR COG PRODUCTION, LLC
 LEASE COPPERHEAD

SCALE: 1" = 2 MILE

HARCROW SURVEYING, LLC
 1107 WATSON, ARTESIA N.M. 88210
 PH: (575) 513-2570 FAX: (575) 746-2158
 chad_harcrow77@yahoo.com



COG PRODUCTION, LLC		
SURVEY DATE: JAN. 18, 2013	PAGE: 1 OF 1	
DRAFTING DATE: FEB. 07, 2013		
APPROVED BY: CH	DRAWN BY: DDSI	FILE: 13-003



**COG PRODUCTION LLC Pre-Drill Geological Prognosis
2nd Bone Spring Sand Single Lateral w/o Pilot Hole
Hay Hollow (Bone Spring)**

2BS	No PH
------------	--------------

COPPERHEAD Fee A #3H
Enter API#

Rig:	Silver Oak #12
-------------	-----------------------

Target Zone: 2nd Bone Spring Sand					
Regular section	FNL	FSL	FEL	FWL	Unit
S-T-R (SHL) 31-26S-29E		415		990	E
S-T-R (BHL) 30-26S-29E	1650			380	E

GL:	2923	actual
KB:	2941	actual

PROPOSED WELL				REFERENCE WELL	
COG PRODUCTION LLC				COG Production LLC	
COPPERHEAD Fee A #3H				COPPERHEAD '31' FED #2H	
31-26S-29E				31-26S-29E	
Eddy Co., NM				Eddy Co., NM	
KB: 2941	Est. MD: 13600	AFE type:	State Line BSS No-PH	KB: 2918	

Formations	TVD	Subsea	Iso to Tgt	Lith	Hazards/Misc	TVD	Subsea	Iso
Rustler	149	2792		Mixed lithologies		170	2748	794
TOS	943	1998		Salt		964	1954	1536
BOS	2479	462		Salt		2500	418	122
Delaware (Lamar)	2601	340		Limestone & Sand		2622	296	3725
Bone Sprg (BSGL)	6326	3385		Limestone		6347	3429	291
U Avalon Sh	6817	3676	1693	Silt, Shale & Carb		6638	3720	319
L Avalon Sh	6298	3357	2012	Silt, Shale & Carb		6319	3401	963
FBSG sand	7261	4320	1049	Fine Sand & Carb		7282	4364	658
☆ SBSG sand	8016	5065	294	Fine Sand & Carb		7940	5022	1190
TBSG sand	9162	6244		Fine Sand & Carb		9130	6212	
EOC target	8310	5369						
EOL target	8320	5379						

Comments

Wireline Evaluation

GR and Neutron: TD to surface. Density: TD to intermediate casing point. DLLT/MGRD: TD to intermediate casing point.

Coring and Testing

Mudlogging

Log out from intermediate casing to TD with a 2-man unit keeping 1 set of 20' samples & capturing 1' drill time.

Land (obligations and deadlines)

Version/Geologist

v1 Henry Zollinger

DATE: 2/20/2013

S:\New Mexico Basin Team\Electronic Well Files\OPERATED\COPPERHEAD FEE A 3H\AFE-DRLG

Copperhead Fee 3H

	Hole					
	Size	Casing	Wt	Depth	Cmt	TOC
Surface	17.5	13.375	48	350'	300	0
Intrmd	12.25	9.625	36	2600'	750	0
Prod	7.875	5.5	17	13,660'	2000	2,400'

Plan to drill a 17-1/2" hole to 350' with Fresh Water. Run 13-3/8", 48#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 2600' with Brine, and run 9-5/8", 36#, J55 csg and cement to surface. Drill 8-3/4" curve and lateral with cut brine to approx 13,660' MD. Run 5-1/2", 17#, P-110 csg and cement to 2,400' in 1 stage.

Well Control

Type	Pressure	Test	Manufacture
Double Ram	3000	3000	Cameron