

OCD-ARTESIA

Form 3160-4
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMBNO 1004-0137
Expires March 31, 2007

1a Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5 Lease Serial No LC-029338B
b Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff Resvr, Other _____		6 If Indian, Allottee or Tribe Name ---
2 Name of Operator COG Operating LLC		7 Unit or CA Agreement Name and No ---
3 Address 550 W. Texas, Suite 1300, Midland, TX 79701	3a Phone No (include area code) 432-685-4340	8 Lease Name and Well No Harvard Federal #8
4 Location of Well (Report location clearly and in accordance with Federal requirements)* At surface 990' FNL & 690' FEL, Unit A At top prod. interval reported below At total depth		9 AFI Well No 30-015-35130
14 Date Spudded 01/21/2007		10 Field and Pool, or Exploratory Loco Hills Empire Yeso
15 Date TD Reached 02/07/2007		11 Sec, T, R, M, on Block and Survey or Area Sec 11, T17S, R30E
16 Date Completed 03/17/2007 <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod		12 County or Parish Eddy
		13 State NM
		17 Elevations (DF, RKB, RT, GL)* 3741' GL

18. Total Depth MD 6115' TVD	19 Plug Back TD MD 6098' TVD	20 Depth Bridge Plug Set MD None TVD
21 Type Electric & Other Mechanical Logs Run (Submit copy of each) CN / HNGS, Micro CFL / HNGS		22 Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy)

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 Sks & Type of Cement	Slurry Vol (BBL)	Cement Top*	Amount Pulled
17-1/2	13-3/8	48		418		448 sx C1 C		Surface	
12-1/4	8-5/8	24		1390		1180 sx C1 C		Surface	
7-7/8	5-1/2	17		6112		1620 sx C1 C		Surface	

24. Tubing Record								
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8	5996'							

25. Producing Intervals			26 Perforation Record			
Formation	Top	Bottom	Perforated Interval	Size	No Holes	Perf Status
A) Yeso			5025' - 5298'	2 SPF	60	Open
B) Yeso			5385' - 5618'	2 SPF	50	Open
C) Yeso			5799' - 5991'	2 SPF	44	Open
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc	
Depth Interval	Amount and Type of Material
5025' - 5298'	Acidize w/ 2500 gals acid
5385' - 5618'	Acidize w/ 2000 gals acid. Frac w/ 8000# LiteProp, 75,380# 16/30 sand, & 15,200# Siberprop
5799' - 5991'	Acidize w/ 2500 gals acid. Frac w/ 8000# LiteProp, 28,901# 16/30 sand, & 66,205 gal gel.

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
03/21/2007	04/09/2007	24	➡	70	516	150	38.0		Pumping
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➡					Producing	

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
									ACCEPTED FOR RECC
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

*(See instructions and spaces for additional data on page 2)

ACCEPTED FOR RECORD

JUN 23 2007

WESLEY W. INGRAM
PETROLEUM ENGINEER

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
Yates	1436				
7 Rivers	1736				
Queen	2332				
Grayburg	2733				
San Andres	3058				
Glorieta	4520				
Yeso	4576				

32. Additional remarks (include plugging procedure):

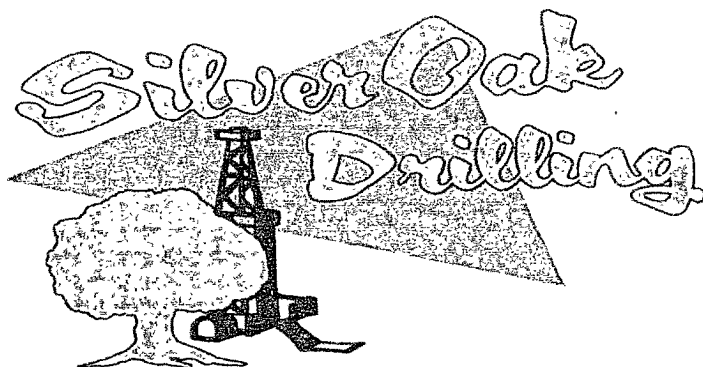
33. Indicate which items have been attached by placing a check in the appropriate boxes

- ☐ 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)*

Name (please print) Phyllis A. EdwardsTitle Regulatory AnalystSignature [Signature]Date 04/16/2007

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



PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

February 14, 2007

COG, LLC
Fasken Center, Tower II
550 West Texas Ave, Suite 1300
Midland, TX 79701

RE: Harvard Federal #8
990' FNL & 690' FEL
Sec. 11, T17S, R30E
Eddy County, New Mexico

Dear Sir,

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

<u>DEPTH</u>	<u>DEVIATION</u>	<u>DEPTH</u>	<u>DEVIATION</u>
250'	1 1/4°	2263'	1/4°
492'	3°	2697'	1/4°
612'	2 3/4°	3132'	1/4°
695'	2 3/4°	3631'	1/4°
845'	1 3/4°	4064'	1/4°
954'	1 3/4°	4500'	1/2°
1110'	1 3/4°	4966'	1/4°
1234'	1 1/4°	5415'	3/4°
1516'	1°	5870'	1/2°
1816'	1°	6115'	1/2°

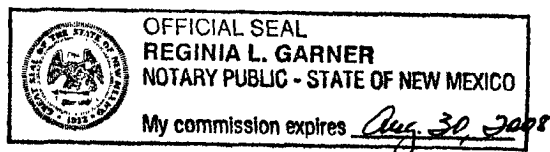
Very truly yours,

Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 14th day of February, 2007.

Notary Public



RECEIVED

2007 APR 18 PM 2:31

BUREAU OF LAND MGMT
CAPSULE UNIT OFFICE