

DATE IN '8-8-12	SUSPENSE 9-3-12	ENGINEER DB	LOGGED IN 8/16/12	TYPE NSL	APP NO. PKUR1222956535
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



COG  
 Ouimet StCom #4H

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

**[A] Location - Spacing Unit - Simultaneous Dedication**  
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

**[B] Commingling - Storage - Measurement**  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

**[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery**  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

**[D] Other: Specify** \_\_\_\_\_

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**

INTEREST ARE THE SAME

**[A] ☐ Working, Royalty or Overriding Royalty Interest Owners**

**[B] ☒ Offset Operators, Leaseholders or Surface Owner**

**[C] ☐ Application is One Which Requires Published Legal Notice**

**[D] ☐ Notification and/or Concurrent Approval by BLM or SLO**  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

**[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,**

**[F] ☐ Waivers are Attached**

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Kelly J. Holly  
 Print or Type Name

Signature

Permitting Tech  
 Title

8-9-12  
 Date

(432) 685-4384  
 Phone Number

kholly@concho.com  
 E-mail Address

**Ouimet State Com #4H  
Eddy County, NM**

COG proposes to drill a Horizontal 160 acre spacing  
Grayburg Jackson; SR-Q-G-SA Oil Well  
TVD of approximately 4228' and MD of approximately 8752'

**Non-Standard Location:**

SHL: 2420' FNL & 330' FEL	Sec 2, T17S, R29E, Unit H
BHL: 2310' FNL & 330' FWL	Sec 2, T17S, R29E, Unit E

**This well had to be drilled at a non-standard location due to  
buried pipelines.**

This well is to be completed in the Empire; Glorieta-Yeso, East (96610) formation. We won't know the exact perms until we drill & log it, but it will be very similar to the Folk Federal #4 which was completed in October 2007 and is located 2310' FNL & 2110' FWL, Unit F in Sec 17, T17S, R29E.

Folk Federal #4 has Yeso open perms from: 4300' – 5160' overall, but broken up into 3 separate intervals, with 3 separate fracs:

1<sup>st</sup> interval: 4960' – 5160'  
acidized w/ 5000 gals,  
frac w/ 69,248 gals gel, & 61,172# 16/30 sand, & 5676# LiteProp

2<sup>nd</sup> interval: 4510' – 4710'  
acidized w/ 5000 gals,  
frac w/ 68,981 gals gel, & 61,488# 16/30 sand, & 5766# LiteProp

3<sup>rd</sup> interval: 4300' – 4440'  
acidized w/ 5000 gals,  
frac w/ 68,906 16/30 sand, & 4330# LiteProp

**Attachment 1**

Plat & Map

**Attachment 2**

Map & legend of offset wells.

**Attachment 3**

Updated land plat showing COG Operating LLC acreage.  
The acreage we are encroaching on is Unit I of Section 2.

Offset acreage is owned by Rubicon Oil & Gas.  
Proof of notification to Rubicon Oil & Gas is attached.

All interests are the same.

COG Operating LLC respectfully requests permission to have this NSL approved.

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 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 & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-40419	Pool Code 28509	Pool Name Grayburg Jackson; SR-Q-G-SA
Property Code 39292	Property Name OUIMET STATE COM	Well Number 4H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3663'


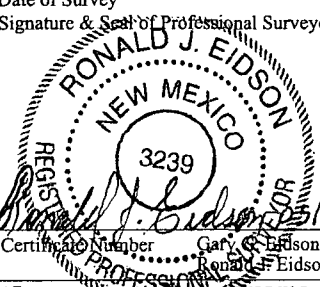
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	2	17-S	29-E		2420	NORTH	330	EAST	EDDY

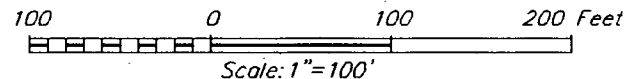
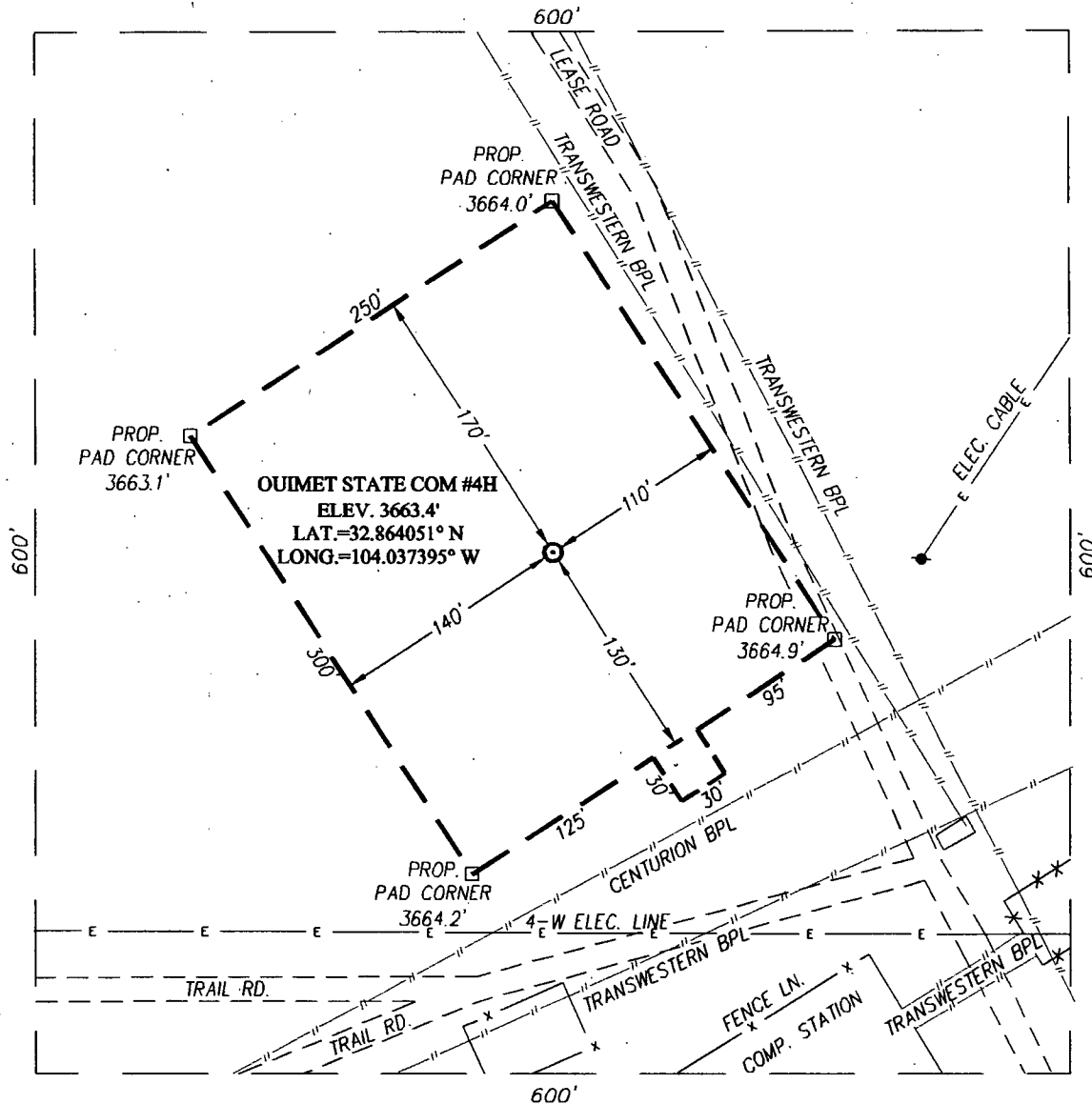
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	2	17-S	29-E		2310	NORTH	330	WEST	EDDY
Dedicated Acres 160	Joint or Infill	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

<p><b>CORNER COORDINATES TABLE</b></p> <p>(A) - Y=679285.6 N, X=585902.7 E</p> <p>(B) - Y=679280.7 N, X=591197.8 E</p> <p>(C) - Y=677970.9 N, X=585901.4 E</p> <p>(D) - Y=677961.5 N, X=591198.9 E</p> <p><b>SURFACE LOCATION</b></p> <p>Y=678180.6 N X=590868.8 E</p> <p>LAT.=32.864051° N LONG.=104.037395° W</p> <p><b>BOTTOM HOLE LOCATION</b></p> <p>Y=678290.9 N X=586231.7 E</p> <p><b>GRID AZ = 271°21'44"</b> <b>HORIZ. DIST. = 4639.6'</b></p> <p><b>Estimated Completed Interval: 2350 FNL 773 FEL</b></p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>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.</p> <p> <b>8-1-12</b> Signature Date</p> <p><b>Kelly J. Holly</b> Printed Name</p> <p><b>kholly@concho.com</b> E-mail Address</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p><b>APRIL 27, 2012</b></p> <p>Date of Survey</p> <p>Signature &amp; Seal of Professional Surveyor:</p> <p></p> <p>Certification Number Gary C. Eidson 12641 Ronald J. Eidson 3239</p> <p>AF WSC W.O.: 12.11.0794</p>
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**SECTION 2, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.**  
**EDDY COUNTY** **NEW MEXICO**



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #215 (KEWANEE) GO NORTH ON CO. RD. #215 APPROX. 2.9 MILES. VEER LEFT AND GO NORTHWEST 279 FEET TO THIS LOCATION.



PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (575) 393-3117 www.jwsc.biz

**COG OPERATING, LLC**

**OUMET STATE COM #4H WELL**  
**LOCATED 2420 FEET FROM THE NORTH LINE**  
**AND 330 FEET FROM THE EAST LINE OF SECTION 2,**  
**TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,**  
**EDDY COUNTY, NEW MEXICO**

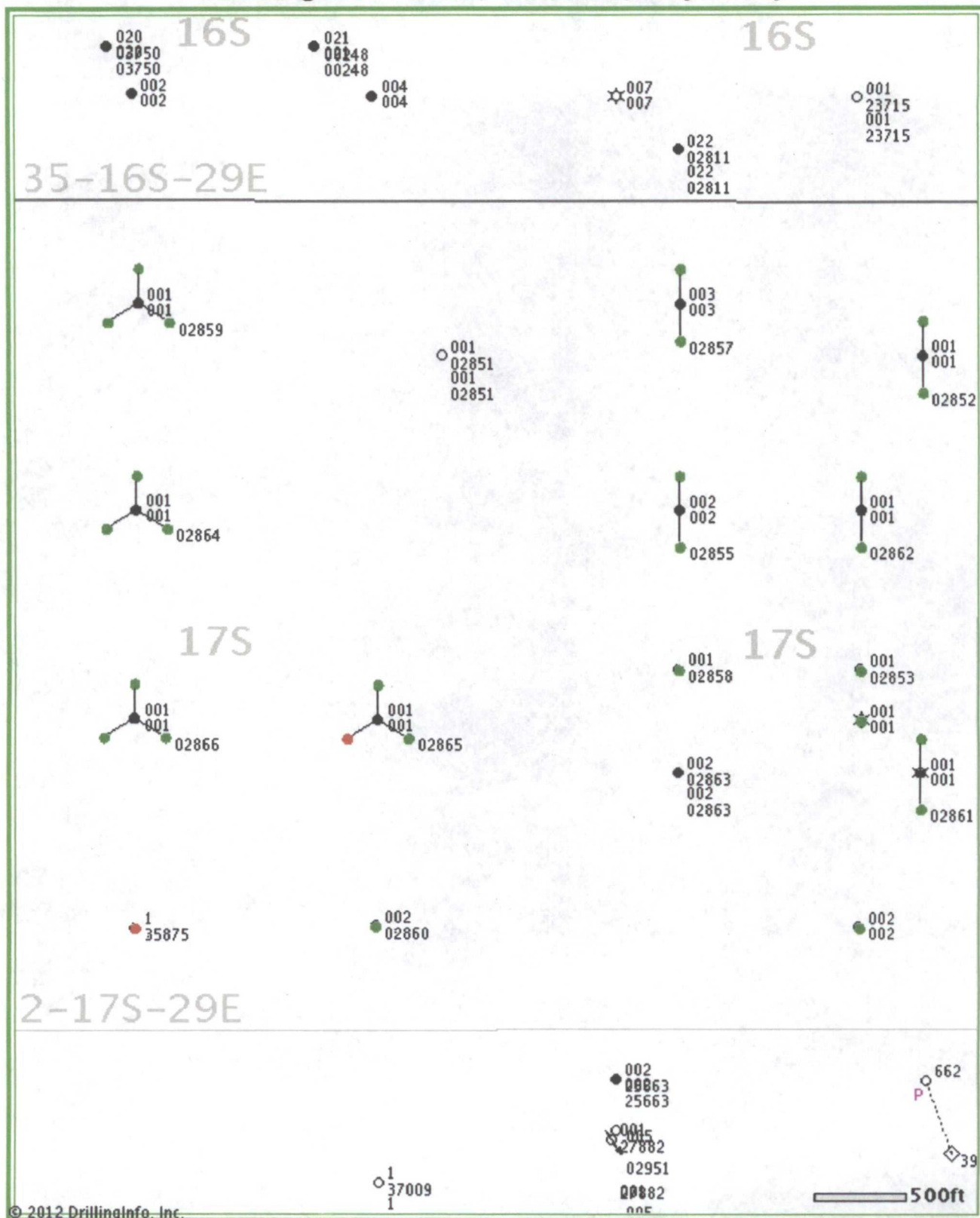
Survey Date: 4/27/12	CAD Date: 5/21/12	Drawn By: AF
W.O. No.: 12110794	Rev.:	Rel. W.O.:
		Sheet 1 of 1

## Producing wells in Sec 2, T17S, R29E, Eddy County

API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Avg. (BO/D)
30-015-02862		STATE C	001	EDDY	S:2, T:17S, R:29E		O	Active	Feb 1958	Oct 1968	0.00
30-015-02857	C F M OIL CO DBA LOUIS AND JUDY FULTON	MORGAN STATE	003	EDDY	S:2, T:17S, R:29E	0	O	Temporarily Abandoned	Aug 2003	May 2011	0.03
30-015-02858	C F M OIL CO DBA LOUIS AND JUDY FULTON	ATLANTIC STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Sep 1959	May 2011	0.03
30-015-02865	C F M OIL CO DBA LOUIS AND JUDY FULTON	STATE B	001	EDDY	S:2, T:17S, R:29E	2,586	O	Active	Jan 1958	Jun 2010	0.03
30-015-02866	HERMAN J LEDBETTER	ANDERSON STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1958	Dec 1992	0.06
30-015-02864	SALSICH NEIL E	STATE AA	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1958	Jul 1964	0.06
30-015-00000		GULF B STATE	002	EDDY	S:2, T:17S, R:29E		O	Active	Jan 1960	Apr 1960	0.13
30-015-02866	SPURCK WILLIAM	STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1958	Mar 1965	0.26
30-015-02865	SALSICH NEIL E	STATE AB	001	EDDY	S:2, T:17S, R:29E	2,586	O	Active	Jan 1960	Dec 1965	0.26
30-015-02861	R. D. COLLIER	GULF STATE	001	EDDY	S:2, T:17S, R:29E		G	Active	Jan 1964	Nov 1971	0.37
30-015-02852	C F M OIL CO DBA LOUIS AND JUDY FULTON	MORGAN STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Feb 1959	May 2011	0.45
30-015-02855	C F M OIL CO DBA LOUIS AND JUDY FULTON	MORGAN STATE	002	EDDY	S:2, T:17S, R:29E	0	O	Active	Apr 1959	May 2011	0.48
30-015-02861	FRYMAN A D	GULF STATE SEC 2	001	EDDY	S:2, T:17S, R:29E		G	Active	Jan 1961	Dec 1962	0.68
30-015-02857		GULF STATE	003	EDDY	S:2, T:17S, R:29E	0	O	Temporarily Abandoned	May 1959	Feb 1983	0.71
30-015-02864	C O FULTON	STATE A	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1958	Jul 2011	0.77
30-015-02859	GULF OIL CORPORATION	EDDY STATE A	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1950	Dec 1957	0.90
30-015-02853	C F M OIL CO DBA LOUIS AND JUDY FULTON	KK STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1967	May 2011	0.94
30-015-02859	C O FULTON	GULF STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1956	Jul 2011	1.10
30-015-02859	GULF OIL CORPORATION	EDDY ST.	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Oct 1948	Dec 1953	1.29
30-015-02855	BRISCOE ORLANDO	GULF STATE	002	EDDY	S:2, T:17S, R:29E	0	O	Active	Jan 1960	Dec 1971	1.52
30-015-02852	BRISCOE ORLANDO	GULF STATE	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Jan 1960	Dec 1971	1.55
30-015-02860	MACY-TALMADGE, COWELL	STATE	002	EDDY	S:2, T:17S, R:29E		O	Active	Feb 1947	Jun 1950	1.57
					S:2, T:17S,						

30-015-02866	SPURCK, WILLIAM	ANDERSON ST.	001	EDDY	R:29E	0	O	Pumping	Feb 1957	Dec 1957	1.74
30-015-02862	SALSICH NEIL E	STATE AC	001	EDDY	S:2, T:17S, R:29E		O	Active	Jan 1960	Dec 1965	2.77
30-015-00000		STATE	001	EDDY	S:2, T:17S, R:29E		G	Active	Mar 1959	Dec 1969	3.61
30-015-35875	MEWBOURNE OIL CO	TETRA 2 STATE COM	1	EDDY	S:2, T:17S, R:29E	10,970	G	Active Permit	Apr 2008	Mar 2012	4.42
30-015-02864	SALSICH, NEIL E.	STATE AA	001	EDDY	S:2, T:17S, R:29E	0	O	Pumping	Sep 1957	Dec 1957	13.97
30-015-02865	SALSICH, NEIL E.	STATE AB	001	EDDY	S:2, T:17S, R:29E	2,586	O	Active	Oct 1957	Dec 1957	18.35

### Producing wells in Sec 2, T17S, R29E, Eddy County



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Operator: COG Operating LLC  
Legal: SEC2 T17S-R29E UL-H  
of Eddy County NM

WI Owners: Rubicon Oil & Gas II, LP  
Legal: SEC2 T17S-R29E UL-I of  
Eddy County NM



# **COG Operating LLC**

**Eddy County, NM**

**Ouimet State Com 4H**

**Ouimet State Com 4H**

**Wellbore #1**

**Plan: Plan #1**

Surface: 2420' FNL, 330' FEL, Sec 2, T17S, R29E, Unit H

BHL: 2310' FNL, 330' FWL, Sec 2, T17S, R29E, Unit E

PP: 2350' FNL, 773' FEL, Sec 2 T17S, R29E, Unit H

## **Standard Planning Report**

**31 May, 2012**

# Crescent Directional Drilling

## Planning Report

<b>Database:</b>	R5000 Houston DB	<b>Local Co-ordinate Reference:</b>	Site Ouimet State Corn 4H
<b>Company:</b>	COG Operating LLC	<b>TVD Reference:</b>	WELL @ 3681.00ft (Original Well Elev)
<b>Project:</b>	Eddy County, NM	<b>MD Reference:</b>	WELL @ 3681.00ft (Original Well Elev)
<b>Site:</b>	Ouimet State Corn 4H	<b>North Reference:</b>	Grid
<b>Well:</b>	Ouimet State Corn 4H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

<b>Project:</b>	Eddy County, NM		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Ouimet State Corn 4H		
<b>Site Position:</b>		<b>Northing:</b>	678,180.60 ft
<b>From:</b>	Map	<b>Easting:</b>	590,868.80 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in
		<b>Latitude:</b>	32.86404777
		<b>Longitude:</b>	-104.03739883
		<b>Grid Convergence:</b>	0.16 °

Well	Ouimet State Corn 4H					
Well Position	+N-S	0.00 ft	Northing:	678,180.60 ft	Latitude:	32.86404777
	+E-W	0.00 ft	Easting:	590,868.80 ft	Longitude:	-104.03739883
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	3,663.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/31/2012	7.73	60.67	48,852

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	271.36

<b>Plan Sections</b>										
<b>Measured</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical</b>	<b>+N-S</b>	<b>+E-W</b>	<b>Dogleg</b>	<b>Build</b>	<b>Turn</b>	<b>TFO</b>	<b>Target</b>
<b>Depth</b>	(°)	(°)	<b>Depth</b>	(ft)	(ft)	<b>Rate</b>	<b>Rate</b>	<b>Rate</b>	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,822.61	0.00	0.00	3,822.61	0.00	0.00	0.00	0.00	0.00	0.00	
4,580.94	91.00	284.30	4,300.00	119.99	-470.75	12.00	12.00	0.00	284.30	
4,958.75	91.00	269.19	4,293.39	164.21	-844.79	4.00	0.00	-4.00	-89.89	
8,752.01	91.00	269.19	4,227.50	110.30	-4,637.10	0.00	0.00	0.00	0.00	PBHL (Ouimet State C

# Crescent Directional Drilling Planning Report

<b>Database:</b>	R5000 Houston DB	<b>Local Co-ordinate Reference:</b>	Site Ouimet State Com 4H
<b>Company:</b>	COG Operating LLC	<b>TVD Reference:</b>	WELL @ 3681.00ft (Original Well Elev)
<b>Project:</b>	Eddy County, NM	<b>MD Reference:</b>	WELL @ 3681.00ft (Original Well Elev)
<b>Site:</b>	Ouimet State Com 4H	<b>North Reference:</b>	Grid
<b>Well:</b>	Ouimet State Com 4H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,822.61	0.00	0.00	3,822.61	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP - Start Build @ 12.00°/100'</b>									
3,900.00	9.29	284.30	3,899.66	1.55	-6.06	6.10	12.00	12.00	0.00
4,000.00	21.29	284.30	3,995.95	8.05	-31.57	31.75	12.00	12.00	0.00
4,100.00	33.29	284.30	4,084.66	19.35	-75.91	76.35	12.00	12.00	0.00
4,200.00	45.29	284.30	4,161.91	34.96	-137.15	137.95	12.00	12.00	0.00
4,300.00	57.29	284.30	4,224.34	54.20	-212.63	213.86	12.00	12.00	0.00
4,400.00	69.29	284.30	4,269.21	76.22	-299.03	300.76	12.00	12.00	0.00
4,500.00	81.29	284.30	4,294.56	100.07	-392.58	394.85	12.00	12.00	0.00
4,552.63	87.60	284.30	4,299.66	113.00	-443.32	445.88	12.00	12.00	0.00
<b>PP @ 4552.63 MD, 4299.66 TVD, 87.60 INC, 284.30 AZ, 445.88 VS</b>									
4,580.94	91.00	284.30	4,300.00	119.99	-470.75	473.47	12.00	12.00	0.00
<b>Landing Point - Start Turn @ 4.00°/100'</b>									
4,600.00	91.00	283.54	4,299.67	124.57	-489.24	492.06	4.00	0.01	-4.00
4,700.00	91.01	279.54	4,297.92	144.57	-587.18	590.46	4.00	0.00	-4.00
4,800.00	91.01	275.54	4,296.16	157.68	-686.29	689.84	4.00	0.00	-4.00
4,900.00	91.00	271.54	4,294.41	163.85	-786.06	789.73	4.00	-0.01	-4.00
4,958.75	91.00	269.19	4,293.39	164.21	-844.79	848.46	4.00	-0.01	-4.00
<b>EOT - Hold @ 269.19° AZ</b>									
5,000.00	91.00	269.19	4,292.67	163.63	-886.03	889.67	0.00	0.00	0.00
5,100.00	91.00	269.19	4,290.93	162.21	-986.01	989.59	0.00	0.00	0.00
5,200.00	91.00	269.19	4,289.20	160.79	-1,085.98	1,089.50	0.00	0.00	0.00
5,300.00	91.00	269.19	4,287.46	159.36	-1,185.96	1,189.41	0.00	0.00	0.00
5,400.00	91.00	269.19	4,285.72	157.94	-1,285.93	1,289.33	0.00	0.00	0.00
5,500.00	91.00	269.19	4,283.98	156.52	-1,385.91	1,389.24	0.00	0.00	0.00
5,600.00	91.00	269.19	4,282.25	155.10	-1,485.88	1,489.15	0.00	0.00	0.00
5,700.00	91.00	269.19	4,280.51	153.68	-1,585.86	1,589.06	0.00	0.00	0.00
5,800.00	91.00	269.19	4,278.77	152.26	-1,685.83	1,688.98	0.00	0.00	0.00
5,900.00	91.00	269.19	4,277.04	150.84	-1,785.81	1,788.89	0.00	0.00	0.00
6,000.00	91.00	269.19	4,275.30	149.42	-1,885.78	1,888.80	0.00	0.00	0.00
6,100.00	91.00	269.19	4,273.56	147.99	-1,985.76	1,988.72	0.00	0.00	0.00
6,200.00	91.00	269.19	4,271.83	146.57	-2,085.73	2,088.63	0.00	0.00	0.00
6,300.00	91.00	269.19	4,270.09	145.15	-2,185.71	2,188.54	0.00	0.00	0.00
6,400.00	91.00	269.19	4,268.35	143.73	-2,285.68	2,288.45	0.00	0.00	0.00
6,500.00	91.00	269.19	4,266.62	142.31	-2,385.66	2,388.37	0.00	0.00	0.00
6,600.00	91.00	269.19	4,264.88	140.89	-2,485.63	2,488.28	0.00	0.00	0.00
6,700.00	91.00	269.19	4,263.14	139.47	-2,585.61	2,588.19	0.00	0.00	0.00
6,800.00	91.00	269.19	4,261.40	138.04	-2,685.58	2,688.10	0.00	0.00	0.00
6,900.00	91.00	269.19	4,259.67	136.62	-2,785.56	2,788.02	0.00	0.00	0.00
7,000.00	91.00	269.19	4,257.93	135.20	-2,885.53	2,887.93	0.00	0.00	0.00
7,100.00	91.00	269.19	4,256.19	133.78	-2,985.51	2,987.84	0.00	0.00	0.00
7,200.00	91.00	269.19	4,254.46	132.36	-3,085.48	3,087.76	0.00	0.00	0.00
7,300.00	91.00	269.19	4,252.72	130.94	-3,185.46	3,187.67	0.00	0.00	0.00
7,400.00	91.00	269.19	4,250.98	129.52	-3,285.43	3,287.58	0.00	0.00	0.00
7,500.00	91.00	269.19	4,249.25	128.10	-3,385.40	3,387.49	0.00	0.00	0.00
7,600.00	91.00	269.19	4,247.51	126.67	-3,485.38	3,487.41	0.00	0.00	0.00
7,700.00	91.00	269.19	4,245.77	125.25	-3,585.35	3,587.32	0.00	0.00	0.00
7,800.00	91.00	269.19	4,244.04	123.83	-3,685.33	3,687.23	0.00	0.00	0.00
7,900.00	91.00	269.19	4,242.30	122.41	-3,785.30	3,787.14	0.00	0.00	0.00
8,000.00	91.00	269.19	4,240.56	120.99	-3,885.28	3,887.06	0.00	0.00	0.00
8,100.00	91.00	269.19	4,238.82	119.57	-3,985.25	3,986.97	0.00	0.00	0.00
8,200.00	91.00	269.19	4,237.09	118.15	-4,085.23	4,086.88	0.00	0.00	0.00
8,300.00	91.00	269.19	4,235.35	116.72	-4,185.20	4,186.80	0.00	0.00	0.00

# Crescent Directional Drilling

## Planning Report

<b>Database:</b>	R5000 Houston DB	<b>Local Co-ordinate Reference:</b>	Site Ouimet State Com 4H
<b>Company:</b>	COG Operating LLC	<b>TVD Reference:</b>	WELL @ 3681.00ft (Original Well Elev)
<b>Project:</b>	Eddy County, NM	<b>MD Reference:</b>	WELL @ 3681.00ft (Original Well Elev)
<b>Site:</b>	Ouimet State Com 4H	<b>North Reference:</b>	Grid
<b>Well:</b>	Ouimet State Com 4H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,400.00	91.00	269.19	4,233.61	115.30	-4,285.18	4,286.71	0.00	0.00	0.00	
8,500.00	91.00	269.19	4,231.88	113.88	-4,385.15	4,386.62	0.00	0.00	0.00	
8,600.00	91.00	269.19	4,230.14	112.46	-4,485.13	4,486.53	0.00	0.00	0.00	
8,700.00	91.00	269.19	4,228.40	111.04	-4,585.10	4,586.45	0.00	0.00	0.00	
8,752.01	91.00	269.19	4,227.50	110.30	-4,637.10	4,638.41	0.00	0.00	0.00	
TD @ 8752.01' MD, 4227.50' TVD - PBHL (Ouimet State Com 4H Plan 1)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL (Ouimet State Cor	0.00	0.00	4,227.50	110.30	-4,637.10	678,290.90	586,231.70	32.86438576	-104.05249963	
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,822.61	3,822.61	0.00	0.00	KOP - Start Build @ 12.00°/100'	
4,552.63	4,299.66	113.00	-443.32	PP @ 4552.63 MD, 4299.66 TVD, 87.60 INC, 284.30 AZ, 445.88 VS	
4,580.94	4,300.00	119.99	-470.75	Landing Point - Start Turn @ 4.00°/100'	
4,958.75	4,293.39	164.21	-844.79	EOT - Hold @ 269.19° AZ	
8,752.01	4,227.50	110.30	-4,637.10	TD @ 8752.01' MD, 4227.50' TVD	



**COG Operating LLC  
Ouimet State Com 4H  
Eddy County, NM  
Plan #1**



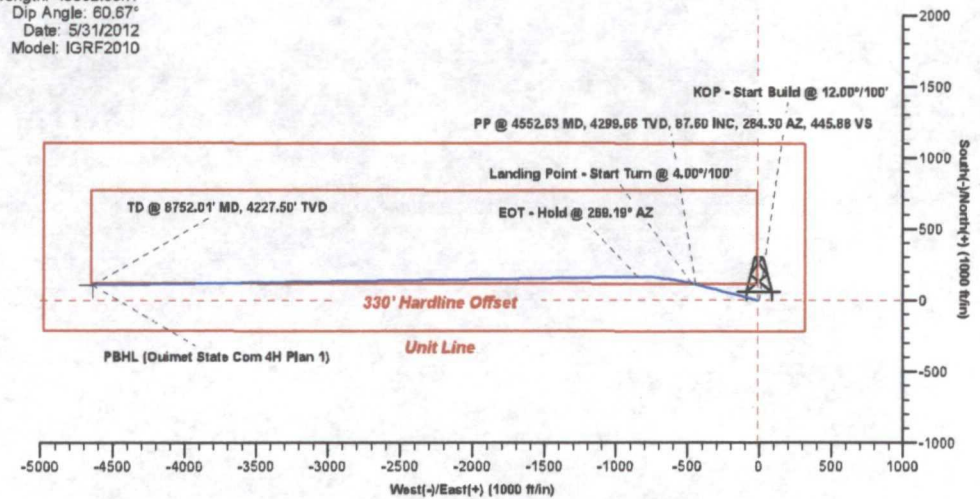
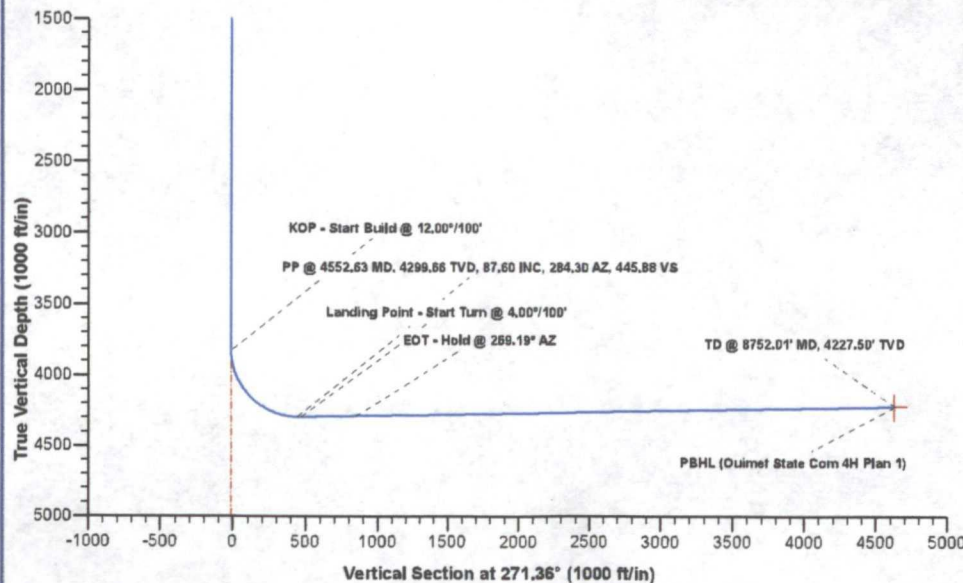
Surface Location		Ground Elev: 3663.00 WELL @ 3681.00ft (Original Well Elev)			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	678180.60	590868.80	32.86404777	-104.03739883

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Ouimet State Com 4H Plan 1)	4227.50	110.30	-4637.10	678290.90	586231.70	32.86438576	-104.05249983



Azimuths to Grid North  
True North: -0.16°  
Magnetic North: 7.57°

Magnetic Field  
Strength: 48852.0snT  
Dip Angle: 60.87°  
Date: 5/31/2012  
Model: IGRF2010



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Annotation
1	0.00	0.00	0.00	3822.61	0.00	0.00	0.00	0.00	0.00	KOP - Start Build @ 12.00°/100'
2	3822.61	0.00	0.00	3822.61	0.00	0.00	0.00	0.00	0.00	Landing Point - Start Turn @ 4.00°/100'
3	4580.94	91.00	284.30	4300.00	119.99	-470.75	12.00	284.30	473.47	EOT - Hold @ 269.19° AZ
4	4958.75	91.00	269.19	4293.39	164.21	-844.79	4.00	-89.89	948.46	TD @ 8752.01' MD, 4227.50' TVD
5	8752.01	91.00	269.19	4227.50	110.30	-4637.10	0.00	0.00	4638.41	



**COG OPERATING LLC  
550 W. TEXAS, SUITE 100  
MIDLAND, TX 79701**

August 1, 2012

Rubicon Oil & Gas II, LP  
508 West Wall Avenue  
Midland TX 79701

Re: Request for Unorthodox Well Location

To Whom It May Concern:

This letter will serve as notice under Rule 104.F (3) that COG Operating LLC has requested administrative approval from the Oil Conservation Division in Santa Fe, NM for an unorthodox Grayburg Jackson; SR-Q-G-SA oil well.

**Ouimet State Com #4H  
Eddy County, NM**

**Non-Standard Location:**

SHL: 2420' FNL & 330' FEL	Sec 2, T17S, R29E, Unit H
BHL: 2310' FNL & 330' FWL	Sec 2, T17S, R29E, Unit E

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may allow COG to produce from the unorthodox location after the well is drilled, if no objection has been made within the 20 days after the application has been received.


Sincerely,

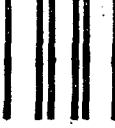
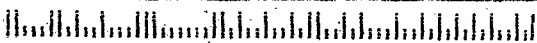
COG Operating LLC



Kelly J. Holly  
Permitting Tech

432-685-4384  
[kholly@concho.com](mailto:kholly@concho.com)

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>		A. Signature x  <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
		B. Received by (Printed Name) Brandy Wunthor	C. Date of Delivery 8-3-12
1. Article Addressed to:  Rubicon oil & Gas II, LP 508 West Wall Avenue Midland TX 79701		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
		3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
2. Article Number: (Transfer from service label)		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
		91 7199 9991 7030 4014 4429	
PS Form 3811, February 2004		Domestic Return Receipt 102595-02-M-1540	

UNITED STATES POSTAL SERVICE 	First-Class Mail Postage & Fees Paid USPS Permit No. G-10
<p>• Sender: Please print your name, address, and ZIP+4 in this box •</p> <p>COG Operating LLC  Attn: Kelly Holly  550 W Texas Ave, Suite 100  Midland, TX 79701</p>	
	

## Brooks, David K., EMNRD

---

**From:** Brooks, David K., EMNRD  
**Sent:** Tuesday, September 11, 2012 11:04 AM  
**To:** kholly@concho.com  
**Subject:** Ouimet State Com. #1H; NSL Application

Dear Ms. Holly

I note that this application states in one place that this well is to be in the Gayburg Jackson Seven Rivers-Queen-San Andres Pool, and a few lines down says it will be completed in the Empire Glorieta-Yeso. The notice letter to Rubicon identifies only the Grayburg Jackson.

Which is correct? If this is actually a Yeso well, a new notice letter will be needed.

Sincerely

David K. Brooks

**Brooks, David K., EMNRD**

---

**From:** Brooks, David K., EMNRD  
**Sent:** Tuesday, September 11, 2012 2:05 PM  
**To:** Kautz, Paul, EMNRD  
**Subject:** FW: Ouimet State Com. #1H; NSL Application

Good Afternoon, Paul

I have been presented with the NSL application referenced in the below emails for COG's Ouimet State Com #4H, located in the S/2 N/2 of Section 2-17S-29E. It is shown on the C-102 and on OCD's well information screen as in the Grayburg Jackson Pool (28509).

COG says the pool is to be completed in the Yeso. As far as I can figure out, the Grayburg Jackson (28509) was expanded to include the Glorieta and part of the Yeso only within the horizontal limits of the Burch Keely Unit by Order R-10067. That area did not include Section 2 or any area within one mile of Section 2. Then that extension was undone by Order R-10067-E, leaving the base of the Grayburg Jackson (28509) as the top of the Glorieta. Thus, I am not sure how the Yeso in Section 2 can be in the Grayburg Jackson Pool.

Ordinarily, I am not particularly concerned with what pool is named in an NSL application because an NSL order approves a specific location, and whether statewide rules or special pool rules apply, the NSL order trumps the applicable rule. However, in this case, there is a notice issue since the notice letter sent to offsets identifies the well as being in the Grayburg Jackson Pool but does not state that it is to be completed in the Yeso.

Can you shed any light on this situation?

Sincerely

David

---

**From:** Kelly Holly [<mailto:kholly@concho.com>]  
**Sent:** Tuesday, September 11, 2012 12:02 PM  
**To:** Brooks, David K., EMNRD  
**Subject:** RE: Ouimet State Com. #1H; NSL Application

Hi David,

It is in the Grayburg Jackson: SR-Q-G-SA 28509 Pool. It is in the Yeso formation.

**Kelly Holly**  
**Permitting Tech-NM**

One Concho Center, Floor 8  
432.685.4384 (direct)  
[kholly@concho.com](mailto:kholly@concho.com)

*Mailing Address:*  
One Concho Center  
600 W Illinois Ave  
Midland, Texas 79701



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---

**From:** Brooks, David K., EMNRD [<mailto:david.brooks@state.nm.us>]

**Sent:** Tuesday, September 11, 2012 12:03 PM

**To:** Kelly Holly

**Subject:** Ouimet State Com. #1H; NSL Application

Dear Ms. Holly

I note that this application states in one place that this well is to be in the Gayburg Jackson Seven Rivers-Queen-San Andres Pool, and a few lines down says it will be completed in the Empire Glorieta-Yeso. The notice letter to Rubicon identifies only the Grayburg Jackson.

Which is correct? If this is actually a Yeso well, a new notice letter will be needed.

Sincerely

David K. Brooks

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**Brooks, David K., EMNRD**

---

**From:** Brooks, David K., EMNRD  
**Sent:** Tuesday, September 11, 2012 2:33 PM  
**To:** kholly@concho.com  
**Subject:** Ouimet State Com. #4H; NSL Application

Dear Ms. Holly

Paul Kautz in Hobbs confirms that this well incorrectly placed in the Grayburg Jackson Pool because that pool was never extended to include the Yeso in this area.

Since the notice to Rubicon identifies the well as being proposed in the Grayburg Jackson SR-Queen-Grayburg-San Andres Pool, and the Yeso is neither included in the Pool name nor actually included in that pool at that location, it seems that the notice identifying the Grayburg Jackson Pool is not sufficient to alert the offset operator that a Yeso completion is intended. Therefore, a new notice will be required.

Sincerely

David K. Brooks

**Brooks, David K., EMNRD**

---

**From:** Kelly Holly <kholly@concho.com>  
**Sent:** Tuesday, September 18, 2012 9:57 AM  
**To:** Brooks, David K., EMNRD  
**Subject:** RE: Ouimet State Com. #4H; NSL Application

Hi David,

I have done some research and the correct pool should be the Empire Glorieta Yeso East 99610. I will do a sundry to change all of the Ouimet Wells. I will also send a new notification to Rubicon.

Do you need me to do another NSL for this well?

**Kelly Holly**  
**Permitting Tech-NM**

One Concho Center, Floor 8  
432.685.4384 (direct)  
[kholly@concho.com](mailto:kholly@concho.com)

*Mailing Address:*  
One Concho Center  
600 W Illinois Ave  
Midland, Texas 79701



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---

**From:** Brooks, David K., EMNRD [<mailto:david.brooks@state.nm.us>]  
**Sent:** Tuesday, September 11, 2012 3:32 PM  
**To:** Kelly Holly  
**Subject:** Ouimet State Com. #4H; NSL Application

Dear Ms. Holly

Paul Kautz in Hobbs confirms that this well incorrectly placed in the Grayburg Jackson Pool because that pool was never extended to include the Yeso in this area.

Since the notice to Rubicon identifies the well as being proposed in the Grayburg Jackson SR-Queen-Grayburg-San Andres Pool, and the Yeso is neither included in the Pool name nor actually included in that pool at that location, it seems that the notice identifying the Grayburg Jackson Pool is not sufficient to alert the offset operator that a Yeso completion is intended. Therefore, a new notice will be required.

Sincerely

David K. Brooks

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**Brooks, David K., EMNRD**

---

**From:** Brooks, David K., EMNRD  
**Sent:** Monday, October 22, 2012 3:52 PM  
**To:** kholly@concho.com  
**Subject:** Ouimet State Com. #4H; NSL Application  
**Attachments:** RE: Ouimet State Com. #4H; NSL Application

Dear Ms. Holly

Reference is made to your referenced application filed August 13, 2012.

There was a question about the correct pool for this location. This was resolved but required new notice since the original notice has specified the wrong pool. By email dated September 11, 2012, you advised that new notice would be sent, and furnished a copy of the proposed revised notice. However, we have never received any indication that new notice was sent.

Please confirm that the revised notice was in fact sent, so that we can issue an order and close this case.

Sincerely

David K. Brooks

## Brooks, David K., EMNRD

---

**From:** Kelly Holly <kholly@concho.com>  
**Sent:** Tuesday, October 23, 2012 7:31 AM  
**To:** Brooks, David K., EMNRD  
**Subject:** RE: Ouimet State Com. #4H; NSL Application  
**Attachments:** Ouimet State Com #4H NSL.pdf

Dear Mr. Brooks,

Please see attached revised letter and confirmation of notification sent to Rubicon.

Thank you.

**Kelly Holly**  
**Permitting Tech-NM**

One Concho Center, Floor 8  
432.685.4384 (direct)  
[kholly@concho.com](mailto:kholly@concho.com)

*Mailing Address:*  
One Concho Center  
600 W Illinois Ave  
Midland, Texas 79701



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---

**From:** Brooks, David K., EMNRD [<mailto:david.brooks@state.nm.us>]  
**Sent:** Monday, October 22, 2012 4:52 PM  
**To:** Kelly Holly  
**Subject:** Ouimet State Com. #4H; NSL Application

Dear Ms. Holly

Reference is made to your referenced application filed August 13, 2012.

There was a question about the correct pool for this location. This was resolved but required new notice since the original notice has specified the wrong pool. By email dated September 11, 2012, you advised that new notice would be sent, and furnished a copy of the proposed revised notice. However, we have never received any indication that new notice was sent.

Please confirm that the revised notice was in fact sent, so that we can issue an order and close this case.

Sincerely

David K. Brooks



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**COG OPERATING LLC  
ONE CONCHO CENTER  
600 W ILLINOIS AVE  
MIDLAND, TX 79701**

September 18, 2012

Rubicon Oil & Gas II, LP  
508 West Wall Avenue  
Midland TX 79701

Re: Request for Unorthodox Well Location

To Whom It May Concern:

This letter will serve as notice under Rule 104.F (3) that COG Operating LLC has requested administrative approval from the Oil Conservation Division in Santa Fe, NM for an unorthodox Empire; Glorieta-Yeso, East (96610) oil well.

**Ouimet State Com #4H  
Eddy County, NM**

**Non-Standard Location:**

SHL: 2420' FNL & 330' FEL	Sec 2, T17S, R29E, Unit H
BHL: 2310' FNL & 330' FWL	Sec 2, T17S, R29E, Unit E

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may allow COG to produce from the unorthodox location after the well is drilled, if no objection has been made within the 20 days after the application has been received.

Sincerely,

COG Operating LLC



Kelly J. Holly  
Permitting Tech

432-685-4384  
[kholly@concho.com](mailto:kholly@concho.com)

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION IF DELIVERY	
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>		A. Signature <i>X Gary Green</i>	
		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
		B. Received by (Printed Name) <i>Gary Green</i>	C. Date of Delivery <i>1/19/04</i>
1. Article Addressed to:  Rubicon Oil & Gas II, LP 508 W Wall Avenue Midland, TX 79701		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
		3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
2. Article Number (Transfer from service label)		91 7199 9991 7030 0513 1044	
PS Form 3811, February 2004		Domestic Return Receipt	
		102595-02-M-1540	

UNITED STATES POSTAL SERVICE



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COG Operating LLC  
One Concho Center  
Attn: Kelly Holly  
600 W Illinois Ave  
Midland, TX 79701