

ABOVE THIS LINE FOR DIVISION USE ONLY

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



COG Operating LLC
 Redbud Federal #3

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]

6671

[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 _____

RECEIVED OCS
 2012 AUG 16 A 2:13

[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

8-13-12
 Date

(432) 685-4384
 Phone Number

kholly@concho.com
 E-mail Address

**Redbud Federal #3
Eddy County, NM**

COG proposes to drill a **DIRECTIONAL** NE/4 NW/4, 40 acre spacing
Red Lake; Glorieta Yeso, Northeast oil well
TVD of approximately 4750' and MD of approximately 4760'

Location:

SHL: 622' FNL & 1520' FWL Sec 25, T17S, R27E, Unit C
BHL: 990' FNL & 1650' FWL Sec 25, T17S, R27E, Unit C

**This well had to be drilled at a non-standard location due to electrical lines
and buried pipeline too close to original location.**

The plan for this well is to complete it in the Yeso formation.
We won't know the exact perms until we drill & log it, but it will be very similar to
the Kool Aid State #3 (2160' FNL & 2310' FEL, Section 24, T17S, R28E, UL G)
which was completed in March 2009.

The Kool Aid State #3 completion has Yeso perms from 4280' – 5070', divided into
3 perf/stimulation intervals.

1st interval: 4280' – 4480',
acidized w/ 2500 gals,
frac w/ 111,450 gal Slvr Stm gel, 140,141# White, & 33,172# CRC.

2nd interval: 4590' – 4790',
acidized w/ 2500 gals,
frac w/ 112,168 gal Slvr Stm gel, 132,583# White, & 34,283# CRC.

3rd interval: 4870' – 5070',
acidized w/ 2500 gals,
frac w/ 115,495 gal Slvr Stm gel, 143,285# White, & 36,640# CRC.

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 is Unit A of Section 25.

Offset acreage is owned by LRE Operating LLC.
(copy of notice to LRE Operating LLC is attached)

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 30-015-39759	Pool Code 96836	Pool Name Red Lake; Glorieta Yeso, NE
Property Code	Property Name REDBUD FEDERAL	Well Number 3
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3553'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	17-S	27-E		622	NORTH	1520	WEST	EDDY

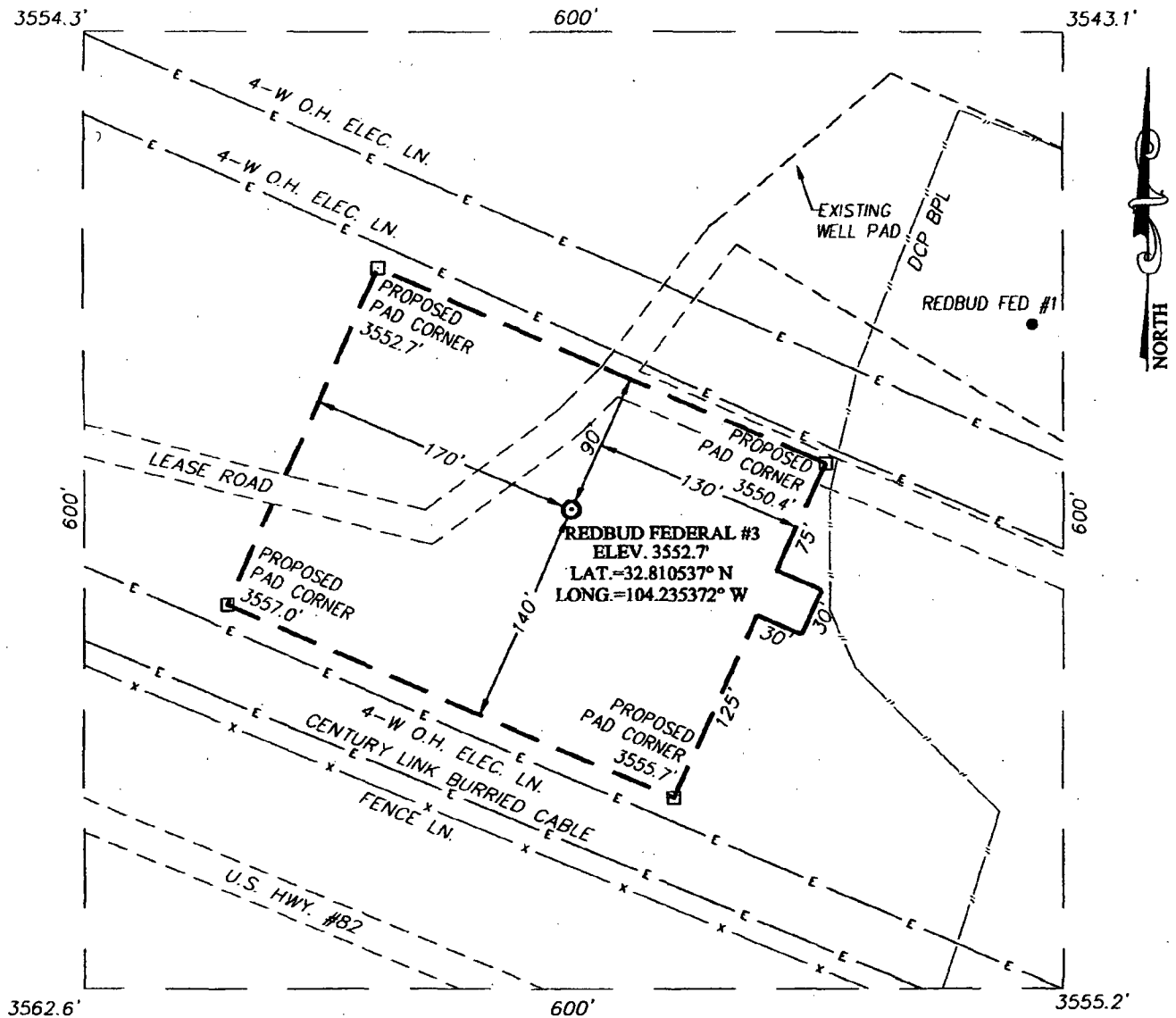
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	17-S	27-E		990	NORTH	1650	WEST	EDDY
Dedicated Acres 40	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

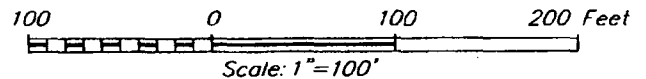
		OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this 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. <i>[Signature]</i> 8-2-12 Signature Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address
GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=658598.3 N X=530097.2 E LAT.=32.810537° N LONG.=104.235372° W	DETAIL	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. MAY 12, 2012 Date of Survey <i>[Signature]</i> Signature & Seal of Professional Surveyor: <i>[Seal: RONALD J. EIDSON, NEW MEXICO, 3239]</i> Certificate Number Ronald J. Eidson 12641 Ronald J. Eidson 3239 ACR JWSC W.O.: 12.11.0864
BOTTOM HOLE LOCATION Y=658229.8 N X=530227.7 E		

SECTION 25, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY **NEW MEXICO**



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #202 (SOUTHERN UNION) GO NORTHEAST ON CO. RD. #202 APPROX. 90 FEET. TURN RIGHT AND GO SOUTHEAST APPROX. 0.35 MILES TO THE LOCATION.



COG OPERATING, LLC

REDBUD FEDERAL #3 WELL
LOCATED 622 FEET FROM THE NORTH LINE
AND 1520 FEET FROM THE WEST LINE OF SECTION 25,
TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

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

Survey Date: 5/12/12	CAD Date: 5/26/12	Drawn By: ACR
W.O. No.: 12110864	Rev.	Rel. W.O.: Sheet 1 of 1

Producing Wells in Sec 25, T17S, R27E, Eddy County

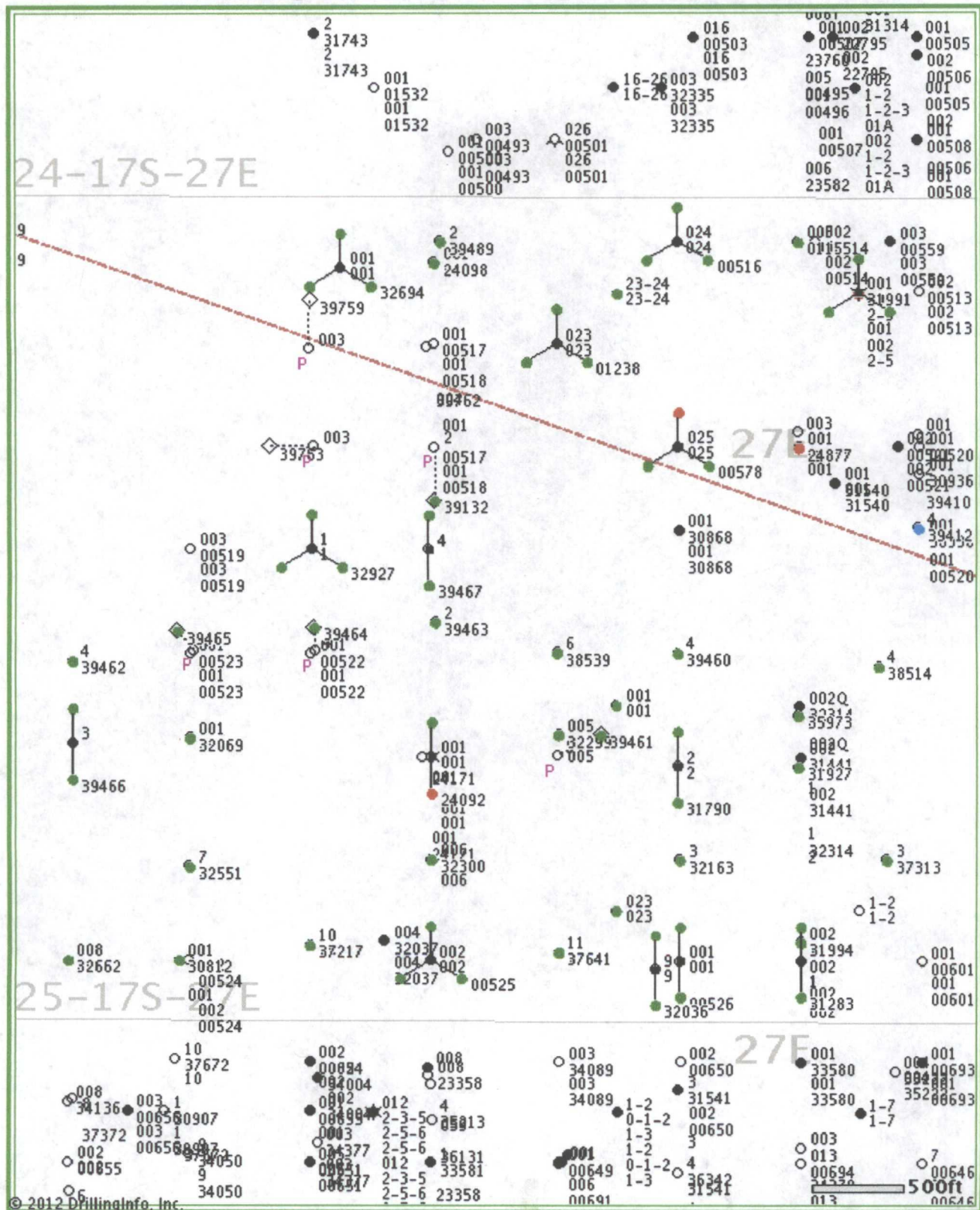
API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Avg. (BO/D)
30-015-00525	GEORGE A CHASE JR DBA G AND C SERVICE	BRAINARD	002	EDDY	S:25, T:17S, R:27E	0	O	Temporarily Abandoned	Apr 1950	Mar 2012	0.03
30-015-01238	SDX RESOURCES INC	BERRY B	023	EDDY	S:25, T:17S, R:27E	0	O	Shut-in	Jan 1969	Jan 2000	0.03
30-015-24877	C&D MANAGEMENT COMPANY DBA FREEDOM VENTURES	MICHAEL STATE	001	EDDY	S:25, T:17S, R:27E	2,038	PG	Active	Oct 1984	Sep 2010	0.03
30-015-32299	LRE OPERATING, LLC	ENRON FEDERAL	005	EDDY	S:25, T:17S, R:27E	3,185	O	Active	Aug 2002	Mar 2012	0.06
30-015-00526	ASPEN OIL INC	BRAINARD	001	EDDY	S:25, T:17S, R:27E		PO	Temporarily Abandoned	Feb 1949	Jan 1996	0.10
30-015-32927	MACK ENERGY CORP	DOGWOOD FEDERAL	1	EDDY	S:25, T:17S, R:27E	7,331	O	Active	Dec 2003	Jan 2008	0.16
30-015-32927	COG OPERATING LLC	DOGWOOD FEDERAL	1	EDDY	S:25, T:17S, R:27E	7,331	O	Active	Jan 2008	Jan 2008	0.16
30-015-31927	APACHE CORP	STATE 25	1	EDDY	S:25, T:17S, R:27E	8,130	O	Flowing	Sep 2001	Mar 2012	0.26
30-015-00526	BEDINGFIELD, J. E.	BRAINARD	001	EDDY	S:25, T:17S, R:27E		PO	Temporarily Abandoned	Jan 1948	Dec 1955	0.26
30-015-00525	BEDINGFIELD, J. E.	BRAINARD	002	EDDY	S:25, T:17S, R:27E	0	O	Temporarily Abandoned	Jan 1953	Dec 1955	0.29
30-015-00516	ALAMO PERMIAN RESOURCES, LLC	BERRY B	024	EDDY	S:25, T:17S, R:27E	0	PO	Active	Jan 1964	Oct 2010	0.32
30-015-24098	MWJ PRODUCING CO	ROPER FEDERAL	001	EDDY	S:25, T:17S, R:27E	0	PO	Pumping	May 1982	Jan 1991	0.32
30-015-32694	MACK ENERGY CORP	REDBUD FEDERAL	001	EDDY	S:25, T:17S, R:27E	7,130	O	Active	Oct 2003	Dec 2003	0.35
30-015-00525	MANN F FEDERAL	BRAINARD	002	EDDY	S:25, T:17S, R:27E	0	O	Temporarily Abandoned	Jan 1958	Dec 1971	0.42
30-015-00578	LATCH, LEONARD	BERRY	025	EDDY	S:25, T:17S, R:27E	495	PO	Pumping	Nov 1955	Dec 1965	0.45
					S:25,						

30-015-00000	NIX & CURTIS	DELHI STATE	002	EDDY	T:17S, R:27E		O	Active	Jan 1953	Jul 1953	0.45
30-015-00000	NIX & CURTIS	DELHI STATE	'2-5	EDDY	S:25, T:17S, R:27E		O	Active	Jan 1956	Nov 1957	0.47
30-015-01238	LEONARD LATCH	BERRY B	023	EDDY	S:25, T:17S, R:27E	0	O	Shut-in	Jan 1958	Dec 1971	0.48
30-015-00578	LEONARD LATCH	BERRY B	025	EDDY	S:25, T:17S, R:27E	495	PO	Pumping	Jan 1956	Dec 1971	0.48
30-015-32694	MACK ENERGY CORP	REDBUD FEDERAL	001	EDDY	S:25, T:17S, R:27E	7,130	O	Active	May 2003	Oct 2003	0.61
30-015-00000	DEAN WHITE OIL CO.	BERRY	023	EDDY	S:25, T:17S, R:27E		O	Active	Nov 1951	Dec 1952	0.65
30-015-32300	LRE OPERATING, LLC	ENRON FEDERAL	006	EDDY	S:25, T:17S, R:27E	3,180	O	Active	Dec 2002	Mar 2012	1.13
30-015-32551	LRE OPERATING, LLC	ENRON FEDERAL	7	EDDY	S:25, T:17S, R:27E	3,223	O	Active	Apr 2009	Mar 2012	1.26
30-015-00516	LEONARD LATCH	BERRY B	024	EDDY	S:25, T:17S, R:27E	0	PO	Active	Jan 1959	Dec 1971	1.29
30-015-31994	APACHE CORP	STATE 25	002	EDDY	S:25, T:17S, R:27E	8,150	O	Flowing	Nov 2001	Mar 2012	1.32
30-015-30812	COG OPERATING LLC	BEECH FEDERAL	001	EDDY	S:25, T:17S, R:27E	7,244	O	Pumping	Jan 2000	Mar 2012	1.48
30-015-32662	LRE OPERATING, LLC	ENRON FEDERAL	008	EDDY	S:25, T:17S, R:27E	3,220	O	Active	May 2003	Mar 2012	1.58
30-015-00000	LATCHE, LEONARD	BERRY	'23-24	EDDY	S:25, T:17S, R:27E		O	Active	Jan 1956	Dec 1957	1.61
30-015-00516	LATCH, LEONARD	BERRY	024	EDDY	S:25, T:17S, R:27E	0	PO	Active	Jan 1955	Dec 1965	1.61
30-015-01155		DELHI STATE	005	EDDY	S:25, T:17S, R:27E		O	Active	Jan 1959	Jun 1966	1.67
30-015-00000	BEDINGFIELD J.E.	BRAINARD	001	EDDY	S:25, T:17S, R:27E		O	Active	Apr 1947	Nov 1947	1.80
30-015-32163	LRE OPERATING, LLC	ENRON FEDERAL	3	EDDY	S:25, T:17S, R:27E	3,177	O	Pumping	Mar 2002	Mar 2012	2.00
					S:25,						

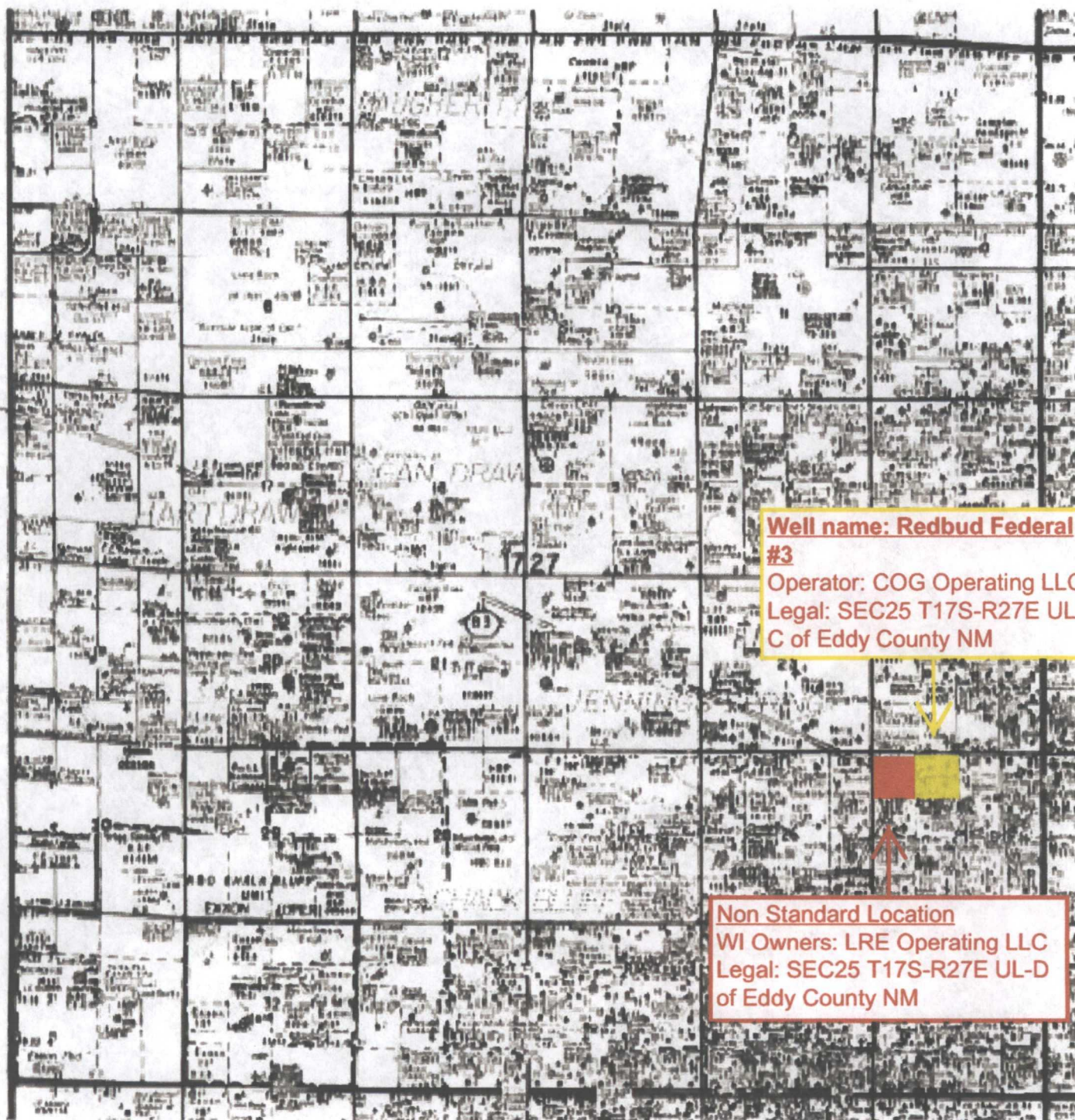
30-015-00000		DELHI STATE	002	EDDY	T:17S, R:27E		O	Active	Mar 1952	Feb 1964	2.00
30-015-01238	LATCH, LEONARD	BERRY	023	EDDY	S:25, T:17S, R:27E	0	O	Shut-in	Jan 1953	Dec 1955	2.16
30-015-32036	LRE OPERATING, LLC	ENRON FEDERAL	9	EDDY	S:25, T:17S, R:27E	7,950	PO	Active	Sep 2006	Mar 2012	2.52
30-015-31283	LRE OPERATING, LLC	RESLER STATE	1	EDDY	S:25, T:17S, R:27E	3,600	O	Pumping	Nov 2002	Mar 2012	3.74
30-015-32927	COG OPERATING LLC	DOGWOOD FEDERAL	1	EDDY	S:25, T:17S, R:27E	7,331	O	Active	Feb 2008	Mar 2012	4.03
30-015-24092	COG OPERATING LLC	SPRUCE FEDERAL	001	EDDY	S:25, T:17S, R:27E	9,985	G	Pumping	Jan 2010	Mar 2012	4.39
30-015-38514	LRE OPERATING, LLC	RESLER STATE	4	EDDY	S:25, T:17S, R:27E	3,862	U	Active Permit	May 2011	Mar 2012	7.35
30-015-37641	LRE OPERATING, LLC	ENRON FEDERAL	11	EDDY	S:25, T:17S, R:27E	3,258	O	Active Permit	May 2010	Mar 2012	7.52
30-015-37313	LRE OPERATING, LLC	RESLER STATE	3	EDDY	S:25, T:17S, R:27E	3,855	O	Active Permit	Feb 2010	Mar 2012	8.45
30-015-35973	LRE OPERATING, LLC	RESLER STATE	2	EDDY	S:25, T:17S, R:27E	3,830	U	Active Permit	Jan 2009	Mar 2012	9.32
30-015-31283	SDX RESOURCES INC	RESLER STATE	1	EDDY	S:25, T:17S, R:27E	3,600	O	Pumping	Oct 2000	Oct 2002	10.35
30-015-37217	LRE OPERATING, LLC	ENRON FEDERAL	10	EDDY	S:25, T:17S, R:27E	3,233	O	Active Permit	Apr 2010	Mar 2012	10.55
30-015-31790	COG OPERATING LLC	BEECH FEDERAL	2	EDDY	S:25, T:17S, R:27E	7,800	PO	Pumping	Jul 2010	Mar 2012	17.42
30-015-32036	SDX RESOURCES INC	ENRON FEDERAL	9	EDDY	S:25, T:17S, R:27E	7,950	PO	Active	Sep 2006	Dec 2006	17.55
30-015-39132	COG OPERATING LLC	DOGWOOD FEDERAL	2	EDDY	S:25, T:17S, R:27E	4,757	O	Active Permit	Sep 2011	Mar 2012	18.97
30-015-39460	COG OPERATING LLC	BEECH FEDERAL	4	EDDY	S:25, T:17S, R:27E	4,770	O	Active Permit	Dec 2011	Mar 2012	26.77
30-015-39464	COG OPERATING LLC	SPRUCE FEDERAL	4	EDDY	S:25, T:17S, R:27E	4,730	O	Active Permit	Jan 2012	Mar 2012	34.26
					S:25,						

30-015-38539	COG OPERATING LLC	BEECH FEDERAL	6	EDDY	T:17S, R:27E	4,808	O	Active Permit	Oct 2011	Mar 2012	34.84
30-015-39467	COG OPERATING LLC	DOGWOOD FEDERAL	4	EDDY	S:25, T:17S, R:27E	4,773	O	Active Permit	Nov 2011	Mar 2012	35.19
30-015-39461	COG OPERATING LLC	BEECH FEDERAL	5	EDDY	S:25, T:17S, R:27E	4,797	O	Active Permit	Jan 2012	Mar 2012	36.55
30-015-39463	COG OPERATING LLC	SPRUCE FEDERAL	2	EDDY	S:25, T:17S, R:27E	4,730	O	Active Permit	Dec 2011	Mar 2012	37.58
30-015-39466	COG OPERATING LLC	FIR FEDERAL	3	EDDY	S:25, T:17S, R:27E	4,735	O	Active Permit	Dec 2011	Mar 2012	41.84
30-015-39462	COG OPERATING LLC	FIR FEDERAL	4	EDDY	S:25, T:17S, R:27E	4,750	O	Active Permit	Jan 2012	Mar 2012	44.87
30-015-39465	COG OPERATING LLC	FIR FEDERAL	2	EDDY	S:25, T:17S, R:27E	4,738	O	Active Permit	Dec 2011	Mar 2012	48.42
30-015-39489	COG OPERATING LLC	REDBUD FEDERAL	2	EDDY	S:25, T:17S, R:27E	4,744	O	Active Permit	Jan 2012	Mar 2012	58.45
30-015-39467	COG OPERATING LLC	DOGWOOD FEDERAL	4	EDDY	S:25, T:17S, R:27E	4,773	O	Active Permit	Nov 2011	Dec 2011	60.00
30-015-31790	COG OPERATING LLC	BEECH FEDERAL	2	EDDY	S:25, T:17S, R:27E	7,800	PO	Pumping	Jul 2001	Jul 2010	62.77
30-015-39412	COG OPERATING LLC	EBONY STATE	4	EDDY	S:25, T:17S, R:27E	4,750	U	Active Permit	Nov 2011	Mar 2012	72.48
30-015-00578	ALAMO PERMIAN RESOURCES, LLC	BERRY B	025	EDDY	S:25, T:17S, R:27E	495	PO	Pumping	Jan 1964	Mar 2011	
30-015-24092	COG OPERATING LLC	SPRUCE FEDERAL	001	EDDY	S:25, T:17S, R:27E	9,985	G	Pumping	Jul 1999	Dec 2009	
30-015-31991	OXY USA WTP LIMITED PARTNERSHIP	OXY MEARBALL STATE	001	EDDY	S:25, T:17S, R:27E	9,810	G	Pumping	Dec 2001	Mar 2012	
30-015-32069	COG OPERATING LLC	FIR FEDERAL	001	EDDY	S:25, T:17S, R:27E	7,208	O	Pumping	Feb 2002	Mar 2012	
30-015-32694	COG OPERATING LLC	REDBUD FEDERAL	001	EDDY	S:25, T:17S, R:27E	7,130	O	Active	Dec 2003	Mar 2012	
30-015-39466	COG OPERATING LLC	FIR FEDERAL	3	EDDY	S:25, T:17S, R:27E	4,735	O	Active Permit	Dec 2011	Dec 2011	

Producing Wells in Sec 25, T17S, R27E, Eddy County



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Well name: Redbud Federal

#3

Operator: COG Operating LLC

**Legal: SEC25 T17S-R27E UL-
C of Eddy County NM**

Non Standard Location

WI Owners: LRE Operating LLC

**Legal: SEC25 T17S-R27E UL-D
of Eddy County NM**



COG Operating LLC

Eddy County, NM (NAN27 NME)

Redbud Federal #3

OH

Plan #4 7-7/8" Hole

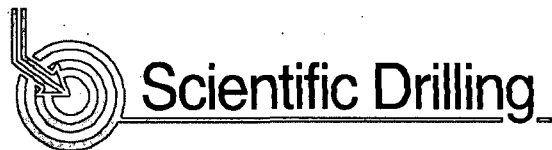
Surface: 622' FNL, 1520' FWL, Sec 25, T17S, R27E, Unit C

BHL: 980' FNL, 1700' FWL, Sec 25, T17S, R27E, Unit C

Top of Paddock = 208' South of Surface & 150' East of Surface @ 3200' TVD

Standard Planning Report

12 June, 2012





Scientific Drilling International, Inc.
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Redbud Federal #3
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3554.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3554.00usft
Site:	Redbud Federal #3	North Reference:	Grid
Well:	Redbud Federal #3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #4 7-7/8" Hole		

Project:	Eddy County, NM (NAN27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Redbud Federal #3			
Site Position:		Northing:	658,598.30 usft	Latitude:	32° 48' 37.933 N
From:	Map	Easting:	530,097.20 usft	Longitude:	104° 14' 7.341 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 °

Well:	Redbud Federal #3					
Well Position	+N/-S	0.00 usft	Northing:	658,598.30 usft	Latitude:	32° 48' 37.933 N
	+E/-W	0.00 usft	Easting:	530,097.20 usft	Longitude:	104° 14' 7.341 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,554.00 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/11/11	7.93	60.61	48,887

Design:	Plan #4 7-7/8" Hole			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	153.28

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,264.40	6.29	153.28	1,263.77	-15.39	7.75	2.00	2.00	48.75	153.28	
4,771.73	6.29	153.28	4,750.00	-358.50	180.50	0.00	0.00	0.00	0.00	PBHL-Redbud #3



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Redbud Federal #3
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3554.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3554.00usft
Site:	Redbud Federal #3	North Reference:	Grid
Well:	Redbud Federal #3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #4 7-7/8" Hole		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00
8-5/8" Casing									
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 2.00°/100'									
1,000.00	1.00	153.28	1,000.00	-0.39	0.20	0.44	2.00	2.00	0.00
1,100.00	3.00	153.28	1,099.93	-3.51	1.77	3.93	2.00	2.00	0.00
1,200.00	5.00	153.28	1,199.68	-9.74	4.90	10.90	2.00	2.00	0.00
1,264.40	6.29	153.28	1,263.77	-15.39	7.75	17.23	2.00	2.00	0.00
EOC hold 6.29°									
1,300.00	6.29	153.28	1,299.16	-18.88	9.50	21.13	0.00	0.00	0.00
1,400.00	6.29	153.28	1,398.55	-28.66	14.43	32.09	0.00	0.00	0.00
1,500.00	6.29	153.28	1,497.95	-38.44	19.35	43.04	0.00	0.00	0.00
1,600.00	6.29	153.28	1,597.35	-48.22	24.28	53.99	0.00	0.00	0.00
1,700.00	6.29	153.28	1,696.75	-58.01	29.21	64.94	0.00	0.00	0.00
1,800.00	6.29	153.28	1,796.15	-67.79	34.13	75.90	0.00	0.00	0.00
1,900.00	6.29	153.28	1,895.55	-77.57	39.06	86.85	0.00	0.00	0.00
2,000.00	6.29	153.28	1,994.94	-87.35	43.98	97.80	0.00	0.00	0.00
2,100.00	6.29	153.28	2,094.34	-97.14	48.91	108.75	0.00	0.00	0.00
2,200.00	6.29	153.28	2,193.74	-106.92	53.83	119.71	0.00	0.00	0.00
2,300.00	6.29	153.28	2,293.14	-116.70	58.76	130.66	0.00	0.00	0.00
2,400.00	6.29	153.28	2,392.54	-126.48	63.68	141.61	0.00	0.00	0.00
2,500.00	6.29	153.28	2,491.94	-136.27	68.61	152.56	0.00	0.00	0.00
2,600.00	6.29	153.28	2,591.33	-146.05	73.53	163.52	0.00	0.00	0.00
2,700.00	6.29	153.28	2,690.73	-155.83	78.46	174.47	0.00	0.00	0.00
2,800.00	6.29	153.28	2,790.13	-165.61	83.38	185.42	0.00	0.00	0.00
2,900.00	6.29	153.28	2,889.53	-175.40	88.31	196.37	0.00	0.00	0.00
3,000.00	6.29	153.28	2,988.93	-185.18	93.24	207.33	0.00	0.00	0.00
3,100.00	6.29	153.28	3,088.33	-194.96	98.16	218.28	0.00	0.00	0.00
3,200.00	6.29	153.28	3,187.72	-204.74	103.09	229.23	0.00	0.00	0.00
3,212.35	6.29	153.28	3,200.00	-205.95	103.69	230.58	0.00	0.00	0.00
Top of Paddock									
3,229.09	6.29	153.28	3,216.64	-207.59	104.52	232.42	0.00	0.00	0.00
TG1-Redbud #3									
3,300.00	6.29	153.28	3,287.12	-214.53	108.01	240.18	0.00	0.00	0.00
3,400.00	6.29	153.28	3,386.52	-224.31	112.94	251.14	0.00	0.00	0.00
3,500.00	6.29	153.28	3,485.92	-234.09	117.86	262.09	0.00	0.00	0.00
3,600.00	6.29	153.28	3,585.32	-243.87	122.79	273.04	0.00	0.00	0.00
3,700.00	6.29	153.28	3,684.72	-253.66	127.71	283.99	0.00	0.00	0.00
3,800.00	6.29	153.28	3,784.12	-263.44	132.64	294.95	0.00	0.00	0.00
3,900.00	6.29	153.28	3,883.51	-273.22	137.56	305.90	0.00	0.00	0.00
4,000.00	6.29	153.28	3,982.91	-283.01	142.49	316.85	0.00	0.00	0.00
4,100.00	6.29	153.28	4,082.31	-292.79	147.41	327.80	0.00	0.00	0.00
4,200.00	6.29	153.28	4,181.71	-302.57	152.34	338.76	0.00	0.00	0.00
4,300.00	6.29	153.28	4,281.11	-312.35	157.27	349.71	0.00	0.00	0.00
4,400.00	6.29	153.28	4,380.51	-322.14	162.19	360.66	0.00	0.00	0.00
4,500.00	6.29	153.28	4,479.90	-331.92	167.12	371.61	0.00	0.00	0.00
4,600.00	6.29	153.28	4,579.30	-341.70	172.04	382.57	0.00	0.00	0.00
4,700.00	6.29	153.28	4,678.70	-351.48	176.97	393.52	0.00	0.00	0.00
4,771.73	6.29	153.28	4,750.00	-358.50	180.50	401.38	0.00	0.00	0.00
PBHL-Redbud #3									



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Redbud Federal #3
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3554.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3554.00usft
Site:	Redbud Federal #3	North Reference:	Grid
Well:	Redbud Federal #3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #4 7-7/8" Hole		

Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
									Latitude Longitude
PBHL-Redbud #3		0.00	0.00	4,750.00	-358.50	180.50	658,239.80	530,277.70	32° 48' 34.384 N 104° 14' 5.230 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
		Name			
850.00	850.00	8-5/8" Casing		8-5/8	12-1/4

Formations					
Measured Depth	Vertical Depth			Dip	Dip Direction
(usft)	(usft)			(°)	(°)
		Name			
3,212.35	3,200.00	Top of Paddock		0.00	

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)	Comment	
950.00	950.00	0.00	0.00	KOP Start Build 2.00°/100'	
1,264.40	1,263.77	-15.39	7.75	EOC hold 6.29°	



Redbud Federal #3
Eddy County, NM (NAN27 NME)
Northing (Y) 658598.30
Easting (X) 530097.20
Plan #4 7-7/8" Hole



Azimuths to Grid North
True North: -0.05°
Magnetic North: 7.87°
Magnetic Field
Strength: 48867.0nT
Dip Angle: 60.61°
Date: 07/11/2011
Model: IGRF2010

To convert Magnetic North to Grid, Add 7.87°
To convert True North to Grid, Subtract 0.05°

WELL DETAILS: Redbud Federal #3

+N/-S	+E/-W	Northing	Ground Level	3554.00	Latitude	Longitude	Spot
0.00	0.00	658598.30	Easting	530097.20	32° 48' 37.933 N	104° 14' 7.341 W	

SITE DETAILS: Redbud Federal #3

Site Centre Northing: 658598.30
Easting: 530097.20
Positional Uncertainty: 0.00
Convergence: 0.05
Local North: Grid

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VFace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	
3	1264.40	6.29	153.28	1263.77	-15.30	7.75	2.00	153.28	17.23	
4	4771.73	6.29	153.28	4750.00	-358.50	180.50	0.00	0.00	401.38	PBHL-Redbud #3

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Redbud #3 - plan hits target center	4750.00	-358.50	180.50	658239.80	530277.70	32° 48' 34.384 N	104° 14' 5.230 W	Circle (Radius: 50.00)

FORMATION TOP DETAILS

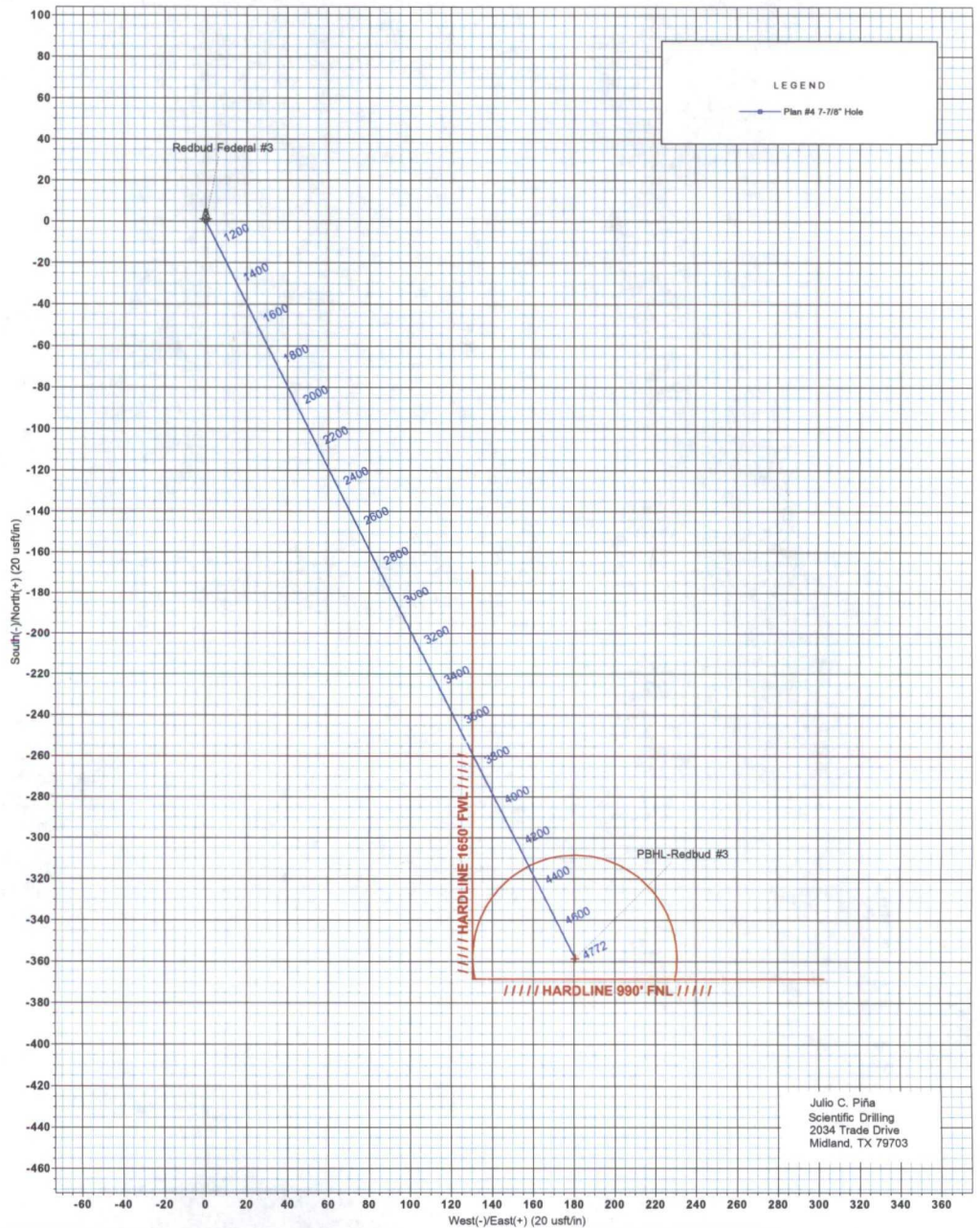
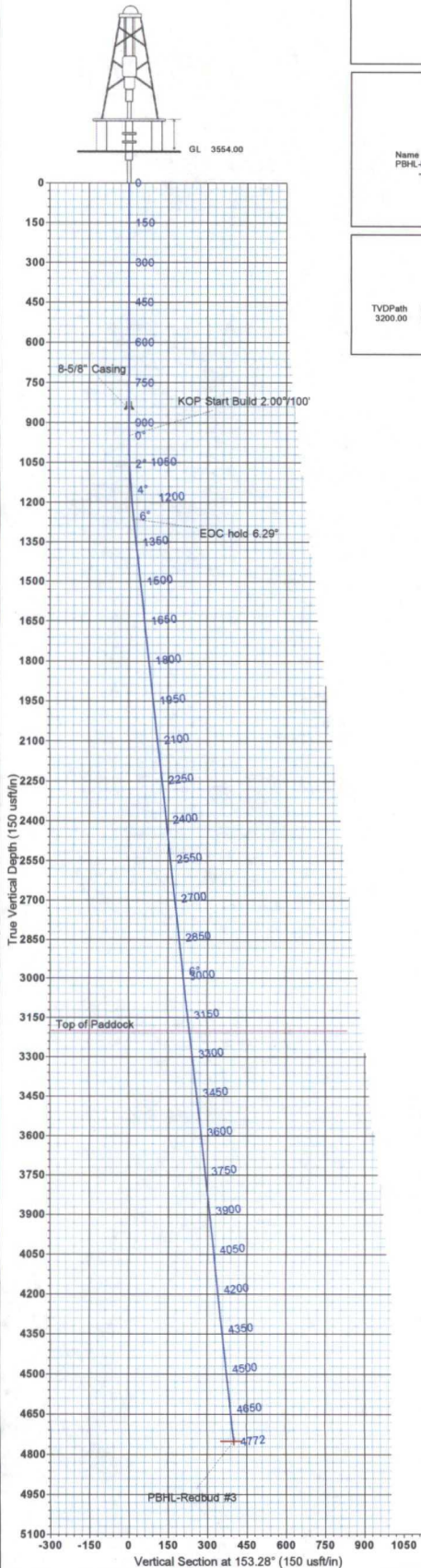
TVDPath	MDPath	Formation	DipAngle	DipDir
3200.00	3212.35	Top of Paddock	0.00	

CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	8-5/8" Casing	8-5/8"

PROJECT DETAILS: Eddy County, NM (NAN27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level



Julio C. Piña
Scientific Drilling
2034 Trade Drive
Midland, TX 79703

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

August 2, 2012

LRE Operating LLC
1111 Bagby St. Ste 4600
Houston TX 77002

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 Maljamar: GLORIETA-YESO oil well.

**Redbud Federal #3
Eddy County, NM**

Location:

SHL: 622' FNL & 1520' FWL Sec 25, T17S, R27E, Unit C
BHL: 990' FNL & 1650' FWL Sec 25, T17S, R27E, Unit C

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

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

LRE Operating LLC
1111 Bagby St. Ste 4600
Houston TX 77002

2. Article Number
(Transfer from service label)

91 7199 9991 7030 4014 4450

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY**A. Signature****X***Nick Patel*☐ Agent☐ Addressee**B. Received by (Printed Name)***Nick Patel***C. Date of Delivery****D. Is delivery address different from item 1? ☐ Yes**If YES, enter delivery address below: ☐ No**3. Service Type**☐ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.**4. Restricted Delivery? (Extra Fee)**☐ Yes

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

- Sender: Please print your name, address, and ZIP+4 in this box •

COG Operating LLC
Attn: Kelly Holly
550 W Texas Ave, Suite 100
Midland, TX 79701

Brooks, David K., EMNRD

From: Brooks, David K., EMNRD
Sent: Friday, August 17, 2012 10:45 AM
To: kholly@concho.com
Subject: Redbud Federal #3 - NSL Application

Dear Ms. Holly

The plat files with this application would seem to indicate that the encroachment of this location is toward Unit D of Section 25, not Unit A, as stated in the application.

Please advise if LRE is actually the owner of Unit D, or if further notice is needed.

Sincerely

David K. Brooks

Brooks, David K., EMNRD

From: Kelly Holly <kholly@concho.com>
Sent: Friday, August 17, 2012 11:59 AM
To: Brooks, David K., EMNRD
Subject: RE: Redbud Federal #3 - NSL Application

Yes, I apologize. It is Unit D, not Unit A as stated in the application.

LRE is the owner of Unit D.

Kelly Holly
Permitting Tech-NM

One Concho Center, Floor 8
432.685.4384 (direct)
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: Friday, August 17, 2012 11:45 AM
To: Kelly Holly
Subject: Redbud Federal #3 - NSL Application

Dear Ms. Holly

The plat files with this application would seem to indicate that the encroachment of this location is toward Unit D of Section 25, not Unit A, as stated in the application.

Please advise if LRE is actually the owner of Unit D, or if further notice is needed.

Sincerely

David K. Brooks

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