

DATE 9-14-11	SUSPENSE	ENGINEER DB	LOGGED IN 9/15/11	TYPE NSL	APP NO. 1125857550
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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
Dodd Fed U# 613

6484

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

[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

INTEREST ARE THE SAME

[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

9-13-11
 Date

(432) 685-4384
 Phone Number

kholly@conchoresources.com
 E-mail Address

C-14-175-79E

Eddy Fed

308195

2011 SEP 14 P 1:11

RECEIVED OCT 11

**Dodd Federal Unit #613
Eddy County, NM**

COG is requesting to drill a vertical NE/4 NW/4, 40 acre spacing
Grayburg Jackson; SR-Q-G-SA oil well
TD of approximately 4550'

Non-standard Location:

SHL: 1201' FNL & 2478' FWL Sec 14, T17S, R29E, Unit C
BHL: 1310' FNL & 1980' FWL Sec 14, T17S, R29E, Unit C

This well had to be staked at a non-standard location due to a Archeology.

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 G J West Coop Unit #149 which was drilled and is located 2310' FSL 2310'
FWL, Section 21, T17S, R29E, Unit K.

The G J West Coop Unit #149 completion divided the Yeso up into 3
perf/stimulation intervals:.

1st interval: 5153' – 5381',
acidized w/ 2500 gals,
frac'd w/ 6014 gals 40# gel, 30,777 gals 30# gel, 56,847 gals 40# gel, 8000#
LiteProp, 74,940# 16/30 White Sand, 15,920# SiberProp 16/30 sand.

2nd interval: 4914' – 5050',
acidized w/ 1975 gals,
frac'd w/ 6002 gals 40# gel, 30,757 gals 30# gel, 47,321 gals 40# gel, 8000#
LiteProp, 74,800# 16/30 sand & 15,700# SiberProp 16/30 sand.

3rd interval: 4613' – 4814',
acidized w/ 1850 gals,
frac'd w/ 93,882 gals gel, 8019# LiteProp, 74,900# 16/30 White Sand, 16,220#
SiberProp.

Attachment 1

Plat & Map

Attachment 2

Map & legend of offset wells.

Attachment 3

Updated land plat showing that COG owns the offset acreage.
The acreage we are encroaching on is the SE/4 NW/4 of Section 14.

Interests are the same.

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

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210
DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
DISTRICT IV
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

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 July 16, 2010
Submit to Appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015	28509	Grayburg Jackson; SR-Q-G-SA
Property Code	Property Name	Well Number
308195	DODD FEDERAL UNIT	613
OGRID No.	Operator Name	Elevation
229137	COG OPERATING, LLC	3630'

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	14	17-S	29-E		1201	NORTH	2478	WEST	EDDY

Bottom Hole Location If Different From Surface

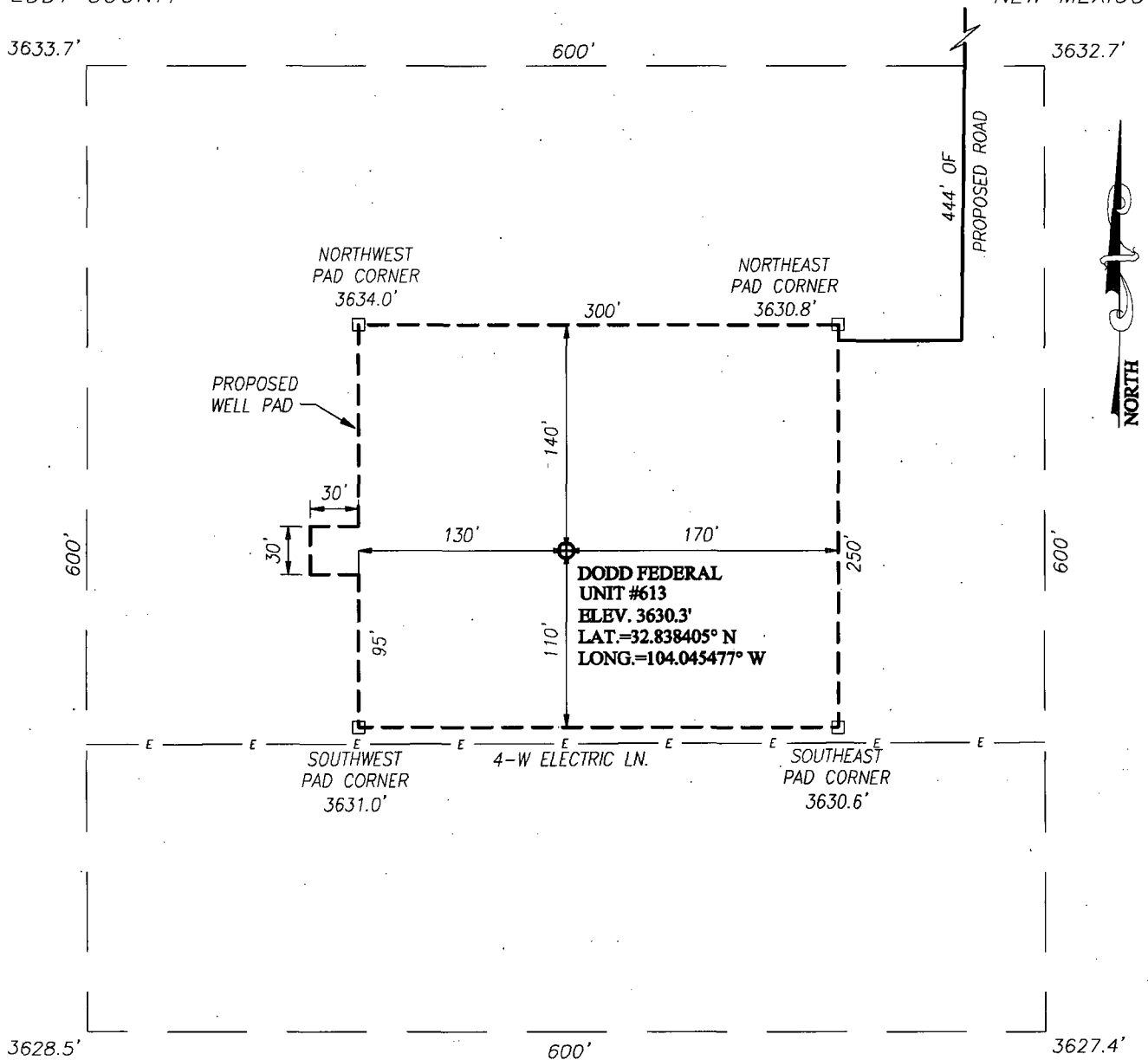
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	14	17-S	29-E		1310	NORTH	1980	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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

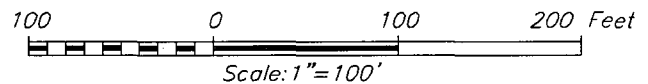
GRID AZ.=257°40'06" HORZ. DIST.=509.5' 1980' 2478' Penetration Point 1310 FNL + 1980 FWL 1310' 1201' S.L. SEE DETAIL B.H. DETAIL 3633.7' 3632.7' 600' 600' 3628.5' 3627.4' GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=668843.3 N X=588412.6 E LAT.=32.838405° N LONG.=104.045477° W BOTTOM HOLE LOCATION Y=668734.5 N X=587915.0 E SECTION TABLE QUARTER & SIXTEENTH CORNER COORDINATES ① - Y=670044.3 N, X=587252.8 E ② - Y=670044.0 N, X=588573.2 E ③ - Y=667404.5 N, X=587259.3 E ④ - Y=667404.1 N, X=588579.7 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 9-12-11 Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address 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. AUGUST 10, 2011 Date of Survey Signature & Seal of Professional Surveyor: Certificate Number, Gary C. Eidson 12641 Ronald J. Eidson 3239 DSS Rev. 9/8/11 RE: W.C. 1028 JWSC W.O.: 11.13.1948
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SECTION 14, 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. 1.3 MILES. TURN LEFT AND GO WEST APPROX. 0.5 MILES. TURN LEFT AT PROPOSED ROAD SURVEY AND FOLLOW STAKES SOUTH APPROX. 366 FEET, THEN WEST APPROX. 78 FEET TO THIS LOCATION.



COG OPERATING, LLC

DODD FEDERAL UNIT #613 WELL
 LOCATED 1201 FEET FROM THE NORTH LINE
 AND 2478 FEET FROM THE WEST LINE OF SECTION 14,
 TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO

Survey Date: 8/10/11.	Sheet 1 of 1 Sheets
W.O. Number: 11.11.1325	Dr By: DSS
Date: 8/18/11	Rel. W.O.: 11111325
	Scale: 1"=100'

PROVIDING SURVEYING SERVICES
 SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
 HOBBS, N.M. 88240
 (575) 393-3117

Producing Wells in Sec 14, T17S, R29E, Eddy County

API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Avg. (BO/D)
30-015-02975	MARBOB ENERGY CORP	M DODD B	001	EDDY	S:14, T:17S, R:29E	3,765	O	Pumping	Jan 1967	Sep 1975	0.00
30-015-02980	MARBOB ENERGY CORP	M DODD B	024	EDDY	S:14, T:17S, R:29E	3,580	PI	Injection Well	Jan 1967	Jun 1967	0.00
30-015-26198	MARBOB ENERGY CORP	M DODD A	039	EDDY	S:14, T:17S, R:29E	11,025	G	Pumping	Mar 1990	Aug 1996	0.00
30-015-02979		M DODD B	007	EDDY	S:14, T:17S, R:29E		O	Active	Jan 1956	Jun 1967	0.00
30-015-29286	MARBOB ENERGY CORP	M DODD B DEEP FEDERAL	001	EDDY	S:14, T:17S, R:29E	10,995	O	Pumping	Nov 1997	Nov 1998	0.03
30-015-02978	MARBOB ENERGY CORP	M DODD B	27	EDDY	S:14, T:17S, R:29E	4,441	O	Pumping	Jan 1967	Dec 1977	0.13
30-015-20483	MARBOB ENERGY CORP	M DODD B	034	EDDY	S:14, T:17S, R:29E	0	O	Pumping	Jan 1972	Dec 1977	0.13
30-015-02995	MARBOB ENERGY CORP	M DODD A	018	EDDY	S:14, T:17S, R:29E	0	O	Pumping	Jan 1959	Dec 1977	0.29
30-015-02974	MARBOB ENERGY CORP	M DODD B	28	EDDY	S:14, T:17S, R:29E	4,506	O	Pumping	Jan 1956	Jul 2011	0.48
30-015-02975	MARBOB ENERGY CORP	M DODD B	001	EDDY	S:14, T:17S, R:29E	3,765	O	Pumping	Jan 1956	Jul 2011	0.48
30-015-02976	MARBOB ENERGY CORP	M DODD B	2	EDDY	S:14, T:17S, R:29E	4,522	O	Pumping	Jan 1956	Jul 2011	0.48
30-015-20078	MARBOB ENERGY CORP	M DODD B	024	EDDY	S:14, T:17S, R:29E	11,900	O	Pumping	Jan 1969	Jul 2011	0.48
30-015-20483	MARBOB ENERGY CORP	M DODD B	034	EDDY	S:14, T:17S, R:29E	0	O	Pumping	Nov 1971	Jul 2011	0.48
30-015-24526	MARBOB ENERGY CORP	M DODD B	035	EDDY	S:14, T:17S, R:29E	3,500	PO	Pumping	Aug 1983	Jul 2011	0.48
30-015-24616	MARBOB ENERGY CORP	M DODD B	036	EDDY	S:14, T:17S, R:29E	3,445	PO	Pumping	Jan 1993	Jul 2011	0.48
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30-015-24842	MARBOB ENERGY CORP	M DODD B	53	EDDY	T:17S, R:29E	3,450	O	Pumping	May 1984	Jul 2011	0.48
30-015-24843	MARBOB ENERGY CORP	M DODD B	040	EDDY	S:14, T:17S, R:29E	3,440	PO	Pumping	Jun 1984	Jul 2011	0.48
30-015-24844	MARBOB ENERGY CORP	M DODD B	52	EDDY	S:14, T:17S, R:29E	3,466	O	Pumping	Jan 1993	Jul 2011	0.48
30-015-24849	MARBOB ENERGY CORP	M DODD B	038	EDDY	S:14, T:17S, R:29E	3,450	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-24900	MARBOB ENERGY CORP	M DODD B	041	EDDY	S:14, T:17S, R:29E	3,450	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-24901	MARBOB ENERGY CORP	M DODD B	042	EDDY	S:14, T:17S, R:29E	3,450	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-24928	MARBOB ENERGY CORP	M DODD B	043	EDDY	S:14, T:17S, R:29E	3,495	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-24929	MARBOB ENERGY CORP	M DODD B	044	EDDY	S:14, T:17S, R:29E	3,500	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-25136	MARBOB ENERGY CORP	M DODD B	59	EDDY	S:14, T:17S, R:29E	3,600	O	Pumping	Jan 1993	Jul 2011	0.48
30-015-25230	MARBOB ENERGY CORP	M DODD B	047	EDDY	S:14, T:17S, R:29E	4,546	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-25231	MARBOB ENERGY CORP	M DODD B	048	EDDY	S:14, T:17S, R:29E	4,462	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-25340	MARBOB ENERGY CORP	M DODD B	26	EDDY	S:14, T:17S, R:29E	5,813	O	Pumping	Jan 1993	Jul 2011	0.48
30-015-25700	MARBOB ENERGY CORP	M DODD B	059	EDDY	S:14, T:17S, R:29E	4,585	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-25828	MARBOB ENERGY CORP	M DODD B	063	EDDY	S:14, T:17S, R:29E	4,545	O	Pumping	Jan 1993	Jul 2011	0.48
30-015-25834	MARBOB ENERGY CORP	M DODD B	56	EDDY	S:14, T:17S, R:29E	4,580	O	Pumping	Jan 1993	Jul 2011	0.48
30-015-26220	MARBOB ENERGY CORP	M DODD B	066	EDDY	S:14, T:17S, R:29E	0	PO	Pumping	Jan 1993	Jul 2011	0.48
30-015-26227	MARBOB ENERGY CORP	M DODD B	065	EDDY	S:14, T:17S, R:29E	4,585	PO	Pumping	Jan 1993	Jul 2011	0.48

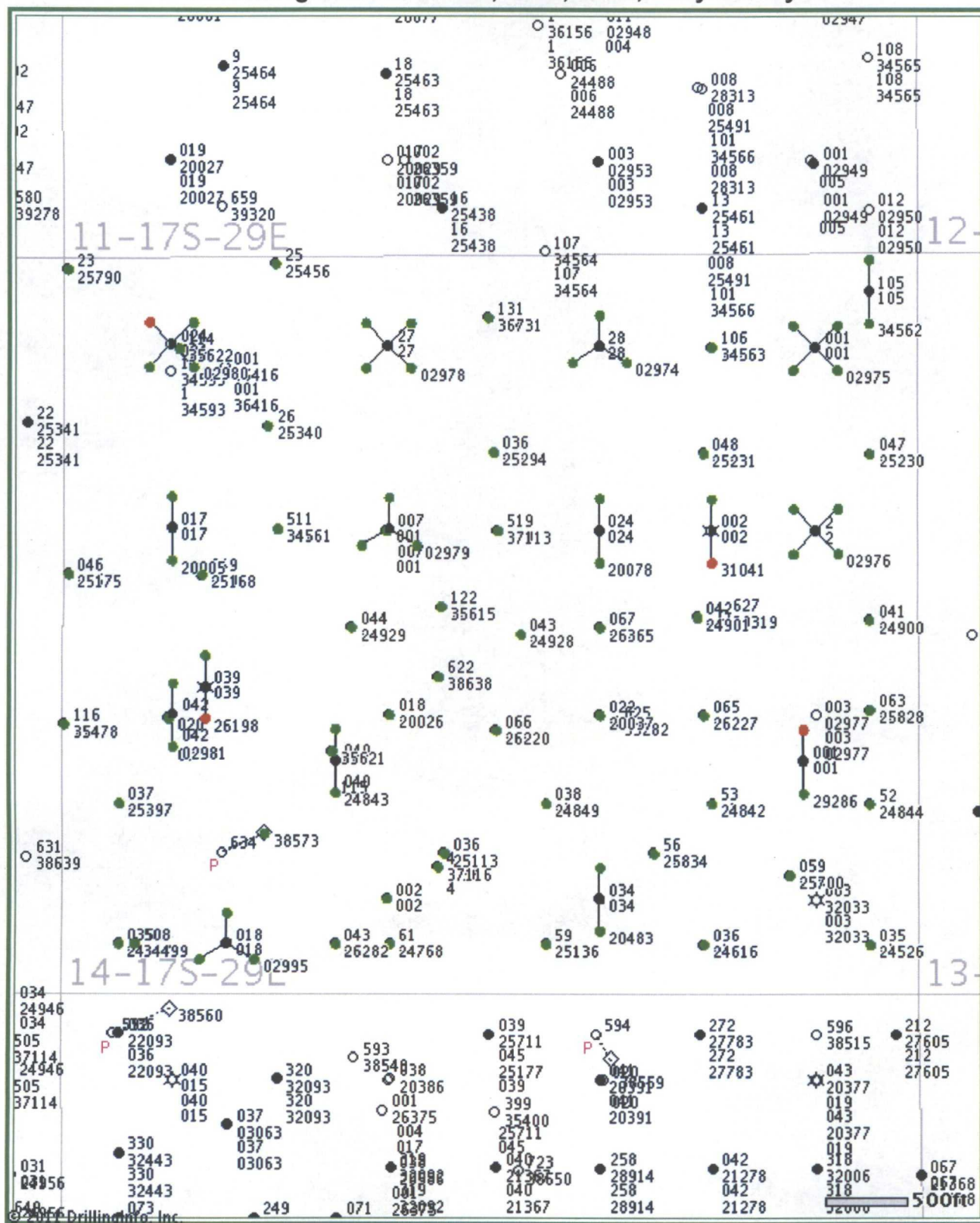
30-015-26365	MARBOB ENERGY CORP	M DODD B	067	EDDY	T:17S, R:29E	4,535	O	Active		Jan 1993	Jul 2011	0.48
30-015-02976	MARBOB ENERGY CORP	M DODD B	2	EDDY	S:14, T:17S, R:29E	4,522	O	Pumping		Jan 1967	Aug 1967	0.52
30-015-02995	MARBOB ENERGY CORP	M DODD A	018	EDDY	S:14, T:17S, R:29E	0	O	Pumping		Jul 1956	Jul 2011	0.74
30-015-24768	MARBOB ENERGY CORP	M DODD A	61	EDDY	S:14, T:17S, R:29E	3,450	O	Pumping		Apr 1984	Jul 2011	0.74
30-015-24947	MARBOB ENERGY CORP	M DODD A	035	EDDY	S:14, T:17S, R:29E	3,450	PO	Pumping		Jan 1993	Jul 2011	0.74
30-015-25113	MARBOB ENERGY CORP	M DODD A	036	EDDY	S:14, T:17S, R:29E	3,493	PO	Pumping		Jan 1993	Jul 2011	0.74
30-015-25397	MARBOB ENERGY CORP	M DODD A	037	EDDY	S:14, T:17S, R:29E	4,427	PO	Pumping		Jan 1993	Jul 2011	0.74
30-015-26282	MARBOB ENERGY CORP	M DODD A	043	EDDY	S:14, T:17S, R:29E	4,555	PO	Pumping		Jan 1993	Jul 2011	0.74
30-015-02975	SUNRAY MID CONTINENT OIL CO.	M DODD B FED	001	EDDY	S:14, T:17S, R:29E	3,765	O	Pumping		Jan 1958	Dec 1966	0.87
30-015-02976	SUNRAY MID CONTINENT OIL CO.	M DODD B FED	2	EDDY	S:14, T:17S, R:29E	4,522	O	Pumping		Jan 1958	Dec 1966	0.87
30-015-02974	SUNRAY MID CONTINENT OIL CO.	M DODD B FED	28	EDDY	S:14, T:17S, R:29E	4,506	O	Pumping		Jan 1958	Dec 1966	0.87
30-015-02978	SUNRAY MID CONTINENT OIL CO.	M DODD B FED	27	EDDY	S:14, T:17S, R:29E	4,441	O	Pumping		Jan 1958	Dec 1966	0.87
30-015-02979	SUNRAY MID CONTINENT OIL CO.	M DODD B FED	007	EDDY	S:14, T:17S, R:29E		O	Active		Jan 1958	Dec 1966	0.87
30-015-02980	SUNRAY MID CONTINENT OIL CO.	M DODD B FED	024	EDDY	S:14, T:17S, R:29E	3,580	PI	Injection Well		Jan 1958	Dec 1966	0.87
30-015-20005	MARBOB ENERGY CORP	M DODD B	017	EDDY	S:14, T:17S, R:29E	0	O	Temporarily Abandoned		Feb 1967	Dec 1977	1.10
30-015-31041	MARBOB ENERGY CORP	M DODD B DEEP FEDERAL	002	EDDY	S:14, T:17S, R:29E	11,185	G	Active		Jan 1958	Oct 2003	1.23
30-015-34562	MARBOB ENERGY CORP	DODD FEDERAL UNIT	105	EDDY	S:14, T:17S, R:29E	4,550	O	Active Permit		Oct 2006	Jul 2011	1.42
					S:14,							

30-015-29286	MARBOB ENERGY CORP	M DODD B DEEP FEDERAL	001	EDDY	T:17S, R:29E	10,995	O	Pumping	Dec 1998	Jul 2011	1.45
30-015-00000	SUNRAY DX OIL CO.	M DODD A FEDERAL	020	EDDY	S:14, T:17S, R:29E			Unknown	Jan 1965	Dec 1965	2.10
30-015-20078	MARBOB ENERGY CORP	M DODD B	024	EDDY	S:14, T:17S, R:29E	11,900	O	Pumping	Sep 1967	Dec 1977	2.19
30-015-20005	MARBOB ENERGY CORP	M DODD B	017	EDDY	S:14, T:17S, R:29E	0	O	Temporarily Abandoned	Jan 1969	Mar 1990	2.61
30-015-37113	COG OPERATING LLC	DODD FEDERAL UNIT	519	EDDY	S:14, T:17S, R:29E	5,000	PO	Active Permit	Jul 2010	Jul 2011	2.68
30-015-00000	SUNRAY OIL CORPORATION	DODD B	002	EDDY	S:14, T:17S, R:29E		O	Active	Jan 1953	Dec 1954	2.77
30-015-25168	MARBOB ENERGY CORP	M DODD B	049	EDDY	S:14, T:17S, R:29E	3,522	O	Pumping	Jan 1993	May 2001	2.97
30-015-00000	BREEDING, D. ET AL	ROOT	001	EDDY	S:14, T:17S, R:29E		O	Active	Mar 1947	Dec 1952	3.00
30-015-35478	MARBOB ENERGY CORP	DODD FEDERAL UNIT	116	EDDY	S:14, T:17S, R:29E	4,540	O	Active	Jan 2008	Jul 2011	3.52
30-015-35622	MARBOB ENERGY CORP	DODD FEDERAL UNIT	114	EDDY	S:14, T:17S, R:29E	5,000	O	Active Permit	Jan 2008	Jul 2011	3.52
30-015-02974	SUNRAY MID-CONTINENT OIL COMPANY	DODD B	28	EDDY	S:14, T:17S, R:29E	4,506	O	Pumping	Jan 1947	Dec 1957	3.90
30-015-02978	SUNRAY MID-CONTINENT OIL COMPANY	DODD B	27	EDDY	S:14, T:17S, R:29E	4,441	O	Pumping	Jan 1947	Dec 1957	3.90
30-015-02976	SUNRAY MID-CONTINENT OIL COMPANY	DODD B	2	EDDY	S:14, T:17S, R:29E	4,522	O	Pumping	Jan 1947	Dec 1957	3.94
30-015-02975	SUNRAY MID-CONTINENT OIL COMPANY	DODD B	001	EDDY	S:14, T:17S, R:29E	3,765	O	Pumping	Jan 1947	Dec 1957	4.00
30-015-02979	SUNRAY MID-CONTINENT OIL COMPANY	DODD B	007	EDDY	S:14, T:17S, R:29E		O	Active	Nov 1948	Dec 1957	4.03
30-015-24843	MARBOB ENERGY CORP	M DODD B	040	EDDY	S:14, T:17S, R:29E	3,440	PO	Pumping	Jan 1972	Dec 1972	4.26
30-015-20026		M DODD B	018	EDDY	S:14, T:17S, R:29E		O	Active	Apr 1967	Dec 1972	4.26
					S:14,						

30-015-02995	SUNRAY MID-CONTINENT OIL COMPANY	DODD A	018	EDDY	T:17S, R:29E	0	O	Pumping	Jan 1957	Dec 1957	4.81
30-015-35621	MARBOB ENERGY CORP	DODD FEDERAL UNIT	115	EDDY	S:14, T:17S, R:29E	4,600	O	Active Permit	Jan 2008	Jul 2011	5.65
30-015-02981	MARBOB ENERGY CORP	M DODD A	042	EDDY	S:14, T:17S, R:29E	0	PI	Injection Well	Jan 1959	Dec 1959	5.74
30-015-25294	MARBOB ENERGY CORP	M DODD B	036	EDDY	S:14, T:17S, R:29E	4,533	PO	Pumping	Jan 1993	Mar 2008	5.97
30-015-34561	MARBOB ENERGY CORP	DODD FEDERAL UNIT	511	EDDY	S:14, T:17S, R:29E	4,550	PO	Active Permit	Oct 2006	Jul 2011	6.32
30-015-34499	MARBOB ENERGY CORP	DODD FEDERAL UNIT	508	EDDY	S:14, T:17S, R:29E	4,520	PO	Active Permit	Aug 2006	Jul 2011	6.32
30-015-02980	SUNRAY MID-CONTINENT OIL COMPANY	DODD B	024	EDDY	S:14, T:17S, R:29E	3,580	PI	Injection Well	Jan 1957	Dec 1957	7.06
30-015-34562	MARBOB ENERGY CORP	DODD FEDERAL UNIT	105	EDDY	S:14, T:17S, R:29E	4,550	O	Active Permit	Oct 2006	Feb 2007	8.43
30-015-20037	MARBOB ENERGY CORP	M DODD B	022	EDDY	S:14, T:17S, R:29E	2,700	I	Pumping	May 1967	Jun 1967	9.07
30-015-37116	COG OPERATING LLC	MARY FEDERAL	4	EDDY	S:14, T:17S, R:29E	5,651	O	Active Permit	Feb 2010	Jul 2011	9.74
30-015-34563	MARBOB ENERGY CORP	DODD FEDERAL UNIT	106	EDDY	S:14, T:17S, R:29E	4,562	O	Active Permit	Dec 2006	Jul 2011	10.55
30-015-35615	MARBOB ENERGY CORP	DODD FEDERAL UNIT	122	EDDY	S:14, T:17S, R:29E	5,010	O	Active Permit	May 2009	Jul 2011	19.00
30-015-36731	COG OPERATING LLC	DODD FEDERAL UNIT	131	EDDY	S:14, T:17S, R:29E	5,010	O	Active Permit	Oct 2010	Jul 2011	60.52
30-015-38573	COG OPERATING LLC	DODD FEDERAL UNIT	634	EDDY	S:14, T:17S, R:29E	5,470	PO	Active Permit	Jul 2011	Jul 2011	64.26
30-015-38638	COG OPERATING LLC	DODD FEDERAL UNIT	622	EDDY	S:14, T:17S, R:29E	4,550	PO	Active Permit	Jun 2011	Jul 2011	122.39
30-015-02978	MARBOB ENERGY CORP	M DODD B	27	EDDY	S:14, T:17S, R:29E	4,441	O	Pumping	Jan 1956	Jul 2011	
30-015-02980	MARBOB ENERGY CORP	M DODD B	024	EDDY	S:14, T:17S, R:29E	3,580	PI	Injection Well	Jun 1956	Dec 1959	
					S:14,						

30-015-02981	MARBOB ENERGY CORP	M DODD A	042	EDDY	T:17S, R:29E	0	PI	Injection Well	Jan 1957	Dec 1964	
30-015-25175	MARBOB ENERGY CORP	M DODD B	046	EDDY	S:14, T:17S, R:29E	4,511	PO	Pumping	Jan 1993	Jul 2011	
30-015-25456	MARBOB ENERGY CORP	M DODD B	25	EDDY	S:14, T:17S, R:29E	4,650	O	Pumping	Jan 1993	Jul 2011	
30-015-25790	MARBOB ENERGY CORP	M DODD B	23	EDDY	S:14, T:17S, R:29E	4,495	O	Pumping	Jan 1993	Jul 2011	
30-015-26198	MARBOB ENERGY CORP	M DODD A	039	EDDY	S:14, T:17S, R:29E	11,025	G	Pumping	Sep 1996	Jul 2011	
30-015-31041	MARBOB ENERGY CORP	M DODD B DEEP FEDERAL	002	EDDY	S:14, T:17S, R:29E	11,185	G	Active	Aug 2004	Jul 2011	

Producing Wells in Sec 14, T17S, R29E, Eddy County



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Dodd Federal Unit

Dodd Federal Unit
Eddy, Co., NM.
COG 100%

- NMLC-028731B
- NMLC-028731A
- NMLC-058362
- NMLC-125007



COG Operating LLC

Eddy County, NM (NAN27 NME)

Dodd Federal Unit #613

Dodd Federal Unit #613

OH

Plan: Plan #1 7-7/8" Hole

SHL = 1201' FNL & 2478' FWL

BHL = 1310' FNL & 1980' FWL

Top of Paddock = 93' South of Surface & 427' West of Surface @ 4100' TVD

Standard Planning Report

30 August, 2011





Scientific Drilling
Planning Report



Database:	EDM-Julio	Local Co-ordinate Reference:	Site Dodd Federal Unit #613
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3630.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3630.00usft
Site:	Dodd Federal Unit #613	North Reference:	Grid
Well:	Dodd Federal Unit #613	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 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	Dodd Federal Unit #613		
Site Position:		Northing:	668,843.30 usft
From:	Map	Easting:	588,412.60 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 50' 18.258 N
		Longitude:	104° 2' 43.717 W
		Grid Convergence:	0.16 °

Well	Dodd Federal Unit #613		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,630.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2011/08/29	7.83
			Dip Angle
			(°)
			60.67
			Field Strength
			(nT)
			48,912

Design	Plan #1 7-7/8" Hole		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			257.67

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,606.21	9.12	257.67	1,604.29	-7.74	-35.41	2.00	2.00	-22.43	257.67	
4,589.68	9.12	257.67	4,550.00	-108.80	-497.60	0.00	0.00	0.00	0.00	PBHL-Dodd #613



Scientific Drilling Planning Report



Database:	EDM-Julio	Local Co-ordinate Reference:	Site Dodd Federal Unit #613
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3630.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3630.00usft
Site:	Dodd Federal Unit #613	North Reference:	Grid
Well:	Dodd Federal Unit #613	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 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
South HL-Dodd #613									
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00
8-5/8" Casing									
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 2.00°/100'									
1,200.00	1.00	257.67	1,200.00	-0.09	-0.43	0.44	2.00	2.00	0.00
1,300.00	3.00	257.67	1,299.93	-0.84	-3.84	3.93	2.00	2.00	0.00
1,400.00	5.00	257.67	1,399.68	-2.33	-10.65	10.90	2.00	2.00	0.00
1,500.00	7.00	257.67	1,499.13	-4.56	-20.86	21.35	2.00	2.00	0.00
1,600.00	9.00	257.67	1,598.15	-7.53	-34.46	35.27	2.00	2.00	0.00
1,606.21	9.12	257.67	1,604.28	-7.74	-35.41	36.25	2.00	2.00	0.00
EOC hold 9.12°									
1,700.00	9.12	257.67	1,696.89	-10.92	-49.94	51.12	0.00	0.00	0.00
1,800.00	9.12	257.67	1,795.62	-14.31	-65.43	66.98	0.00	0.00	0.00
1,900.00	9.12	257.67	1,894.36	-17.69	-80.92	82.84	0.00	0.00	0.00
2,000.00	9.12	257.67	1,993.09	-21.08	-96.42	98.69	0.00	0.00	0.00
2,100.00	9.12	257.67	2,091.83	-24.47	-111.91	114.55	0.00	0.00	0.00
2,200.00	9.12	257.67	2,190.56	-27.86	-127.40	130.41	0.00	0.00	0.00
2,300.00	9.12	257.67	2,289.30	-31.24	-142.89	146.27	0.00	0.00	0.00
2,400.00	9.12	257.67	2,388.03	-34.63	-158.38	162.12	0.00	0.00	0.00
2,500.00	9.12	257.67	2,486.76	-38.02	-173.87	177.98	0.00	0.00	0.00
2,600.00	9.12	257.67	2,585.50	-41.40	-189.37	193.84	0.00	0.00	0.00
2,700.00	9.12	257.67	2,684.23	-44.79	-204.86	209.70	0.00	0.00	0.00
2,800.00	9.12	257.67	2,782.97	-48.18	-220.35	225.56	0.00	0.00	0.00
2,900.00	9.12	257.67	2,881.70	-51.57	-235.84	241.41	0.00	0.00	0.00
3,000.00	9.12	257.67	2,980.44	-54.95	-251.33	257.27	0.00	0.00	0.00
3,100.00	9.12	257.67	3,079.17	-58.34	-266.82	273.13	0.00	0.00	0.00
3,200.00	9.12	257.67	3,177.91	-61.73	-282.32	288.99	0.00	0.00	0.00
3,300.00	9.12	257.67	3,276.64	-65.12	-297.81	304.84	0.00	0.00	0.00
3,400.00	9.12	257.67	3,375.38	-68.50	-313.30	320.70	0.00	0.00	0.00
3,500.00	9.12	257.67	3,474.11	-71.89	-328.79	336.56	0.00	0.00	0.00
3,600.00	9.12	257.67	3,572.85	-75.28	-344.28	352.42	0.00	0.00	0.00
3,700.00	9.12	257.67	3,671.58	-78.66	-359.77	368.27	0.00	0.00	0.00
3,800.00	9.12	257.67	3,770.32	-82.05	-375.27	384.13	0.00	0.00	0.00
3,900.00	9.12	257.67	3,869.05	-85.44	-390.76	399.99	0.00	0.00	0.00
4,000.00	9.12	257.67	3,967.79	-88.83	-406.25	415.85	0.00	0.00	0.00
4,100.00	9.12	257.67	4,066.52	-92.21	-421.74	431.70	0.00	0.00	0.00
4,133.91	9.12	257.67	4,100.00	-93.36	-426.99	437.08	0.00	0.00	0.00
Top of Paddock									
4,200.00	9.12	257.67	4,165.25	-95.60	-437.23	447.56	0.00	0.00	0.00
4,300.00	9.12	257.67	4,263.99	-98.99	-452.72	463.42	0.00	0.00	0.00
4,400.00	9.12	257.67	4,362.72	-102.38	-468.22	479.28	0.00	0.00	0.00
4,500.00	9.12	257.67	4,461.46	-105.76	-483.71	495.14	0.00	0.00	0.00
4,589.68	9.12	257.67	4,550.00	-108.80	-497.60	509.36	0.00	0.00	0.00
PBHL-Dodd #613									



Scientific Drilling
Planning Report



Database:	EDM-Julio	Local Co-ordinate Reference:	Site Dodd Federal Unit #613
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3630.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3630.00usft
Site:	Dodd Federal Unit #613	North Reference:	Grid
Well:	Dodd Federal Unit #613	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 7-7/8" Hole		

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
South HL-Dodd #613	0.00	0.01	0.00	-118.80	-497.60	668,724.50	587,915.00	32° 50' 17.095 N	104° 2' 49.553 W
- plan misses target center by 511.58usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W200.00 H0.00 D0.00)									
PBHL-Dodd #613	0.00	0.01	4,550.00	-108.80	-497.60	668,734.50	587,915.00	32° 50' 17.194 N	104° 2' 49.553 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points

Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(usft)	(usft)		(")	(")
1,050.00	1,050.00	8-5/8" Casing	8-5/8	12-1/4

Formations

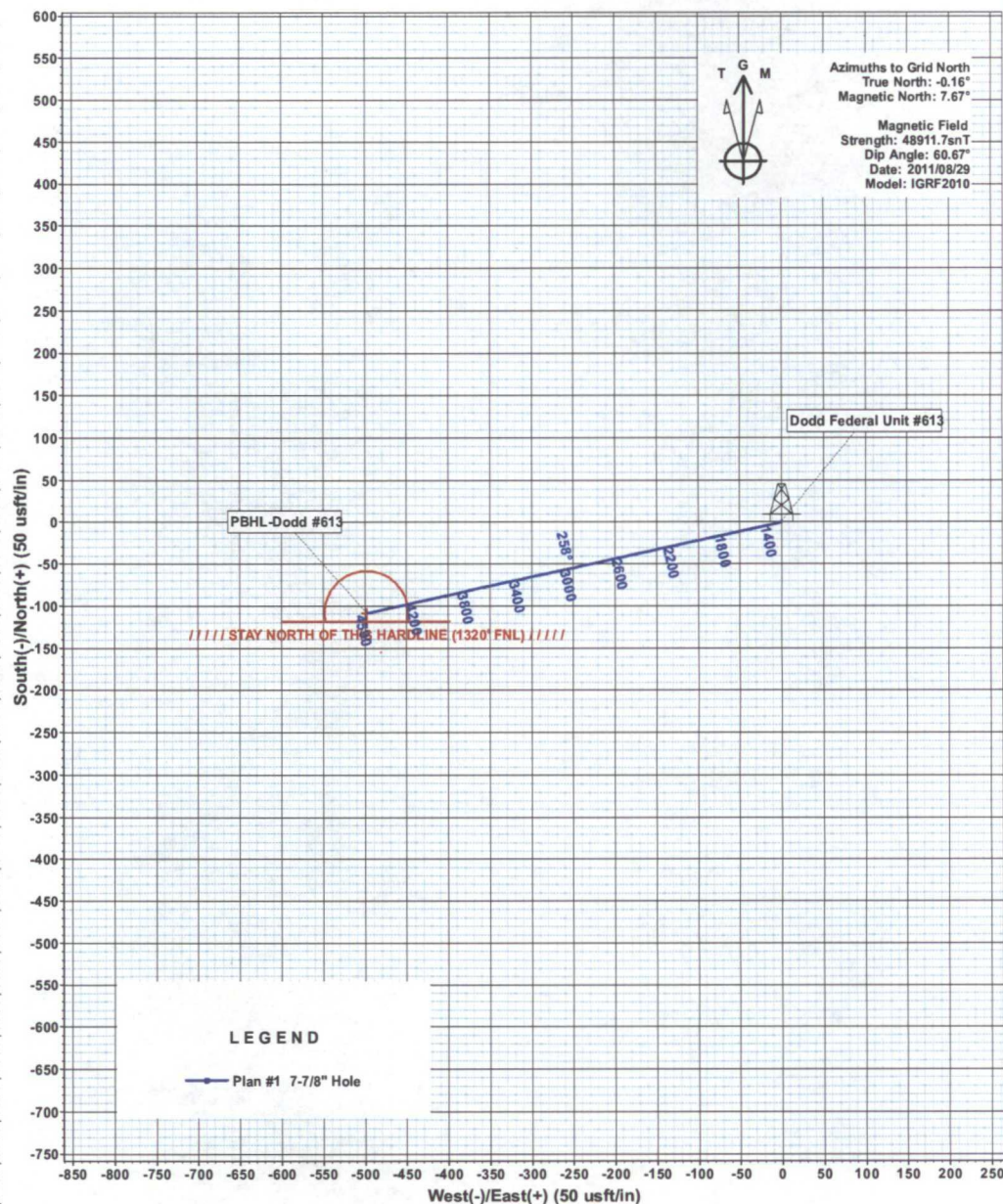
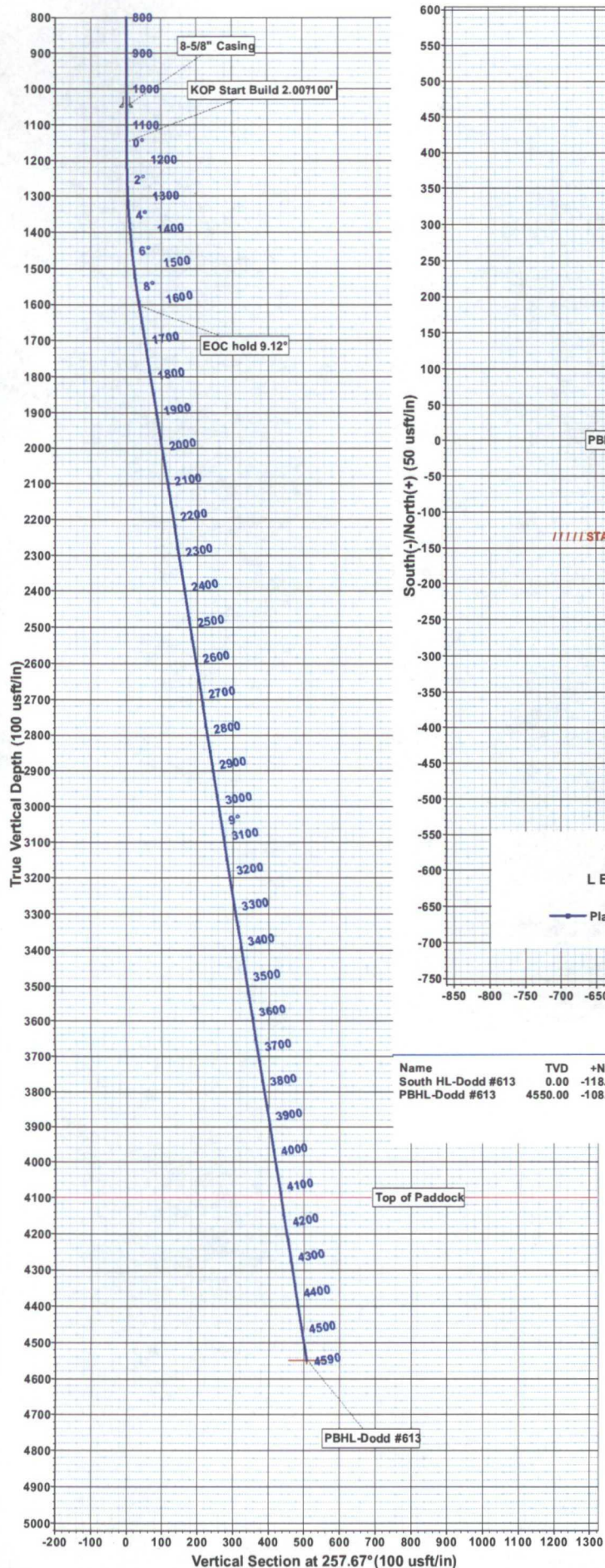
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
4,133.91	4,100.00	Top of Paddock		0.00	

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates	Comment
(usft)	(usft)	+N/-S (usft) +E/-W (usft)	
1,150.00	1,150.00	0.00 0.00	KOP Start Build 2.00°/100'
1,606.21	1,604.28	-7.74 -35.41	EOC hold 9.12°



Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Dodd Federal Unit #613
Wellbore: OH
Design: Plan #1 7-7/8" Hole



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
South HL-Dodd #613	0.00	-118.80	-497.60	668724.50	587915.00	32°50' 17.095 N	104°2' 49.553 W	Rectangle (Sides : L:0.00 W200.00)
PBHL-Dodd #613	4550.00	-108.80	-497.60	668734.50	587915.00	32°50' 17.194 N	104°2' 49.553 W	Circle (Radius: 5 0.00)

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
3	1606.21	9.12	257.67	1604.29	-7.74	-35.41	2.00	257.67	36.25	
4	4589.68	9.12	257.67	4550.00	-108.80	-497.60	0.00	0.00	509.36	PBHL-Dodd #613

WELL DETAILS: Dodd Federal Unit #613

Ground Level: 3630.00				
+N/-S	+E/-W	Northing	Easting	Latitude Longitude Slot
0.00	0.00	668843.30	588412.60	32°50' 18.258 N 104°2' 4 3.717 W

PROJECT DETAILS: Eddy County, NM (NAN27 NME)					Plan: Plan #1 7-7/8" Hole (Dodd Federal Unit #613/OH)				
Geodetic System: US State Plane 1927 (Exact solution)					Created By: Julio Pina				
Datum: NAD 1927 (NADCON CONUS)					Date: 29-Aug-11				
Ellipsoid: Clarke 1866					Checked: _____				
Zone: New Mexico East 3001					Date: _____				
System Datum: Mean Sea Level					Reviewed: _____				
					Date: _____				
					Approved: _____				
					Date: _____				