

DATE: 3-7-12	SUSPENSE	ENGINEER: DB	LOGGED IN: 3.7.12	TYPE: NSL	APP NO: 1206746480
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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
Shelly U#647
6585

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

[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

3-6-12
Date

Skelly Unit #647
Eddy County, NM
Fren; Glorieta Yeso oil well
TD of approximately 6800'

Location:

SHL: 278' FSL & 194' FEL Sec 15, T17S, R31E, Unit P
BHL: 330' FSL & 330' FWL Sec 14, T17S, R31E, Unit M

This well had to be drilled at a non-standard location due to Sand Dune Lizard habitat.

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 this is how we anticipate completing this well.

1st interval: 6300' – 6800',
acidized w/ 3500 gals,
frac'd w/ 121,616 gals gel, 148,759# 16/30 Ottawa sand & 29,927# 16/30 CRC.

2nd interval: 6030' – 6230',
acidized w/ 3500 gals,
frac'd w/ 115,358 gals gel, 145,867# 16/30 Ottawa sand & 33,867# 16/30 CRC.

3rd interval: 5760' – 5960',
acidized w/ 3500 gals,
frac'd w/ 112,712 gals gel, 143,362# 16/30 Ottawa sand & 30,017# 16/30 CRC.

4th interval: 5160' – 5300',
acidized w/ 3000 gals,
frac'd w/ 94,592 gals gel, 100,582# 16/30 Ottawa sand & 13,341# 16/30 CRC.

Attachment 1

Plat and map

Attachment 2

Map and legend of offset wells.

Attachment 3

Updated land plat showing that
COG Operating LLC owns offset acreage.

The acreage we are encroaching on is the SE/4 SE/4 of Section 15.

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

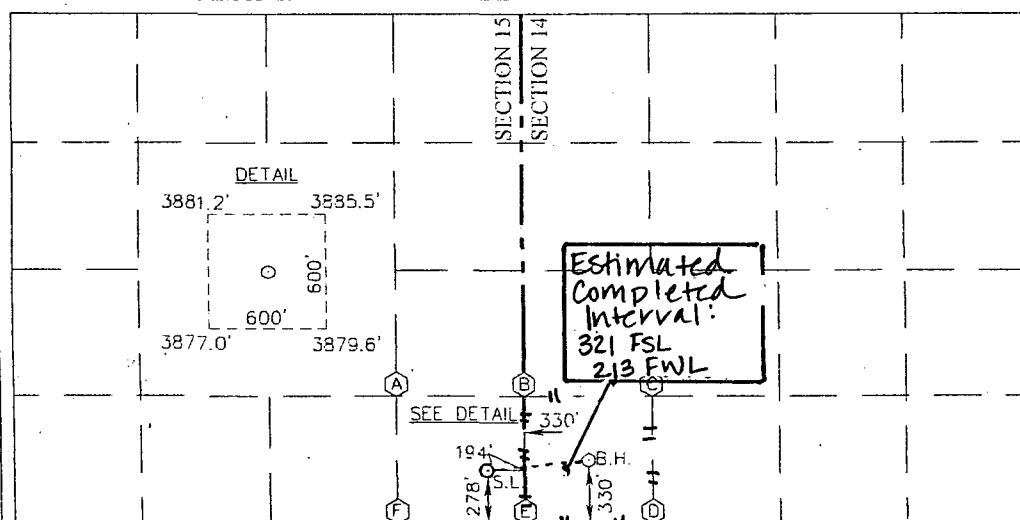
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-		Pool Code 97866		Pool Name MAR LOCO-Glorieta Yeso					
Property Code 305607		Property Name SKELLY UNIT						Well Number 647	
OGRID No. 229137		Operator Name COG OPERATING, LLC						Elevation 3881'	
Surface Location									
UL or lot No. P	Section 15	Township 17-S	Range 31-E	Lot Idn	Feet from the 278	North/South line SOUTH	Feet from the 194	East/West line EAST	County EDDY
Bottom Hole Location If Different From Surface									
UL or lot No. M	Section 14	Township 17-S	Range 31-E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 330	East/West line WEST	County EDDY
Penetration Point Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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



CORNER COORDINATES TABLE

- Ⓐ - Y=666316.8 N, X=647643.4 E
- Ⓑ - Y=666326.1 N, X=648964.6 E
- Ⓒ - Y=666335.4 N, X=650284.7 E
- Ⓓ - Y=665015.7 N, X=650292.4 E
- Ⓔ - Y=665006.1 N, X=648972.1 E
- Ⓕ - Y=665000.4 N, X=647650.6 E

GEODETIC COORDINATES
NAD 27 NME

SURFACE LOCATION

Y=665283.2 N
X=648776.5 E

LAT.=32.828013° N
LONG.=103.849001° W

BOTTOM HOLE LOCATION

Y=665338.4 N
X=649300.1 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.

1-19-2012

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.

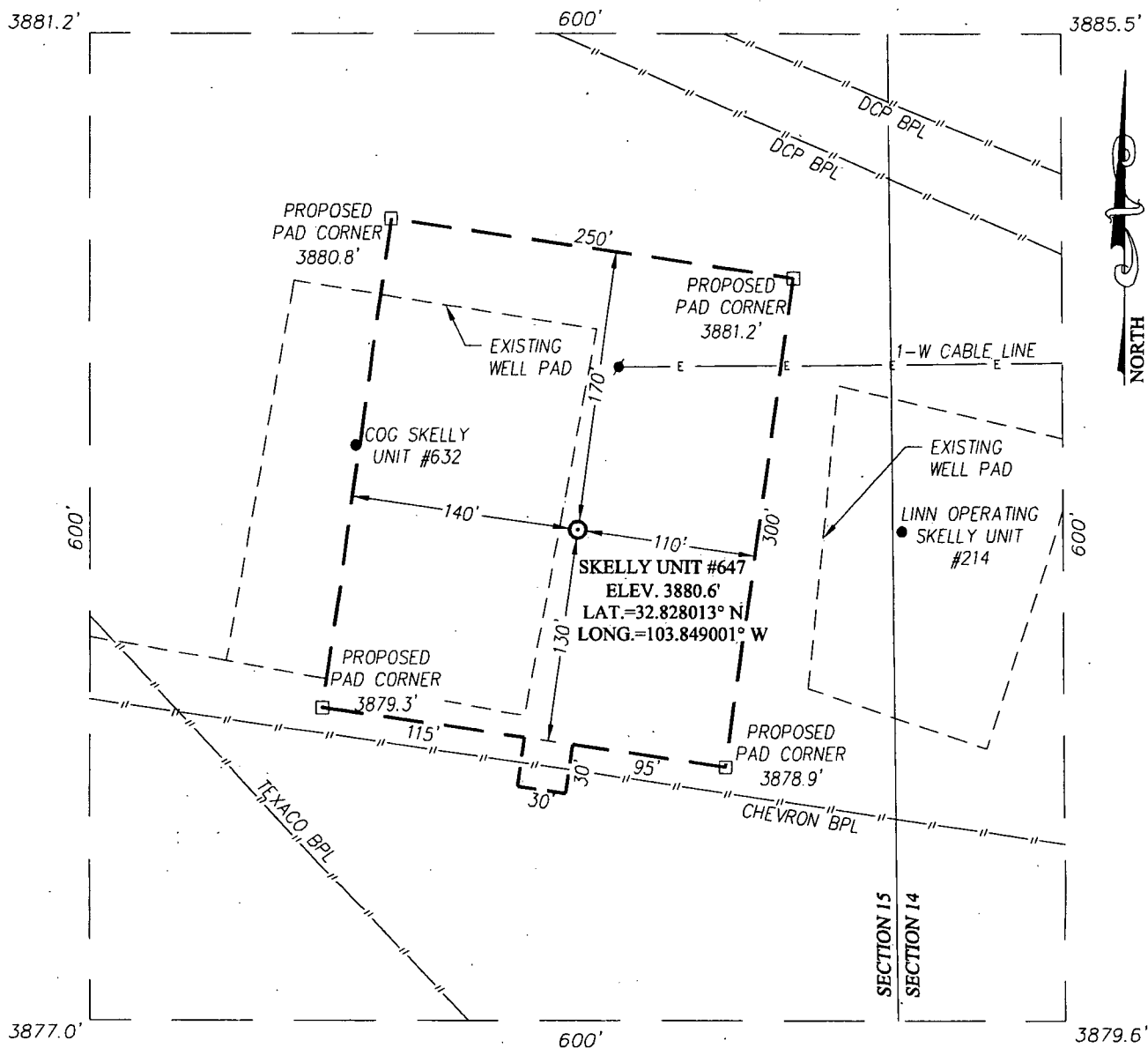
DECEMBER 20, 2011

Date of Survey

Signature of Professional Surveyor:

Ronald J. Eidson
12641

SECTION 15, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY NEW MEXICO

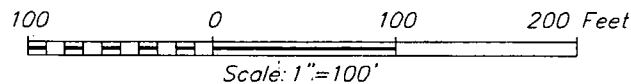


DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND C.R. #223 (SWEET GUM) GO NORTHEAST ON U.S. HWY. #82 APPROX. 1.6 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.5 MILES. TURN RIGHT AND GO NORTH APPROX. 0.1 MILES. TO THE SKELLY UNIT #632. THIS LOCATION IS 145 FEET SOUTHEAST OF THE EXISTING COG PUMPING UNIT.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO



COG OPERATING, LLC

SKELLY UNIT #647 WELL
LOCATED 278 FEET FROM THE SOUTH LINE
AND 194 FEET FROM THE EAST LINE OF SECTION 15,
TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

Survey Date: 12/20/11

Sheet 1 of 1 Sheets

Producing Wells in Sec 14, T17S, R31E, Eddy County

API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Avg. (BO/D)
30-015-05143	WISER OIL CO (THE)	SKELLY UNIT	034	EDDY	S:14, T:17S, R:31E	0	G	Flowing	Jan 1967	Nov 1974	0.00
30-015-05142		SKELLY UNIT	036	EDDY	S:14, T:17S, R:31E	2,910	O	Active	Jan 1969	Mar 1986	0.00
30-015-29219	SANDRIDGE EXPLORATION AND PRODUCTION, LLC	SKELLY UNIT	203	EDDY	S:14, T:17S, R:31E	4,100	PO	Pumping	Jan 1997	Mar 2003	0.61
30-015-05142		SKELLY UNIT	036	EDDY	S:14, T:17S, R:31E	2,910	O	Active	Jan 1967	Nov 1978	0.87
30-015-20558	SANDRIDGE EXPLORATION AND PRODUCTION, LLC	SKELLY UNIT	113	EDDY	S:14, T:17S, R:31E	3,959	PO	Pumping	Jan 1979	Jul 2009	1.13
30-015-20549	LINN OPERATING, INC.	SKELLY UNIT	112	EDDY	S:14, T:17S, R:31E	3,947	O	Active	Jan 1979	Sep 2011	1.23
30-015-22254	LINN OPERATING, INC.	SKELLY UNIT	120	EDDY	S:14, T:17S, R:31E	2,600	O	Pumping	Jan 1993	Sep 2011	1.23
30-015-28966	LINN OPERATING, INC.	SKELLY UNIT	204	EDDY	S:14, T:17S, R:31E	4,150	O	Active	Oct 1996	Sep 2011	1.23
30-015-28971	LINN OPERATING, INC.	SKELLY UNIT	185	EDDY	S:14, T:17S, R:31E	4,150	O	Pumping	Oct 1996	Sep 2011	1.23
30-015-29217	LINN OPERATING, INC.	SKELLY UNIT	194	EDDY	S:14, T:17S, R:31E	4,100	O	Pumping	Jan 1997	Sep 2011	1.23
30-015-29540	LINN OPERATING, INC.	SKELLY UNIT	214	EDDY	S:14, T:17S, R:31E	3,950	O	Active	Jun 1997	Sep 2011	1.23
30-015-29541	LINN OPERATING, INC.	SKELLY UNIT	215	EDDY	S:14, T:17S, R:31E	4,000	O	Pumping	Jul 1997	Sep 2011	1.27
30-015-29216	LINN OPERATING, INC.	SKELLY UNIT	193	EDDY	S:14, T:17S, R:31E	4,100	O	Pumping	Mar 1997	Sep 2011	1.33
30-015-05149	WISER OIL CO (THE)	SKELLY UNIT	105	EDDY	S:14, T:17S, R:31E	0	I	Injection Well	Jan 1967	Dec 1967	1.35
30-015-00000	SKELLY OIL CO	LEA B	005	EDDY	S:14, T:17S, R:31E		G	Active	Jun 1959	Dec 1966	1.90
					S:14,						

30-015-05147	WISER OIL CO (THE)	SKELLY UNIT	102	EDDY	T:17S, R:31E S:14,		0	I	Injection Well	Jan 1967	Jan 1973	1.97
30-015-22530	WISER OIL CO (THE)	SKELLY UNIT	148	EDDY	T:17S, R:31E S:14,			O	Temporarily Abandoned	Mar 1994	Jan 1998	1-97
30-015-20558	WISER OIL CO (THE)	SKELLY UNIT	113	EDDY	T:17S, R:31E S:14,	3,959	PO		Pumping	Jan 1972	Dec 1977	2.06
30-015-00000	SKELLY OIL CO	LEA B	004	EDDY	T:17S, R:31E S:14,		G		Active	Jan 1949	Dec 1966	2.52
30-015-00000	SKELLY OIL CO	LEA B	011	EDDY	T:17S, R:31E S:14,		G		Active	May 1961	Dec 1966	2.52
30-015-00000	SKELLY OIL CO	LEA B	012	EDDY	T:17S, R:31E S:14,		G		Active	Oct 1961	Dec 1966	2.52
30-015-05148	WISER OIL CO (THE)	SKELLY UNIT	103	EDDY	T:17S, R:31E S:14,	0	I		Injection Well	Jan 1967	Dec 1977	2.58
30-015-20549	WISER OIL CO (THE)	SKELLY UNIT	112	EDDY	T:17S, R:31E S:14,	3,947	O		Active	Jan 1972	Dec 1977	2.58
30-015-29062	LINN OPERATING, INC.	SKELLY UNIT	202	EDDY	T:17S, R:31E S:14,	4,050	O		Pumping	Dec 1996	Sep 2011	2.70
30-015-29273	LINN OPERATING, INC.	SKELLY UNIT	217	EDDY	T:17S, R:31E S:14,	4,120	O		Pumping	Feb 1997	Sep 2011	3.03
30-015-05146	WISER OIL CO (THE)	SKELLY UNIT	104	EDDY	T:17S, R:31E S:14,	3,831	I		Injection Well	Jan 1967	Dec 1977	3.06
30-015-00000	SKELLY OIL CO.	LEA A	006	EDDY	T:17S, R:31E S:14,		G		Active	Jan 1948	Dec 1964	3.16
30-015-00000	SKELLY OIL CO.	LEA A	008	EDDY	T:17S, R:31E S:14,		O		Active	Jan 1948	Dec 1964	3.16
30-015-36779	COG OPERATING LLC.	SKELLY UNIT	620	EDDY	T:17S, R:31E S:14,	6,570	O		Active Permit	Jan 2010	Oct 2011	3.23
30-015-28947	LINN OPERATING, INC.	SKELLY UNIT	201	EDDY	T:17S, R:31E S:14,	4,050	O		Pumping	Oct 1996	Sep 2011	3.60
30-015-34326	CHEVRON U S A INC	SKELLY UNIT	960	EDDY	T:17S, R:31E S:14,	5,480	O		Active Permit	Jan 2006	Oct 2011	3.71
30-015-00000	SKELLY OIL CO	LEA A BTRY 3	008	EDDY	T:17S, R:31E S:14,		O		Active	Jan 1947	Dec 1966	4.10

30-015-05144	WISER OIL CO (THE)	SKELLY UNIT	024	EDDY	T:17S, R:31E	0	I	Injection Well	Jan 1967	Jun 1967	4.23
30-015-05141	WISER OIL CO (THE)	SKELLY UNIT	022	EDDY	S:14, T:17S, R:31E	3,311	G	Flowing	Jan 1967	Dec 1967	4.84
30-015-29223	LINN OPERATING, INC.	SKELLY UNIT	216	EDDY	S:14, T:17S, R:31E	4,100	O	Pumping	Jan 1997	Sep 2011	4.90
30-015-00000	SKELLY OIL CO	LEA A BTRY 1	002	EDDY	S:14, T:17S, R:31E		G	Active	Jan 1947	Dec 1966	4.94
30-015-00000	SKELLY OIL CO	LEA A BTRY 1	012	EDDY	S:14, T:17S, R:31E		G	Active	Sep 1961	Dec 1966	4.94
30-015-00000	SKELLY OIL CO	LEA A BTRY 3	006	EDDY	S:14, T:17S, R:31E		G	Active	Jan 1947	Dec 1966	4.94
30-015-00000	SKELLY OIL CO	LEA A BTRY 3	013	EDDY	S:14, T:17S, R:31E		G	Active	Apr 1962	Dec 1966	4.94
30-015-10773	WISER OIL CO (THE)	SKELLY UNIT	035	EDDY	S:14, T:17S, R:31E	3,944	I	Pumping	Jan 1967	Dec 1977	5.29
30-015-20469	WISER OIL CO (THE)	SKELLY UNIT	110	EDDY	S:14, T:17S, R:31E	0	PI	Injection Well	Jan 1972	Dec 1977	6.13
30-015-00000	SKELLY OIL CO.	LEA A	002	EDDY	S:14, T:17S, R:31E		G	Active	Jan 1948	Dec 1964	6.48
30-015-34324	CHEVRON U S A INC	SKELLY UNIT	961	EDDY	S:14, T:17S, R:31E	5,495	O	Active Permit	Feb 2006	Oct 2011	6.52
30-015-05145	WISER OIL CO (THE)	SKELLY UNIT	023	EDDY	S:14, T:17S, R:31E	3,860	I	Pumping	Jan 1967	Dec 1977	6.61
30-015-00000	SKELLY OIL CO.	LEA B	001	EDDY	S:14, T:17S, R:31E		O	Active	Jan 1947	Dec 1953	6.71
30-015-00000	SKELLY OIL CO	LEA A FEDERAL REPT 3	011	EDDY	S:14, T:17S, R:31E		G	Active	Aug 1961	Dec 1966	7.94
30-015-36598	COG OPERATING LLC	SKELLY UNIT	992	EDDY	S:14, T:17S, R:31E	6,696	O	Active Permit	Feb 2009	Oct 2011	8.84
30-015-00000	SKELLY OIL CO	LEA A FED REP 3	012	EDDY	S:14, T:17S, R:31E		G	Active	Jan 1964	Dec 1964	9.23
30-015-05140	WISER OIL CO (THE)	SKELLY UNIT	033	EDDY	S:14, T:17S, R:31E	3,840	I	Injection Well	Jan 1967	Dec 1977	9.94

30-015-36885	COG OPERATING LLC	SKELLY UNIT	605	EDDY	T:17S, R:31E	6,721	O	Active Permit	Jul 2009	Oct 2011	10.45
30-015-00000	SKELLY OIL CO	LEA A BATTERY	015	EDDY	S:14, T:17S, R:31E		AP	Unknown	May 1966	Dec 1966	12.03
30-015-00000	SKELLY OIL CO	LEA A FED REP 2	013	EDDY	S:14, T:17S, R:31E		G	Active	Jan 1964	Dec 1964	12.52
30-015-36832	COG OPERATING LLC	SKELLY UNIT	621	EDDY	S:14, T:17S, R:31E	6,857	O	Active Permit	Aug 2009	Oct 2011	12.87
30-015-36780	COG OPERATING LLC	SKELLY UNIT	624	EDDY	S:14, T:17S, R:31E	6,620	O	Active Permit	Dec 2009	Oct 2011	13.16
30-015-37613	COG OPERATING LLC	SKELLY UNIT	642	EDDY	S:14, T:17S, R:31E	7,038	O	Active Permit	Dec 2010	Oct 2011	14.68
30-015-35947	COG OPERATING LLC	SKELLY UNIT	971	EDDY	S:14, T:17S, R:31E	6,580	O	Active Permit	Mar 2008	Oct 2011	15.29
30-015-37881	CHEVRON U S A INC	SKELLY UNIT	672	EDDY	S:14, T:17S, R:31E	7,057	O	Active Permit	Apr 2011	Oct 2011	18.00
30-015-36517	COG OPERATING LLC	SKELLY UNIT	984	EDDY	S:14, T:17S, R:31E	6,720	O	Active Permit	Apr 2009	Oct 2011	18.52
30-015-37820	CHEVRON U S A INC	SKELLY UNIT	679	EDDY	S:14, T:17S, R:31E	6,795	O	Active Permit	Jan 2011	Feb 2011	18.57
30-015-36966	COG OPERATING LLC	SKELLY UNIT	633	EDDY	S:14, T:17S, R:31E	6,798	O	Active Permit	Dec 2009	Oct 2011	18.84
30-015-37820	CHEVRON U S A INC	SKELLY UNIT	679	EDDY	S:14, T:17S, R:31E	6,795	O	Active Permit	Mar 2011	Oct 2011	20.42
30-015-36965	COG OPERATING LLC	SKELLY UNIT	634	EDDY	S:14, T:17S, R:31E	6,820	O	Active Permit	Jan 2010	Oct 2011	20.71
30-015-31371	CHEVRON USA, INC.	SKELLY UNIT	905	EDDY	S:14, T:17S, R:31E	12,470	O	Active	May 2002	May 2002	21.48
30-015-35867	COG OPERATING LLC	SKELLY UNIT	969	EDDY	S:14, T:17S, R:31E	6,517	O	Active Permit	Feb 2008	Oct 2011	21.71
30-015-36597	COG OPERATING LLC	SKELLY UNIT	974	EDDY	S:14, T:17S, R:31E	6,500	O	Active Permit	Feb 2009	Oct 2011	22.52
30-015-37222	COG OPERATING LLC	SKELLY UNIT	685	EDDY	S:14, T:17S, R:31E	6,808	O	Active Permit	Jan 2010	Oct 2011	23.32
					S:14,						

30-015-36833	COG OPERATING LLC	SKELLY UNIT	623	EDDY	T:17S, R:31E S:14,	6,857	O	Active Permit	Mar 2010	Oct 2011	23.42
30-015-37980	COG OPERATING LLC	SKELLY UNIT	658	EDDY	T:17S, R:31E S:14,	6,829	O	Active	Mar 2011	Oct 2011	26.55
30-015-36831	COG OPERATING LLC	SKELLY UNIT	622	EDDY	T:17S, R:31E S:14,	6,650	O	Active Permit	Sep 2009	Oct 2011	28.16
30-015-37979	COG OPERATING LLC	SKELLY UNIT	654	EDDY	T:17S, R:31E S:14,	6,839	O	Active	Mar 2011	Oct 2011	28.16
30-015-37474	CHEVRON U S A INC	SKELLY UNIT	678	EDDY	T:17S, R:31E S:14,	6,730	O	Active Permit	Nov 2010	Oct 2011	31.84
30-015-37245	CHEVRON U S A INC	SKELLY UNIT	660	EDDY	T:17S, R:31E S:14,	6,835	O	Active Permit	Jan 2011	Oct 2011	40.32
30-015-37477	CHEVRON U S A INC	SKELLY UNIT	682	EDDY	T:17S, R:31E S:14,	6,742	O	Active Permit	May 2011	Oct 2011	42.55
30-015-37476	CHEVRON U S A INC	SKELLY UNIT	767	EDDY	T:17S, R:31E S:14,	6,863	O	Active Permit	Jan 2011	Oct 2011	44.94
30-015-38224	COG OPERATING LLC	SKELLY UNIT	651	EDDY	T:17S, R:31E S:14,	6,804	O	Active Permit	Aug 2011	Oct 2011	56.39
30-015-05140	LINN OPERATING, INC.	SKELLY UNIT	033	EDDY	T:17S, R:31E S:14,	3,840	I	Injection Well	Jan 1969	Jun 2004	
30-015-05141	LINN OPERATING, INC.	SKELLY UNIT	022	EDDY	T:17S, R:31E S:14,	3,311	G	Flowing	Jan 2001	Sep 2011	
30-015-05143	LINN OPERATING, INC.	SKELLY UNIT	034	EDDY	T:17S, R:31E S:14,	0	G	Flowing	Jan 2001	Sep 2011	
30-015-05144	LINN OPERATING, INC.	SKELLY UNIT	024	EDDY	T:17S, R:31E S:14,	0	I	Injection Well	Jan 2001	Apr 2011	
30-015-05145	LINN OPERATING, INC.	SKELLY UNIT	023	EDDY	T:17S, R:31E S:14,	3,860	I	Pumping	Jan 1971	Feb 2011	
30-015-05146	LINN OPERATING, INC.	SKELLY UNIT	104	EDDY	T:17S, R:31E S:14,	3,831	I	Injection Well	Jan 1969	Jun 2004	
30-015-05147	LINN OPERATING, INC.	SKELLY UNIT	102	EDDY	T:17S, R:31E S:14,	0	I	Injection Well	Jan 1971	Oct 2005	
30-015-05148	LINN OPERATING, INC.	SKELLY UNIT	103	EDDY	T:17S, R:31E S:14,	0	I	Injection Well	Jan 1969	Jun 2011	

30-015-05149	LINN OPERATING, INC.	SKELLY UNIT	105	EDDY	T:17S, R:31E	0	I	Injection Well	Aug 2001	Jun 2011	
30-015-10773	LINN OPERATING, INC.	SKELLY UNIT	035	EDDY	S:14, T:17S, R:31E	3,944	I	Pumping	Jan 1969	Aug 2011	
30-015-20469	SANDRIDGE EXPLORATION AND PRODUCTION, LLC	SKELLY UNIT	110	EDDY	S:14, T:17S, R:31E	0	PI	Injection Well	Sep 1971	Jun 2004	
30-015-20548	LINN OPERATING, INC.	SKELLY UNIT	111	EDDY	S:14, T:17S, R:31E	3,835	O	Active	Jan 1972	Sep 2011	
30-015-31371	CHEVRON U S A INC	SKELLY UNIT	905	EDDY	S:14, T:17S, R:31E	12,470	O	Active	Jan 2007	Oct 2011	

Producing Wells in Sec 15, T17S, R31E, Eddy County

API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Avg. (BO/D)
30-015-05152	WISER OIL CO (THE)	SKELLY UNIT	001	EDDY	S:15, T:17S, R:31E	3,692	G	Active	Jun 1968	Sep 1968	0.00
30-015-00000	SKELLY OIL COMPANY	DOW	003	EDDY	S:15, T:17S, R:31E		G	Active	Aug 1954	Dec 1956	0.00
30-015-00000	SKELLY OIL COMPANY	DOW A	003	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1955	Dec 1956	0.00
30-015-00000	SKELLY OIL CO	DOW A FEDERAL	003	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1957	Dec 1964	0.00
30-015-00000	SKELLY OIL COMPANY	DOW A	003	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1966	Jun 1966	0.00
30-015-29204	LINN OPERATING, INC.	SKELLY UNIT	182	EDDY	S:15, T:17S, R:31E	3,950	O	Pumping	Feb 1997	Sep 2011	0.23
30-015-34327	CHEVRON U S A INC	SKELLY UNIT	959	EDDY	S:15, T:17S, R:31E	5,480	O	Active Permit	Nov 2005	Oct 2011	0.32
30-015-37517	CHEVRON U S A INC	SKELLY UNIT	849	EDDY	S:15, T:17S, R:31E	6,935	O	Active Permit	Aug 2010	Oct 2011	0.74
30-015-22494		SKELLY UNIT	151	EDDY	S:15, T:17S, R:31E	2,600	O	Active	Apr 1991	Apr 1991	0.83
30-015-22532		SKELLY UNIT	154	EDDY	S:15, T:17S, R:31E	2,650	O	Active	Jan 1991	Aug 1991	0.84
30-015-05150	WISER OIL CO (THE)	SKELLY UNIT	031	EDDY	S:15, T:17S, R:31E	3,800	O	Shut-in	Jan 1971	Dec 1996	0.87
30-015-22531		SKELLY UNIT	153	EDDY	S:15, T:17S, R:31E	6,350	O	Active	Feb 1990	Aug 1990	1.03
30-015-22483	LINN OPERATING, INC.	SKELLY UNIT	150	EDDY	S:15, T:17S, R:31E	2,630	O	Pumping	Jan 1993	Sep 2011	1.23
30-015-29206	LINN OPERATING, INC.	SKELLY UNIT	189	EDDY	S:15, T:17S, R:31E	3,925	O	Pumping	Feb 1997	Sep 2011	1.27
30-015-29203	LINN OPERATING, INC.	SKELLY UNIT	180	EDDY	S:15, T:17S, R:31E	3,950	O	Active	Jan 1997	Sep 2011	1.47
30-015-28965	SANDRIDGE EXPLORATION AND PRODUCTION, LLC	SKELLY UNIT	181	EDDY	S:15, T:17S, R:31E	3,950	PO	Shut-in	Oct 1996	Feb 2003	1.57
30-015-29207	LINN OPERATING, INC.	SKELLY UNIT	190	EDDY	S:15, T:17S, R:31E	3,900	O	Pumping	Dec 1996	Sep 2011	1.63
30-015-28998	LINN OPERATING, INC.	SKELLY UNIT	200	EDDY	S:15, T:17S, R:31E	4,000	O	Pumping	Dec 1996	Sep 2011	1.87
30-015-00000	SKELLY OIL CO	DOW A BTRY 1	013	EDDY	S:15, T:17S, R:31E		G	Active	Nov 1961	Dec 1966	1.90
30-015-00000	SKELLY OIL CO	DOW A FED	004	EDDY	S:15, T:17S, R:31E		G	Active	Aug 1959	Dec 1966	1.90
30-015-00000	SKELLY OIL CO	DOW A FED	005	EDDY	S:15, T:17S, R:31E		G	Active	Sep 1959	Dec 1966	1.90
30-015-00000	SKELLY OIL CO	DOW A FED	006	EDDY	S:15, T:17S, R:31E		G	Active	Oct 1960	Dec 1966	1.90

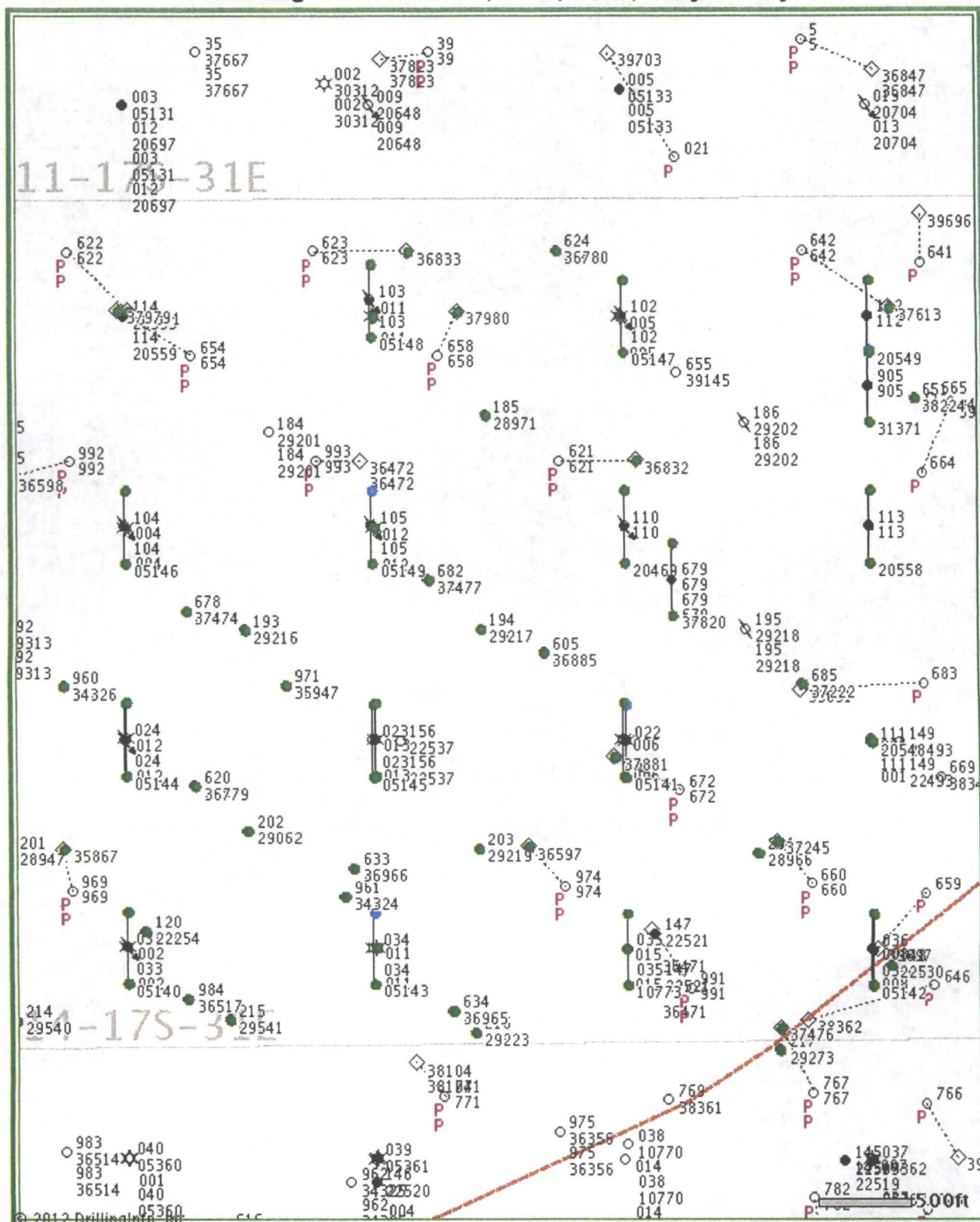
30-015-00000	SKELLY OIL CO	DOW A FED	008	EDDY	R:31E		G	Active	Mar 1961	Dec 1966	1.90
30-015-00000	SKELLY OIL CO	DOW A FED	009	EDDY	S:15, T:17S, R:31E		G	Active	Jun 1961	Dec 1966	1.90
30-015-00000	SKELLY OIL CO	DOW A FED	010	EDDY	S:15, T:17S, R:31E		G	Active	Jul 1961	Dec 1966	1.90
30-015-00000	SKELLY OIL CO	DOW A FED	011	EDDY	S:15, T:17S, R:31E		G	Active	Aug 1961	Dec 1966	1.90
30-015-29312	LINN OPERATING, INC.	SKELLY UNIT	191	EDDY	S:15, T:17S, R:31E	3,900	O	Pumping	Mar 1997	Sep 2011	1.93
30-015-05155	WISER OIL CO (THE)	SKELLY UNIT	019	EDDY	S:15, T:17S, R:31E	0	PI	Injection Well	Jan 1967	Dec 1967	1.94
30-015-05158	WISER OIL CO (THE)	SKELLY UNIT	021	EDDY	S:15, T:17S, R:31E	0	G	Flowing	Jan 1967	Dec 1967	1.94
30-015-05160	WISER OIL CO (THE)	SKELLY UNIT	025	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1967	Dec 1977	2.00
30-015-22260	LINN OPERATING, INC.	SKELLY UNIT	126	EDDY	S:15, T:17S, R:31E	2,530	O	Active	Jan 1993	Sep 2011	2.47
30-015-28972	LINN OPERATING, INC.	SKELLY UNIT	199	EDDY	S:15, T:17S, R:31E	4,000	O	Pumping	Nov 1996	Sep 2011	2.47
30-015-29313	LINN OPERATING, INC.	SKELLY UNIT	192	EDDY	S:15, T:17S, R:31E	3,950	O	Pumping	Apr 1997	Sep 2011	2.47
30-015-32967	CHEVRON U S A INC	SKELLY UNIT	948	EDDY	S:15, T:17S, R:31E	5,350	O	Active	Mar 2005	Oct 2011	2.52
30-015-00000	SKELLY OIL CO	DOW A	002	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1948	Dec 1965	2.90
30-015-34686	CHEVRON U S A INC	SKELLY UNIT	964	EDDY	S:15, T:17S, R:31E	5,410	PO	Active Permit	Aug 2006	Oct 2011	2.90
30-015-00000	SKELLY OIL CO	DOW A FED	007	EDDY	S:15, T:17S, R:31E		G	Active	Mar 1961	Dec 1966	3.00
30-015-00000	SKELLY OIL CO	DOW A FED	012	EDDY	S:15, T:17S, R:31E		G	Active	Oct 1961	Dec 1966	3.00
30-015-05156	WISER OIL CO (THE)	SKELLY UNIT	028	EDDY	S:15, T:17S, R:31E	0	I	Injection Well	Jan 1967	Dec 1977	3.32
30-015-29013	LINN OPERATING, INC.	SKELLY UNIT	198	EDDY	S:15, T:17S, R:31E	4,000	O	Pumping	Dec 1996	Sep 2011	3.57
30-015-34647	CHEVRON U S A INC	SKELLY UNIT	965	EDDY	S:15, T:17S, R:31E	5,370	PO	Active Permit	Jun 2006	Oct 2011	3.58
30-015-00000	SKELLY OIL CO	DOW A	001	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1947	Dec 1965	3.65
30-015-37083	COG OPERATING LLC	SKELLY UNIT	639	EDDY	S:15, T:17S, R:31E	6,720	O	Active Permit	Jan 2010	Oct 2011	3.90
30-015-20468	WISER OIL CO (THE)	SKELLY UNIT	109	EDDY	S:15, T:17S, R:31E	3,920	I	Injection Well	Jan 1972	Dec 1977	3.97
30-015-34646	CHEVRON U S A INC	SKELLY UNIT	963	EDDY	S:15, T:17S, R:31E	5,500	PO	Active Permit	Jun 2006	Oct 2011	4.10
30-015-29092	LINN OPERATING, INC.	SKELLY UNIT	211	EDDY	S:15, T:17S, R:31E	4,000	O	Pumping	Dec 1996	Sep 2011	4.63
30-015-05161	WISER OIL CO (THE)	SKELLY UNIT	020	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1967	Dec 1977	4.65

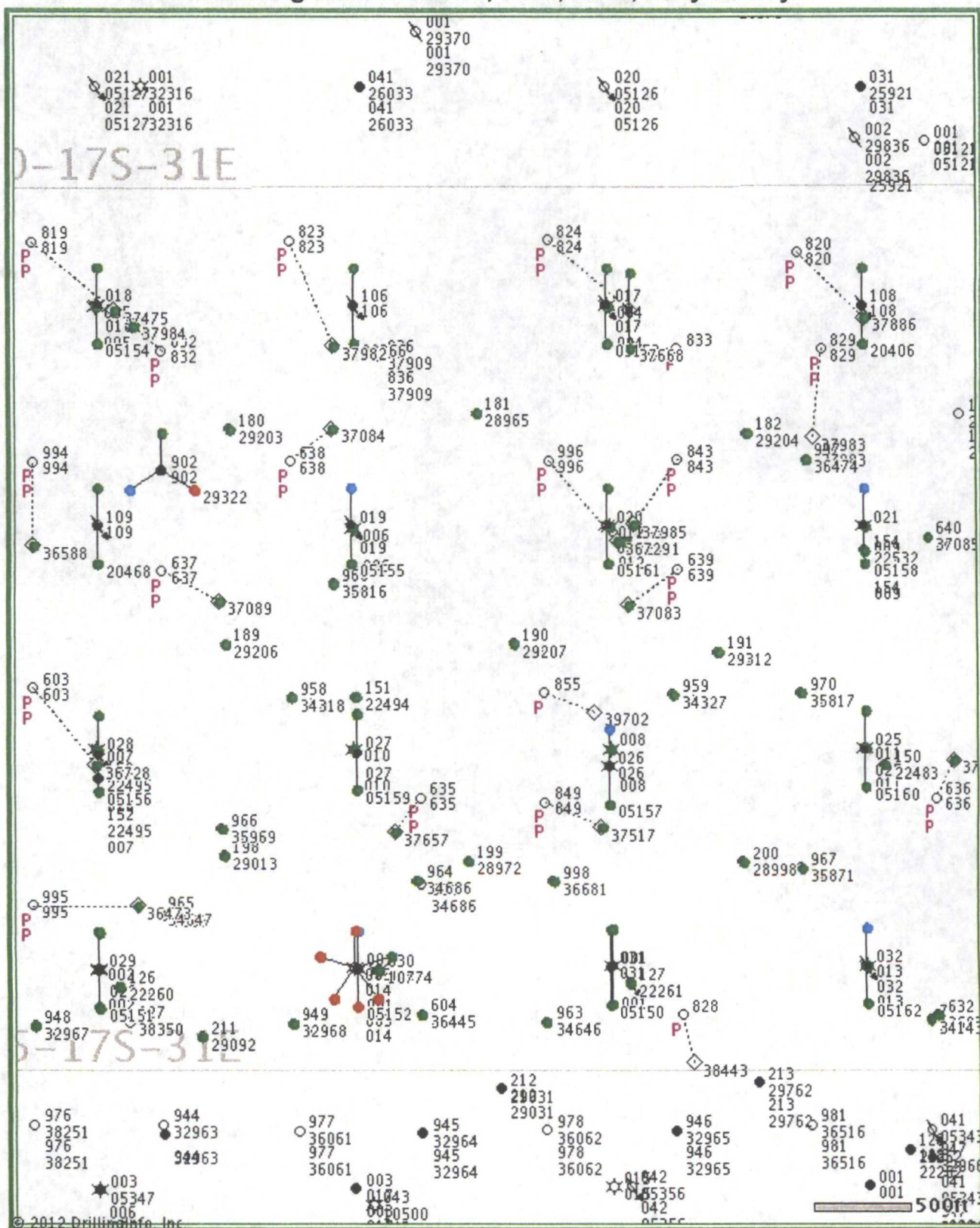
30-015-00000	SKELLY OIL CO	DOW A BTRY 1	002	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1947	Dec 1966	4.94
30-015-37985	CHEVRON U S A INC	SKELLY UNIT	843	EDDY	S:15, T:17S, R:31E	6,742	O	Active	Nov 2010	Oct 2011	4.97
30-015-20366	WISER OIL CO (THE)	SKELLY UNIT	106	EDDY	S:15, T:17S, R:31E	3,651	PI	Injection Well	Jan 1972	Dec 1977	5.84
30-015-35871	COG OPERATING LLC	SKELLY UNIT	967	EDDY	S:15, T:17S, R:31E	6,508	O	Active Permit	Feb 2008	Oct 2011	6.42
30-015-32968	CHEVRON U S A INC	SKELLY UNIT	949	EDDY	S:15, T:17S, R:31E	5,350	O	Active	Mar 2005	Oct 2011	7.23
30-015-20406	WISER OIL CO (THE)	SKELLY UNIT	108	EDDY	S:15, T:17S, R:31E	3,804	I	Injection Well	Jan 1972	Dec 1977	7.94
30-015-00000	SKELLY OIL CO	DOW A BTRY 1	001	EDDY	S:15, T:17S, R:31E		G	Active	Jan 1950	Dec 1966	7.94
30-015-05154	WISER OIL CO (THE)	SKELLY UNIT	018	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1967	Dec 1977	8.61
30-015-29322	CHEVRON U S A INC	SKELLY UNIT	902	EDDY	S:15, T:17S, R:31E	12,300	U	Active	May 1997	Jan 2000	8.87
30-015-35817	COG OPERATING LLC	SKELLY UNIT	970	EDDY	S:15, T:17S, R:31E	6,521	O	Active Permit	Sep 2008	Oct 2011	9.68
30-015-05151	WISER OIL CO (THE)	SKELLY UNIT	029	EDDY	S:15, T:17S, R:31E	3,717	G	Active	Jan 1967	Dec 1977	9.94
30-015-05159	WISER OIL CO (THE)	SKELLY UNIT	027	EDDY	S:15, T:17S, R:31E	0	I	Pumping	Jan 1967	Dec 1977	9.94
30-015-36729	COG OPERATING LLC	SKELLY UNIT	996	EDDY	S:15, T:17S, R:31E	6,767	O	Active Permit	Nov 2009	Oct 2011	10.00
30-015-35969	COG OPERATING LLC	SKELLY UNIT	966	EDDY	S:15, T:17S, R:31E	6,615	O	Active Permit	Mar 2009	Oct 2011	10.29
30-015-35816	COG OPERATING LLC	SKELLY UNIT	968	EDDY	S:15, T:17S, R:31E	6,566	O	Active Permit	Aug 2008	Oct 2011	10.61
30-015-37089	COG OPERATING LLC	SKELLY UNIT	637	EDDY	S:15, T:17S, R:31E	6,735	O	Active Permit	Dec 2009	Oct 2011	10.74
30-015-37090	COG OPERATING LLC	SKELLY UNIT	636	EDDY	S:15, T:17S, R:31E	6,826	O	Active Permit	Dec 2009	Oct 2011	11.19
30-015-05153	WISER OIL CO (THE)	SKELLY UNIT	017	EDDY	S:15, T:17S, R:31E	0	I	Injection Well	Jan 1967	Dec 1977	11.26
30-015-37475	COG OPERATING LLC	SKELLY UNIT	819	EDDY	S:15, T:17S, R:31E	6,930	O	Active Permit	Apr 2010	Oct 2011	12.68
30-015-36974	COG OPERATING LLC	SKELLY UNIT	632	EDDY	S:15, T:17S, R:31E	6,825	O	Active Permit	Nov 2009	Oct 2011	12.97
30-015-36681	COG OPERATING LLC	SKELLY UNIT	998	EDDY	S:15, T:17S, R:31E	6,593	O	Active Permit	Mar 2009	Oct 2011	13.13
30-015-36474	COG OPERATING LLC	SKELLY UNIT	997	EDDY	S:15, T:17S, R:31E	6,495	O	Active Permit	Oct 2008	Oct 2011	13.45
30-015-05150	WISER OIL CO (THE)	SKELLY UNIT	031	EDDY	S:15, T:17S, R:31E	3,800	O	Shut-in	Jan 1967	Dec 1977	13.90
30-015-37084	COG OPERATING LLC	SKELLY UNIT	638	EDDY	S:15, T:17S, R:31E	6,740	O	Active Permit	Dec 2009	Oct 2011	14.55
30-015-37085	COG OPERATING LLC	SKELLY UNIT	640	EDDY	S:15, T:17S, R:31E	6,795	O	Active Permit	Nov 2009	Oct 2011	14.87

30-015-34318	CHEVRON U S A INC	SKELLY UNIT	958	EDDY	S:15, T:17S, R:31E	5,480	O	Active Permit	Nov 2005	Oct 2011	15.16
30-015-34143	COG OPERATING LLC	WILLOW STATE	7	EDDY	S:15, T:17S, R:31E	5,325	O	Active Permit	Jul 2005	Oct 2011	16.13
30-015-36728	COG OPERATING LLC	SKELLY UNIT	603	EDDY	S:15, T:17S, R:31E	6,753	O	Active Permit	Sep 2009	Oct 2011	18.39
30-015-36473	CHEVRON U S A INC	SKELLY UNIT	995	EDDY	S:15, T:17S, R:31E	6,450	PO	Active Permit	Jul 2010	Oct 2011	21.16
30-015-05157	WISER OIL CO (THE)	SKELLY UNIT	026	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1967	Dec 1967	21.32
30-015-37668	COG OPERATING LLC	SKELLY UNIT	824	EDDY	S:15, T:17S, R:31E	6,910	O	Active Permit	Sep 2010	Oct 2011	21.45
30-015-36445	COG OPERATING LLC	SKELLY UNIT	604	EDDY	S:15, T:17S, R:31E	6,512	O	Active Permit	Oct 2008	Oct 2011	24.42
30-015-00000	SKELLY OIL CO	DOW A BATTERY	014	EDDY	S:15, T:17S, R:31E		AP	Unknown	May 1966	Dec 1966	25.19
30-015-36588	COG OPERATING LLC	SKELLY UNIT	994	EDDY	S:15, T:17S, R:31E	6,690	O	Active Permit	Jan 2009	Oct 2011	27.58
30-015-37657	CHEVRON U S A INC	SKELLY UNIT	635	EDDY	S:15, T:17S, R:31E	6,725	O	Active Permit	Aug 2010	Oct 2011	27.94
30-015-10774	WISER OIL CO (THE)	SKELLY UNIT	030	EDDY	S:15, T:17S, R:31E	3,906	G	Active	Jan 1967	Dec 1967	28.29
30-015-37668	COG OPERATING LLC	SKELLY UNIT	824	EDDY	S:15, T:17S, R:31E	6,910	O	Active Permit	Sep 2010	Oct 2010	30.03
30-015-37982	COG OPERATING LLC	SKELLY UNIT	823	EDDY	S:15, T:17S, R:31E	6,920	O	Active	Apr 2011	Oct 2011	32.19
30-015-05162	WISER OIL CO (THE)	SKELLY UNIT	032	EDDY	S:15, T:17S, R:31E	0	I	Injection Well	Jan 1967	Dec 1967	33.94
30-015-37886	CHEVRON U S A INC	SKELLY UNIT	820	EDDY	S:15, T:17S, R:31E	6,602	O	Active Permit	Apr 2011	Oct 2011	44.48
30-015-37984	CHEVRON U S A INC	SKELLY UNIT	832	EDDY	S:15, T:17S, R:31E	6,862	O	Active	May 2011	Oct 2011	45.42
30-015-05151	LINN OPERATING, INC.	SKELLY UNIT	029	EDDY	S:15, T:17S, R:31E	3,717	G	Active	Jan 1971	Sep 2011	
30-015-05152	LINN OPERATING, INC.	SKELLY UNIT	001	EDDY	S:15, T:17S, R:31E	3,692	G	Active	Jan 2001	Jun 2004	
30-015-05153	LINN OPERATING, INC.	SKELLY UNIT	017	EDDY	S:15, T:17S, R:31E	0	I	Injection Well	Jan 1971	Jun 2011	
30-015-05154	LINN OPERATING, INC.	SKELLY UNIT	018	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1969	Sep 2011	
30-015-05155	SANDRIDGE EXPLORATION AND PRODUCTION, LLC	SKELLY UNIT	019	EDDY	S:15, T:17S, R:31E	0	PI	Injection Well	Jan 2001	Jun 2004	
30-015-05156	LINN OPERATING, INC.	SKELLY UNIT	028	EDDY	S:15, T:17S, R:31E	0	I	Injection Well	Jan 1969	Jun 2011	
30-015-05157	LINN OPERATING, INC.	SKELLY UNIT	026	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 2001	Jun 2011	
30-015-05158	LINN OPERATING, INC.	SKELLY UNIT	021	EDDY	S:15, T:17S, R:31E	0	G	Flowing	Jan 2001	Jun 2011	
30-015-05159	LINN OPERATING, INC.	SKELLY UNIT	027	EDDY	S:15, T:17S, R:31E	0	I	Pumping	Jan 1971	Jun 2004	

30-015-05160	LINN OPERATING, INC.	SKELLY UNIT	025	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1971	Jun 2004	
30-015-05161	LINN OPERATING, INC.	SKELLY UNIT	020	EDDY	S:15, T:17S, R:31E	0	G	Active	Jan 1971	Jun 2011	
30-015-05162	LINN OPERATING, INC.	SKELLY UNIT	032	EDDY	S:15, T:17S, R:31E	0	I	Injection Well	Jan 2001	Jun 2004	
30-015-20366	SANDRIDGE EXPLORATION AND PRODUCTION, LLC	SKELLY UNIT	106	EDDY	S:15, T:17S, R:31E	3,651	PI	Injection Well	Feb 1971	May 2004	
30-015-20406	FOREST OIL CORPORATION	SKELLY UNIT	108	EDDY	S:15, T:17S, R:31E	3,804	I	Injection Well	Apr 1971	Jun 1997	
30-015-20468	LINN OPERATING, INC.	SKELLY UNIT	109	EDDY	S:15, T:17S, R:31E	3,920	I	Injection Well	Sep 1971	Jun 2004	
30-015-22261	LINN OPERATING, INC.	SKELLY UNIT	127	EDDY	S:15, T:17S, R:31E	2,503	I	Injection Well	Jan 1993	Dec 2008	
30-015-29322	CHEVRON U S A INC	SKELLY UNIT	902	EDDY	S:15, T:17S, R:31E	12,300	U	Active	Feb 2000	Oct 2009	
30-015-29322	CHEVRON U S A INC	SKELLY UNIT	902	EDDY	S:15, T:17S, R:31E	12,300	U	Active	Aug 2011	Oct 2011	

Producing Wells in Sec 14, T17S, R31E, Eddy County







COG Operating LLC

Eddy County, NM (NAN27 NME)

Skelly Unit #647

Skelly Unit #647

OH

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

SHL = 278' FSL & 194' FEL of Sec 15

BHL = 340' FSL & 340' FWL of Sec 14

Top of Paddock = 42' North of Surface & 340' East of Surface @ 5100' TVD

Standard Planning Report

13 January, 2012



Scientific Drilling
Directional Drilling Operations



SDI
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Skelly Unit #647
Company:	COG Operating LLC	TVD Reference:	GL @ 3881.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3881.00usft
Site:	Skelly Unit #647	North Reference:	Grid
Well:	Skelly Unit #647	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	Skelly Unit #647		
Site Position:		Northing:	665,283.20 usft
From:	Map	Easting:	648,776.50 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 49' 40.847 N
		Longitude:	103° 50' 56.402 W
		Grid Convergence:	0.26 °

Well	Skelly Unit #647		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,881.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2012/01/13	7.69
			Dip Angle
			(°)
			60.68
			Field Strength
			(nT)
			48,888

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
			(°)
			83.03

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,950.00	0.00	0.00	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,277.20	6.54	83.03	2,276.49	2.26	18.53	2.00	2.00	25.38	83.03	
6,830.38	6.54	83.03	6,800.00	65.20	533.60	0.00	0.00	0.00	0.00	PBHL-SU #647



SDI
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Skelly Unit #647
Company:	COG Operating LLC	TVD Reference:	GL @ 3881.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3881.00usft
Site:	Skelly Unit #647	North Reference:	Grid
Well:	Skelly Unit #647	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
West HL-SU #647 - South HL-SU #647									
1,850.00	0.00	0.00	1,850.00	0.00	0.00	0.00	0.00	0.00	0.00
8-5/8" Casing									
1,950.00	0.00	0.00	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00°/100'									
2,000.00	1.00	83.03	2,000.00	0.05	0.43	0.44	2.00	2.00	0.00
2,100.00	3.00	83.03	2,099.93	0.48	3.90	3.93	2.00	2.00	0.00
2,200.00	5.00	83.03	2,199.68	1.32	10.82	10.90	2.00	2.00	0.00
2,277.20	6.54	83.03	2,276.49	2.26	18.53	18.67	2.00	2.00	0.00
Hold 6.54°									
2,300.00	6.54	83.03	2,299.14	2.58	21.11	21.26	0.00	0.00	0.00
2,400.00	6.54	83.03	2,398.49	3.96	32.42	32.66	0.00	0.00	0.00
2,500.00	6.54	83.03	2,497.84	5.34	43.73	44.06	0.00	0.00	0.00
2,600.00	6.54	83.03	2,597.19	6.73	55.04	55.45	0.00	0.00	0.00
2,700.00	6.54	83.03	2,696.53	8.11	66.36	66.85	0.00	0.00	0.00
2,800.00	6.54	83.03	2,795.88	9.49	77.67	78.25	0.00	0.00	0.00
2,900.00	6.54	83.03	2,895.23	10.87	88.98	89.64	0.00	0.00	0.00
3,000.00	6.54	83.03	2,994.58	12.25	100.29	101.04	0.00	0.00	0.00
3,100.00	6.54	83.03	3,093.93	13.64	111.61	112.44	0.00	0.00	0.00
3,200.00	6.54	83.03	3,193.28	15.02	122.92	123.83	0.00	0.00	0.00
3,300.00	6.54	83.03	3,292.63	16.40	134.23	135.23	0.00	0.00	0.00
3,400.00	6.54	83.03	3,391.97	17.78	145.54	146.63	0.00	0.00	0.00
3,500.00	6.54	83.03	3,491.32	19.17	156.86	158.02	0.00	0.00	0.00
3,600.00	6.54	83.03	3,590.67	20.55	168.17	169.42	0.00	0.00	0.00
3,700.00	6.54	83.03	3,690.02	21.93	179.48	180.81	0.00	0.00	0.00
3,800.00	6.54	83.03	3,789.37	23.31	190.79	192.21	0.00	0.00	0.00
3,900.00	6.54	83.03	3,888.72	24.69	202.10	203.61	0.00	0.00	0.00
4,000.00	6.54	83.03	3,988.06	26.08	213.42	215.00	0.00	0.00	0.00
4,100.00	6.54	83.03	4,087.41	27.46	224.73	226.40	0.00	0.00	0.00
4,200.00	6.54	83.03	4,186.76	28.84	236.04	237.80	0.00	0.00	0.00
4,300.00	6.54	83.03	4,286.11	30.22	247.35	249.19	0.00	0.00	0.00
4,400.00	6.54	83.03	4,385.46	31.61	258.67	260.59	0.00	0.00	0.00
4,500.00	6.54	83.03	4,484.81	32.99	269.98	271.99	0.00	0.00	0.00
4,600.00	6.54	83.03	4,584.16	34.37	281.29	283.38	0.00	0.00	0.00
4,700.00	6.54	83.03	4,683.50	35.75	292.60	294.78	0.00	0.00	0.00
4,800.00	6.54	83.03	4,782.85	37.14	303.92	306.18	0.00	0.00	0.00
4,900.00	6.54	83.03	4,882.20	38.52	315.23	317.57	0.00	0.00	0.00
5,000.00	6.54	83.03	4,981.55	39.90	326.54	328.97	0.00	0.00	0.00
5,100.00	6.54	83.03	5,080.90	41.28	337.85	340.37	0.00	0.00	0.00
5,119.23	6.54	83.03	5,100.00	41.55	340.03	342.56	0.00	0.00	0.00
Top of Paddock									
5,200.00	6.54	83.03	5,180.25	42.66	349.17	351.76	0.00	0.00	0.00
5,300.00	6.54	83.03	5,279.59	44.05	360.48	363.16	0.00	0.00	0.00
5,400.00	6.54	83.03	5,378.94	45.43	371.79	374.56	0.00	0.00	0.00
5,500.00	6.54	83.03	5,478.29	46.81	383.10	385.95	0.00	0.00	0.00
5,600.00	6.54	83.03	5,577.64	48.19	394.42	397.35	0.00	0.00	0.00
5,700.00	6.54	83.03	5,676.99	49.58	405.73	408.75	0.00	0.00	0.00
5,800.00	6.54	83.03	5,776.34	50.96	417.04	420.14	0.00	0.00	0.00
5,900.00	6.54	83.03	5,875.69	52.34	428.35	431.54	0.00	0.00	0.00
6,000.00	6.54	83.03	5,975.03	53.72	439.66	442.93	0.00	0.00	0.00
6,100.00	6.54	83.03	6,074.38	55.10	450.98	454.33	0.00	0.00	0.00
6,200.00	6.54	83.03	6,173.73	56.49	462.29	465.73	0.00	0.00	0.00
6,300.00	6.54	83.03	6,273.08	57.87	473.60	477.12	0.00	0.00	0.00



SDI Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Skelly Unit #647
Company:	COG Operating LLC	TVD Reference:	GL @ 3881.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3881.00usft
Site:	Skelly Unit #647	North Reference:	Grid
Well:	Skelly Unit #647	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)
6,400.00	6.54	83.03	6,372.43	59.25	484.91	488.52	0.00	0.00	0.00
6,500.00	6.54	83.03	6,471.78	60.63	496.23	499.92	0.00	0.00	0.00
6,600.00	6.54	83.03	6,571.13	62.02	507.54	511.31	0.00	0.00	0.00
6,700.00	6.54	83.03	6,670.47	63.40	518.85	522.71	0.00	0.00	0.00
6,800.00	6.54	83.03	6,769.82	64.78	530.16	534.11	0.00	0.00	0.00
6,830.38	6.54	83.03	6,800.00	65.20	533.60	537.57	0.00	0.00	0.00
PBHL-SU #647									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
West HL-SU #647	0.00	0.00	-1.00	55.20	523.60	665,338.40	649,300.10	32° 49' 41.370 N	103° 50' 50.262 W
- hit/miss target									
- Shape									
- plan misses target center by 526.50usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W0.00 H100.00 D0.00)									
South HL-SU #647	0.00	0.00	-1.00	55.20	523.60	665,338.40	649,300.10	32° 49' 41.370 N	103° 50' 50.262 W
- plan misses target center by 526.50usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W100.00 H0.00 D0.00)									
PBHL-SU #647	0.00	0.00	6,800.00	65.20	533.60	665,348.40	649,310.10	32° 49' 41.468 N	103° 50' 50.145 W
- plan hits target center									
- Circle (radius 10.00)									

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

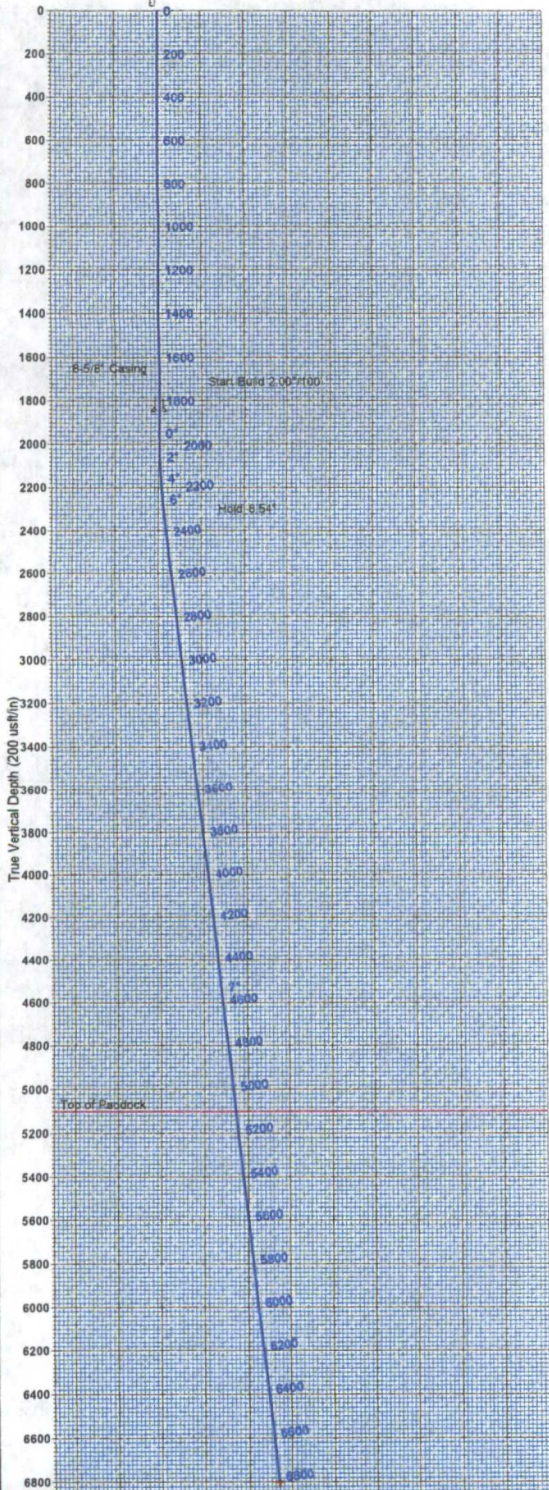
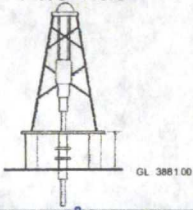
Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip Direction (°)
5,119.23	5,100.00	Top of Paddock		0.00

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,950.00	1,950.00	0.00	0.00	Start Build 2.00°/100'
2,277.20	2,276.49	2.26	18.53	Hold 6.54°



Azimuths to Grid North
True North: -0.26°
Magnetic North: 7.43°
Magnetic Field
Strength: 48858.2nT
Dip Angle: 60.68°
Date: 2012/01/13
Model: IGRF 2010

Skelly Unit #647
Eddy County, NM (NAN27 NME)
Northing: (Y) 665283.20
Easting: (X) 648776.50
Plan #1 - 7-7/8" Hole



WELL DETAILS: Skelly Unit #647

+N-S	+E-W	Northing	Ground Level	Latitude	Longitude	Slot
0.00	0.00	665283.20	3881.00 648776.50	32° 49' 40.847 N	103° 50' 56.402 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dip	TFace	VSeal	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1950.00	0.00	0.00	1950.00	0.00	0.00	0.00	0.00	0.00	
3	2277.20	6.54	83.03	2276.49	2.26	18.53	2.90	83.03	18.06	
4	6830.38	6.54	83.03	6860.00	66.20	533.60	0.00	0.00	537.57	PBHL-SU #647

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
South HL-SU #647	-1.00	55.20	523.60	665338.40	649300.1032° 49' 41.370 N	50° 50' 56.262 W	Rectangle (Sides: 1.00 00 W 100.00)	
West HL-SU #647	-1.00	55.20	523.60	665338.40	649300.1032° 49' 41.370 N	50° 50' 56.262 W	Rectangle (Sides: 1.100 00 W 0.00)	
PBHL-SU #647	6800.00	65.20	533.60	665348.40	649310.1032° 49' 41.468 N	50° 50' 56.145 W	Circle (Radius: 10.00)	

- plan passes target center by 526.50usf at 0.00usf MD (0.00 TVD, 0.00 N, 0.00 E)
- plan passes target center by 526.50usf at 0.00usf MD (0.00 TVD, 0.00 N, 0.00 E)
- plan hits target center

SITE DETAILS: Skelly Unit #647

Site Centre Northing: 665283.20
Easting: 648776.50
Positional Uncertainty: 0.00
Convergence: 0.26
Local North: Grid

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

FORMATION TOP DETAILS

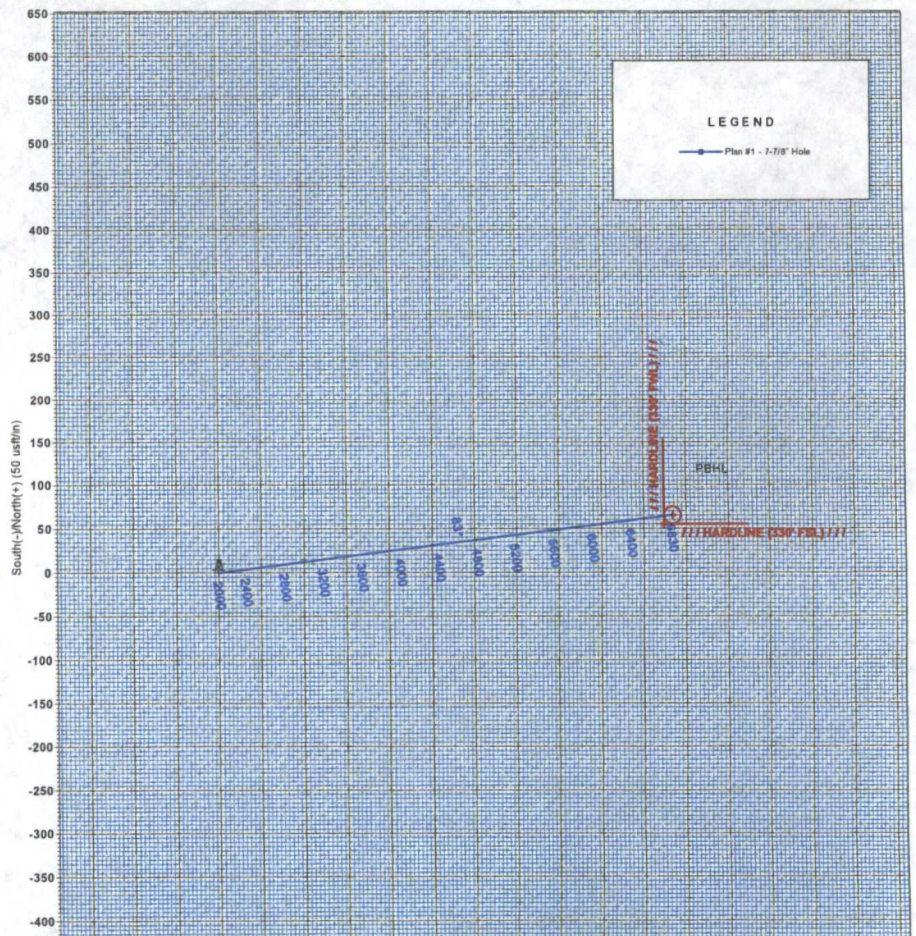
TVDPath	MDPath	Formation	DipAngle	DipDir
6100.00	6119.23	Top of Paddock	0.00	

CASING DETAILS

TVD	MD	Name	Size
1850.00	1850.00	8-5/8" Casing	8-5/8"

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Site Skelly Unit #647 Grid North
Latitude: 32° 49' 40.847 N
Longitude: 103° 50' 56.402 W
Grid East: 648776.50
Grid North: 665283.20
Scale Factor: 1.000

Geomagnetic Model: IGRF 2010
Sample Date: 13-Jan-12
Magnetic Declination: 7.69°
Dip Angle from Horizontal: 60.68°
Magnetic Field Strength: 48858
To convert a Magnetic Direction to a Grid Direction: Add 7.43°
To convert a Magnetic Direction to a True Direction: Add 7.69° East
To convert a True Direction to a Grid Direction: Subtract 0.26°



Brooks, David K., EMNRD

From: Brooks, David K., EMNRD
Sent: Tuesday, April 03, 2012 4:15 PM
To: 'Kelly Holly'
Subject: Skelly Unit #647; NSL Application

Dear Ms. Holly

In addition to the SE/4 SE/4 of Section 15, indicated in your application, it appears that the proposed location also encroaches to the South toward the NW/4 NW/4 of Section 23, and diagonally toward the NE/4 NE/4 of Section 22.

Is the ownership of these units also identical with the that of the Sw/ SW/4 of Section 14?

Sincerely

David K. Brooks

Brooks, David K., EMNRD

From: Kelly Holly [kholly@concho.com]
Sent: Wednesday, April 04, 2012 9:52 AM
To: Brooks, David K., EMNRD
Subject: RE: Skelly Unit #647; NSL Application

Yes, the ownership of these units are identical to that of the SW/4 SW/4 of Section 15.

Kelly Holly | Permitting Tech-NM | Concho Resources
550 W Texas Avenue, Suite 100 | Midland, TX 79701 | p: 432.685.4384 | kholly@concho.com



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From: Brooks, David K., EMNRD [<mailto:david.brooks@state.nm.us>]
Sent: Tuesday, April 03, 2012 5:15 PM
To: Kelly Holly
Subject: Skelly Unit #647; NSL Application

Dear Ms. Holly

In addition to the SE/4 SE/4 of Section 15, indicated in your application, it appears that the proposed location also encroaches to the South toward the NW/4 NW/4 of Section 23, and diagonally toward the NE/4 NE/4 of Section 22.

Is the ownership of these units also identical with the that of the Sw/ SW/4 of Section 14?

Sincerely

David K. Brooks

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