

DISTRICT I
1025 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0770

DISTRICT II
911 E. First St., Artesia, NM 88210
Phone: (505) 748-1263 Fax: (505) 748-9720

DISTRICT III
1040 Rio Rancho 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

MAR 10 2015

AMENDED REPORT

RECEIVED

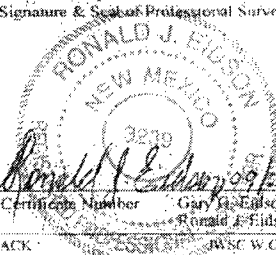
WELL LOCATION AND ACREAGE DEDICATION PLAN

API Number 30-015-42978	Pool Code 97788	Pool Name Wildcat G-01 S192617K; Gior-Yoso
Property Code 39004	Property Name BRADLEY 8 FEE	Well Number 8H
GRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3364'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	19-S	26-E		190	SOUTH	340	EAST	EDDY

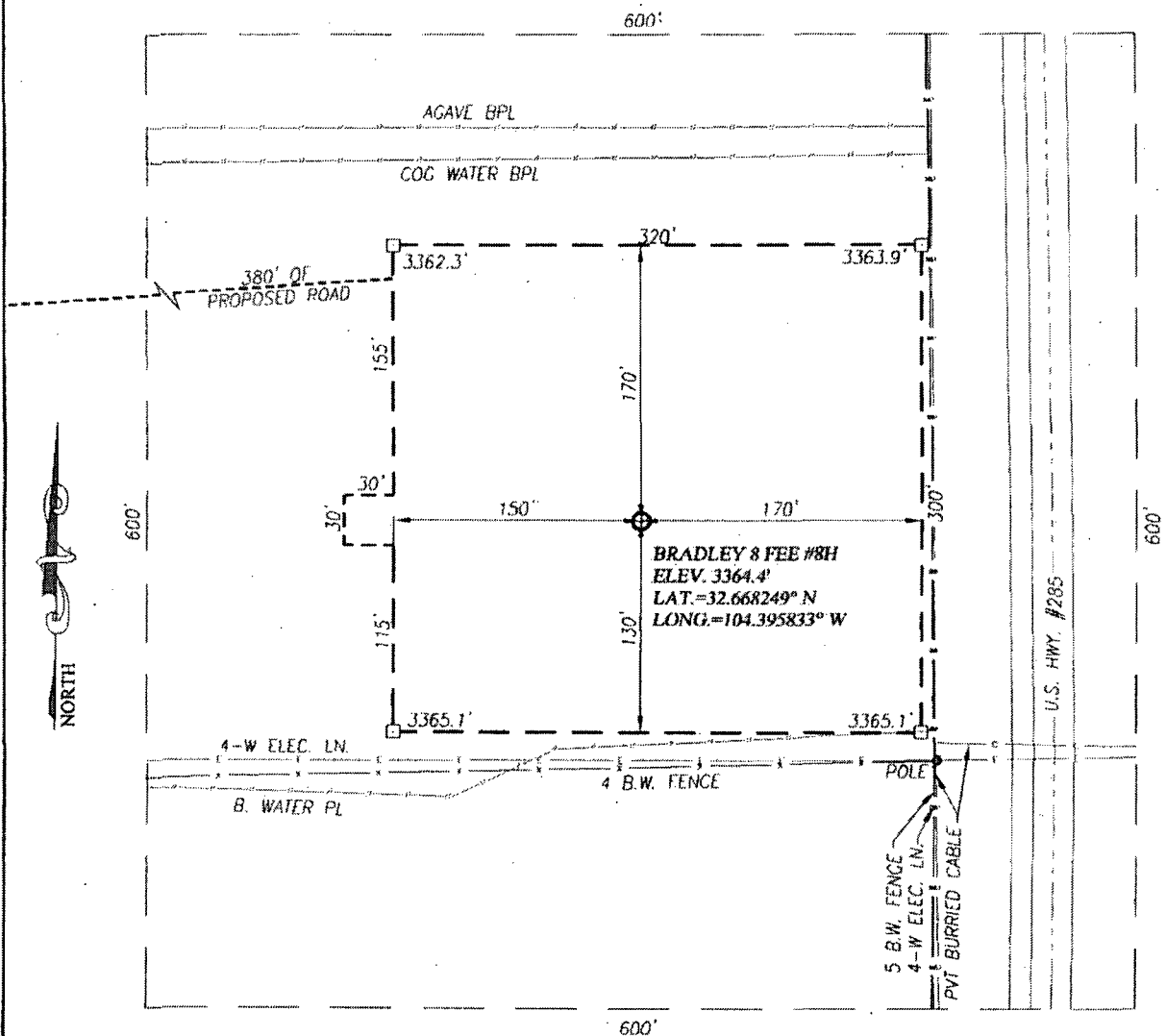
Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	19-S	26-E		330	NORTH	330	EAST	EDDY
Dedicated Acres		Joint or Infill		Consolidation Code		Order No.			
1-60									

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

GEODETIC COORDINATES NAD 27 NME BOTTOM HOLE LOCATION Y=611644.4 N X=480676.0 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 in a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature:  Date: 3-10-15 Printed Name: Kelly J. Holly E-mail Address: kholly@concho.com
CORNER COORDINATES TABLE NAD 27 NME A - Y=611974.0 N, X=479684.1 E B - Y=611974.5 N, X=480999.1 E C - Y=606533.7 N, X=481111.2 E D - Y=606541.7 N, X=479788.6 E	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plan 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. SEPTEMBER 8, 2014 Date of Survey Signature & Seal of Professional Surveyor:  Certificate Number: Gary J. Edelson: 12641 Ronald J. Edelson: 3239 ACK: JWSC W.O.: 14-110621
GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=606825.7 N X=480767.2 E LAT = 32.658249' N LONG. = 104.395833' W	Project Area Producing Area GRID AZ = 338°54'58" HORIZ. DIST = 4820.9'

Estimated
Completed
Interval
330 FSL
340 FSL

APD
9/2/15



DIRECTIONS TO BRADLEY 8 FEE #8H:

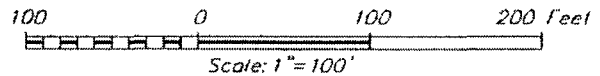
FROM THE INTERSECTION OF U.S. HWY. 285 AND CO. RD. 21 (ROCKIN R RED), GO WEST APPROX. 0.6 MILES ON CO. RD. 21. TURN RIGHT AND GO NORTH AT LEASE ROAD APPROX. 0.9 MILES. TURN RIGHT AND GO EAST APPROX. 0.3 MILES TO THE #3H PAD, FOLLOW ROAD SURVEY EAST CROSSING PROPOSED #4H & #7H PADS 0.3 MILES TO THIS LOCATION.



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

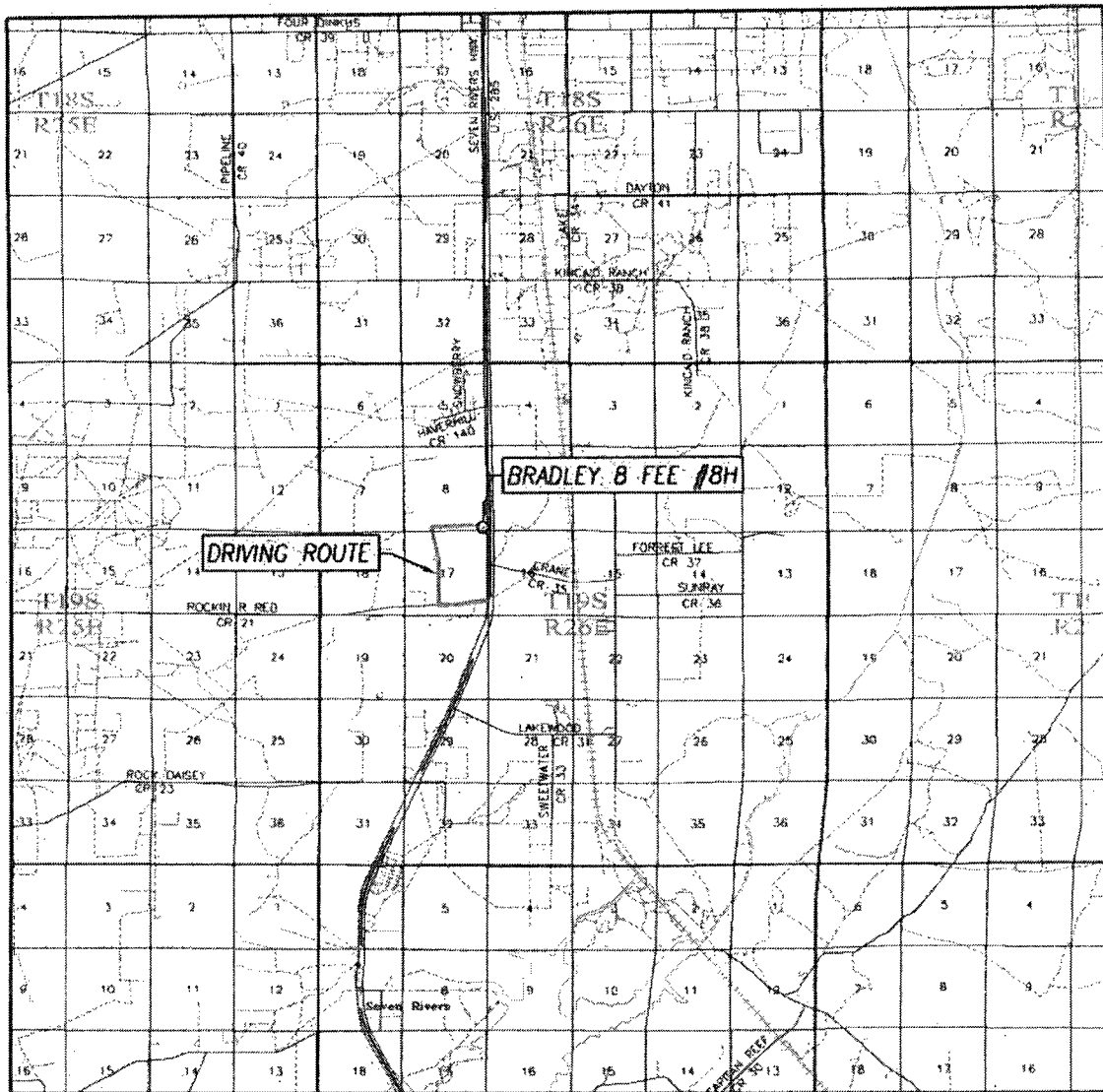


COG OPERATING, LLC

BRADLEY 8 FEE #8H WELL
LOCATED 190 FEET FROM THE SOUTH LINE
AND 340 FEET FROM THE EAST LINE OF SECTION 8,
TOWNSHIP 19 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

Survey Date: 9/8/14	CAD Date: 9/23/14	Drawn By: ACK
W.O. No.: 14110921	Rev.:	Rel. W.O.:
		Sheet 1 of 1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 8 - TWP. 19-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 190' FSL & 340' FEL

ELEVATION 3364'

OPERATOR COG OPERATING, LLC

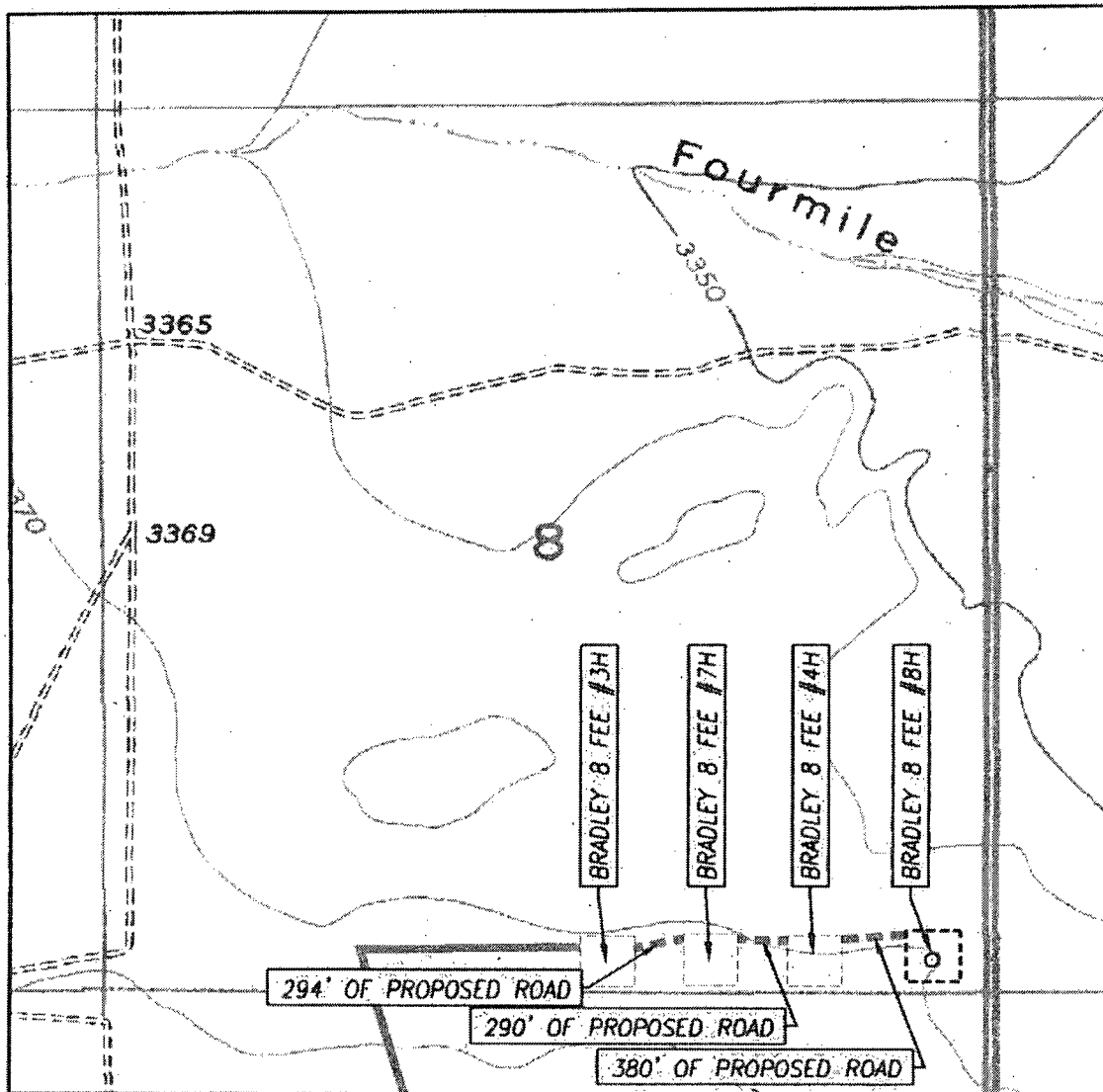
LEASE BRADLEY 8 FEE

PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

LOCATION VERIFICATION MAP



SCALE: 1" = 1000'

CONTOUR INTERVAL:
DAYTON, N.M. - 10'

SEC. 8 TWP. 19-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 190' FSL & 340' FEL

ELEVATION 3364'

OPERATOR COG OPERATING, LLC

LEASE BRADLEY 8 FEE

U.S.G.S. TOPOGRAPHIC MAP
DAYTON, N.M.

DIRECTIONS TO BRADLEY 8 FEE #8H:

FROM THE INTERSECTION OF U.S. HWY. 285 AND CO. RD. 21
(ROCKIN R. RD), GO WEST APPROX. 0.6 MILES ON CO. RD. 21.
TURN RIGHT AND GO NORTH AT LEASE ROAD APPROX. 0.9 MILES.
TURN RIGHT AND GO EAST APPROX. 0.3 MILES TO THE #3H PAD.
FOLLOW ROAD SURVEY EAST CROSSING PROPOSED #4H & #7H PADS
0.3 MILES TO THIS LOCATION.



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240

(575) 393-3117 www.jwsc.biz

TBPLS# 10021000



Project: Eddy County, NM (NAD27 NME)
Site: Bradley 8 Fee
Well: #8H
Wellbore: WB1
Design: Plan #1 03-09-15
Rig: Silver Oak 3



Azimuths to Grid North
True North: 0.03°
Magnetic North: 7.64°
Magnetic Field
Strength: 48346.8nT
Dip Angle: 60.36°
Date: 3/9/2015
Model: IGRF2015

WELL DETAILS

	+N-S	+E-W	Northing	Ground Level	Easting	Latitude	Longitude
	0.00	0.00	606825.70	3364.00	480767.20	32° 40' 5.69562 N	104° 23' 44.99953 W

SECTION DETAILS

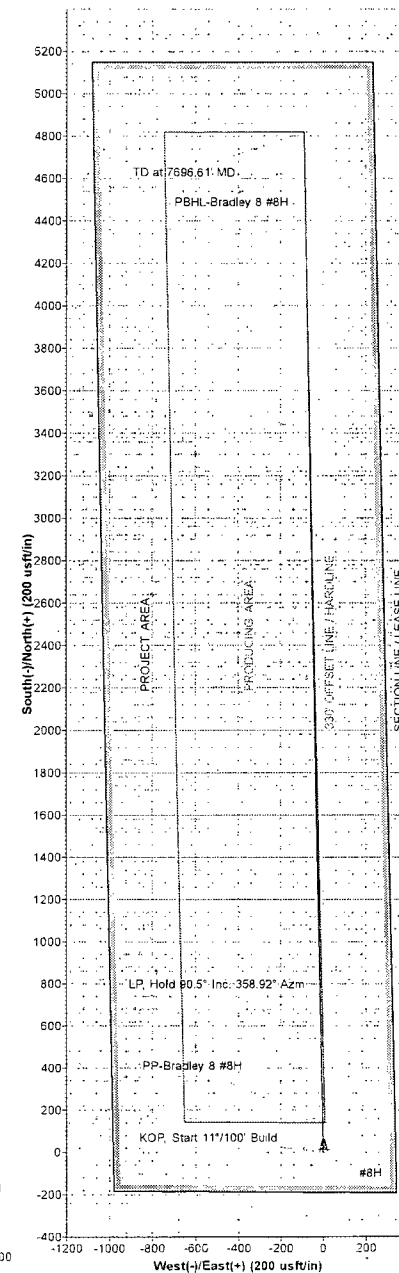
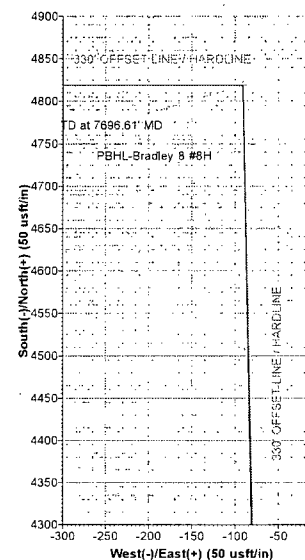
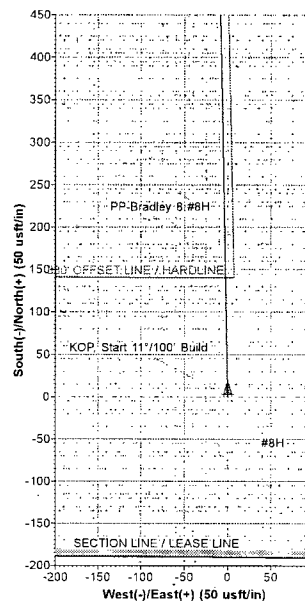
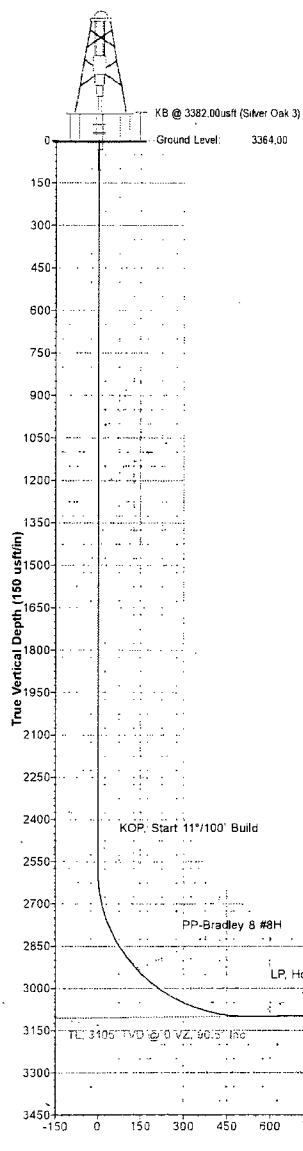
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2579.57	0.00	0.00	2579.57	0.00	0.00	0.00	0.00	0.00		KOP Start 11°/100' Build
3	3402.30	90.50	358.92	3100.42	525.32	-9.94	11.00	358.92	525.42		LP Hold 90.5° Inc. 358.92° Azm
4	7696.61	90.50	358.92	3062.95	4818.70	-91.20	0.00	0.00	4819.56		PBHL-Bradley 8 #8H TD at 7696.61' MD

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PP-Bradley 8 #8H	2934.91	140.00	-2.65	606965.70	480764.55	32° 40' 7.08099 N	104° 23' 45.03149 W	Point
PBHL-Bradley 8 #8H	3062.95	4818.70	-91.20	611644.40	480676.00	32° 40' 53.37930 N	104° 23' 48.09981 W	Point

LEGEND

— Plan #1 03-09-15





COG Operating LLC

Eddy County, NM (NAD27 NME)

Bradley 8 Fee

#8H

WB1

Plan: Plan #1 03-09-15

Surface: 190' FSL, 340' FEL, Sec 8, T19S, R26E, Unit P

PP: 330' FSL, 340' FEL, Sec 8, T19S, R26E, Unit P

BHL: 330' FNL, 330' FEL, Sec 8, T19S, R26E, Unit A

Standard Planning Report

09 March, 2015





Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #8H
Company:	COG Operating LLC	TVD Reference:	KB @ 3382.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3382.00usft (Silver Oak 3)
Site:	Bradley 8 Fee	North Reference:	Grid
Well:	#8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 03-09-15		

Project	Eddy County, NM (NAD27 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	Bradley 8 Fee		
Site Position:		Northing:	606,797.50 usft
From:	Map	Easting:	478,847.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 5.40482 N
		Longitude:	104° 24' 7.45386 W
		Grid Convergence:	-0.04 °

Well	#8H		
Well Position	+N/-S	28.20 usft	Northing:
	+E/-W	1,919.40 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 40' 5.69562 N
		Longitude:	104° 23' 44.99953 W
		Ground Level:	3,364.00 usft

Wellbore	WB1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	3/9/2015	7.61
			Dip Angle
			(°)
			60.36
			Field Strength
			(nT)
			48,347

Design	Plan #1 03-09-15		
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
			(°)
			358.92

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	
2,579.57	0.00	0.00	2,579.57	0.00	0.00	0.00	0.00	0.00	0.00	
3,402.30	90.50	358.92	3,100.42	525.32	-9.94	11.00	11.00	0.00	358.92	
7,696.61	90.50	358.92	3,062.95	4,818.70	-91.20	0.00	0.00	0.00	0.00	PBHL-Bradley 8 #8H



Planning Report



Database: Compass 5000 GCR
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Bradley 8 Fee
Well: #8H
Wellbore: WB1
Design: Plan #1 03-09-15

Local Co-ordinate Reference: Well #8H
TVD Reference: KB @ 3382.00usft (Silver Oak 3)
MD Reference: KB @ 3382.00usft (Silver Oak 3)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
2,579.57	0.00	0.00	2,579.57	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start 11°/100' Build									
2,600.00	2.25	358.92	2,599.99	0.40	-0.01	0.40	11.00	11.00	0.00
2,700.00	13.25	358.92	2,698.93	13.86	-0.26	13.86	11.00	11.00	0.00
2,800.00	24.25	358.92	2,793.48	45.94	-0.87	45.95	11.00	11.00	0.00
2,900.00	35.25	358.92	2,880.17	95.47	-1.81	95.49	11.00	11.00	0.00
2,970.65	43.02	358.92	2,934.93	140.02	-2.65	140.04	11.00	11.00	0.00
PP-Bradley 8 #8H									
3,000.00	46.25	358.92	2,955.81	160.63	-3.04	160.66	11.00	11.00	0.00
3,100.00	57.25	358.92	3,017.63	239.03	-4.52	239.07	11.00	11.00	0.00
3,200.00	68.25	358.92	3,063.35	327.77	-6.20	327.83	11.00	11.00	0.00
3,300.00	79.25	358.92	3,091.30	423.61	-8.02	423.69	11.00	11.00	0.00
3,399.12	90.15	358.92	3,100.44	522.15	-9.88	522.24	11.00	11.00	0.00
TL 3105° TVD @ 0.5° VZ 90.5° Inc									
3,400.00	90.25	358.92	3,100.44	523.02	-9.90	523.12	11.00	11.00	0.00
3,402.30	90.50	358.92	3,100.42	525.32	-9.94	525.42	11.00	11.00	0.00
LP Hold 90.5° Inc, 358.92° Azm									
3,500.00	90.50	358.92	3,099.57	623.00	-11.79	623.11	0.00	0.00	0.00
3,600.00	90.50	358.92	3,098.70	722.98	-13.68	723.11	0.00	0.00	0.00
3,700.00	90.50	358.92	3,097.83	822.96	-15.58	823.10	0.00	0.00	0.00
3,800.00	90.50	358.92	3,096.95	922.93	-17.47	923.10	0.00	0.00	0.00
3,900.00	90.50	358.92	3,096.08	1,022.91	-19.36	1,023.10	0.00	0.00	0.00
4,000.00	90.50	358.92	3,095.21	1,122.89	-21.25	1,123.09	0.00	0.00	0.00
4,100.00	90.50	358.92	3,094.34	1,222.87	-23.14	1,223.09	0.00	0.00	0.00
4,200.00	90.50	358.92	3,093.46	1,322.85	-25.04	1,323.08	0.00	0.00	0.00
4,300.00	90.50	358.92	3,092.59	1,422.83	-26.93	1,423.08	0.00	0.00	0.00
4,400.00	90.50	358.92	3,091.72	1,522.80	-28.82	1,523.08	0.00	0.00	0.00
4,500.00	90.50	358.92	3,090.85	1,622.78	-30.71	1,623.07	0.00	0.00	0.00
4,600.00	90.50	358.92	3,089.97	1,722.76	-32.61	1,723.07	0.00	0.00	0.00
4,700.00	90.50	358.92	3,089.10	1,822.74	-34.50	1,823.07	0.00	0.00	0.00
4,800.00	90.50	358.92	3,088.23	1,922.72	-36.39	1,923.06	0.00	0.00	0.00
4,900.00	90.50	358.92	3,087.35	2,022.70	-38.28	2,023.06	0.00	0.00	0.00
5,000.00	90.50	358.92	3,086.48	2,122.67	-40.17	2,123.05	0.00	0.00	0.00
5,100.00	90.50	358.92	3,085.61	2,222.65	-42.07	2,223.05	0.00	0.00	0.00
5,200.00	90.50	358.92	3,084.74	2,322.63	-43.96	2,323.05	0.00	0.00	0.00
5,300.00	90.50	358.92	3,083.86	2,422.61	-45.85	2,423.04	0.00	0.00	0.00
5,400.00	90.50	358.92	3,082.99	2,522.59	-47.74	2,523.04	0.00	0.00	0.00
5,500.00	90.50	358.92	3,082.12	2,622.57	-49.64	2,623.04	0.00	0.00	0.00
5,600.00	90.50	358.92	3,081.25	2,722.54	-51.53	2,723.03	0.00	0.00	0.00
5,700.00	90.50	358.92	3,080.37	2,822.52	-53.42	2,823.03	0.00	0.00	0.00
5,800.00	90.50	358.92	3,079.50	2,922.50	-55.31	2,923.02	0.00	0.00	0.00
5,900.00	90.50	358.92	3,078.63	3,022.48	-57.20	3,023.02	0.00	0.00	0.00
6,000.00	90.50	358.92	3,077.76	3,122.46	-59.10	3,123.02	0.00	0.00	0.00
6,100.00	90.50	358.92	3,076.88	3,222.44	-60.99	3,223.01	0.00	0.00	0.00
6,200.00	90.50	358.92	3,076.01	3,322.41	-62.88	3,323.01	0.00	0.00	0.00
6,300.00	90.50	358.92	3,075.14	3,422.39	-64.77	3,423.01	0.00	0.00	0.00
6,400.00	90.50	358.92	3,074.26	3,522.37	-66.67	3,523.00	0.00	0.00	0.00
6,500.00	90.50	358.92	3,073.39	3,622.35	-68.56	3,623.00	0.00	0.00	0.00
6,600.00	90.50	358.92	3,072.52	3,722.33	-70.45	3,722.99	0.00	0.00	0.00
6,700.00	90.50	358.92	3,071.65	3,822.31	-72.34	3,822.99	0.00	0.00	0.00
6,800.00	90.50	358.92	3,070.77	3,922.28	-74.23	3,922.99	0.00	0.00	0.00
6,900.00	90.50	358.92	3,069.90	4,022.26	-76.13	4,022.98	0.00	0.00	0.00
7,000.00	90.50	358.92	3,069.03	4,122.24	-78.02	4,122.98	0.00	0.00	0.00



Planning Report



Database: Compass 5000 GCR
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Bradley 8 Fee
Well: #8H
Wellbore: WB1
Design: Plan #1 03-09-15

Local Co-ordinate Reference: Well #8H
TVD Reference: KB @ 3382.00usft (Silver Oak 3)
MD Reference: KB @ 3382.00usft (Silver Oak 3)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
7,100.00	90.50	358.92	3,068.16	4,222.22	-79.91	4,222.97	0.00	0.00	0.00
7,200.00	90.50	358.92	3,067.28	4,322.20	-81.80	4,322.97	0.00	0.00	0.00
7,300.00	90.50	358.92	3,066.41	4,422.18	-83.70	4,422.97	0.00	0.00	0.00
7,400.00	90.50	358.92	3,065.54	4,522.15	-85.59	4,522.96	0.00	0.00	0.00
7,500.00	90.50	358.92	3,064.67	4,622.13	-87.48	4,622.96	0.00	0.00	0.00
7,600.00	90.50	358.92	3,063.79	4,722.11	-89.37	4,722.96	0.00	0.00	0.00
7,696.61	90.50	358.92	3,062.95	4,818.70	-91.20	4,819.56	0.00	0.00	0.00
TD at 7696.61' MD : PBHL-Bradley 8 #8H									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PP-Bradley 8 #8H	0.00	360.00	2,934.91	140.00	-2.65	606,965.70	480,764.55	32° 40' 7.08099 N	104° 23' 45.03149 W
- plan hits target center									
- Point									
PBHL-Bradley 8 #8H	0.00	360.00	3,062.95	4,818.70	-91.20	611,644.40	480,676.00	32° 40' 53.37930 N	104° 23' 46.09981 W
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,399.12	3,100.44	TL, 3105' TVD @ 0 VZ, 90.5° Inc		-0.50	358.92

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,579.57	2,579.57	0.00	0.00	KOP, Start 11°/100' Build
3,402.30	3,100.42	525.32	-9.94	LP, Hold 90.5° Inc, 358.92° Azm
7,696.61	3,062.95	4,818.70	-91.20	TD at 7696.61' MD