

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOC District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: COG OPERATING LLC OGRID #: 229137
Address: ONE CONCHO CENTER 600 W ILLINOIS AVE MIDLAND, TX 79701
Facility or well name: G J West Coop Unit #291H
API Number: 30-015- 40645 OCD Permit Number: 213389
U/L or Qtr/Qtr UL M Section 27 Township 17S Range 29E County: EDDY
Center of Proposed Design: Latitude N/A Longitude N/A NAD: ☐ 1927 ☐ 1983
Surface Owner ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Operation. ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3.
Signs: Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

RECEIVED

SEP 07 2012

NMOC DISTRICT ARTESIA

4.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

5.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: CRI Disposal Facility Permit Number: R1966
Disposal Facility Name: GM INC Disposal Facility Permit Number: 711-019-001
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No
Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Kelly J. Holly Title: Permitting Tech
Signature: [Signature] Date: 08/30/2012
e-mail address: kholly@concho.com Telephone: 432-685-4384

7. **OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: RDado Approval Date: 9/13/12

Title: Dist R Supervisor OCD Permit Number: 213389

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ Closure Completion Date: _____

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Closed Loop Operation & Maintenance Procedure

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

Cuttings will be hauled to either:

CRI (permit number R9166)

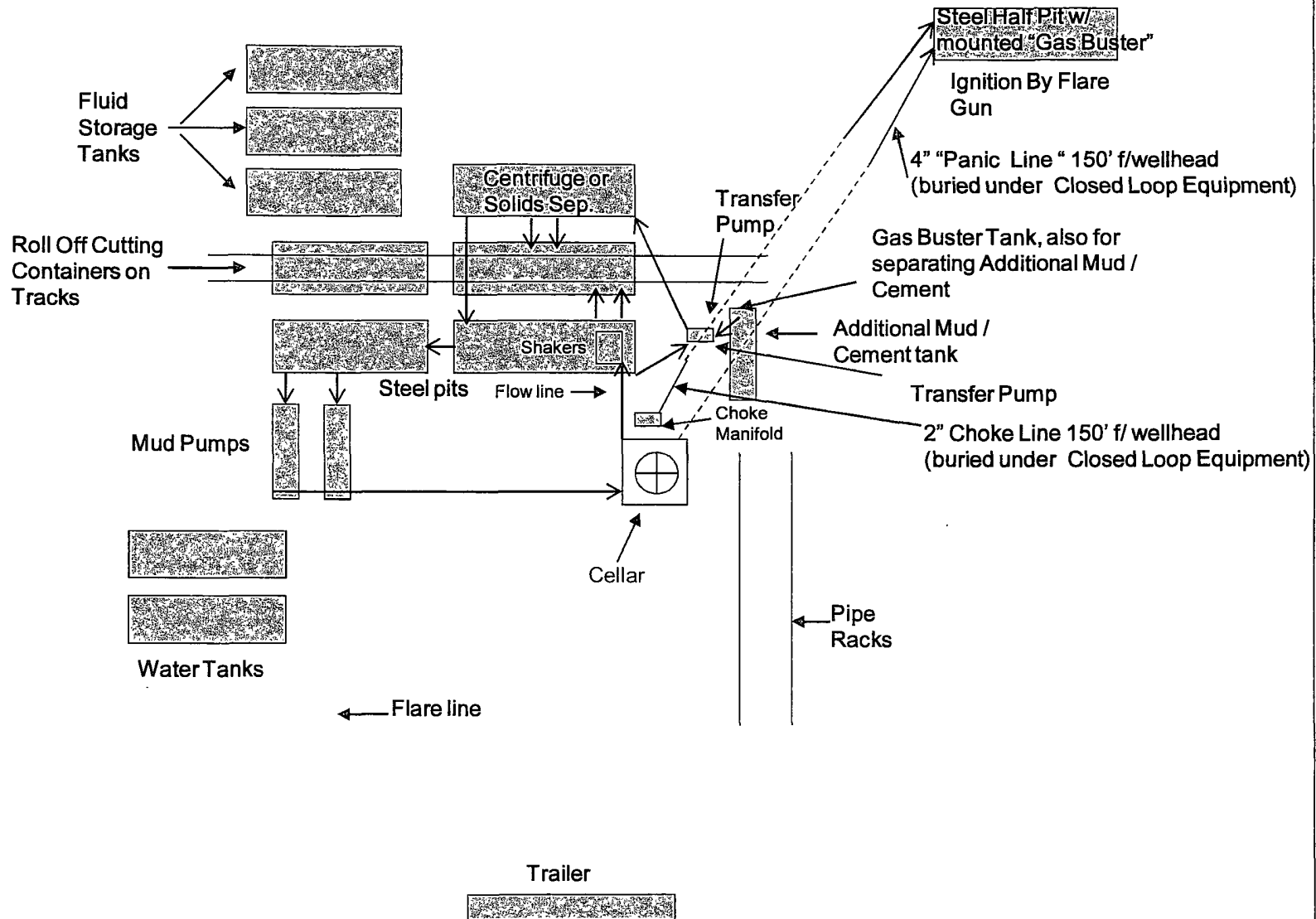
or

GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC

Closed Loop Equipment Diagram



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 Brizos 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 97558	Pool Name GJ; 7RVS-QN-GB-Glorieta Yeso
Property Code 302497	Property Name GJ WEST COOP UNIT	Well Number 291H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3523'

Surface Location

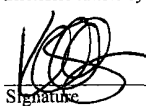
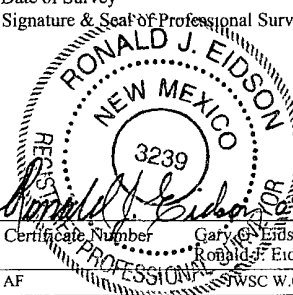
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	27	17-S	29-E		660	SOUTH	1080	WEST	EDDY

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
M	28	17-S	29-E		330	SOUTH	330	WEST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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

Project Area Producing Area GRID AZ = 266°40'11" HORIZ DIST = 6033.0' 1080' 330' SEC. 28 SEC. 27 SCALE: 1"=2000' Estimated completed Interval: 578 FSL + 330 FEL CORNER COORDINATES TABLE A) Y=655488.0 N, X=575424.4 E B) Y=655514.1 N, X=582019.5 E C) Y=654168.2 N, X=575428.1 E D) Y=654189.5 N, X=582025.4 E GEODETTIC COORDINATES NAD 27 NME SURFACE LOCATION Y=654849.4 N X=581778.4 E LAT.=32.799988° N LONG.=104.067191° W BOTTOM HOLE LOCATION Y=654499.1 N X=575757.1 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.  8-30-12 Signature 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 JUNE 29, 2012 Date of Survey Signature & Seal of Professional Surveyor:  3239 Certificate Number Gary C. Eidson 12641 Ronald J. Eidson 3239 AF SWSC W.O. 12.11.1155
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COG Operating LLC

Eddy County, NM

GJ West Coop Unit 291H

GJ West Coop Unit 291H

Wellbore #1

Plan: Plan #2

Surface: 660' FSL, 1080' FWL, Sec 27, T17S, R29E, Unit M

BHL: 330' FSL, 330' FWL, Sec 28, T17S, R29E, Unit M

PP: 578' FSL, 330' FEL, Sec 28, T17S, R29E

Standard Planning Report

31 July, 2012

Planning Report

Database: Houston R5000 Database
Company: COG Operating LLC
Project: Eddy County, NM
Site: GJ West Coop Unit 291H
Well: GJ West Coop Unit 291H
Wellbore: Wellbore #1
Design: Plan #2

Local Co-ordinate Reference: Site GJ West Coop Unit 291H
TVD Reference: WELL @ 3541 00ft
MD Reference: WELL @ 3541.00ft
North Reference: Gnd
Survey Calculation Method: Minimum Curvature

Project: Eddy County, NM
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: GJ West Coop Unit 291H
Site Position: **Northing:** 654,849 400 ft **Latitude:** 32 799984
From: Map **Easting:** 581,778 400 ft **Longitude:** -104 067195
Position Uncertainty: 0.00 ft **Slot Radius:** 13 200 in **Grid Convergence:** 0 14 °

Well: GJ West Coop Unit 291H
Well Position **+N/-S** 0 00 ft **Northing:** 654,849 400 ft **Latitude:** 32 799984
+E/-W 0 00 ft **Easting:** 581,778 400 ft **Longitude:** -104 067195
Position Uncertainty 0 00 ft **Wellhead Elevation:** **Ground Level:** 3,523 00 ft

Wellbore: Wellbore #1
Magnetics **Model Name** **Sample Date** **Declination** **Dip Angle** **Field Strength**
 (°) (°) (nT)
 IGRF2010 6/29/2012 7 73 60.61 48,803

Design: Plan #2
Audit Notes:
Version: **Phase:** PLAN **Tie On Depth:** 0 00
Vertical Section: **Depth From (TVD)** **+N/-S** **+E/-W** **Direction**
 (ft) (ft) (ft) (°)
 0 00 0 00 0 00 266 67

Plan Sections											
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target	
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
4,072 61	0 00	0 00	4,072 61	0 00	0 00	0 00	0 00	0 00	0 00		
4,830 94	91 00	266 67	4,550 00	-28 21	-484.98	12 00	12.00	0 00	266 67		
10,377 47	91 00	266 67	4,453 20	-350.30	-6,021 30	0 00	0 00	0 00	0 00	PBHL (GJ West Coop)	

Planning Report

Database: Houston R5000 Database
 Company: COG Operating LLC
 Project: Eddy County, NM
 Site: GJ West Coop Unit 291H
 Well: GJ West Coop Unit 291H
 Wellbore: Wellbore #1
 Design: Plan #2

Local Co-ordinate Reference: Site GJ West Coop Unit 291H
 TVD Reference: WELL @ 3541 00ft
 MD Reference: WELL @ 3541 00ft
 North Reference: Grd
 Survey Calculation Method: Minimum Curvature

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,072.61	0.00	0.00	4,072.61	0.00	0.00	0.00	0.00	0.00	0.00	
KOP - Start Build @ 12.00°/100'										
4,100.00	3.29	266.67	4,099.99	-0.05	-0.78	0.79	12.00	12.00	0.00	
4,200.00	15.29	266.67	4,198.49	-0.98	-16.87	16.89	12.00	12.00	0.00	
4,300.00	27.29	266.67	4,291.50	-3.09	-53.04	53.13	12.00	12.00	0.00	
4,400.00	39.29	266.67	4,374.94	-6.27	-107.73	107.91	12.00	12.00	0.00	
4,500.00	51.29	266.67	4,445.17	-10.39	-178.55	178.85	12.00	12.00	0.00	
4,600.00	63.29	266.67	4,499.11	-15.27	-262.39	262.83	12.00	12.00	0.00	
4,700.00	75.29	266.67	4,534.42	-20.69	-355.60	356.20	12.00	12.00	0.00	
4,800.00	87.29	266.67	4,549.54	-26.42	-454.10	454.87	12.00	12.00	0.00	
4,830.94	91.00	266.67	4,550.00	-28.21	-484.98	485.80	12.00	12.00	0.00	
Landing Point - Hold @ 91.00° INC, 266.67° AZ										
4,900.00	91.00	266.67	4,548.80	-32.22	-553.91	554.85	0.00	0.00	0.00	
5,000.00	91.00	266.67	4,547.05	-38.03	-653.73	654.83	0.00	0.00	0.00	
5,100.00	91.00	266.67	4,545.30	-43.84	-753.54	754.82	0.00	0.00	0.00	
5,200.00	91.00	266.67	4,543.56	-49.65	-853.36	854.80	0.00	0.00	0.00	
5,300.00	91.00	266.67	4,541.81	-55.45	-953.17	954.78	0.00	0.00	0.00	
5,400.00	91.00	266.67	4,540.07	-61.26	-1,052.99	1,054.77	0.00	0.00	0.00	
5,500.00	91.00	266.67	4,538.32	-67.07	-1,152.81	1,154.75	0.00	0.00	0.00	
5,600.00	91.00	266.67	4,536.58	-72.87	-1,252.62	1,254.74	0.00	0.00	0.00	
5,700.00	91.00	266.67	4,534.83	-78.68	-1,352.44	1,354.72	0.00	0.00	0.00	
5,757.67	91.00	266.67	4,533.83	-82.03	-1,410.00	1,412.39	0.00	0.00	0.00	
PP @ 5757.67 MD, 4533.83 TVD, 91.00 INC, 266.67 AZ, 1412.39 VS										
5,800.00	91.00	266.67	4,533.09	-84.49	-1,452.25	1,454.71	0.00	0.00	0.00	
5,900.00	91.00	266.67	4,531.34	-90.29	-1,552.07	1,554.69	0.00	0.00	0.00	
6,000.00	91.00	266.67	4,529.60	-96.10	-1,651.89	1,654.68	0.00	0.00	0.00	
6,100.00	91.00	266.67	4,527.85	-101.91	-1,751.70	1,754.66	0.00	0.00	0.00	
6,200.00	91.00	266.67	4,526.11	-107.72	-1,851.52	1,854.65	0.00	0.00	0.00	
6,300.00	91.00	266.67	4,524.36	-113.52	-1,951.33	1,954.63	0.00	0.00	0.00	
6,400.00	91.00	266.67	4,522.62	-119.33	-2,051.15	2,054.62	0.00	0.00	0.00	
6,500.00	91.00	266.67	4,520.87	-125.14	-2,150.97	2,154.60	0.00	0.00	0.00	
6,600.00	91.00	266.67	4,519.13	-130.94	-2,250.78	2,254.59	0.00	0.00	0.00	
6,700.00	91.00	266.67	4,517.38	-136.75	-2,350.60	2,354.57	0.00	0.00	0.00	
6,800.00	91.00	266.67	4,515.64	-142.56	-2,450.41	2,454.56	0.00	0.00	0.00	
6,900.00	91.00	266.67	4,513.89	-148.36	-2,550.23	2,554.54	0.00	0.00	0.00	
7,000.00	91.00	266.67	4,512.15	-154.17	-2,650.05	2,654.53	0.00	0.00	0.00	
7,100.00	91.00	266.67	4,510.40	-159.98	-2,749.86	2,754.51	0.00	0.00	0.00	
7,200.00	91.00	266.67	4,508.65	-165.79	-2,849.68	2,854.50	0.00	0.00	0.00	
7,300.00	91.00	266.67	4,506.91	-171.59	-2,949.49	2,954.48	0.00	0.00	0.00	
7,400.00	91.00	266.67	4,505.16	-177.40	-3,049.31	3,054.47	0.00	0.00	0.00	
7,500.00	91.00	266.67	4,503.42	-183.21	-3,149.13	3,154.45	0.00	0.00	0.00	
7,600.00	91.00	266.67	4,501.67	-189.01	-3,248.94	3,254.43	0.00	0.00	0.00	
7,700.00	91.00	266.67	4,499.93	-194.82	-3,348.76	3,354.42	0.00	0.00	0.00	
7,800.00	91.00	266.67	4,498.18	-200.63	-3,448.57	3,454.40	0.00	0.00	0.00	
7,900.00	91.00	266.67	4,496.44	-206.43	-3,548.39	3,554.39	0.00	0.00	0.00	
8,000.00	91.00	266.67	4,494.69	-212.24	-3,648.21	3,654.37	0.00	0.00	0.00	
8,100.00	91.00	266.67	4,492.95	-218.05	-3,748.02	3,754.36	0.00	0.00	0.00	
8,200.00	91.00	266.67	4,491.20	-223.85	-3,847.84	3,854.34	0.00	0.00	0.00	
8,300.00	91.00	266.67	4,489.46	-229.66	-3,947.65	3,954.33	0.00	0.00	0.00	
8,400.00	91.00	266.67	4,487.71	-235.47	-4,047.47	4,054.31	0.00	0.00	0.00	
8,500.00	91.00	266.67	4,485.97	-241.28	-4,147.29	4,154.30	0.00	0.00	0.00	
8,600.00	91.00	266.67	4,484.22	-247.08	-4,247.10	4,254.28	0.00	0.00	0.00	
8,700.00	91.00	266.67	4,482.48	-252.89	-4,346.92	4,354.27	0.00	0.00	0.00	

Planning Report

Database: Houston R5000 Database
 Company: COG Operating LLC
 Project: Eddy County, NM
 Site: GJ West Coop Unit 291H
 Well: GJ West Coop Unit 291H
 Wellbore: Wellbore #1
 Design: Plan #2

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Site GJ West Coop Unit 291H
 WELL @ 3541 00ft
 WELL @ 3541 00ft
 Grid
 Minimum Curvature

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,800.00	91.00	266.67	4,480.73	-258.70	-4,446.73	4,454.25	0.00	0.00	0.00	
8,900.00	91.00	266.67	4,478.99	-264.50	-4,546.55	4,554.24	0.00	0.00	0.00	
9,000.00	91.00	266.67	4,477.24	-270.31	-4,646.37	4,654.22	0.00	0.00	0.00	
9,100.00	91.00	266.67	4,475.50	-276.12	-4,746.18	4,754.21	0.00	0.00	0.00	
9,200.00	91.00	266.67	4,473.75	-281.92	-4,846.00	4,854.19	0.00	0.00	0.00	
9,300.00	91.00	266.67	4,472.00	-287.73	-4,945.81	4,954.18	0.00	0.00	0.00	
9,400.00	91.00	266.67	4,470.26	-293.54	-5,045.63	5,054.16	0.00	0.00	0.00	
9,500.00	91.00	266.67	4,468.51	-299.35	-5,145.45	5,154.15	0.00	0.00	0.00	
9,600.00	91.00	266.67	4,466.77	-305.15	-5,245.26	5,254.13	0.00	0.00	0.00	
9,700.00	91.00	266.67	4,465.02	-310.96	-5,345.08	5,354.11	0.00	0.00	0.00	
9,800.00	91.00	266.67	4,463.28	-316.77	-5,444.89	5,454.10	0.00	0.00	0.00	
9,900.00	91.00	266.67	4,461.53	-322.57	-5,544.71	5,554.08	0.00	0.00	0.00	
10,000.00	91.00	266.67	4,459.79	-328.38	-5,644.53	5,654.07	0.00	0.00	0.00	
10,100.00	91.00	266.67	4,458.04	-334.19	-5,744.34	5,754.05	0.00	0.00	0.00	
10,200.00	91.00	266.67	4,456.30	-339.99	-5,844.16	5,854.04	0.00	0.00	0.00	
10,300.00	91.00	266.67	4,454.55	-345.80	-5,943.97	5,954.02	0.00	0.00	0.00	
10,377.47	91.00	266.67	4,453.20	-350.30	-6,021.30	6,031.48	0.00	0.00	0.00	
TD @ 10377.47' MD, 4453.20' TVD - PBHL (GJ West Coop Unit 291H Plan 2)										

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude
PBHL (GJ West Coop Unit 291H)	- plan hits target center - Point	0.00	0.00	4,453.20	-350.30	-6,021.30	654,499.100	575,757.100	32.799061 -104.086794

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,072.61	4,072.61	0.00	0.00	KOP - Start Build @ 12.00°/100'
4,830.94	4,550.00	-28.21	-484.98	Landing Point - Hold @ 91.00° INC, 266.67° AZ
5,757.67	4,533.83	-82.03	-1,410.00	PP @ 5757.67 MD, 4533.83 TVD, 91.00 INC, 266.67 AZ, 1412.39 VS
10,377.47	4,453.20	-350.30	-6,021.30	TD @ 10377.47' MD, 4453.20' TVD



COG Operating LLC
GJ West Coop Unit 291H
Eddy County, NM
Plan #2



Surface Location		Ground Elev: 3523.00 WELL @ 3541.00ft			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	654849.400	581778.400	32.799984	-104.067195

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (GJ West Coop Unit 291H Plan 2)	4453.20	-350.30	-6021.30	654499.100	575757.100	32.799061	-104.066793

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP - Start Build @ 12.00°/100'	
2	4072.81	0.00	0.00	4072.81	0.00	0.00	0.00	0.00	0.00	Landing Point - Hold @ 91.00° INC, 266.67° AZ	
3	4830.94	91.00	266.67	4550.00	-28.21	-484.98	12.00	266.67	485.80	TD @ 10377.47' MD, 4453.20' TVD	
4	10377.47	91.00	266.67	4453.20	-350.30	-6021.30	0.00	0.00	6031.48	TD @ 10377.47' MD, 4453.20' TVD	

