

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

District III
1609 Rio Brazos Rd., Aztec, NM 87410

District IV
1220 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, NM 87505

Form C-102
Revised October 15, 2009
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-	² Pool Code 96721	³ Pool Name LAGUNA SALADO; BONE SPRING
⁴ Property Code 302644	⁵ Property Name USP FEE	⁶ Well Number 3
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING LLC	⁹ Elevation 2957.1'

Surface Location

UL or Irr. no.	Section	Township	Range	Lot 1/2	Feet from the	North/South line	Feet from the	East/West line	County
M	9	23 S.	29 E.		100	SOUTH	200	WEST	EDDY

Bottom Hole Location If Different From Surface

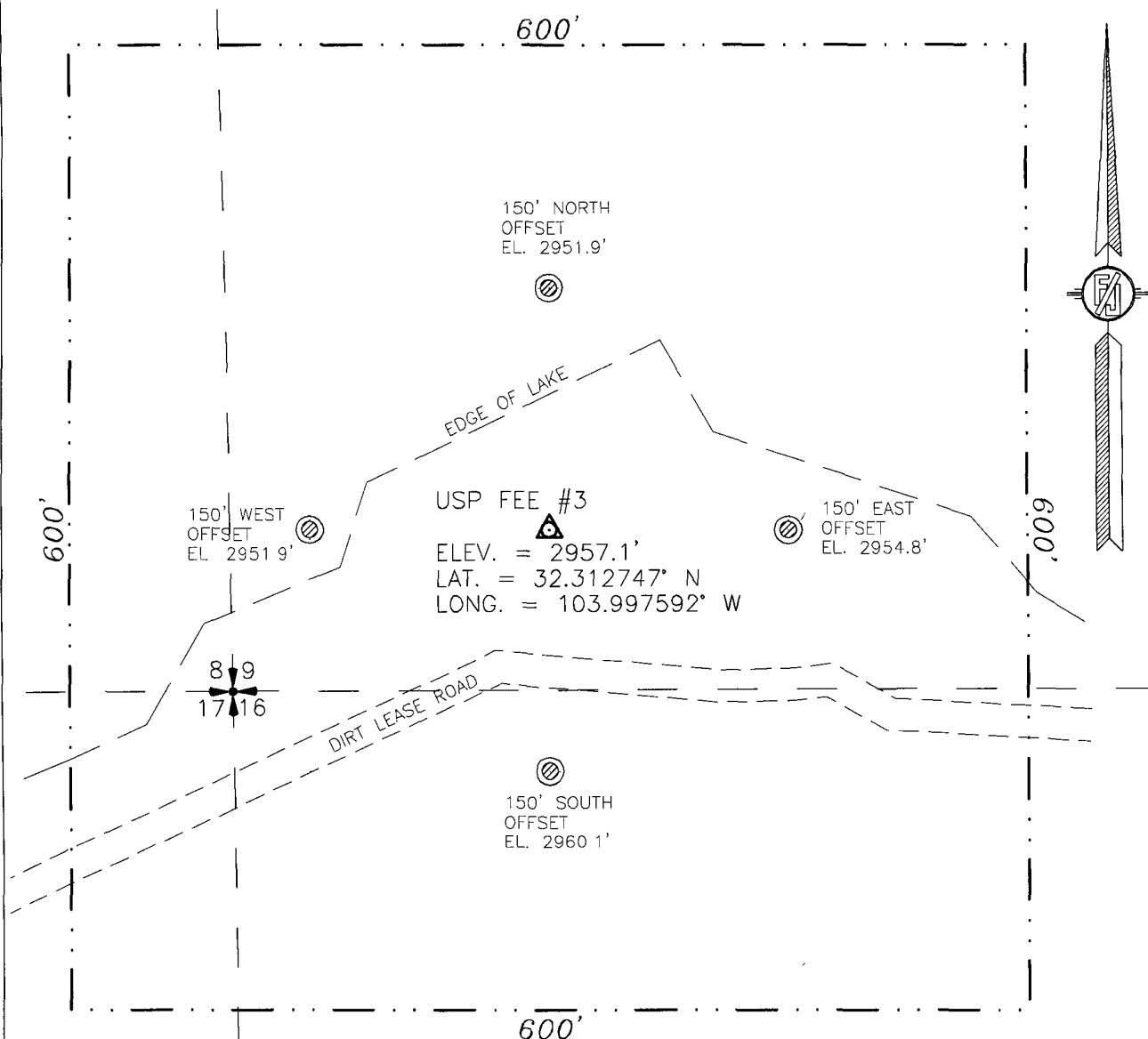
UL or Irr. no.	Section	Township	Range	Lot 1/2	Feet from the	North/South line	Feet from the	East/West line	County
N	10	23 S.	29 E.		500	SOUTH	2310	WEST	EDDY

¹⁰ Dedicated Acres 240	¹¹ Joint or Indiv. <input type="checkbox"/>	¹² Consolidation Code <input type="checkbox"/>	¹³ 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.

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complies to the best of my knowledge and belief, and that this organization either owns a working interest or an undivided interest in the land including the proposed bottom hole location or has assigned 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 hereby entered by this division.</p> <p>Signature: <i>[Signature]</i> Date: 6/16/2010</p> <p>Robyn Odom</p> <p>Printed Name:</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from fiducial 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.</p> <p>Date of Survey: 6/16/2010</p> <p>Signature and Seal of Professional Surveyor: <i>[Signature]</i></p> <p>Certificate Number: 11100001, JUNE 11, 2009</p> <p>MADRON SURVEYING, INC.</p> <p>SURVEY NO. 073</p>

SECTION 9, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO



0 10 50 100 200
SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM STATE HWY 128 AND STATE HWY 31 GO
SOUTHWEST ON HWY 31 APROX. 1.1 MILES AND TURN
LEFT ON CALICHE ROAD AND GO SOUTHEAST 1.6 MILES
AND TURN LEFT ON DIRT ROAD AND GO
NORTH-NORTHEAST APROX. 0.2 MILES AND LOCATION IS
ON THE LEFT (NORTH) 91'.

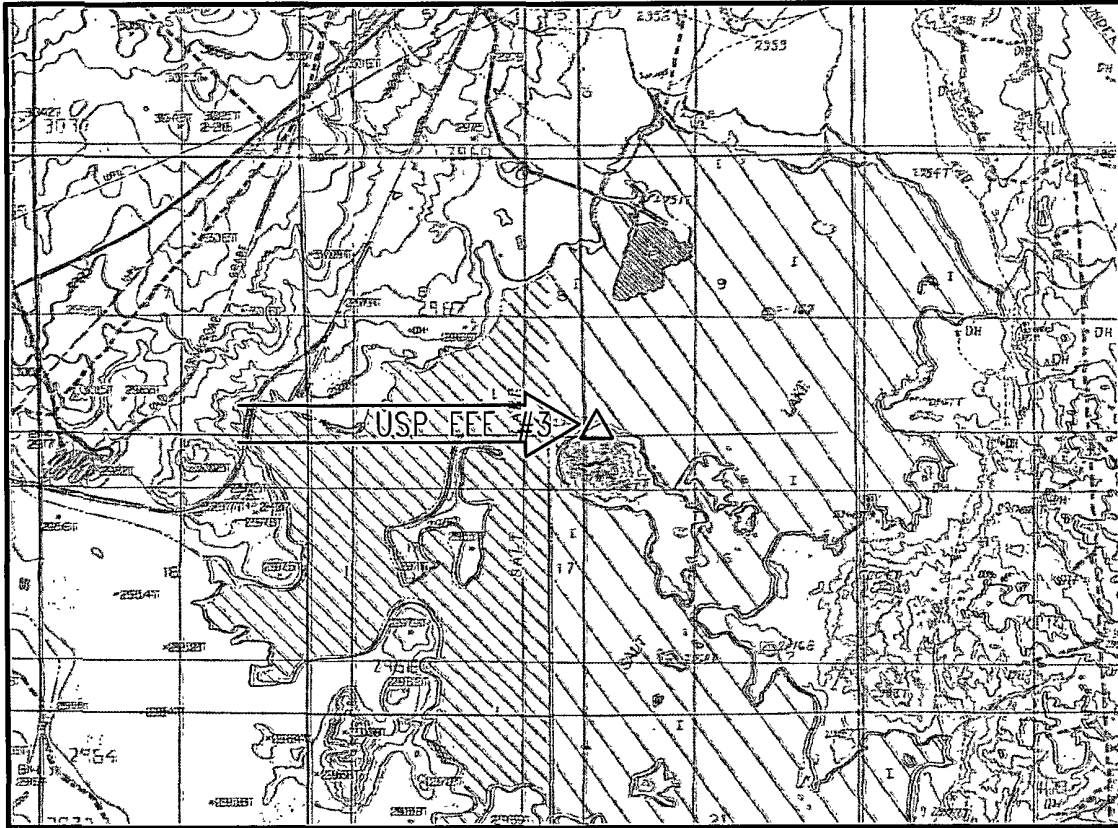
COG OPERATING LLC
USP FEE #3
LOCATED 100 FT. FROM THE SOUTH LINE
AND 200 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 23 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 9, 2010

SURVEY NO. 073

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 887-5830

SECTION 9, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



NOT TO SCALE

DIRECTIONS TO LOCATION

FROM STATE HWY 128 AND STATE HWY. 31 GO
SOUTHWEST ON HWY. 31 APROX. 1.1 MILES AND
TURN LEFT ON CALICHE ROAD AND GO
SOUTHEAST 1.6 MILES AND TURN LEFT ON DIRT
ROAD AND GO NORTH-NORTHEAST APROX. 0.2
MILES AND LOCATION IS ON THE LEFT (NORTH)
91'.

CONTOUR INTERVAL:
REMUDA BASIN

SEC. 9 TWP. 23-S RGE. 29-E
SURVEY N.M.P.M.
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 100' FSL & 200' FWL
ELEVATION 2957.1
OPERATOR COG OPERATING LLC
LEASE USP FEE

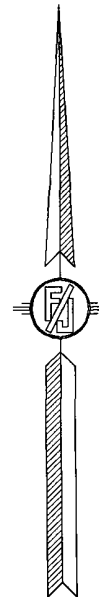
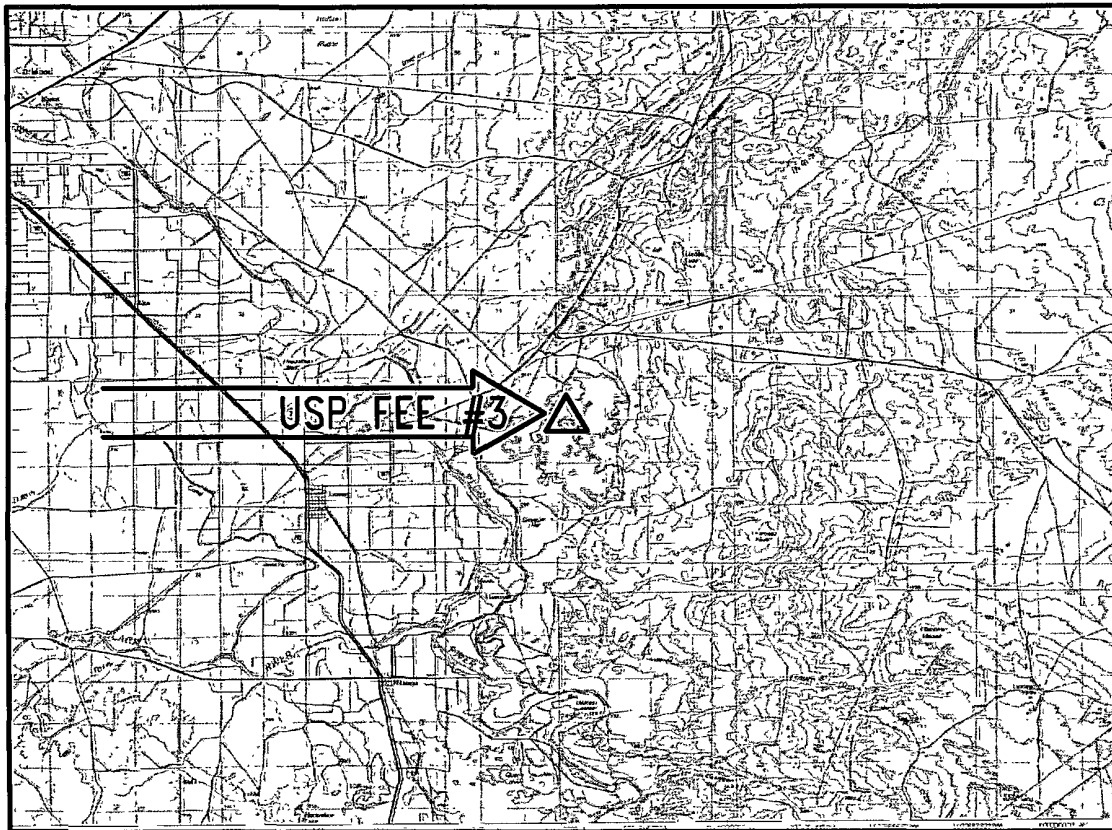
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SECTION 9, TOWNSHIP 23 SOUTH,
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EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 9, 2010

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MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 887-5830

SECTION 9, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DIRECTIONS TO LOCATION

FROM STATE HWY. 128 AND STATE HWY. 31 GO
SOUTHWEST ON HWY. 31 APROX. 1.1 MILES AND
TURN LEFT ON CALICHE ROAD AND GO
SOUTHEAST 1.6 MILES AND TURN LEFT ON DIRT
ROAD AND GO NORTH-NORTHEAST APROX. 0.2
MILES AND LOCATION IS ON THE LEFT (NORTH)
91'.

NOT TO SCALE

SEC. 9 TWP. 23-S RGE. 29-E
SURVEY N.M.P.M.
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 100' FSL & 200' FWL
ELEVATION 2957.1
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USP FEE #3
LOCATED 100 FT. FROM THE SOUTH LINE
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SECTION 9, TOWNSHIP 23 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 9, 2010

SURVEY NO. 073

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 887-5830



COG Operating LLC

Eddy County

USP FEE

#3H

OH

Plan: Plan #1

Pathfinder X & Y Planning Report

16 June, 2010

PATHFINDER



Pathfinder
Pathfinder X & Y Planning Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 2982 00ft (Original Well Elev)
Site:	USP FEE	MD Reference:	WELL @ 2982 00ft (Original Well Elev)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Project	Eddy County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	USP FEE
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Site Position:		Northing:	477,663.154 ft	Latitude:	32° 18' 45.800 N
From:	Lat/Long	Easting:	645,061.446 ft	Longitude:	103° 59' 51.300 W
Position Uncertainty:	0 00 ft	Slot Radius:	"	Grid Convergence:	0 18 °

Well	#3H					
Well Position	+N/-S	0 00 ft	Northing:	477,663.154 ft	Latitude:	32° 18' 45.800 N
	+E/-W	0.00 ft	Easting:	645,061.446 ft	Longitude:	103° 59' 51.300 W
Position Uncertainty		0 00 ft	Wellhead Elevation:	ft	Ground Level:	2,957.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	06/16/2010	7.90	60.24	48,758

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0 00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0 00	0 00	0.00	86 50

Survey Tool Program		Date	06/16/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0 00	14,787.74	Plan #1 (OH)	MWD	MWD - Standard	



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 2982.00ft (Original Well Elev)
MD Reference: WELL @ 2982.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0 00	0.00	0.00	0 00	-2,982.00	0.00	0 00	0.00	0 00	477,663.15	645,061.45
100 00	0.00	0.00	100.00	-2,882.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45
200.00	0.00	0.00	200 00	-2,782.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45
300 00	0.00	0.00	300 00	-2,682.00	0.00	0 00	0.00	0 00	477,663.15	645,061.45
400.00	0.00	0.00	400.00	-2,582.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
500 00	0.00	0.00	500 00	-2,482.00	0.00	0.00	0 00	0 00	477,663.15	645,061.45
600 00	0.00	0.00	600.00	-2,382.00	0.00	0 00	0 00	0.00	477,663.15	645,061.45
700.00	0.00	0.00	700.00	-2,282.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45
800 00	0.00	0.00	800.00	-2,182.00	0.00	0 00	0 00	0.00	477,663.15	645,061.45
900.00	0.00	0.00	900.00	-2,082.00	0.00	0.00	0 00	0 00	477,663.15	645,061.45
1,000.00	0.00	0.00	1,000.00	-1,982.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
1,100 00	0.00	0.00	1,100.00	-1,882.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
1,200.00	0.00	0.00	1,200.00	-1,782.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45
1,300 00	0.00	0.00	1,300.00	-1,682.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
1,400.00	0.00	0.00	1,400.00	-1,582.00	0.00	0.00	0 00	0 00	477,663.15	645,061.45
1,500 00	0.00	0.00	1,500.00	-1,482.00	0.00	0.00	0 00	0 00	477,663.15	645,061.45
1,600.00	0.00	0.00	1,600.00	-1,382.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
1,700 00	0.00	0.00	1,700.00	-1,282.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
1,800.00	0.00	0.00	1,800.00	-1,182.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45
1,900 00	0.00	0.00	1,900.00	-1,082.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
2,000.00	0.00	0.00	2,000.00	-982.00	0.00	0 00	0.00	0.00	477,663.15	645,061.45
2,100 00	0.00	0.00	2,100.00	-882.00	0.00	0.00	0 00	0.00	477,663.15	645,061.45
2,200.00	0.00	0.00	2,200.00	-782.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45
2,300 00	0.00	0.00	2,300.00	-682.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
2,400.00	0.00	0.00	2,400.00	-582.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
2,500 00	0.00	0.00	2,500.00	-482.00	0.00	0.00	0.00	0 00	477,663.15	645,061.45
2,600.00	0.00	0.00	2,600.00	-382.00	0.00	0.00	0.00	0.00	477,663.15	645,061.45



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Design: Plan #1

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

Well #3H
WELL @ 2982 00ft (Original Well Elev)
WELL @ 2982 00ft (Original Well Elev)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0 00	2,700.00	-282.00	0 00	0.00	0 00	0 00	477,663.15	645,061.45
2,800.00	0.00	0 00	2,800.00	-182.00	0 00	0.00	0 00	0.00	477,663.15	645,061.45
2,900.00	2.00	32.74	2,899.98	-82.02	1.47	0.94	1.03	2.00	477,664.62	645,062.39
3,000.00	4.00	32.74	2,999.84	17.84	5.87	3.77	4.13	2 00	477,669.02	645,065.22
3,027.31	4.55	32.74	3,027.07	45.07	7.58	4.87	5.33	2 00	477,670.74	645,066.32
3,100.00	4.55	32.74	3,099.53	117.53	12.43	7.99	8.73	0.00	477,675.58	645,069.44
3,200.00	4.55	32.74	3,199.22	217.22	19.10	12.28	13.42	0.00	477,682.25	645,073.72
3,300.00	4.55	32.74	3,298.90	316.90	25.76	16.56	18.11	0.00	477,688.92	645,078.01
3,400.00	4.55	32.74	3,398.59	416.59	32.43	20.85	22.79	0.00	477,695.59	645,082.29
3,500.00	4.55	32.74	3,498.27	516.27	39.10	25.13	27.48	0.00	477,702.25	645,086.58
3,600.00	4.55	32.74	3,597.96	615.96	45.77	29.42	32.16	0.00	477,708.92	645,090.87
3,700.00	4.55	32.74	3,697.65	715.65	52.43	33.71	36.85	0.00	477,715.59	645,095.15
3,800.00	4.55	32.74	3,797.33	815.33	59.10	37.99	41.53	0.00	477,722.26	645,099.44
3,900.00	4.55	32.74	3,897.02	915.02	65.77	42.28	46.22	0.00	477,728.92	645,103.73
4,000.00	4.55	32.74	3,996.70	1,014.70	72.44	46.57	50.90	0.00	477,735.59	645,108.01
4,100.00	4.55	32.74	4,096.39	1,114.39	79.10	50.85	55.59	0.00	477,742.26	645,112.30
4,200.00	4.55	32.74	4,196.07	1,214.07	85.77	55.14	60.28	0.00	477,748.92	645,116.58
4,300.00	4.55	32.74	4,295.76	1,313.76	92.44	59.42	64.96	0.00	477,755.59	645,120.87
4,400.00	4.55	32.74	4,395.44	1,413.44	99.11	63.71	69.65	0.00	477,762.26	645,125.16
4,500.00	4.55	32.74	4,495.13	1,513.13	105.77	68.00	74.33	0.00	477,768.93	645,129.44
4,600.00	4.55	32.74	4,594.81	1,612.81	112.44	72.28	79.02	0.00	477,775.59	645,133.73
4,700.00	4.55	32.74	4,694.50	1,712.50	119.11	76.57	83.70	0.00	477,782.26	645,138.02
4,800.00	4.55	32.74	4,794.18	1,812.18	125.78	80.86	88.39	0.00	477,788.93	645,142.30
4,900.00	4.55	32.74	4,893.87	1,911.87	132.44	85.14	93.07	0.00	477,795.60	645,146.59
5,000.00	4.55	32.74	4,993.55	2,011.55	139.11	89.43	97.76	0.00	477,802.26	645,150.87
5,100.00	4.55	32.74	5,093.24	2,111.24	145.78	93.71	102.45	0.00	477,808.93	645,155.16
5,200.00	4.55	32.74	5,192.93	2,210.93	152.45	98.00	107.13	0.00	477,815.60	645,159.45



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Design: Plan #1

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

Well #3H
WELL @ 2982.00ft (Original Well Elev)
WELL @ 2982.00ft (Original Well Elev)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,300.00	4.55	32.74	5,292.61	2,310.61	159.11	102.29	111.82	0.00	477,822.27	645,163.73
5,400.00	4.55	32.74	5,392.30	2,410.30	165.78	106.57	116.50	0.00	477,828.93	645,168.02
5,500.00	4.55	32.74	5,491.98	2,509.98	172.45	110.86	121.19	0.00	477,835.60	645,172.31
5,600.00	4.55	32.74	5,591.67	2,609.67	179.12	115.15	125.87	0.00	477,842.27	645,176.59
5,700.00	4.55	32.74	5,691.35	2,709.35	185.78	119.43	130.56	0.00	477,848.94	645,180.88
5,800.00	4.55	32.74	5,791.04	2,809.04	192.45	123.72	135.25	0.00	477,855.60	645,185.16
5,900.00	4.55	32.74	5,890.72	2,908.72	199.12	128.00	139.93	0.00	477,862.27	645,189.45
6,000.00	4.55	32.74	5,990.41	3,008.41	205.78	132.29	144.62	0.00	477,868.94	645,193.74
6,100.00	4.55	32.74	6,090.09	3,108.09	212.45	136.58	149.30	0.00	477,875.61	645,198.02
6,200.00	4.55	32.74	6,189.78	3,207.78	219.12	140.86	153.99	0.00	477,882.27	645,202.31
6,300.00	4.55	32.74	6,289.46	3,307.46	225.79	145.15	158.67	0.00	477,888.94	645,206.60
6,400.00	4.55	32.74	6,389.15	3,407.15	232.45	149.44	163.36	0.00	477,895.61	645,210.88
6,500.00	4.55	32.74	6,488.84	3,506.84	239.12	153.72	168.04	0.00	477,902.28	645,215.17
6,600.00	4.55	32.74	6,588.52	3,606.52	245.79	158.01	172.73	0.00	477,908.94	645,219.45
6,700.00	4.55	32.74	6,688.21	3,706.21	252.46	162.29	177.42	0.00	477,915.61	645,223.74
6,800.00	4.55	32.74	6,787.89	3,805.89	259.12	166.58	182.10	0.00	477,922.28	645,228.03
6,900.00	4.55	32.74	6,887.58	3,905.58	265.79	170.87	186.79	0.00	477,928.95	645,232.31
7,000.00	4.55	32.74	6,987.26	4,005.26	272.46	175.15	191.47	0.00	477,935.61	645,236.60
7,100.00	4.55	32.74	7,086.95	4,104.95	279.13	179.44	196.16	0.00	477,942.28	645,240.89
7,113.09	4.55	32.74	7,100.00	4,118.00	280.00	180.00	196.77	0.00	477,943.15	645,241.45
Slat Pt(USP#3)										
7,200.00	4.55	32.74	7,186.63	4,204.63	285.79	183.73	200.84	0.00	477,948.95	645,245.17
7,300.00	4.55	32.74	7,286.32	4,304.32	292.46	188.01	205.53	0.00	477,955.62	645,249.46
7,408.52	4.55	32.74	7,394.50	4,412.50	299.70	192.66	210.61	0.00	477,962.85	645,254.11
7,425.00	5.88	49.04	7,410.91	4,428.91	300.80	193.65	211.67	12.00	477,963.95	645,255.10
7,450.00	8.39	62.41	7,435.72	4,453.72	302.48	196.24	214.35	12.00	477,965.64	645,257.68
7,475.00	11.15	69.44	7,460.35	4,478.35	304.18	200.12	218.33	12.00	477,967.33	645,261.56



Pathfinder
Pathfinder X & Y Planning Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 2982 00ft (Original Well Elev)
Site:	USP FEE	MD Reference:	WELL @ 2982 00ft (Original Well Elev)
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Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,500.00	14.01	73.67	7,484.75	4,502.75	305.88	205.29	223.59	12.00	477,969.03	645,266.73
7,525.00	16.91	76.48	7,508.84	4,526.84	307.58	211.73	230.12	12.00	477,970.73	645,273.17
7,550.00	19.85	78.49	7,532.56	4,550.56	309.28	219.42	237.91	12.00	477,972.43	645,280.87
7,575.00	22.80	79.99	7,555.85	4,573.85	310.97	228.35	246.93	12.00	477,974.12	645,289.80
7,600.00	25.76	81.17	7,578.64	4,596.64	312.64	238.49	257.15	12.00	477,975.80	645,299.94
7,625.00	28.73	82.12	7,600.86	4,618.86	314.30	249.81	268.55	12.00	477,977.46	645,311.26
7,650.00	31.70	82.90	7,622.46	4,640.46	315.94	262.28	281.10	12.00	477,979.09	645,323.73
7,675.00	34.68	83.56	7,643.38	4,661.38	317.55	275.87	294.76	12.00	477,980.70	645,337.32
7,700.00	37.66	84.13	7,663.56	4,681.56	319.13	290.54	309.50	12.00	477,982.28	645,351.99
7,725.00	40.64	84.63	7,682.95	4,700.95	320.67	306.25	325.27	12.00	477,983.82	645,367.69
7,750.00	43.63	85.07	7,701.49	4,719.49	322.17	322.95	342.03	12.00	477,985.33	645,384.39
7,775.00	46.61	85.46	7,719.13	4,737.13	323.63	340.60	359.74	12.00	477,986.79	645,402.05
7,800.00	49.60	85.82	7,735.82	4,753.82	325.04	359.15	378.34	12.00	477,988.20	645,420.60
7,825.00	52.59	86.15	7,751.52	4,769.52	326.40	378.56	397.80	12.00	477,989.56	645,440.01
7,850.00	55.58	86.45	7,766.18	4,784.18	327.71	398.76	418.04	12.00	477,990.86	645,460.21
7,875.00	58.57	86.73	7,779.77	4,797.77	328.96	419.71	439.02	12.00	477,992.11	645,481.15
7,900.00	61.56	87.00	7,792.24	4,810.24	330.14	441.34	460.68	12.00	477,993.29	645,502.78
7,925.00	64.55	87.25	7,803.57	4,821.57	331.26	463.59	482.97	12.00	477,994.41	645,525.04
7,950.00	67.55	87.48	7,813.71	4,831.71	332.31	486.41	505.81	12.00	477,995.46	645,547.86
7,975.00	70.54	87.71	7,822.65	4,840.65	333.29	509.74	529.15	12.00	477,996.44	645,571.18
8,000.00	73.53	87.93	7,830.36	4,848.36	334.19	533.50	552.92	12.00	477,997.35	645,594.94
8,025.00	76.52	88.14	7,836.82	4,854.82	335.02	557.63	577.06	12.00	477,998.17	645,619.08
8,050.00	79.52	88.35	7,842.01	4,860.01	335.77	582.07	601.50	12.00	477,998.92	645,643.52
8,075.00	82.51	88.55	7,845.92	4,863.92	336.44	606.75	626.18	12.00	477,999.59	645,668.20
8,100.00	85.50	88.75	7,848.53	4,866.53	337.02	631.61	651.02	12.00	478,000.17	645,693.05
8,125.00	88.50	88.95	7,849.84	4,867.84	337.52	656.57	675.96	12.00	478,000.68	645,718.01
8,137.56	90.00	89.05	7,850.00	4,868.00	337.74	669.12	688.51	12.00	478,000.89	645,730.57



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Design: Plan #1

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

Well #3H
WELL @ 2982.00ft (Original Well Elev)
WELL @ 2982.00ft (Original Well Elev)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,200.00	90.00	89.05	7,850.00	4,868.00	338.78	731.55	750.89	0.00	478,001.93	645,793.00
8,300.00	90.00	89.05	7,850.00	4,868.00	340.43	831.54	850.79	0.00	478,003.59	645,892.99
8,400.00	90.00	89.05	7,850.00	4,868.00	342.09	931.53	950.69	0.00	478,005.25	645,992.97
8,500.00	90.00	89.05	7,850.00	4,868.00	343.75	1,031.51	1,050.59	0.00	478,006.90	646,092.96
8,600.00	90.00	89.05	7,850.00	4,868.00	345.41	1,131.50	1,150.49	0.00	478,008.56	646,192.95
8,700.00	90.00	89.05	7,850.00	4,868.00	347.06	1,231.49	1,250.39	0.00	478,010.22	646,292.93
8,800.00	90.00	89.05	7,850.00	4,868.00	348.72	1,331.47	1,350.29	0.00	478,011.88	646,392.92
8,900.00	90.00	89.05	7,850.00	4,868.00	350.38	1,431.46	1,450.19	0.00	478,013.54	646,492.90
9,000.00	90.00	89.05	7,850.00	4,868.00	352.04	1,531.44	1,550.09	0.00	478,015.19	646,592.89
9,100.00	90.00	89.05	7,850.00	4,868.00	353.70	1,631.43	1,649.99	0.00	478,016.85	646,692.88
9,200.00	90.00	89.05	7,850.00	4,868.00	355.35	1,731.42	1,749.89	0.00	478,018.51	646,792.86
9,300.00	90.00	89.05	7,850.00	4,868.00	357.01	1,831.40	1,849.79	0.00	478,020.17	646,892.85
9,400.00	90.00	89.05	7,850.00	4,868.00	358.67	1,931.39	1,949.70	0.00	478,021.83	646,992.84
9,500.00	90.00	89.05	7,850.00	4,868.00	360.33	2,031.38	2,049.60	0.00	478,023.48	647,092.82
9,600.00	90.00	89.05	7,850.00	4,868.00	361.99	2,131.36	2,149.50	0.00	478,025.14	647,192.81
9,700.00	90.00	89.05	7,850.00	4,868.00	363.64	2,231.35	2,249.40	0.00	478,026.80	647,292.79
9,800.00	90.00	89.05	7,850.00	4,868.00	365.30	2,331.33	2,349.30	0.00	478,028.46	647,392.78
9,900.00	90.00	89.05	7,850.00	4,868.00	366.96	2,431.32	2,449.20	0.00	478,030.12	647,492.77
10,000.00	90.00	89.05	7,850.00	4,868.00	368.62	2,531.31	2,549.10	0.00	478,031.77	647,592.75
10,100.00	90.00	89.05	7,850.00	4,868.00	370.28	2,631.29	2,649.00	0.00	478,033.43	647,692.74
10,200.00	90.00	89.05	7,850.00	4,868.00	371.93	2,731.28	2,748.90	0.00	478,035.09	647,792.73
10,300.00	90.00	89.05	7,850.00	4,868.00	373.59	2,831.27	2,848.80	0.00	478,036.75	647,892.71
10,400.00	90.00	89.05	7,850.00	4,868.00	375.25	2,931.25	2,948.70	0.00	478,038.41	647,992.70
10,500.00	90.00	89.05	7,850.00	4,868.00	376.91	3,031.24	3,048.60	0.00	478,040.06	648,092.68
10,600.00	90.00	89.05	7,850.00	4,868.00	378.57	3,131.22	3,148.50	0.00	478,041.72	648,192.67
10,700.00	90.00	89.05	7,850.00	4,868.00	380.22	3,231.21	3,248.41	0.00	478,043.38	648,292.66
10,800.00	90.00	89.05	7,850.00	4,868.00	381.88	3,331.20	3,348.31	0.00	478,045.04	648,392.64



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 2982.00ft (Original Well Elev)
MD Reference: WELL @ 2982.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,900.00	90.00	89.05	7,850.00	4,868.00	383.54	3,431.18	3,448.21	0.00	478,046.70	648,492.63
11,000.00	90.00	89.05	7,850.00	4,868.00	385.20	3,531.17	3,548.11	0.00	478,048.35	648,592.62
11,100.00	90.00	89.05	7,850.00	4,868.00	386.86	3,631.16	3,648.01	0.00	478,050.01	648,692.60
11,200.00	90.00	89.05	7,850.00	4,868.00	388.51	3,731.14	3,747.91	0.00	478,051.67	648,792.59
11,300.00	90.00	89.05	7,850.00	4,868.00	390.17	3,831.13	3,847.81	0.00	478,053.33	648,892.57
11,400.00	90.00	89.05	7,850.00	4,868.00	391.83	3,931.11	3,947.71	0.00	478,054.98	648,992.56
11,500.00	90.00	89.05	7,850.00	4,868.00	393.49	4,031.10	4,047.61	0.00	478,056.64	649,092.55
11,600.00	90.00	89.05	7,850.00	4,868.00	395.15	4,131.09	4,147.51	0.00	478,058.30	649,192.53
11,700.00	90.00	89.05	7,850.00	4,868.00	396.80	4,231.07	4,247.41	0.00	478,059.96	649,292.52
11,800.00	90.00	89.05	7,850.00	4,868.00	398.46	4,331.06	4,347.31	0.00	478,061.62	649,392.51
11,900.00	90.00	89.05	7,850.00	4,868.00	400.12	4,431.05	4,447.21	0.00	478,063.27	649,492.49
12,000.00	90.00	89.05	7,850.00	4,868.00	401.78	4,531.03	4,547.12	0.00	478,064.93	649,592.48
12,100.00	90.00	89.05	7,850.00	4,868.00	403.44	4,631.02	4,647.02	0.00	478,066.59	649,692.46
12,200.00	90.00	89.05	7,850.00	4,868.00	405.09	4,731.00	4,746.92	0.00	478,068.25	649,792.45
12,300.00	90.00	89.05	7,850.00	4,868.00	406.75	4,830.99	4,846.82	0.00	478,069.91	649,892.44
12,400.00	90.00	89.05	7,850.00	4,868.00	408.41	4,930.98	4,946.72	0.00	478,071.56	649,992.42
12,500.00	90.00	89.05	7,850.00	4,868.00	410.07	5,030.96	5,046.62	0.00	478,073.22	650,092.41
12,600.00	90.00	89.05	7,850.00	4,868.00	411.73	5,130.95	5,146.52	0.00	478,074.88	650,192.40
12,700.00	90.00	89.05	7,850.00	4,868.00	413.38	5,230.94	5,246.42	0.00	478,076.54	650,292.38
12,800.00	90.00	89.05	7,850.00	4,868.00	415.04	5,330.92	5,346.32	0.00	478,078.20	650,392.37
12,900.00	90.00	89.05	7,850.00	4,868.00	416.70	5,430.91	5,446.22	0.00	478,079.85	650,492.35
13,000.00	90.00	89.05	7,850.00	4,868.00	418.36	5,530.89	5,546.12	0.00	478,081.51	650,592.34
13,100.00	90.00	89.05	7,850.00	4,868.00	420.02	5,630.88	5,646.02	0.00	478,083.17	650,692.33
13,200.00	90.00	89.05	7,850.00	4,868.00	421.67	5,730.87	5,745.92	0.00	478,084.83	650,792.31
13,300.00	90.00	89.05	7,850.00	4,868.00	423.33	5,830.85	5,845.82	0.00	478,086.49	650,892.30
13,400.00	90.00	89.05	7,850.00	4,868.00	424.99	5,930.84	5,945.73	0.00	478,088.14	650,992.29
13,500.00	90.00	89.05	7,850.00	4,868.00	426.65	6,030.83	6,045.63	0.00	478,089.80	651,092.27



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 2982.00ft (Original Well Elev)
MD Reference: WELL @ 2982.00ft (Original Well Elev)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
13,600.00	90.00	89.05	7,850.00	4,868.00	428.31	6,130.81	6,145.53	0.00	478,091.46	651,192.26
13,700.00	90.00	89.05	7,850.00	4,868.00	429.96	6,230.80	6,245.43	0.00	478,093.12	651,292.24
13,800.00	90.00	89.05	7,850.00	4,868.00	431.62	6,330.78	6,345.33	0.00	478,094.78	651,392.23
13,900.00	90.00	89.05	7,850.00	4,868.00	433.28	6,430.77	6,445.23	0.00	478,096.43	651,492.22
14,000.00	90.00	89.05	7,850.00	4,868.00	434.94	6,530.76	6,545.13	0.00	478,098.09	651,592.20
14,100.00	90.00	89.05	7,850.00	4,868.00	436.60	6,630.74	6,645.03	0.00	478,099.75	651,692.19
14,200.00	90.00	89.05	7,850.00	4,868.00	438.25	6,730.73	6,744.93	0.00	478,101.41	651,792.18
14,300.00	90.00	89.05	7,850.00	4,868.00	439.91	6,830.72	6,844.83	0.00	478,103.07	651,892.16
14,400.00	90.00	89.05	7,850.00	4,868.00	441.57	6,930.70	6,944.73	0.00	478,104.72	651,992.15
14,500.00	90.00	89.05	7,850.00	4,868.00	443.23	7,030.69	7,044.63	0.00	478,106.38	652,092.13
14,600.00	90.00	89.05	7,850.00	4,868.00	444.89	7,130.67	7,144.53	0.00	478,108.04	652,192.12
14,700.00	90.00	89.05	7,850.00	4,868.00	446.54	7,230.66	7,244.44	0.00	478,109.70	652,292.11
14,787.94	90.00	89.05	7,850.00	4,868.00	448.00	7,318.59	7,332.29	0.00	478,111.16	652,380.04
PBHL(USP#3)										
14,787.95	90.00	89.05	7,850.00	4,868.00	448.00	7,318.60	7,332.30	0.00	478,111.16	652,380.05

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(USP#3) - plan hits target center - Point	0.00	0.00	7,850.00	448.16	7,318.59	478,111.314	652,380.037	32° 18' 50.000 N	103° 58' 26.000 W
Slat Pt(USP#3) - plan hits target center - Point	0.00	0.00	7,100.00	280.00	180.00	477,943.154	645,241.446	32° 18' 48.565 N	103° 59' 49.192 W

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy County
Site: USP FEE
Well: #3H
Wellbore: OH
Plan: Plan #1 (#3H/OH)

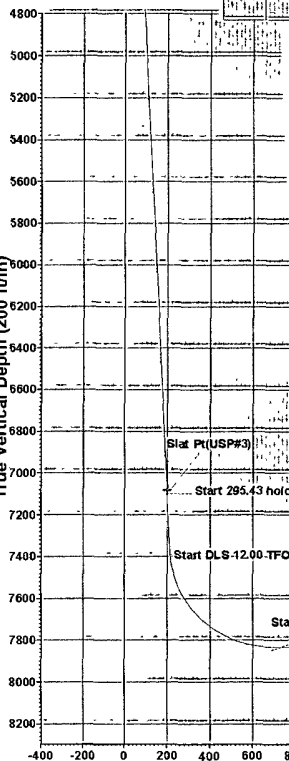
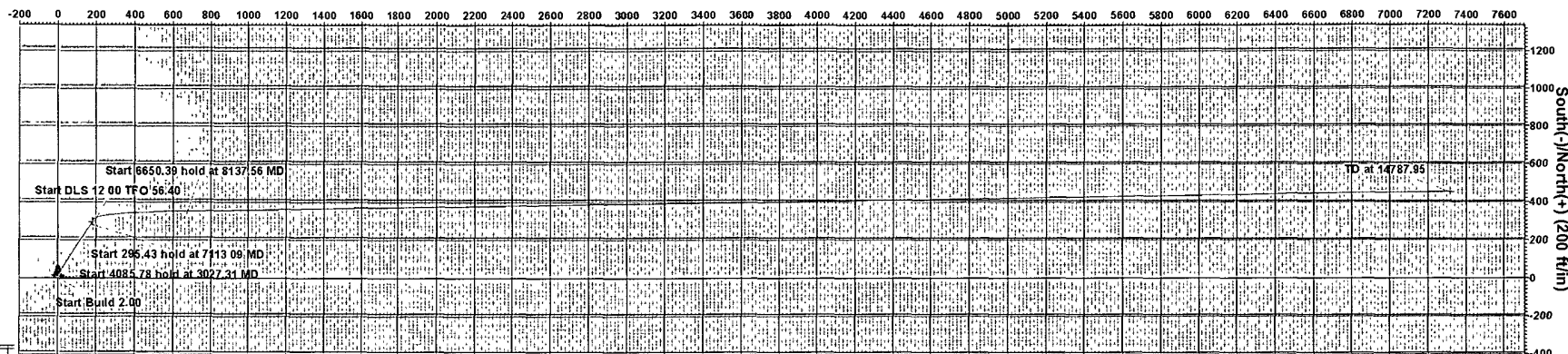


Azimuths to Grid North
True North: -0.18°
Magnetic North: 7.72°

Magnetic Field
Strength: 48758.2snT
Dip Angle: 60.24°
Date: 06/16/2010
Model: IGRF200510



West(-)/East(+) (200 ft/in)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	
3	3027.31	4.55	32.74	3027.07	7.58	4.87	2.00	32.74	5.33	
4	7113.09	4.55	32.74	7100.00	280.00	180.00	0.00	0.00	198.77	Stat Pt(USP#3)
5	7408.52	4.55	32.74	7394.50	299.70	192.08	0.00	0.00	210.61	
6	8137.56	90.00	89.05	7850.00	337.74	650.12	12.00	56.40	689.51	
7	14787.95	90.00	89.05	7850.00	448.00	7318.60	0.00	0.00	7332.30	PBHL(USP#3)

WELL DETAILS: #3H

Ground Elevation: 2957.00		RKB Elevation: WELL @ 2982.00ft (Original Well Elev)	
Rig Name: Original Well Elev			
+N/-S	+E/-W	Northing	Easting
0.00	0.00	477663.154	645061.446
Latitude	Longitude	Spot	
32° 18' 45.800 N	103° 59' 51.300 W		

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Stat Pt(USP#3)	7100.00	280.00	180.00	477943.154	645241.446	Point
PBHL(USP#3)	7850.00	448.16	7318.59	478111.314	652380.037	Point

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

Vertical Section at 86.50° (200 ft/in)

Plan Plan #1 (#3H/OH)

Created By: Nate Bingham Date: 10/22 June 16, 2010

DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Quaternary	Surface
Rustler	300'
Delaware	2900'
Cherry Canyon	3680'
Brushy Canyon	5210'
Bone Spring	6765'

3. Estimated Depths of Anticipated Fresh Water, Oil and Gas

Water Sand	150'	Fresh Water
Rustler	300'	Oil/Gas
Delaware	2900'	Oil/Gas
Cherry Canyon	3680'	Oil/Gas
Brushy Canyon	5210'	Oil/Gas
Bone Spring	6765'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 300' and circulating cement back to the surface will protect the surface fresh water sand. The Salt Section will be protected by setting 9 5/8" casing to 2800' and circulating cement, in a single job back to the surface. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them. This will be achieved by cementing, with a single or multi-stage job, the 7" production casing back 200' into the intermediate casing, to be run at TD. If wellbore conditions arise that require immediate action and/or a change to this program, COG Operating LLC personnel will always react to protect the wellbore and/or the environment.

4. Casing Program

Hole Size	Interval	OD Casing	Weight	Grade	Jt., Condition	Jt.	burst/collapse/tension
17 1/2"	0-300'	13 3/8"	48#	H-40	New	ST&C	8.71/3.724/14.91
12 1/4"	0-2800'	9 5/8"	40#	J-55	New	LT&C	2.91/1.46/5.65
8 3/4"	0-7100'	7"	26#	P-110	New	LT&C	1.24/1.99/4.37
6 1/8"	0-T.D.	4 1/2"	11.6#	HCP-110	New	LT&C	1.71/1.574/2.20

5. Cement Program

13 3/8" Surface Casing: 300 sx C w/2% CaCl₂, 4% gel Lead, yield 1.74 + 150 sx C w/ 2% CaCl₂ Tail, yield 1.35, back to surface

8 5/8" Intermediate Casing: **12-1/4" Hole:**
Single Stage: 35:65:6, 550 sx Lead, yield-2.05 + 200 sx C w/ 2% CaCl₂ Tail, yield-1.34, back to surface.

7" Production Casing: **Single Stage:** 600 sx C w/ 4% gel Lead, yield-1.72 + 200 sx C w/0.35% R-3 Tail, yield-1.33, to 200' minimum tie back to intermediate casing.

4-1/2" Production Liner: Uncemented, with packers for isolation, and requesting permission for only 100' liner overlap.

6. Minimum Specifications for Pressure Control

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (2000 psi WP) preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on the bottom. The BOP will be nipped up on the 13 3/8" surface casing with BOP equipment and tested together to 2000 psi by rig pump in one test. The BOP will then be nipped up on the 8 5/8" intermediate casing and tested by a third party to 2000 psi and used continuously until total depth is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of the intermediate casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit #10) will include a Kelly cock and floor safety valve, choke lines and a choke manifold (Exhibit #11) with a 2000 psi WP rating.

7. Types and Characteristics of the Proposed Mud System

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-300'	Fresh Water	8.4	28-29	N.C.
300'-2800'	Brine	8.8-9.5	28-29	N.C.
2800'-7100'	Cut Brine	8.8-9.5	15-12	N.C.
7100'-TD	Cut Brine	8.4-9.0	28-30	N.C.

Sufficient mud materials will be kept at the well site to maintain mud properties and meet minimum lost circulation and weight increase requirements at all times.

8. Auxiliary Well Control and Monitoring Equipment

- A. Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

9. Logging, Testing and Coring Program

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 9 5/8" casing shoe.
- B. Drill Stem test is not anticipated.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 4 1/2" production casing has been run to TD, based on drill shows and log evaluation.

10. Abnormal Conditions, Pressure, Temperatures and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and the estimated maximum bottom hold pressure is 2300 psig. Measurable gas volumes or Hydrogen Sulfide levels have not been encountered during drilling operations in this area, although a Hydrogen Sulfide Drilling Operation Plan is attached to this program. No major loss of circulation zones has been reported in offsetting wells.

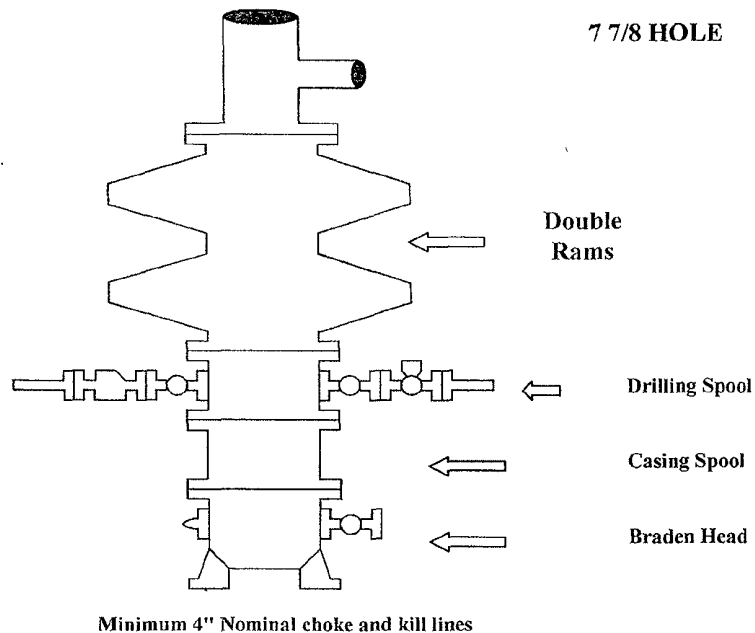
11. Anticipated Starting Date and Duration of Operations

Road and location work will not begin until approval has been received from the OCD. As this is a Drilling plan, please refer to the Form C-103 for the anticipated start date. Once commenced, drilling operations should be finished in approximately 12 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

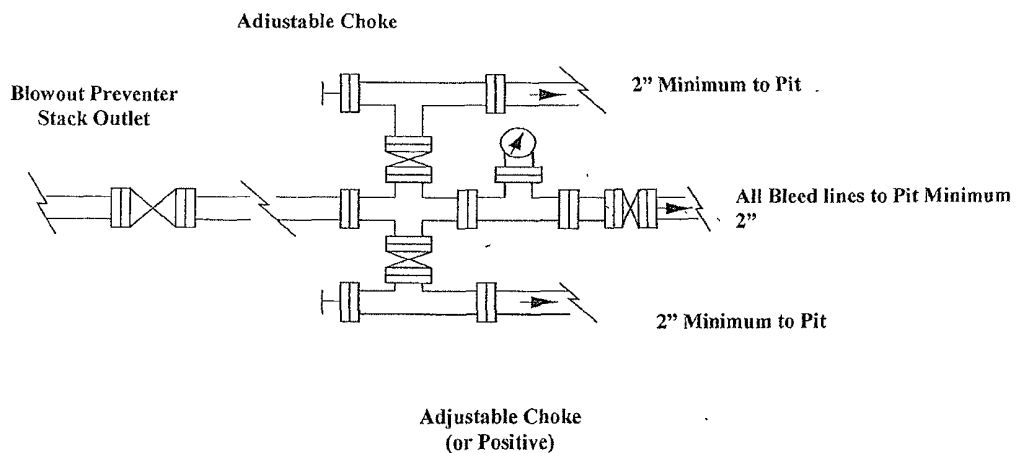
COG Operating LLC

Exhibit #9

BOPE and Choke Schematic

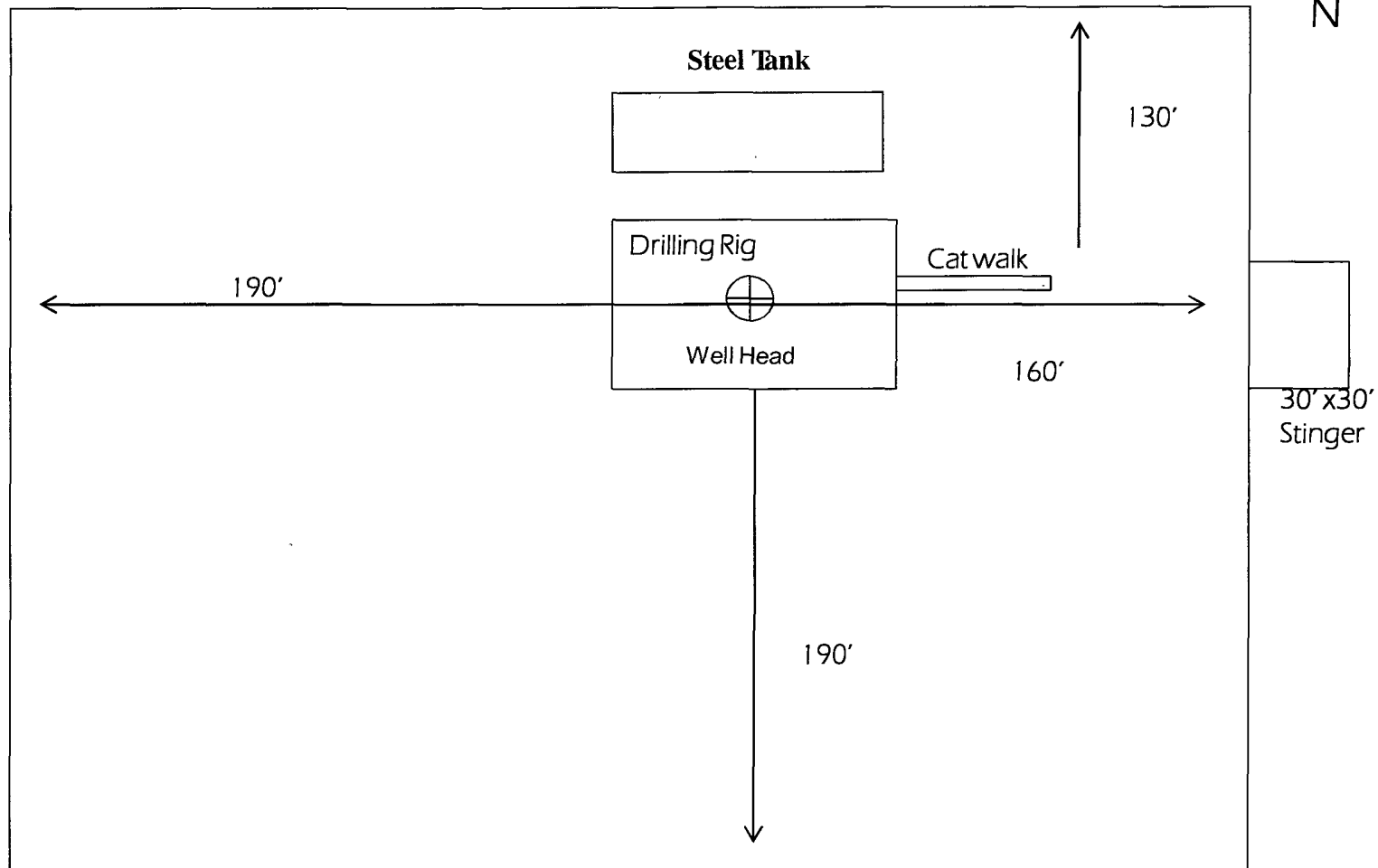


Choke Manifold Requirement (2000 psi WP)
No Annular Required



NOTES REGARDING THE BLOWOUT PREVENTERS
Master Drilling Plan
Eddy County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.



Not To Scale

COG OPERATING LLC
Rig Layout-Closed Loop
System

COG OPERATING, LLC

HYDROGENSULFIDE (H₂S) CONTINGENCY PLAN
FOR DRILLING / COMPLETING / WORKOVER / FACILITY
WITH THE EXPECTATION OF H₂S IN EXCESS OF 100 PPM

C.O.G. Operating, LLC
NEW DRILL WELL
USP FEE #3
SHL: 100' FSL & 200' FWL, Unit M, Sec 9, T23S, R29E
BHL: 500' FSL & 2310' FWL, Unit N, Sec 10, T23S, R29E
Eddy County, New Mexico

This well / facility is not expected to have H₂S, but the following is submitted as requested.

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I.	General Emergency Plan	Page 3
II.	Emergency Procedure for Uncontrolled Release of H ₂ S	Page 3
III.	Emergency Numbers for Notification	Page 4
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V.	Public Evacuation Plan	Page 6
VI.	Procedure for Igniting an Uncontrollable Condition	Page 7
VII.	Required Emergency Equipment	Page 8
VIII.	Using Self-Contained Breathing Air Equipment (SCBA)	Page 9
IX.	Rescue & First Aid for Victims of H ₂ S Poisoning	Page 10
X.	H ₂ S Toxic Effects	Pages 11-12
XI.	H ₂ S Physical Effects	Pages 13-14
XII.	Location Map	Page 15
XIII.	Vicinity Map	Page 16

GENERAL H2S EMERGENCY ACTIONS

In the event of any evidence of H2S emergency, the following plan will be initiated:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill “safe area.”
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (self-contained breathing apparatus).
3. Always use the “buddy system.”
4. Isolate the well / problem if possible.
5. Account for all personnel.
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the company representative as soon as possible if not at the location (use the enclosed call list as instructed).

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self-contained breathing apparatus.
2. Remove all personnel to the “safe area”: (always use the “buddy system”).
3. Contact company representative if not on location.
4. Set in motion the steps to protect and / or remove the general public to any upwind “safe area.” Maintain strict security and safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.
6. Notify the appropriate agencies:
City Police – City Streets
State Police – State Roads
County Sheriff – County Roads
7. Call the NMOCD.

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way, he will immediately notify public safety personnel.

EMERGENCY CALL LIST

	<u>Office</u>	<u>Cell</u>	<u>Home</u>
John Coffman	432-683-7443	432-631-9762	432-699-5552
Erick Nelson	432-683-7443	432-238-7591	
Matt Corser	432-683-7443	432-413-0071	

EMERGENCY RESPONSE NUMBERS

Eddy County, New Mexico

State Police	505-748-9718
Eddy County Sheriff	505-746-2701
Emergency Medical Services (Ambulance)	911 or 505-746-2701
Eddy County Emergency Management (Harry Burgess)	505-887-9511
State Emergency Response Center (SERC)	505-476-9620
Carlsbad Police Department	505-885-2111
Carlsbad Fire Department	505-885-3125
New Mexico Oil Conservation Division	505-748-1283
Callaway Safety Equipment, Inc.	505-392-2973

PROTECTION OF THE GENERAL (ROE) RADIUS OF EXPOSURE

In the event greater than 100 ppm H₂S is present, the ROE calculations will be done to determine if the following is warranted:

- * 100 ppm at any public area (any place not associated with this site).
- * 500 ppm at any public road (any road which the general public may travel).
- * 100 ppm radius of 3000' will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H₂S could be present in concentrations greater than 100 ppm in the gas mixture.

Calculation for the 100 ppm ROE:

(H₂S concentrations in decimal form)

$$X = [(1.589)(\text{concentration})(Q)] (0.6258)$$

$$10,000 \text{ ppm} + = .01$$

$$1,000 \text{ ppm} + = .001$$

Calculation for the 500 ppm ROE:

$$100 \text{ ppm} + = .0001$$

$$10 \text{ ppm} + = .00001$$

$$X = [(0.4546)(\text{concentration})(Q)] (.06258)$$

EXAMPLE: If a well / facility has been determined to have 150 ppm H₂S in the gas mixture and the well / facility is producing at a gas rate of 200 MCFD then:

$$\text{ROE for 100 ppm} \quad X = [(1.589)(.00010)(200,000)] (0.6258)$$

$$X = 8.8'$$

$$\text{ROE for 500 ppm} \quad X = [(0.4546)(.00050)(200,000)] (0.6258)$$

$$X = 10.9'$$

These calculations will be forwarded to the appropriate NMOCD district office when applicable.

PUBLIC EVACUATION PLAN

When the supervisor has determined that the general public will be involved, the following plan will be implemented.

1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
2. A trained person in H₂S safety shall monitor with detection equipment the H₂S concentration, wind and area of exposure. This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. All monitoring equipment shall be UL approved for use in Class I Groups A, B, C, & D, Division I hazardous locations. All monitors will have a minimum capability of measuring H₂S, oxygen, and flammable values.
3. Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
4. The company representative shall stay in communication with all agencies throughout the duration of the situation and inform such agencies when the situation has been contained and the affected area is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION

The decision to ignite a well should be a last resort and one, if not both, of the following pertain:

1. Human life and / or property are endangered.
2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

Instructions for Igniting the Well:

1. Two people are required. They must be equipped with positive pressure, self-contained breathing apparatus and "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.
2. One of the people will be a qualified safety person who will test the atmosphere for H₂S, oxygen and LFL. The other person will be the company representative.
3. Ignite upwind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25mm flare gun with a range of approximately +/- 500 feet shall be used to ignite the gas.
4. Before igniting, check for the presence of combustible gases.
5. After igniting, continue emergency actions and procedures as before.

REQUIRED EMERGENCY EQUIPMENT

1. Breathing Apparatus

- * Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- * Work / Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- * Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2. Signage and Flagging

- * One Color Code Condition Sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- * A Colored Condition flag will be on display reflecting the condition at the site at that time.

3. Briefing Area

- * Two perpendicular areas will be designated by signs and readily accessible.

4. Windssocks

- * Two windssocks will be placed in strategic locations, visible from all angles.

5. H2S Detectors and Alarms

- * The stationary detector with three (3) sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible alarm @ 15 ppm. Calibrate a minimum of every 30 days or as needed. The three sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer):
 - * Rig Floor
 - * Bell Nipple
 - * End of flow line or where well bore fluid is being discharged

6. Auxiliary Rescue Equipment

- * Stretcher
- * Two OSHA full body harnesses
- * 100' of 5/8" OSHA approved rope
- * One 20 lb. Class ABC fire extinguisher
- * Communication via cell phones on location and vehicles on location

USING SELF-CONTAINED BREATHING AIR EQUIPMENT (SCBA)

1. SCBA should be worn when any of the following are preformed:
 - * Working near the top or on top of a tank.
 - * Disconnecting any line where H₂S can reasonably be expected.
 - * Sampling air in the area to determine if toxic concentrations of H₂S exist.
 - * Working in areas where over 10 ppm of H₂S has been detected.
 - * At any time there is a doubt of the level of H₂S in the area.
2. All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
3. Facial hair and standard eyeglasses are not allowed with SCBA.
4. Contact lenses are never allowed with SCBA.
5. When breaking out any line where H₂S can reasonably be expected.
6. After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.
7. All SCBA shall be inspected monthly.

RESCUE & FIRST AID FOR VICTIMS OF H₂S POISONING

- * Do not panic.
- * Remain calm and think.
- * Get on the breathing apparatus.
- * Remove the victim to the safe breathing area as quickly as possible, upwind and uphill from source or crosswind to achieve upwind.
- * Notify emergency response personnel.
- * Provide artificial respiration and / or CPR as necessary.
- * Remove all contaminated clothing to avoid further exposure.
- * A minimum of two (2) personnel on location shall be trained in CPR and First Aid.

Toxic Effects of H2S Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 PPM, which is .001% by volume. Hydrogen Sulfide is heavier than air (specific gravity – 1.192) and is colorless and transparent. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is 5-6 times more toxic than Carbon Monoxide. Occupational exposure limits for Hydrogen Sulfide and other gases are compared below in Table I. Toxicity table for H2S and physical effects are shown in Table II.

Table I
Permissible Exposure Limits of Various Gases

Common Name	Symbol	Sp. Gravity	TLV	STEL	IDLH
Hydrogen Cyanide	HCN	.94	4.7 ppm	C	
Hydrogen Sulfide	H2S	1.192	10 ppm	15 ppm	100ppm
Sulfide Dioxide	SO2	2.21	2 ppm	5 ppm	
Chlorine	CL	2.45	.5 ppm	1 ppm	
Carbon Monoxide	CO	.97	25 ppm	200 ppm	
Carbon Dioxide	CO2	1.52	5000 ppm	30,000 ppm	
Methane	CH4	.55	4.7% LEL	14% UEL	

Definitions

- A. TVL – Threshold Limit Value is the concentration employees may be exposed to based on a TWA (time weighed average) for eight (8) hours in one day for 40 hours in one (1) week. This is set by ACGIH (American Conference of Government Hygienists) and regulated by OSHA.
- B. STEL – Short Term Exposure Limit is the 15 minute average concentration an employee may be exposed to providing that the highest exposure never exceeds the OEL (Occupational Exposure Limit). The OEL for H2S is 19 PPM.
- C. IDLH – Immediately Dangerous to Life and Health is the concentration that has been determined by the ACGIH to cause serious health problems or death if exposed to this level. The IDLH for H2S is 100 PPM.
- D. TWA – Time Weighted Average is the average concentration of any chemical or gas for an eight (8) hour period. This is the concentration that any employee may be exposed to based on a TWA.

TABLE II
Toxicity Table of H₂S

Percent %	PPM	Physical Effects
.0001	1	Can smell less than 1 ppm.
.001	10	TLV for 8 hours of exposure.
.0015	15	STEL for 15 minutes of exposure.
.01	100	Immediately Dangerous to Life & Health. Kills sense of smell in 3 to 5 minutes.
.02	200	Kills sense of smell quickly, may burn eyes and throat.
.05	500	Dizziness, cessation of breathing begins in a few minutes.
.07	700	Unconscious quickly, death will result if not rescued promptly.
.10	1000	Death will result unless rescued promptly. Artificial resuscitation may be necessary.

PHYSICAL PROPERTIES OF H₂S

The properties of all gases are usually described in the context of seven major categories:

COLOR
ODOR
VAPOR DENSITY
EXPLOSIVE LIMITS
FLAMMABILITY
SOLUBILITY (IN WATER)
BOILING POINT

Hydrogen Sulfide is no exception. Information from these categories should be considered in order to provide a fairly complete picture of the properties of the gas.

COLOR – TRANSPARENT

Hydrogen Sulfide is colorless so it is invisible. This fact simply means that you can't rely on your eyes to detect its presence, a fact that makes the gas extremely dangerous to be around.

ODOR – ROTTEN EGGS

Hydrogen Sulfide has a distinctive offensive smell, similar to "rotten eggs." For this reason it earned its common name "sour gas." However, H₂S, even in low concentrations, is so toxic that it attacks and quickly impairs a victim's sense of smell, so it could be fatal to rely on your nose as a detection device.

VAPOR DENSITY – SPECIFIC GRAVITY OF 1.192

Hydrogen Sulfide is heavier than air so it tends to settle in low-lying areas like pits, cellars or tanks. If you find yourself in a location where H₂S is known to exist, protect yourself. Whenever possible, work in an area upwind and keep to higher ground.

EXPLOSIVE LIMITS – 4.3% TO 46%

Mixed with the right proportion of air or oxygen, H₂S will ignite and burn or explode, producing another alarming element of danger besides poisoning.

FLAMMABILITY

Hydrogen Sulfide will burn readily with a distinctive clear blue flame, producing Sulfur Dioxide (SO₂), another hazardous gas that irritates the eyes and lungs.

SOLUBILITY – 4 TO 1 RATIO WITH WATER

Hydrogen Sulfide can be dissolved in liquids, which means that it can be present in any container or vessel used to carry or hold well fluids including oil, water, emulsion and sludge. The solubility of H₂S is dependent on temperature and pressure, but if conditions are right, simply agitating a fluid containing H₂S may release the gas into the air.

BOILING POINT – (-76 degrees Fahrenheit)

Liquefied Hydrogen Sulfide boils at a very low temperature, so it is usually found as a gas.

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is shown in Exhibit #1. It was staked by Madron Surveying, Hobbs, NM.
- B. All roads to the location are shown in the topographic map Exhibit #2. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary.

2. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. **Proposed Access Road:**

Exhibit #4 shows that 0' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will not be obtained from any surface owned By Mosaic.

3. Location of Existing Well:

Exhibit #5 shows all existing wells within a one-mile radius of this well.

As shown on this plat there are numerous wells producing from the Bone Spring formation.

4. Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:

- 1) Production will be sent to the USP Fee #2 surface location on the NW corner of Devon Energy's Spud 16 Lease. The facility location is shown in Exhibit #5.
- 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
- 3) Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
- 4) Proposed flow lines, will follow an archaeologically approved route to the USP Fee #2 surface location on the NW corner of Devon Energy's Spud 16 Lease. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 900' in length.
- 5) It will be necessary to run electric power if this well is productive. Power will be provided by CVE and they will do so according to the existing Surface Use Agreement that was signed January 5, 2006.
- 6) If the well is productive, rehabilitation plans will include the following:
 - a) The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #2. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Methods of Handling Water Disposal:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.

- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

7. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

8. Well Site Layout:

- A. The drill pad layout, with elevations staked by Madron Surveying, is shown in Exhibit #4. Dimensions of the pad is shown on Exhibit #6. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Exhibit #6 also shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

9. Plans for Restoration of the Surface:

- A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be recontoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete.
- B. Final Reclamation: Upon plugging and abandoning the well, All caliche for well pad and lease road will be removed and surface will be recontoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be reseeded with a BLM approved mixture and revegetated as per BLM orders.

11.Surface Ownership:

- A. The surface owner for this site is Mosaic Potash Carlsbad, Inc., P O Box 71, Carlsbad, NM 88221-0071.

12.Other Information:

- A. The area around the well site has very little vegetation and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, weeds, and very little mesquite. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the ar

13. Bond Coverage:

Bond Coverage is Nationwide Bond # 000215

14. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

John Coffman,	Erick Nelson.
Drilling Superintendent	Division Operations Manager
COG Operating LLC	COG Operating LLC
550 W. Texas, Suite 1300	550 W. Texas, Suite 1300
Midland, TX 79701	Midland, TX 79701
Phone (432) 683-7443 (office)	Phone (505) 746-2210 (office)
(432) 631-9762 (cell)	(432) 238-7591 (cell)

Surface Use Plan

COG Operating, LLC

USP Fee #3

SHL: 100' FSL & 200' FWL, Section 9, T-23-S, R-29-E, UL M

BHL: 500' FSL & 1980' FWL, Section 10, T-23-S, R-29-E, UL N

Eddy County, New Mexico

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or COG Operating, LLC, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 17th day of June, 2010.

Signed: _____



Printed Name: Carl Bird

Position: Drilling Engineer

Address: 550 W. Texas, Suite 1300, Midland, Texas 79701

Telephone: (432) 683-7443

Field Representative (if not above signatory): Same

E-mail: cbird@conchoresources.com

Surface Use Plan

COG Operating, LLC

USP Fee #3

SHL: 100' FSL & 200' FWL, Section 9, T-23-S, R-29-E, UL M

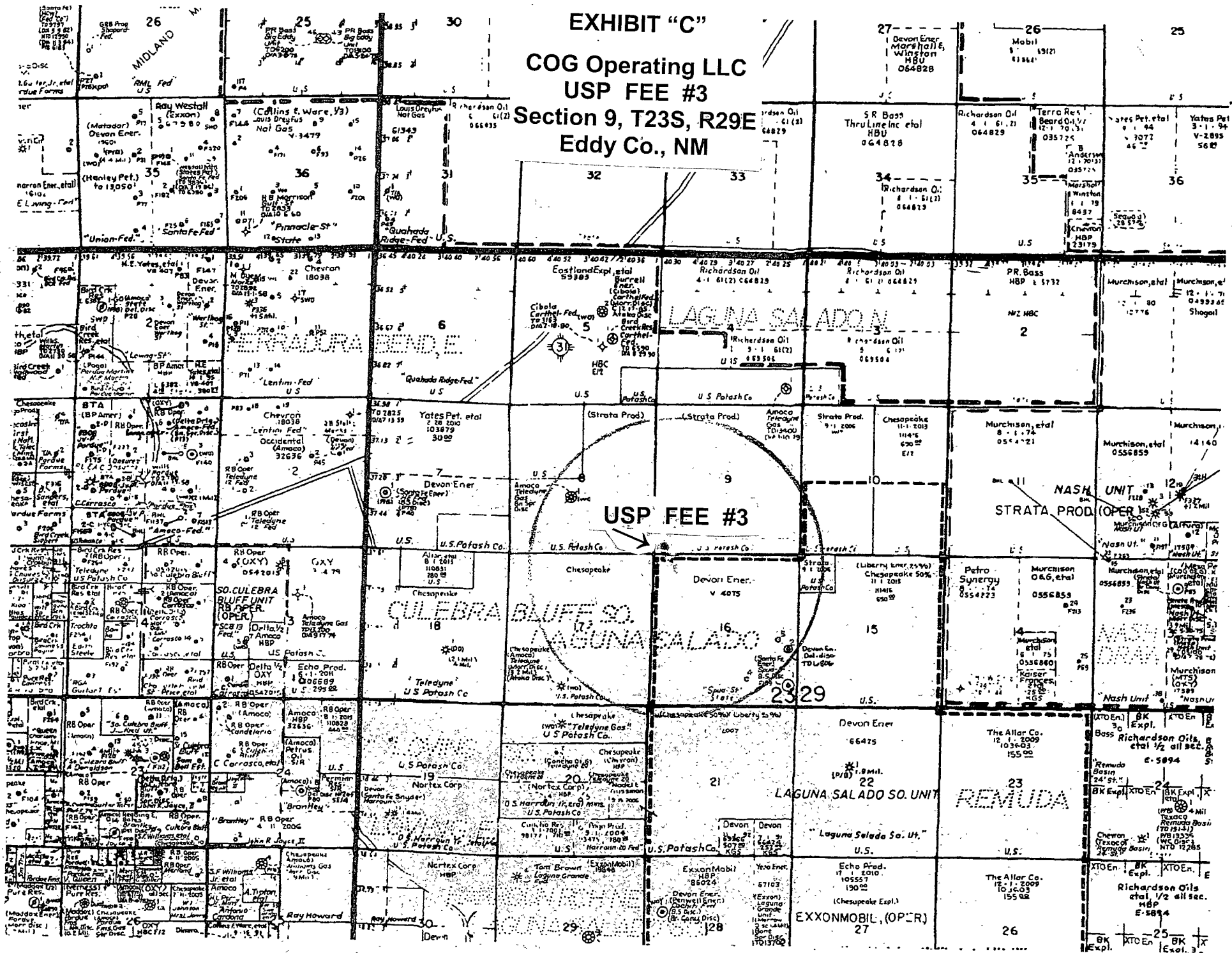
BHL: 500' FSL & 1980' FWL, Section 10, T-23-S, R-29-E, UL N

Eddy County, New Mexico

Exhibits:

- | | |
|--------------------|---|
| Exhibit #1 | Wellsite and Elevation Plat |
| | Form C-102 Well location and acreage dedication plat |
| Exhibit #2 | Topographic Map (West) |
| Exhibit #3 | Vicinity Map and area roads |
| Exhibit #4 | Elevation Plat (West) |
| Exhibit #5 | Topographic extract showing wells, roads and flowlines |
| Exhibit #6 | Pad Layout and orientation |
| Exhibit #7 | H2S Signage |
| Exhibit #8 | H2S Equipment location |
| Exhibit #9 | BOP and Choke diagrams |
| Exhibit #10 | Form C-144 NMOCD pit permit application |

COG Operating LLC
USP FEE #3
Section 9, T23S, R29E
Eddy Co., NM



Attachment to Exhibit "C"

STATUS OF WELLS WITHIN ONE MILE RADIUS

USP FEE #3
Section 9, T23S, R29E
Eddy County, New Mexico
June, 2010

<u>Section 16, T23S, R29E</u>	<u>Well #</u>	<u>Footage</u>	<u>Status / Formation</u>
Pre-Ongard Operator	Pre-Ongard Well #1	1980' FSL & 860' FEL	Plugged
Devon Energy Prod. Co.	Spud 16 State #1	760' FSL & 330' FEL	Producing / Delaware
Devon SFS Operating Inc.	Spud 16 State #2	1980' FSL & 330' FEL	Producing / Delaware
Devon SFS Operating Inc.	Spud 16 State #4	960' FSL & 1800' FEL	Producing / Delaware
Devon Energy Prod. Co.	Spud 16 State #5	2320' FSL & 660' FEL	Producing / Atoka
COG Operating LLC	USP Fee #2	319' FNL & 946' FWL	Producing / Atoka

Section 8, T23S, R29E

Pre-Ongard Operator	Pre-Ongard Well #1	1980' FSL & 2180' FWL	Plugged
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Certified Letter
Return Receipt Requested
7002 3150 0005 0459 5110

June 21, 2010

Mosaic Potash Carlsbad, Inc.
Attn: Mr. Dan Morehouse
Mine Engineering Superintendent
P O Box 71
Carlsbad, NM 88221-0071

Re: Application to Drill in Potash Area – Eddy County, NM
USP Fee #3
SHL 100 FSL 200 FWL Sec 9, T23S, R29E, UL M
BHL 500 FSL 2310 FWL Sec 10, T23S, R29E, UL N

Dear Mr. Morehouse,

In accordance with the State of New Mexico Oil Conservation Division Rule R-111-PC (2)(3) and the Surface Owners Protection Act, COG Operating LLC (COG) is providing required notice of intention to drill the above mentioned well. Enclosed herewith, please find the following for your review and further action:

1. Form C-101 Application For Permit To Drill
2. Form C-102 Well Location and Acreage Dedication Plat
3. Surface Use Plan of Operations
4. Surface Use Agreement
5. Surface Owners Protection Act

State of New Mexico Public Land records reflect Mosaic Potash Carlsbad, Inc. as fee surface owners in the area of the captioned lands. COG Operating LLC (COG), a Delaware Corporation, hereby advises you of its intention to drill a well to 13,600' MD and 7850' TVD at a surface location of 100 FSL 200 FWL Sec 9, T23S, R29E, UL M, and a bottom hole location of 500 FSL 2310 FWL Sec 10, T23S, R29E, UL N.

Several "onsites" were performed with Eugene Abernathy before we finalized this location. On April 27, 2010, Mr. Abernathy, along with Ms. Melody Russo, Environmental Manager, met with COG personnel regarding the proposed well site. COG explained how we plan on constructing the well site.

In addition, the existing Surface Use Agreement is specifically amended so as to comply with the New Mexico OCD Pit Rule in accordance with the attached Surface Use Plan at pages 2-3.

If you are in agreement with COG that drilling at the proposed location will not interfere with potash operations, please sign and return one copy of this letter within 10 days of receipt of said letter. In the alternative, and in order to expedite the process, please send a no objection letter in the envelope provided.

Should you have any questions, or need any further information, please advise.

Sincerely,

COG Operating LLC



Noel Olivas
Field Coordinator

432-686-3008 Direct Line
432-685-4396 Fax
nolivas@conchoresources.com

AGREED TO AND ACCEPTED THIS _____ DAY OF JUNE, 2010.

BY: _____

TITLE: _____



Certified Letter
Return Receipt Requested
7005 0390 0000 6041 5916

June 21, 2010

United Salt Corp. of Potash Carlsbad, Inc.
P O Box 55
Carlsbad, NM 88220

Re: Application to Drill in Potash Area – Eddy County, NM
USP Fee #3
SHL 100 FSL 200 FWL Sec 9, T23S, R29E, UL M
BHL 500 FSL 2310 FWL Sec 10, T23S, R29E, UL N

To Whom It May Concern:

In accordance with the State of New Mexico Oil Conservation Division Rule R-111-PC (2)(3) and the Surface Owners Protection Act, COG Operating LLC (COG) is providing required notice of intention to drill the above mentioned well. Enclosed herewith, please find the following for your review and further action:

1. Form C-101 Application For Permit To Drill
2. Form C-102 Well Location and Acreage Dedication Plat
3. Surface Use Plan of Operations
4. Surface Use Agreement
5. Surface Owners Protection Act

State of New Mexico Public Land records reflect United Salt Corp. of Potash Carlsbad, Inc. as a surface lessee in the area of the captioned lands. COG Operating LLC, a Delaware Corporation, hereby advises you of its intention to drill a well to 13,600' MD and 7850' TVD at a surface location of 100 FSL 200 FWL Sec 9, T23S, R29E, UL M, and a bottom hole location of 500 FSL 2310 FWL Sec 10, T23S, R29E, UL N.

An "onsite" was performed with Mosaic's Environmental Manager on April 27, 2010 regarding the proposed well site. During the "onsite", COG explained how we plan on constructing the well site.

If you are in agreement with COG that drilling at the proposed location will not interfere with potash operations, please sign and return one copy of this letter within 10 days of receipt of said letter. In the alternative, and in order to expedite the process, please send a no objection letter in the envelope provided.

In addition, please acknowledge receipt of the Surface Use Agreement, by signing and returning one copy of the Surface Use Agreement to COG in the envelope provided.

Should you have any questions, or need any further information, please advise.

Sincerely,

COG Operating LLC



Noel Olivas
Field Coordinator

432-686-3008 Direct Line
432-685-4396 Fax
nolivas@conchoresources.com

AGREED TO AND ACCEPTED THIS _____ DAY OF JUNE, 2010.

BY: _____

TITLE: _____