



COG Operating LLC

Lea County, New Mexico

Flat Head Federal Com

Flat Head Federal Com Well No. 27H

Original Hole

SHL: 1170 FNL 990 FEL Sect 14-T17S-R-32E Lot A

POE: 990 FNL 990 FEL Sect 14-T17S-R-32E Lot A

BHL: 330 FNL 990 FEL Sect 11-T17S-R-32E Lot A

Plan: rev0

Standard_report

12 February, 2015

HOBBS OCD

APR 04 2016

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Standard_report

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Flat Head Federal Com Well No. 27H
Project:	Lea County, New Mexico	TVD Reference:	RKB=4100+12 @ 4112.00usft (United #43)
Site:	Flat Head Federal Com.	MD Reference:	RKB=4100+12 @ 4112.00usft (United #43)
Well:	Flat Head Federal Com Well No. 27H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	Phase Nov0914

Project:	Lea County, New Mexico	System Datum:	Mean Sea Level
Map System:	US State Plane 1927 (Exact solution)		
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Flat Head Federal Com		
Site Position:		Northing:	669,324.90 usft
From:	Map	Easting:	684,275.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.83862156
		Longitude:	-103.73336520
		Grid Convergence:	0.33 °

Well:	4 Flat Head Federal Com Well No. 27H, Surf Loc: 1170 FNL 990 FEL Sect 14-T17S-R32E Unit A				
Well Position	+N/-S	0.00 usft	Latitude:	32.83862156	
	+E/-W	0.00 usft	Longitude:	-103.73121706	
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,100.00 usft

Wellbore:	Original Hole			
Magnetics	Model Name	Sample Date	Dip Angle	Field Strength
	IGRF2010	2/12/2015	7.25	60.63
				48,596

Design:	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	359.64

Survey Tool Program:	Date	2/12/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	12,446.16	rev0 (Original Hole)	MWD	MWD - Standard



Standard_report

Company: COG Operating LLC		Local Co-ordinate Reference: Well Flat Head Federal Com Well No. 27H							
Project: Lea County, New Mexico		TVD Reference: RKB=4100+12 @ 4112.00usft (United #43)							
Site: Flat Head Federal Com.		MD Reference: RKB=4100+12 @ 4112.00usft (United #43)							
Well: Flat Head Federal Com Well No. 27H		North Reference: Grid							
Wellbore: Original Hole		Survey Calculation Method: Minimum Curvature							
Design: rev0		Database: Dbase Nov0914							
Planned Survey									
MD (usft)	Inc. (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg. (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80



Standard_report

Company: COG Operating LLC Lea County, New Mexico				Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:							Well/Flat Head Federal Com Well No. 27H RKB=4100+12 @ 4112.00usft (United #43) RKB=4100+12 @ 4112.00usft (United #43) Grid Minimum Curvature Dbase Nov0914			
Project: Flat Head Federal Com														
Site: Flat Head Federal Com Well No. 27H														
Well: Original Hole														
Wellbore: rev0														
Design:														
Planned Survey														
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D Leg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)					
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80					



Standard_report

Company: COG Operating LLC		Local Co-ordinate Reference:						Well Flat Head Federal Com Well No. 27H.	
Project: Lea County, New Mexico		TVD Reference:						RKB=4100+12 @ 4112.00usft (United #43)	
Site: Flat Head Federal Com		MD Reference:						RKB=4100+12 @ 4112.00usft (United #43)	
Well: Flat Head Federal Com Well No. 27H		North Reference:						Grid	
Wellbore: Original Hole		Survey Calculation Method:						Minimum Curvature	
Design: rev0		Database:						Dbase Nov0914	
Planned Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D/Leg (°/100usft)	V. Sec. (usft)	Northing (usft)	Easting (usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	669,275.20	684,935.80
6,029.13	0.00	0.00	6,029.13	0.00	0.00	0.00	0.00	669,275.20	684,935.80
6,029.21	0.00	359.64	6,029.21	0.00	0.00	0.00	0.00	669,275.20	684,935.80
KOP Begin 11°/100' build									
6,100.00	7.80	359.64	6,099.78	4.81	-0.03	11.01	4.81	669,280.01	684,935.77
6,200.00	18.80	359.64	6,196.95	27.78	-0.18	11.00	27.78	669,302.98	684,935.62
6,300.00	29.80	359.64	6,287.96	68.86	-0.44	11.00	68.86	669,344.06	684,935.36
6,400.00	40.80	359.64	6,369.45	126.55	-0.80	11.00	126.55	669,401.75	684,935.00
6,476.00	49.16	359.64	6,423.16	180.21	-1.14	11.00	180.22	669,455.41	684,934.66
330 Hard line intercept @ 6476 MD									
6,500.00	51.80	359.64	6,438.44	198.73	-1.26	11.00	198.73	669,473.93	684,934.54
6,600.00	62.80	359.64	6,492.38	282.74	-1.79	11.00	282.75	669,557.94	684,934.01
6,700.00	73.80	359.64	6,529.31	375.51	-2.37	11.00	375.51	669,650.71	684,933.43
6,800.00	84.80	359.64	6,547.85	473.61	-3.00	11.00	473.62	669,748.81	684,932.80
6,847.31	90.00	359.64	6,550.00	520.86	-3.29	11.00	520.87	669,796.06	684,932.51
6,847.40	90.00	359.64	6,550.00	520.95	-3.29	0.00	520.96	669,796.15	684,932.51
Begin 90.00 lateral section									
6,900.00	90.00	359.64	6,550.00	573.55	-3.63	0.00	573.56	669,848.75	684,932.17
7,000.00	90.00	359.64	6,550.00	673.55	-4.26	0.00	673.56	669,948.75	684,931.54
7,100.00	90.00	359.64	6,550.00	773.54	-4.89	0.00	773.56	670,048.74	684,930.91
7,200.00	90.00	359.64	6,550.00	873.54	-5.52	0.00	873.56	670,148.74	684,930.28



Standard_report

Company: COG Operating LLC		Local Co-ordinate Reference:									
Project: Lea County, New Mexico		TVD Reference:									
Site: Flat Head Federal Com		MD Reference:									
Well: Flat Head Federal Com Well No. 27H		North Reference:									
Wellbore: Original Hole		Survey Calculation Method:									
Design: rev0		Database:									
Well Flat Head Federal Com Well No. 27H		Grid:									
RKB=4100+12 @ 4112.00usft (United #43)		Minimum Curvature									
RKB=4100+12 @ 4112.00usft (United #43)		Dbase Nov0914									
Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NIS (usft)	EW (usft)	D Leg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)		
7,300.00	90.00	359.64	6,550.00	973.54	-6.16	0.00	973.56	670,248.74	684,929.64		
7,400.00	90.00	359.64	6,550.00	1,073.54	-6.79	0.00	1,073.56	670,348.74	684,929.01		
7,500.00	90.00	359.64	6,550.00	1,173.54	-7.42	0.00	1,173.56	670,448.74	684,928.38		
7,600.00	90.00	359.64	6,550.00	1,273.53	-8.05	0.00	1,273.56	670,548.73	684,927.75		
7,700.00	90.00	359.64	6,550.00	1,373.53	-8.69	0.00	1,373.56	670,648.73	684,927.11		
7,800.00	90.00	359.64	6,550.00	1,473.53	-9.32	0.00	1,473.56	670,748.73	684,926.48		
7,900.00	90.00	359.64	6,550.00	1,573.53	-9.95	0.00	1,573.56	670,848.73	684,925.85		
8,000.00	90.00	359.64	6,550.00	1,673.53	-10.58	0.00	1,673.56	670,948.73	684,925.22		
8,100.00	90.00	359.64	6,550.00	1,773.52	-11.22	0.00	1,773.56	671,048.72	684,924.58		
8,200.00	90.00	359.64	6,550.00	1,873.52	-11.85	0.00	1,873.56	671,148.72	684,923.95		
8,300.00	90.00	359.64	6,550.00	1,973.52	-12.48	0.00	1,973.56	671,248.72	684,923.32		
8,400.00	90.00	359.64	6,550.00	2,073.52	-13.11	0.00	2,073.56	671,348.72	684,922.69		
8,500.00	90.00	359.64	6,550.00	2,173.52	-13.75	0.00	2,173.56	671,448.72	684,922.05		
8,600.00	90.00	359.64	6,550.00	2,273.51	-14.38	0.00	2,273.56	671,548.71	684,921.42		
8,700.00	90.00	359.64	6,550.00	2,373.51	-15.01	0.00	2,373.56	671,648.71	684,920.79		
8,800.00	90.00	359.64	6,550.00	2,473.51	-15.64	0.00	2,473.56	671,748.71	684,920.16		
8,900.00	90.00	359.64	6,550.00	2,573.51	-16.27	0.00	2,573.56	671,848.71	684,919.53		
9,000.00	90.00	359.64	6,550.00	2,673.51	-16.91	0.00	2,673.56	671,948.71	684,918.89		
9,100.00	90.00	359.64	6,550.00	2,773.50	-17.54	0.00	2,773.56	672,048.70	684,918.26		
9,200.00	90.00	359.64	6,550.00	2,873.50	-18.17	0.00	2,873.56	672,148.70	684,917.63		
9,300.00	90.00	359.64	6,550.00	2,973.50	-18.80	0.00	2,973.56	672,248.70	684,917.00		
9,400.00	90.00	359.64	6,550.00	3,073.50	-19.44	0.00	3,073.56	672,348.70	684,916.36		
9,500.00	90.00	359.64	6,550.00	3,173.50	-20.07	0.00	3,173.56	672,448.70	684,915.73		
9,600.00	90.00	359.64	6,550.00	3,273.49	-20.70	0.00	3,273.56	672,548.69	684,915.10		
9,700.00	90.00	359.64	6,550.00	3,373.49	-21.33	0.00	3,373.56	672,648.69	684,914.47		
9,800.00	90.00	359.64	6,550.00	3,473.49	-21.97	0.00	3,473.56	672,748.69	684,913.83		
9,900.00	90.00	359.64	6,550.00	3,573.49	-22.60	0.00	3,573.56	672,848.69	684,913.20		



Standard_report

Company: COG Operating LLC		Local Co-ordinate Reference:		Well Flat Head Federal Com Well No. 27H					
Project: Lea County, New Mexico		TVD Reference:		RKB=4100+12 @ 4112.00usft (United #43)					
Site: Flat Head Federal Com		MD Reference:		RKB=4100+12 @ 4112.00usft (United #43)					
Well: Flat Head Federal Com Well No. 27H		North Reference:		Grid					
Wellbore: Original Hole		Survey Calculation Method:		Minimum Curvature					
Design: rev0		Database:		Dbase Nov0914					
Planned Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	Dleg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
10,000.00	90.00	359.64	6,550.00	3,673.49	-23.23	0.00	3,673.56	672,948.69	684,912.57
10,100.00	90.00	359.64	6,550.00	3,773.48	-23.86	0.00	3,773.56	673,048.68	684,911.94
10,200.00	90.00	359.64	6,550.00	3,873.48	-24.50	0.00	3,873.56	673,148.68	684,911.30
10,300.00	90.00	359.64	6,550.00	3,973.48	-25.13	0.00	3,973.56	673,248.68	684,910.67
10,400.00	90.00	359.64	6,550.00	4,073.48	-25.76	0.00	4,073.56	673,348.68	684,910.04
10,500.00	90.00	359.64	6,550.00	4,173.48	-26.39	0.00	4,173.56	673,448.68	684,909.41
10,600.00	90.00	359.64	6,550.00	4,273.47	-27.03	0.00	4,273.56	673,548.67	684,908.77
10,700.00	90.00	359.64	6,550.00	4,373.47	-27.66	0.00	4,373.56	673,648.67	684,908.14
10,800.00	90.00	359.64	6,550.00	4,473.47	-28.29	0.00	4,473.56	673,748.67	684,907.51
10,900.00	90.00	359.64	6,550.00	4,573.47	-28.92	0.00	4,573.56	673,848.67	684,906.88
11,000.00	90.00	359.64	6,550.00	4,673.47	-29.55	0.00	4,673.56	673,948.67	684,906.25
11,100.00	90.00	359.64	6,550.00	4,773.46	-30.19	0.00	4,773.56	674,048.66	684,905.61
11,200.00	90.00	359.64	6,550.00	4,873.46	-30.82	0.00	4,873.56	674,148.66	684,904.98
11,300.00	90.00	359.64	6,550.00	4,973.46	-31.45	0.00	4,973.56	674,248.66	684,904.35
11,400.00	90.00	359.64	6,550.00	5,073.46	-32.08	0.00	5,073.56	674,348.66	684,903.72
11,500.00	90.00	359.64	6,550.00	5,173.46	-32.72	0.00	5,173.56	674,448.66	684,903.08
11,600.00	90.00	359.64	6,550.00	5,273.45	-33.35	0.00	5,273.56	674,548.65	684,902.45
11,700.00	90.00	359.64	6,550.00	5,373.45	-33.98	0.00	5,373.56	674,648.65	684,901.82
11,800.00	90.00	359.64	6,550.00	5,473.45	-34.61	0.00	5,473.56	674,748.65	684,901.19
11,900.00	90.00	359.64	6,550.00	5,573.45	-35.25	0.00	5,573.56	674,848.65	684,900.55
12,000.00	90.00	359.64	6,550.00	5,673.45	-35.88	0.00	5,673.56	674,948.65	684,899.92
12,100.00	90.00	359.64	6,550.00	5,773.44	-36.51	0.00	5,773.56	675,048.64	684,899.29
12,200.00	90.00	359.64	6,550.00	5,873.44	-37.14	0.00	5,873.56	675,148.64	684,898.66
12,300.00	90.00	359.64	6,550.00	5,973.44	-37.78	0.00	5,973.56	675,248.64	684,898.02
12,400.00	90.00	359.64	6,550.00	6,073.44	-38.41	0.00	6,073.56	675,348.64	684,897.39
12,446.16	90.00	359.64	6,550.00	6,119.60	-38.70	0.00	6,119.72	675,394.80	684,897.10
PBHLTD									



Standard_report

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Flat Head Federal Com Well No. 27H
Project:	Lea County, New Mexico	TVD Reference:	RKB=4100+12 @ 4112.00usft (United #43)
Site:	Flat Head Federal Com	MD Reference:	RKB=4100+12 @ 4112.00usft (United #43)
Well:	Flat Head Federal Com Well No. 27H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	Dbase Nov0914

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N-S (usft)	Local Coordinates +E-W (usft)	Comment
6,029.21	6,029.21	0.00	0.00	KOP Begin 11'100' build
6,476.00	6,423.16	180.21	-1.14	330 Hard line intercept @ 6476 MD
6,847.40	6,550.00	520.95	-3.29	Begin 90.00 lateral section
12,446.16	6,550.00	6,119.60	-38.70	PBHL/TD



COG Operating LLC

Well: Flat Head Federal Com Well No. 27H
Site: Flat Head Federal Com
Project: Lea County, New Mexico
Design: rev0
Rig: United #43

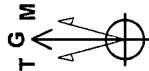
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6029.13	0.00	0.00	6029.13	0.00	0.00	0.00	0.00	0.00	KOP Begin 11'100' build
3	6847.31	90.00	359.64	6550.00	520.86	-3.29	11.00	359.64	520.87	Begin 90.00 lateral section
4	12446.16	90.00	359.64	6550.00	6119.60	-38.70	0.00	0.00	6119.72	PBHL/TD

Surface Location: RKB=4100*12 @ 4112.00usft (United #43)
US State Plane 1927 (Exact solution)
New Mexico East 3001

Northing 669275.20 Easting 684935.80 Latitude 32.83847463 Longitude -103.73121706

Total Correction (M => G) To convert a Magnetic Direction to a Grid Direction, Add 6.93°



Azimuths to Grid North
True North: -0.33°
Magnetic North: 0.93°
Magnetic Field
Strength: 45.56 Gauss
Dip Angle: 60.63°
Date: 2/12/2015
Model: IGRF2010



PRODIRECTIONAL

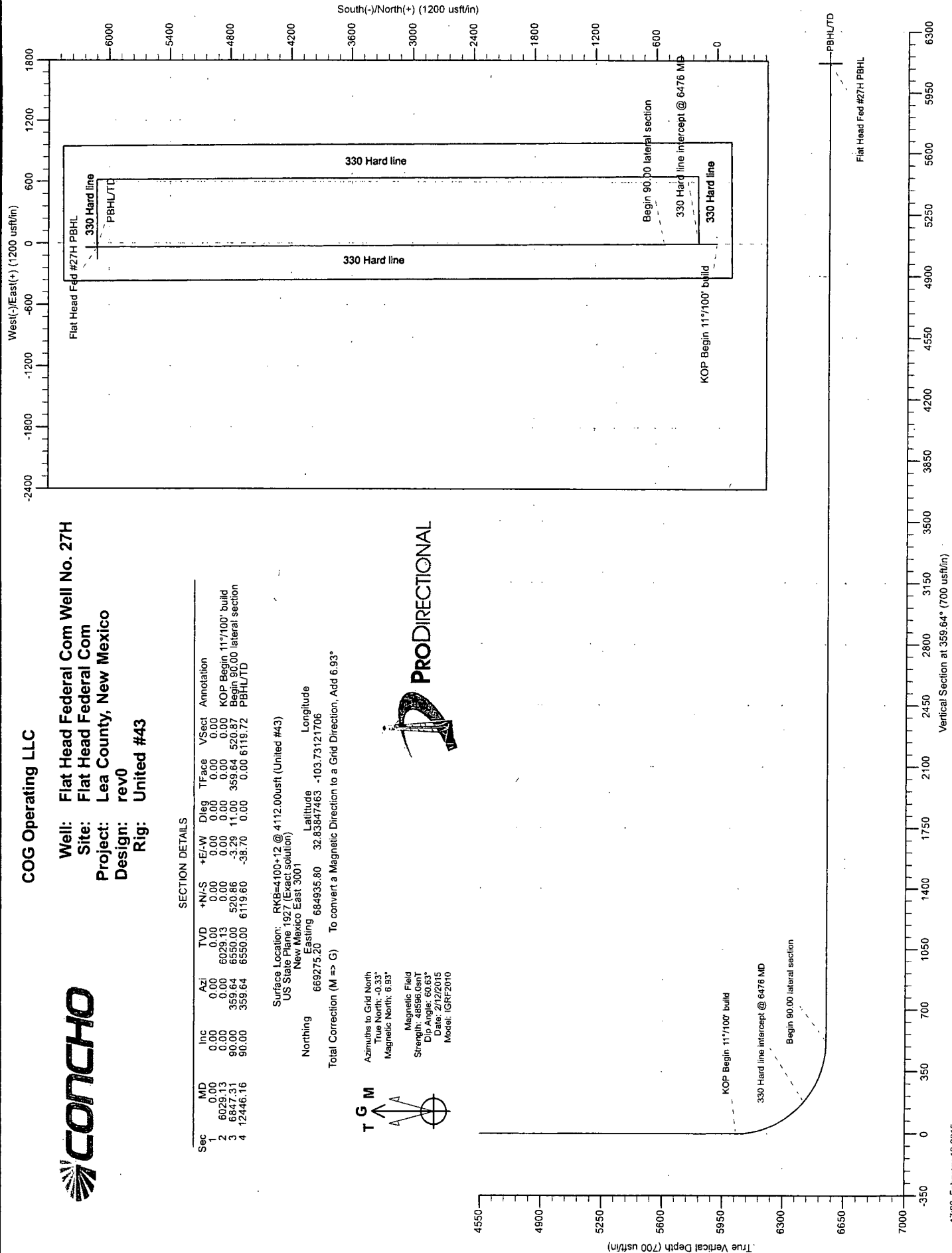


Exhibit #10

(Choke Manifold Schematic same as Exhibit #9)

