



COG Operating, LLC

Lea County , NM

Doo Wop 28 State #4H

Doo Wop 28 State #4H

HOBBS OCD

Lateral #1

APR 30 2012

RECEIVED

Plan: Plan #1

Standard Planning Report

17 April, 2012

SHL :: 660' FSL & 330' FWL

BHL :: 660' FSL & 330' FEL @ 9820' TVD



MAY 03 2012



Black Viper Energy
Planning Report



Database:	EDM 5000 1: Single User Db	Local Co-ordinate Reference:	Site Doo Wop 28 State #4H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3968 00ft (Original Well Elev)
Project:	Lea County, NM	MD Reference:	WELL @ 3968 00ft (Original Well Elev)
Site:	Doo Wop 28 State #4H	North Reference:	Grd
Well:	Doo Wop 28 State #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Plan #1		

Project	Lea 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		Doo Wop 28 State #4H			
Site Position:		Northing:	786,184 20 ft	Latitude:	33° 9' 25 579 N
From:	Map	Easting:	811,352 30 ft	Longitude:	103° 18' 57 593 W
Position Uncertainty:	0 00 ft	Slot Radius:	13 200 in	Grid Convergence:	0 56

Well:	Doo Wop 28 State #4H					
Well Position	+N/-S	0 00 ft	Northing:	786,184 20 ft	Latitude:	33° 9' 25 579 N
	+E/-W	0 00 ft	Easting:	811,352 30 ft	Longitude:	103° 18' 57 593 W
Position Uncertainty	0 00 ft		Wellhead Elevation:	Ground Level: 3,968 00 ft		

Wellbore:	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/17/2012	7 43	61 07	49,117

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	9,292 57
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0 00	0 00	0 00	89 43

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
9,292 57	0 00	0 00	9,292 57	0 00	0 00	0 00	0 00	0 00	0 00	
10,036 81	89 31	89 43	9,770 00	4 72	471 69	12 00	12 00	0 00	89 43	
14,184 34	89 31	89 43	9,820 00	46 20	4,618 70	0 00	0 00	0 00	0 00	PBHL #1 [DW4H]



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Well:	Doo Wop 28 State #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Plan #1		

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)	
9,292 57	0 00	0 00	9,292 57	0 00	0 00	0 00	0 00	0 00	0 00	
KOP Build 12.00°/100' :: TFO 89.43°										
9,300 00	0 89	89 43	9,300 00	0.00	0 06	0 06	12 00	12 00	0.00	
9,330 00	4 49	89 43	9,329 96	0 01	1 47	1 47	12 00	12 00	0 00	
9,360 00	8 09	89 43	9,359 78	0.05	4 75	4 75	12 00	12 00	0 00	
9,390 00	11 69	89 43	9,389 33	0.10	9 91	9 91	12 00	12 00	0 00	
9,420 00	15 29	89 43	9,418 49	0.17	16 90	16 90	12 00	12 00	0 00	
9,450 00	18 89	89 43	9,447 16	0 26	25 72	25 72	12 00	12 00	0.00	
9,480 00	22 49	89 43	9,475 22	0 36	36 32	36 32	12 00	12 00	0 00	
9,510 00	26 09	89.43	9,502 56	0.49	48 66	48 66	12 00	12 00	0 00	
9,540 00	29 69	89 43	9,529 07	0 63	62 69	62 69	12 00	12 00	0 00	
9,570 00	33 29	89 43	9,554 65	0 78	78 35	78 36	12 00	12 00	0.00	
9,600 00	36 89	89 43	9,579 19	0.96	95 60	95 60	12 00	12 00	0.00	
9,630 00	40 49	89 43	9,602 61	1 14	114.35	114 35	12 00	12 00	0 00	
9,660 00	44 09	89 43	9,624 79	1 35	134 53	134 54	12 00	12 00	0 00	
9,690 00	47 69	89 43	9,645 67	1 56	156 07	156 07	12 00	12 00	0 00	
9,720 00	51 29	89 43	9,665 15	1 79	178 87	178 88	12 00	12 00	0 00	
9,750 00	54 89	89 43	9,683 17	2 03	202 85	202 86	12 00	12 00	0 00	
9,780 00	58 49	89 43	9,699 64	2 28	227 92	227 93	12 00	12 00	0 00	
9,810 00	62.09	89 43	9,714 50	2 54	253 97	253.98	12 00	12 00	0 00	
9,840 00	65 69	89 43	9,727 70	2 81	280 90	280 92	12.00	12 00	0 00	
9,870 00	69 29	89 43	9,739 19	3 09	308 61	308 63	12 00	12 00	0 00	
9,900 00	72 89	89 43	9,748 91	3 37	336 99	337 00	12 00	12 00	0 00	
9,930 00	76 49	89 43	9,756 83	3 66	365 92	365 93	12 00	12 00	0 00	
9,960 00	80 09	89 43	9,762 91	3 95	395 29	395 31	12.00	12 00	0 00	
9,990 00	83 69	89 43	9,767 14	4 25	424 98	425.00	12 00	12 00	0 00	
10,020 00	87 29	89 43	9,769 50	4 55	454 88	454 90	12 00	12 00	0 00	
10,036 81	89 31	89 43	9,770 00	4.72	471 69	471 71	12 00	12 00	0 00	
786188.92 N :: 811823.98 E - EOC Hold 89.31° INC :: 89.43° AZI										
10,050 00	89 31	89 43	9,770 16	4 85	484 87	484 89	0 00	0 00	0 00	
10,080 00	89 31	89 43	9,770 52	5 15	514 87	514 89	0 00	0 00	0 00	
10,110 00	89 31	89.43	9,770 88	5 45	544 86	544 89	0 00	0 00	0 00	
10,140 00	89 31	89 43	9,771 24	5 75	574 86	574 89	0 00	0 00	0 00	
10,170 00	89 31	89 43	9,771 61	6 05	604 86	604 89	0 00	0 00	0 00	
10,200 00	89 31	89 43	9,771 97	6 35	634 85	634 88	0 00	0 00	0 00	
10,230 00	89 31	89 43	9,772 33	6 65	664 85	664 88	0 00	0 00	0 00	
10,260 00	89 31	89 43	9,772 69	6 95	694 84	694 88	0 00	0 00	0 00	
10,290 00	89 31	89 43	9,773 05	7 25	724 84	724 88	0 00	0 00	0 00	
10,320 00	89 31	89 43	9,773 41	7 55	754 84	754.87	0 00	0 00	0 00	
10,350 00	89 31	89 43	9,773 78	7 85	784 83	784 87	0 00	0 00	0 00	
10,380 00	89 31	89.43	9,774 14	8 15	814 83	814.87	0 00	0.00	0 00	
10,410 00	89 31	89 43	9,774 50	8 45	844 83	844.87	0 00	0.00	0 00	
10,440 00	89 31	89 43	9,774 86	8 75	874 82	874 87	0 00	0 00	0 00	
10,470 00	89 31	89 43	9,775 22	9 05	904 82	904 86	0 00	0 00	0 00	
10,500 00	89 31	89 43	9,775 58	9 35	934 81	934 86	0 00	0 00	0 00	
10,530 00	89.31	89 43	9,775 95	9.65	964 81	964 86	0 00	0 00	0 00	
10,560 00	89 31	89 43	9,776 31	9 95	994 81	994 86	0 00	0 00	0 00	
10,590 00	89 31	89 43	9,776 67	10 25	1,024 80	1,024 85	0 00	0 00	0 00	
10,620 00	89 31	89 43	9,777 03	10 55	1,054.80	1,054 85	0 00	0 00	0 00	
10,650 00	89.31	89 43	9,777 39	10 85	1,084 80	1,084 85	0.00	0 00	0 00	
10,680 00	89 31	89 43	9,777 75	11.15	1,114 79	1,114 85	0.00	0 00	0 00	
10,710 00	89 31	89 43	9,778 12	11 45	1,144.79	1,144 85	0 00	0.00	0 00	
10,740 00	89 31	89 43	9,778 48	11 75	1,174 79	1,174 84	0 00	0 00	0 00	
10,770 00	89 31	89 43	9,778 84	12.05	1,204 78	1,204 84	0 00	0 00	0 00	



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Site:	Doo Wop 28 State #4H	North Reference:	Gnd
Well:	Doo Wop 28 State #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Plan #1		

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)
10,800.00	89.31	89.43	9,779.20	12.35	1,234.78	1,234.84	0.00	0.00	0.00
10,830.00	89.31	89.43	9,779.56	12.65	1,264.77	1,264.84	0.00	0.00	0.00
10,860.00	89.31	89.43	9,779.92	12.95	1,294.77	1,294.84	0.00	0.00	0.00
10,890.00	89.31	89.43	9,780.29	13.25	1,324.77	1,324.83	0.00	0.00	0.00
10,920.00	89.31	89.43	9,780.65	13.55	1,354.76	1,354.83	0.00	0.00	0.00
10,950.00	89.31	89.43	9,781.01	13.85	1,384.76	1,384.83	0.00	0.00	0.00
10,980.00	89.31	89.43	9,781.37	14.15	1,414.76	1,414.83	0.00	0.00	0.00
11,010.00	89.31	89.43	9,781.73	14.45	1,444.75	1,444.82	0.00	0.00	0.00
11,040.00	89.31	89.43	9,782.09	14.75	1,474.75	1,474.82	0.00	0.00	0.00
11,070.00	89.31	89.43	9,782.46	15.05	1,504.74	1,504.82	0.00	0.00	0.00
11,100.00	89.31	89.43	9,782.82	15.35	1,534.74	1,534.82	0.00	0.00	0.00
11,130.00	89.31	89.43	9,783.18	15.65	1,564.74	1,564.82	0.00	0.00	0.00
11,160.00	89.31	89.43	9,783.54	15.95	1,594.73	1,594.81	0.00	0.00	0.00
11,190.00	89.31	89.43	9,783.90	16.25	1,624.73	1,624.81	0.00	0.00	0.00
11,220.00	89.31	89.43	9,784.26	16.55	1,654.73	1,654.81	0.00	0.00	0.00
11,250.00	89.31	89.43	9,784.63	16.85	1,684.72	1,684.81	0.00	0.00	0.00
11,280.00	89.31	89.43	9,784.99	17.15	1,714.72	1,714.80	0.00	0.00	0.00
11,310.00	89.31	89.43	9,785.35	17.45	1,744.72	1,744.80	0.00	0.00	0.00
11,340.00	89.31	89.43	9,785.71	17.75	1,774.71	1,774.80	0.00	0.00	0.00
11,370.00	89.31	89.43	9,786.07	18.05	1,804.71	1,804.80	0.00	0.00	0.00
11,400.00	89.31	89.43	9,786.43	18.35	1,834.70	1,834.80	0.00	0.00	0.00
11,430.00	89.31	89.43	9,786.80	18.65	1,864.70	1,864.79	0.00	0.00	0.00
11,460.00	89.31	89.43	9,787.16	18.95	1,894.70	1,894.79	0.00	0.00	0.00
11,490.00	89.31	89.43	9,787.52	19.25	1,924.69	1,924.79	0.00	0.00	0.00
11,520.00	89.31	89.43	9,787.88	19.55	1,954.69	1,954.79	0.00	0.00	0.00
11,550.00	89.31	89.43	9,788.24	19.85	1,984.69	1,984.79	0.00	0.00	0.00
11,580.00	89.31	89.43	9,788.60	20.15	2,014.68	2,014.78	0.00	0.00	0.00
11,610.00	89.31	89.43	9,788.97	20.45	2,044.68	2,044.78	0.00	0.00	0.00
11,640.00	89.31	89.43	9,789.33	20.75	2,074.67	2,074.78	0.00	0.00	0.00
11,670.00	89.31	89.43	9,789.69	21.05	2,104.67	2,104.78	0.00	0.00	0.00
11,700.00	89.31	89.43	9,790.05	21.35	2,134.67	2,134.77	0.00	0.00	0.00
11,730.00	89.31	89.43	9,790.41	21.65	2,164.66	2,164.77	0.00	0.00	0.00
11,760.00	89.31	89.43	9,790.77	21.95	2,194.66	2,194.77	0.00	0.00	0.00
11,790.00	89.31	89.43	9,791.14	22.25	2,224.66	2,224.77	0.00	0.00	0.00
11,820.00	89.31	89.43	9,791.50	22.55	2,254.65	2,254.77	0.00	0.00	0.00
11,850.00	89.31	89.43	9,791.86	22.85	2,284.65	2,284.76	0.00	0.00	0.00
11,880.00	89.31	89.43	9,792.22	23.15	2,314.65	2,314.76	0.00	0.00	0.00
11,910.00	89.31	89.43	9,792.58	23.45	2,344.64	2,344.76	0.00	0.00	0.00
11,940.00	89.31	89.43	9,792.94	23.75	2,374.64	2,374.76	0.00	0.00	0.00
11,970.00	89.31	89.43	9,793.31	24.05	2,404.63	2,404.75	0.00	0.00	0.00
12,000.00	89.31	89.43	9,793.67	24.35	2,434.63	2,434.75	0.00	0.00	0.00
12,030.00	89.31	89.43	9,794.03	24.65	2,464.63	2,464.75	0.00	0.00	0.00
12,060.00	89.31	89.43	9,794.39	24.95	2,494.62	2,494.75	0.00	0.00	0.00
12,090.00	89.31	89.43	9,794.75	25.25	2,524.62	2,524.75	0.00	0.00	0.00
12,120.00	89.31	89.43	9,795.11	25.55	2,554.62	2,554.74	0.00	0.00	0.00
12,150.00	89.31	89.43	9,795.48	25.85	2,584.61	2,584.74	0.00	0.00	0.00
12,180.00	89.31	89.43	9,795.84	26.15	2,614.61	2,614.74	0.00	0.00	0.00
12,210.00	89.31	89.43	9,796.20	26.45	2,644.60	2,644.74	0.00	0.00	0.00
12,240.00	89.31	89.43	9,796.56	26.75	2,674.60	2,674.73	0.00	0.00	0.00
12,270.00	89.31	89.43	9,796.92	27.05	2,704.60	2,704.73	0.00	0.00	0.00
12,300.00	89.31	89.43	9,797.28	27.35	2,734.59	2,734.73	0.00	0.00	0.00
12,330.00	89.31	89.43	9,797.65	27.65	2,764.59	2,764.73	0.00	0.00	0.00
12,360.00	89.31	89.43	9,798.01	27.95	2,794.59	2,794.73	0.00	0.00	0.00
12,390.00	89.31	89.43	9,798.37	28.25	2,824.58	2,824.72	0.00	0.00	0.00



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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)	
12,420 00	89 31	89 43	9,798 73	28 55	2,854 58	2,854 72	0 00	0 00	0 00	
12,450 00	89 31	89 43	9,799 09	28 85	2,884 58	2,884 72	0 00	0 00	0 00	
12,480 00	89 31	89 43	9,799 45	29 15	2,914 57	2,914 72	0 00	0 00	0 00	
12,510 00	89 31	89 43	9,799 82	29 45	2,944 57	2,944 72	0 00	0 00	0 00	
12,540 00	89 31	89 43	9,800 18	29 75	2,974 56	2,974 71	0 00	0 00	0 00	
12,570 00	89 31	89 43	9,800 54	30 05	3,004 56	3,004 71	0 00	0 00	0 00	
12,600 00	89 31	89 43	9,800 90	30 35	3,034 56	3,034 71	0 00	0 00	0 00	
12,630 00	89 31	89 43	9,801 26	30 65	3,064 55	3,064 71	0 00	0 00	0 00	
12,660 00	89 31	89 43	9,801 62	30 95	3,094 55	3,094 70	0 00	0 00	0 00	
12,690 00	89 31	89 43	9,801 99	31 25	3,124 55	3,124 70	0 00	0 00	0 00	
12,720 00	89 31	89 43	9,802 35	31 55	3,154 54	3,154 70	0 00	0 00	0 00	
12,750 00	89 31	89 43	9,802 71	31 85	3,184 54	3,184 70	0 00	0 00	0 00	
12,780 00	89 31	89 43	9,803 07	32 15	3,214 53	3,214 70	0 00	0 00	0 00	
12,810 00	89 31	89 43	9,803 43	32 45	3,244 53	3,244 69	0 00	0 00	0 00	
12,840 00	89 31	89 43	9,803 79	32 75	3,274 53	3,274 69	0 00	0 00	0 00	
12,870 00	89 31	89 43	9,804 16	33 05	3,304 52	3,304 69	0 00	0 00	0 00	
12,900 00	89 31	89 43	9,804 52	33 35	3,334 52	3,334 69	0 00	0 00	0 00	
12,930 00	89 31	89 43	9,804 88	33 65	3,364 52	3,364 68	0 00	0 00	0 00	
12,960 00	89 31	89 43	9,805 24	33 95	3,394 51	3,394 68	0 00	0 00	0 00	
12,990 00	89 31	89 43	9,805 60	34 25	3,424 51	3,424 68	0 00	0 00	0 00	
13,020 00	89 31	89 43	9,805 96	34 55	3,454 51	3,454 68	0 00	0 00	0 00	
13,050 00	89 31	89 43	9,806 33	34 85	3,484 50	3,484 68	0 00	0 00	0 00	
13,080 00	89 31	89 43	9,806 69	35 15	3,514 50	3,514 67	0 00	0 00	0 00	
13,110 00	89 31	89 43	9,807 05	35 45	3,544 49	3,544 67	0 00	0 00	0 00	
13,140 00	89 31	89 43	9,807 41	35 75	3,574 49	3,574 67	0 00	0 00	0 00	
13,170 00	89 31	89 43	9,807 77	36 06	3,604 49	3,604 67	0 00	0 00	0 00	
13,200 00	89 31	89 43	9,808 13	36 36	3,634 48	3,634 67	0 00	0 00	0 00	
13,230 00	89 31	89 43	9,808 50	36 66	3,664 48	3,664 66	0 00	0 00	0 00	
13,260 00	89 31	89 43	9,808 86	36 96	3,694 48	3,694 66	0 00	0 00	0 00	
13,290 00	89 31	89 43	9,809 22	37 26	3,724 47	3,724 66	0 00	0 00	0 00	
13,320 00	89 31	89 43	9,809 58	37 56	3,754 47	3,754 66	0 00	0 00	0 00	
13,350 00	89 31	89 43	9,809 94	37 86	3,784 46	3,784 65	0 00	0 00	0 00	
13,380 00	89 31	89 43	9,810 30	38 16	3,814 46	3,814 65	0 00	0 00	0 00	
13,410 00	89 31	89 43	9,810 67	38 46	3,844 46	3,844 65	0 00	0 00	0 00	
13,440 00	89 31	89 43	9,811 03	38 76	3,874 45	3,874 65	0 00	0 00	0 00	
13,470 00	89 31	89 43	9,811 39	39 06	3,904 45	3,904 65	0 00	0 00	0 00	
13,500 00	89 31	89 43	9,811 75	39 36	3,934 45	3,934 64	0 00	0 00	0 00	
13,530 00	89 31	89 43	9,812 11	39 66	3,964 44	3,964 64	0 00	0 00	0 00	
13,560 00	89 31	89 43	9,812 47	39 96	3,994 44	3,994 64	0 00	0 00	0 00	
13,590 00	89 31	89 43	9,812 84	40 26	4,024 44	4,024 64	0 00	0 00	0 00	
13,620 00	89 31	89 43	9,813 20	40 56	4,054 43	4,054 63	0 00	0 00	0 00	
13,650 00	89 31	89 43	9,813 56	40 86	4,084 43	4,084 63	0 00	0 00	0 00	
13,680 00	89 31	89 43	9,813 92	41 16	4,114 42	4,114 63	0 00	0 00	0 00	
13,710 00	89 31	89 43	9,814 28	41 46	4,144 42	4,144 63	0 00	0 00	0 00	
13,740 00	89 31	89 43	9,814 64	41 76	4,174 42	4,174 63	0 00	0 00	0 00	
13,770 00	89 31	89 43	9,815 01	42 06	4,204 41	4,204 62	0 00	0 00	0 00	
13,800 00	89 31	89 43	9,815 37	42 36	4,234 41	4,234 62	0 00	0 00	0 00	
13,830 00	89 31	89 43	9,815 73	42 66	4,264 41	4,264 62	0 00	0 00	0 00	
13,860 00	89 31	89 43	9,816 09	42 96	4,294 40	4,294 62	0 00	0 00	0 00	
13,890 00	89 31	89 43	9,816 45	43 26	4,324 40	4,324 62	0 00	0 00	0 00	
13,920 00	89 31	89 43	9,816 81	43 56	4,354 40	4,354 61	0 00	0 00	0 00	
13,950 00	89 31	89 43	9,817 18	43 86	4,384 39	4,384 61	0 00	0 00	0 00	
13,980 00	89 31	89 43	9,817 54	44 16	4,414 39	4,414 61	0 00	0 00	0 00	
14,010 00	89 31	89 43	9,817 90	44 46	4,444 38	4,444 61	0 00	0 00	0 00	



Black Viper Energy
Planning Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Doo Wop 28 State #4H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3968' 00ft (Original Well Elev)
Project:	Lea County, NM	MD Reference:	WELL @ 3968' 00ft (Original Well Elev)
Site:	Doo Wop 28 State #4H	North Reference:	Grid
Well:	Doo Wop 28 State #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Plan #1		

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)
14,040.00	89.31	89.43	9,818.26	44.76	4,474.38	4,474.60	0.00	0.00	0.00
14,070.00	89.31	89.43	9,818.62	45.06	4,504.38	4,504.60	0.00	0.00	0.00
14,100.00	89.31	89.43	9,818.98	45.36	4,534.37	4,534.60	0.00	0.00	0.00
14,130.00	89.31	89.43	9,819.35	45.66	4,564.37	4,564.60	0.00	0.00	0.00
14,160.00	89.31	89.43	9,819.71	45.96	4,594.37	4,594.60	0.00	0.00	0.00
14,184.34	89.31	89.43	9,820.00	46.20	4,618.70	4,618.93	0.00	0.00	0.00
786230.40 N :: 815971.00 E - PBHL #1 [DW4H]									

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 #1 [DW4H]		0.00	0.00	9,820.00	46.20	4,618.70	786,230.40	815,971.00	33° 9' 25.589 N	103° 18' 3.266 W
- plan hits target center										
- Point										

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,292.57	9,292.57	0.00	0.00	KOP Build 12' 00" / 100' TFO 89.43°
10,036.81	9,770.00	4.72	471.68	786188.92 N 811823.98 E
10,036.81	9,770.00	4.72	471.69	EOC Hold 89.31° INC 89.43° AZI
14,184.34	9,820.00	46.20	4,618.70	786230.40 N . 815971.00 E



Doo Wop 28 State #4H
Lea County, NM
Lateral #1
660.00 FSL
330.00 FWL

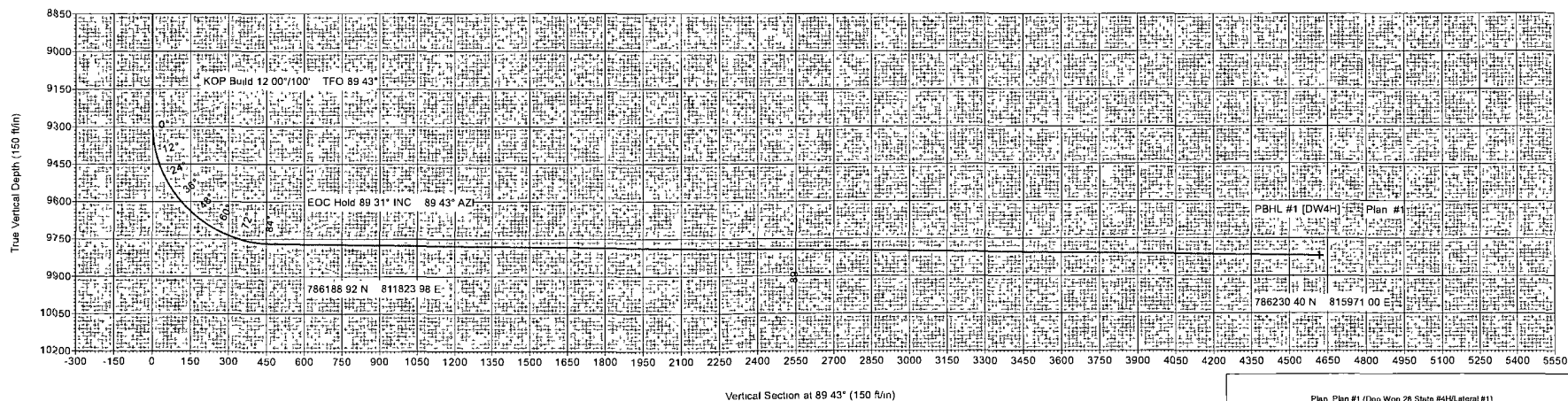
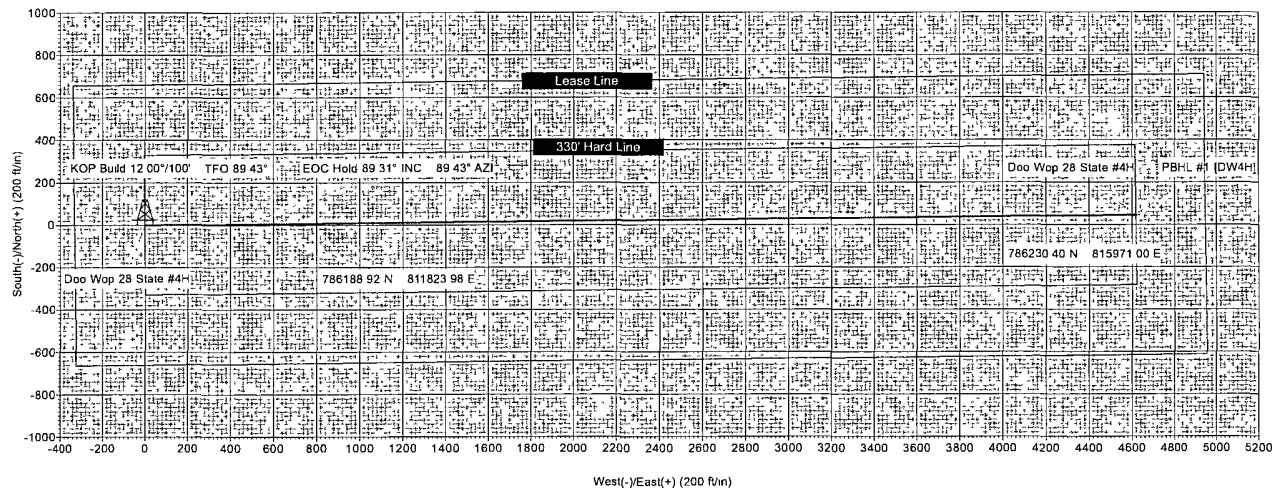
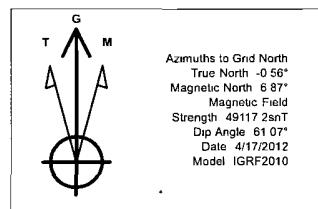


Well Name Doo Wop 28 State #4H
System US State Plane 1927 (Exact solution)
Zone New Mexico East 3001
System Datum Mean Sea Level
Northing 786184.20
Easting 811352.30
Ground Level 3968.00
Depth Reference WELL @ 3968.00ft (Original Well Elev)

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Target	
9292.57	0.00	0.00	9292.57	0.00	0.00	0.00	0.00		
10036.81	89.31	89.43	9770.00	4.72	471.69	12.00	471.71		
14184.34	89.31	89.43	9820.00	46.20	4618.70	0.00	4618.93	PBHL #1 [DW4H]	

ANNOTATIONS

TVD	MD	Annotation
9292.57	9292.57	KOP Build 12 00"/100' TFO 89.43°
9770.00	10036.81	786188.92 N 811823.98 E
9770.00	10036.81	EOC Hold 89.31° INC 89.43° AZI
9820.00	14184.34	786230.40 N 815971.00 E



Plan: Plan #1 (Doo Wop 28 State #4H/Lateral #1)
Created By: Michael Herrera Date: April 17 2012