

HOBBS OCD

Form C-101

MAR 27 2014

Revised July 18, 2013

RECEIVED ☐ AMENDED REPORT

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St. Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address EOG Resources, Inc. P.O. Box 2267 Midland, TX 79702		² OGRID Number 7377
		³ API Number 30-025-29086
⁴ Property Code 4051	⁵ Property Name Diamond SM 36 State	⁶ Well No. 1H

⁷ Surface Location

UL- lot	Section	Township	Range	Lot.Idn	Feet from	N/S Line	Feet from	E/W Line	County
I	36	24S	33E		1980	South	660	East	Lea

⁸ Proposed Bottom Hole Location

UL- lot	Section	Township	Range	Lot.Idn	Feet from	N/S Line	Feet from	E/W Line	County
A	36	24S	33E		560	North	710	East	Lea

⁹ Pool Information

Pool Name	Pool Code
Johnson Ranch; Wolfcamp. West (Gas)	96025

Additional Well Information

¹¹ Work Type Plugback	¹² Well Type Gas	¹³ Cable/Rotary	¹⁴ Lease Type State	¹⁵ Ground Level Elevation 3485'
¹⁶ Multiple	¹⁷ Proposed Depth 15325'	¹⁸ Formation Wolfcamp	¹⁹ Contractor	²⁰ Spud Date 5/1/2014
Depth to Groundwater		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits²¹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Prod	6-1/8	4-1/2	11.6	15325	500	11500'

Casing/Cement Program: Additional Comments

Plugback of existing well. Current wellbore diagram attached.

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Maintenance
Double Ram	10000	10000	

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable

Signature:

Printed name: Stan Wagner

Title: Regulatory Analyst

E-mail Address:

Date:

3/26/14

Phone:

432-686-3689

OIL CONSERVATION DIVISION

Approved by:

Title:

Petroleum Engineer

Approval Date:

03/27/14

Expiration Date:

03/27/16

Conditions of Approval Attached

MAR 31 2014

Permit Information:

Well Name: Diamond SM 36 State No. 1H

Location:

SL: 1977' FSL & 661' FEL, Section 36, T-24-S, R-33-E, Lea Co., N.M.

BHL: 560' FNL & 710' FEL, Section 36, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Sidetrack out of the existing 7-5/8" casing via a whipstock.

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Production	0' - 15,325'	6-1/8"	4-1/2"	11.6#	HCP-110	11,500'

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Slurry Description
15,325	500	14.2	1.30	50:50:2 Class 'H' + 0.30% FL-52A + 0.20% CD-32 + 0.35% SMS + 5.00% Salt (2.454 lb/sk) + 0.45% R-3 + 0.005 lb/sk Static Free

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
12,100' - 15,325' Lateral	OBM	9.0-10.0	45-60	6-8

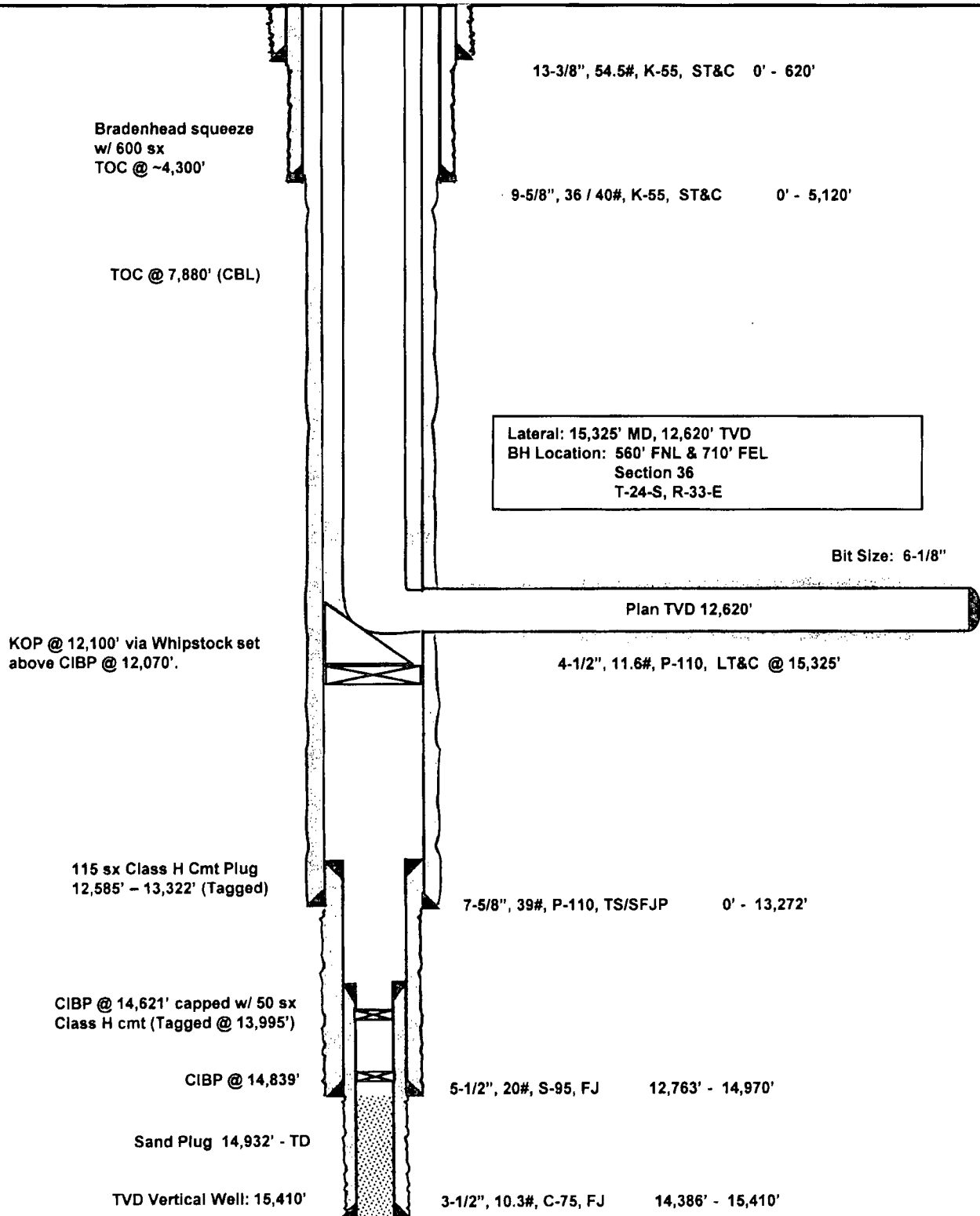
Diamond SM 36 State #1H
Red Hills
Lea County, New Mexico

1977' FSL
661' FEL
Section 36
T-24-S, R-33-E

Proposed Wellbore

KB: 3,507.5'
GL: 3,485.0'

API: 30-025-29086



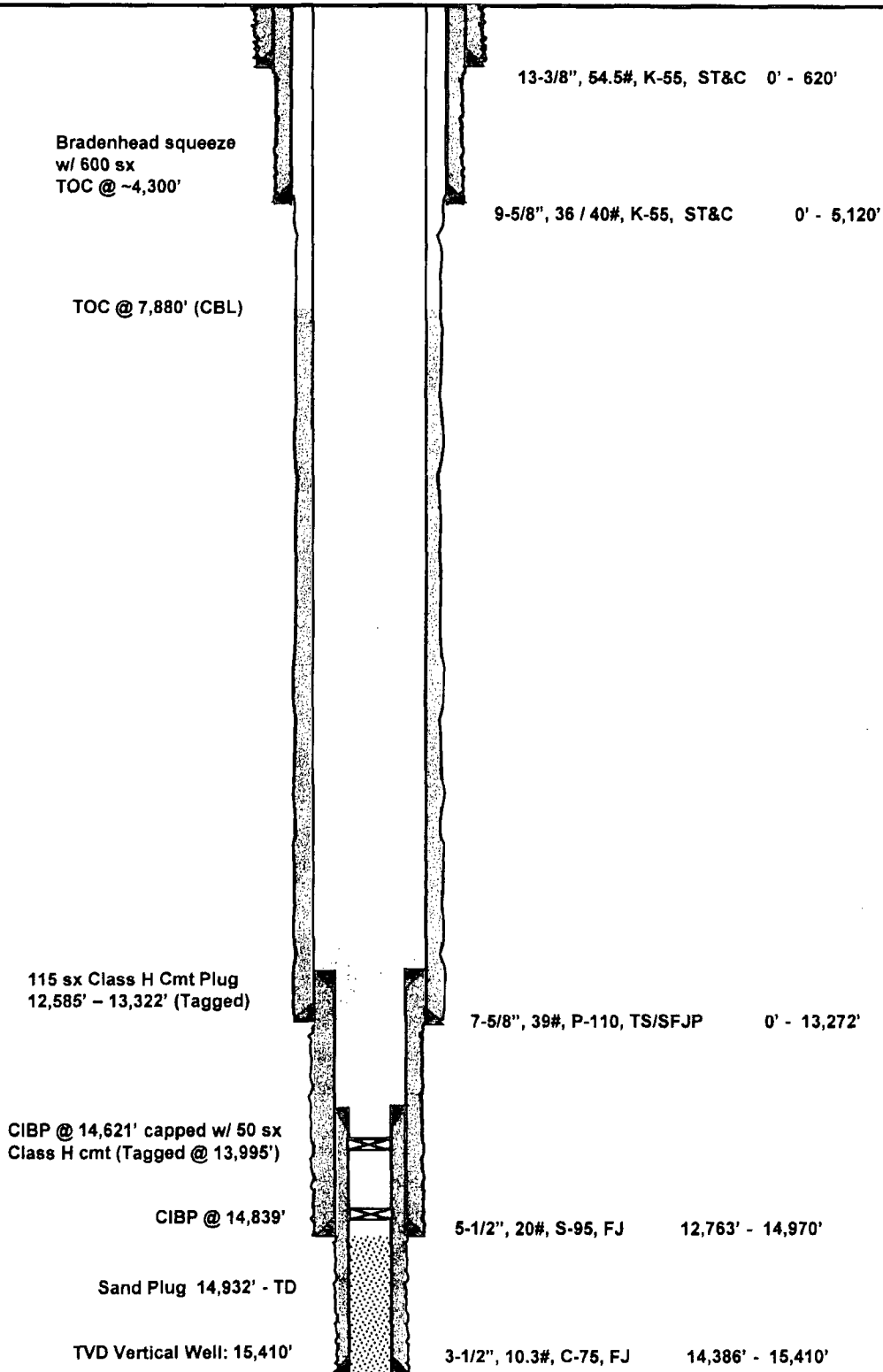
Diamond SM 36 State #1
Red Hills
Lea County, New Mexico

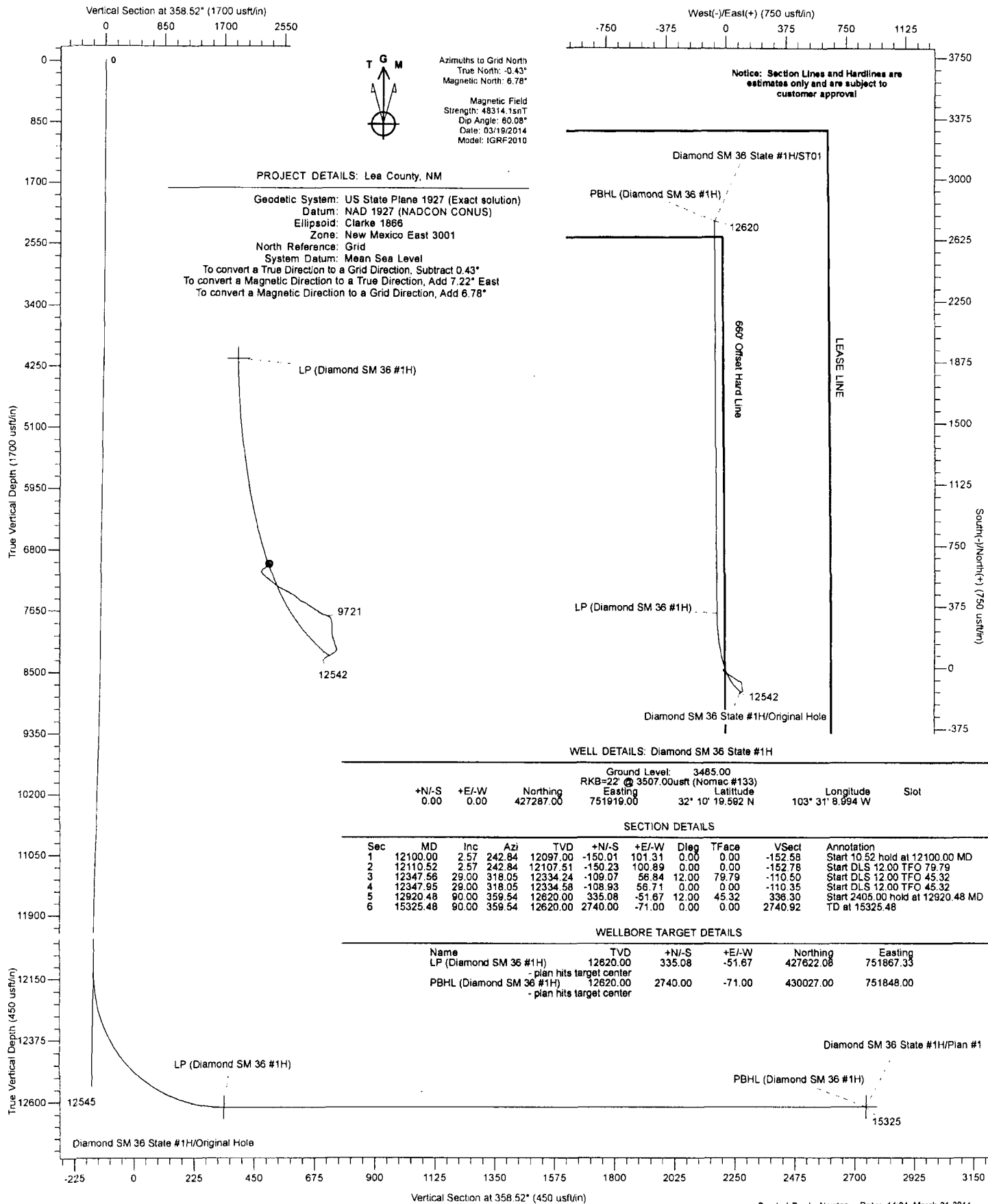
1977' FSL
661' FEL
Section 36
T-24-S, R-33-E

Current Wellbore

KB: 3,507.5'
GL: 3,485.0'

API: 30-025-29086







Gyrodatta, Inc.
Planning Report

Database: Gyrodatta
Company: EOG Resources
Project: Lea County, NM
Site: Diamond SM 36
Well: Diamond SM 36 State #1H
Wellbore: ST01
Design: Plan #1

Local Co-ordinate Reference: Well Diamond SM 36 State #1H
TVD Reference: RKB=22' @ 3507.00usft (Nomac #133)
MD Reference: RKB=22' @ 3507.00usft (Nomac #133)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	Diamond SM 36			
Site Position:		Northing:	427,287.00 usft	Latitude: 32° 10' 19.592 N
From:	Map	Easting:	751,919.00 usft	Longitude: 103° 31' 8.994 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.43 °

Well	Diamond SM 36 State #1H			
Well Position	+N/-S	0.00 usft	Northing:	427,287.00 usft
	+E/-W	0.00 usft	Easting:	751,919.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level: 3,485.00 usft

Wellbore	ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/19/14	7.22	60.08	48,314

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	12,100.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	358.52

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
12,100.00	2.57	242.84	12,097.00	-150.01	101.31	0.00	0.00	0.00	0.00	
12,110.52	2.57	242.84	12,107.51	-150.23	100.89	0.00	0.00	0.00	0.00	
12,347.56	29.00	318.05	12,334.24	-109.07	56.84	12.00	11.15	31.73	79.79	
12,347.95	29.00	318.05	12,334.58	-108.93	56.71	0.00	0.00	0.00	0.00	
12,920.48	90.00	359.54	12,620.00	335.08	-51.67	12.00	10.65	7.25	45.32	
15,325.48	90.00	359.54	12,620.00	2,740.00	-71.00	0.00	0.00	0.00	0.00	PBHL (Diamond SM 3



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Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.24	209.06	100.00	-0.18	-0.10	-0.18	0.24	0.24	0.00
200.00	0.12	219.61	200.00	-0.45	-0.27	-0.44	0.12	-0.12	10.55
300.00	0.13	223.16	300.00	-0.61	-0.41	-0.60	0.01	0.01	3.55
400.00	0.19	230.56	400.00	-0.80	-0.62	-0.78	0.06	0.06	7.40
500.00	0.20	232.88	500.00	-1.01	-0.89	-0.89	0.01	0.01	2.32
600.00	0.06	219.30	600.00	-1.15	-1.06	-1.13	0.14	-0.14	-13.58
700.00	0.08	232.73	700.00	-1.24	-1.15	-1.21	0.03	0.02	13.43
800.00	0.10	233.14	800.00	-1.33	-1.27	-1.30	0.02	0.02	0.41
900.00	0.05	236.44	900.00	-1.41	-1.38	-1.37	0.05	-0.05	3.30
1,000.00	0.13	304.05	1,000.00	-1.37	-1.51	-1.33	0.12	0.08	67.61
1,100.00	0.08	238.96	1,100.00	-1.34	-1.88	-1.30	0.12	-0.05	-65.09
1,200.00	0.09	271.87	1,200.00	-1.38	-1.80	-1.33	0.05	0.01	32.91
1,300.00	0.11	252.33	1,300.00	-1.40	-1.97	-1.35	0.04	0.02	-19.54
1,400.00	0.11	240.11	1,400.00	-1.48	-2.15	-1.42	0.02	0.00	-12.22
1,500.00	0.19	212.01	1,500.00	-1.67	-2.32	-1.61	0.11	0.08	-28.10
1,600.00	0.31	196.81	1,600.00	-2.07	-2.48	-2.00	0.14	0.12	-15.20
1,700.00	0.23	207.23	1,699.99	-2.50	-2.65	-2.43	0.09	-0.08	10.42
1,800.00	0.25	205.15	1,799.99	-2.88	-2.84	-2.81	0.02	0.02	-2.08
1,900.00	0.23	211.39	1,899.99	-3.25	-3.04	-3.17	0.03	-0.02	6.24
2,000.00	0.26	215.98	1,999.99	-3.60	-3.27	-3.52	0.04	0.03	4.59
2,100.00	0.27	213.88	2,099.99	-3.98	-3.54	-3.89	0.01	0.01	-2.10
2,200.00	0.34	234.77	2,199.99	-4.35	-3.91	-4.25	0.13	0.07	20.89
2,300.00	0.38	226.72	2,299.99	-4.75	-4.40	-4.63	0.06	0.04	-8.05
2,400.00	0.56	227.39	2,399.98	-5.31	-5.00	-5.18	0.18	0.18	0.67
2,500.00	0.63	232.06	2,499.98	-5.98	-5.79	-5.82	0.09	0.07	4.67
2,600.00	0.53	238.02	2,599.97	-6.56	-6.62	-6.39	0.12	-0.10	5.96
2,700.00	0.56	243.44	2,699.97	-7.02	-7.45	-6.83	0.06	0.03	5.42
2,800.00	0.58	233.40	2,799.96	-7.54	-8.29	-7.33	0.10	0.02	-10.04
2,900.00	0.55	238.77	2,899.96	-8.09	-9.11	-7.85	0.06	-0.03	5.37
3,000.00	0.57	234.18	2,999.95	-8.63	-9.92	-8.37	0.05	0.02	-4.59
3,100.00	0.44	241.81	3,099.95	-9.11	-10.66	-8.83	0.15	-0.13	7.63
3,200.00	0.48	217.55	3,199.95	-9.62	-11.26	-9.32	0.20	0.04	-24.26
3,300.00	0.34	218.78	3,299.94	-10.18	-11.70	-9.88	0.14	-0.14	1.23
3,400.00	0.35	191.16	3,399.94	-10.71	-11.94	-10.40	0.16	0.01	-27.62
3,500.00	0.25	200.54	3,499.94	-11.22	-12.08	-10.90	0.11	-0.10	9.38
3,600.00	0.15	200.38	3,599.94	-11.54	-12.20	-11.23	0.10	-0.10	-0.16
3,700.00	0.28	188.98	3,699.94	-11.91	-12.28	-11.59	0.14	0.13	-11.40
3,800.00	0.26	206.72	3,799.94	-12.35	-12.42	-12.03	0.09	-0.02	17.74
3,900.00	0.33	210.23	3,899.94	-12.80	-12.67	-12.47	0.07	0.07	3.51
4,000.00	0.47	178.35	3,999.94	-13.46	-12.80	-13.13	0.26	0.14	-31.88
4,100.00	0.43	190.86	4,099.93	-14.24	-12.86	-13.90	0.11	-0.04	12.51
4,200.00	0.44	176.73	4,199.93	-14.99	-12.91	-14.65	0.11	0.01	-14.13
4,300.00	0.47	146.98	4,299.93	-15.72	-12.67	-15.39	0.24	0.03	-29.75
4,400.00	0.69	139.24	4,399.92	-16.52	-12.05	-16.20	0.23	0.22	-7.74
4,500.00	0.86	134.16	4,499.91	-17.50	-11.12	-17.21	0.18	0.17	-5.08
4,600.00	1.04	127.35	4,599.90	-18.57	-9.86	-18.31	0.21	0.18	-6.81
4,700.00	1.25	134.97	4,699.88	-19.89	-8.36	-19.67	0.26	0.21	7.62
4,800.00	1.30	119.60	4,799.85	-21.22	-6.61	-21.05	0.34	0.05	-15.37
4,900.00	1.76	130.79	4,899.82	-22.79	-4.46	-22.67	0.55	0.46	11.19
5,000.00	1.86	129.65	4,999.77	-24.83	-2.05	-24.77	0.11	0.10	-1.14
5,100.00	1.59	127.98	5,099.72	-26.72	0.30	-26.72	0.27	-0.27	-1.67
5,200.00	1.61	126.92	5,199.68	-28.41	2.51	-28.47	0.04	0.02	-1.06
5,300.00	1.57	128.35	5,299.65	-30.11	4.71	-30.22	0.06	-0.04	1.43



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5,400.00	1.72	128.47	5,399.60	-31.89	6.96	-32.06	0.15	0.15	0.12
5,500.00	1.67	128.57	5,499.56	-33.73	9.28	-33.96	0.05	-0.05	0.10
5,600.00	1.62	126.91	5,599.52	-35.49	11.54	-35.78	0.07	-0.05	-1.66
5,700.00	1.78	125.57	5,699.48	-37.24	13.94	-37.59	0.16	0.16	-1.34
5,800.00	1.08	111.88	5,799.44	-38.50	16.08	-38.90	0.77	-0.70	-13.69
5,900.00	1.08	116.76	5,899.43	-39.27	17.79	-39.72	0.09	0.00	4.88
6,000.00	1.05	117.68	5,999.41	-40.12	19.45	-40.61	0.03	-0.03	0.92
6,100.00	1.13	114.82	6,099.39	-40.96	21.15	-41.50	0.10	0.08	-2.86
6,200.00	1.14	115.53	6,199.37	-41.81	22.94	-42.38	0.02	0.01	0.71
6,300.00	1.21	121.95	6,299.35	-42.79	24.74	-43.42	0.15	0.07	6.42
6,400.00	1.14	122.89	6,399.33	-43.89	26.47	-44.56	0.07	-0.07	0.94
6,500.00	1.15	115.08	6,499.31	-44.86	28.21	-45.57	0.16	0.01	-7.81
6,600.00	1.16	119.93	6,599.29	-45.79	30.00	-46.55	0.10	0.01	4.85
6,700.00	1.19	117.62	6,699.27	-46.77	31.80	-47.58	0.06	0.03	-2.31
6,800.00	1.15	117.92	6,799.25	-47.73	33.60	-48.58	0.04	-0.04	0.30
6,900.00	1.13	121.19	6,899.23	-48.71	35.33	-49.60	0.07	-0.02	3.27
7,000.00	1.09	116.71	6,999.21	-49.64	37.03	-50.58	0.10	-0.04	-4.48
7,100.00	1.09	117.20	7,099.19	-50.51	38.72	-51.49	0.01	0.00	0.49
7,200.00	1.08	118.08	7,199.17	-51.39	40.40	-52.41	0.02	-0.01	0.88
7,300.00	1.24	127.36	7,299.15	-52.49	42.09	-53.56	0.25	0.16	9.28
7,400.00	1.27	127.84	7,399.13	-53.82	43.83	-54.94	0.03	0.03	0.48
7,500.00	1.31	133.71	7,499.10	-55.29	45.53	-56.45	0.14	0.04	5.87
7,600.00	1.38	129.78	7,599.08	-56.85	47.28	-58.05	0.12	0.07	-3.93
7,700.00	1.59	134.70	7,699.04	-58.60	49.19	-59.85	0.25	0.21	4.92
7,800.00	1.44	138.00	7,799.01	-60.51	51.02	-61.81	0.17	-0.15	3.30
7,900.00	0.85	98.83	7,898.99	-61.56	52.59	-62.89	0.95	-0.59	-39.17
8,000.00	0.83	101.23	7,998.98	-61.81	54.04	-63.19	0.04	-0.02	2.40
8,100.00	0.86	104.58	8,098.97	-62.14	55.47	-63.55	0.06	0.03	3.35
8,200.00	0.88	112.14	8,198.95	-62.62	56.91	-64.07	0.12	0.02	7.56
8,300.00	0.96	116.66	8,298.94	-63.28	58.37	-64.77	0.11	0.08	4.52
8,400.00	1.14	123.99	8,398.92	-64.22	59.94	-65.74	0.22	0.18	7.33
8,500.00	1.47	127.03	8,498.90	-65.54	61.79	-67.12	0.34	0.33	3.04
8,600.00	1.72	126.16	8,598.86	-67.20	64.03	-68.83	0.25	0.25	-0.87
8,700.00	1.71	122.76	8,698.82	-68.90	66.49	-70.59	0.10	-0.01	-3.40
8,800.00	1.66	120.37	8,798.77	-70.44	69.00	-72.19	0.09	-0.05	-2.39
8,900.00	1.74	123.57	8,898.73	-72.01	71.51	-73.83	0.12	0.08	3.20
9,000.00	1.79	119.74	8,998.68	-73.62	74.13	-75.51	0.13	0.05	-3.83
9,100.00	1.98	125.93	9,098.63	-75.41	76.89	-77.37	0.28	0.19	6.19
9,200.00	2.27	125.58	9,198.56	-77.58	79.90	-79.61	0.29	0.29	-0.35
9,300.00	2.35	124.12	9,298.48	-79.88	83.21	-82.00	0.10	0.08	-1.46
9,400.00	1.93	116.97	9,398.41	-81.79	86.40	-84.00	0.50	-0.42	-7.15
9,500.00	2.07	117.88	9,498.35	-83.40	89.50	-85.68	0.14	0.14	0.91
9,600.00	2.01	108.41	9,598.28	-84.80	92.76	-87.17	0.34	-0.06	-9.47
9,700.00	2.07	107.78	9,698.22	-85.90	96.15	-88.36	0.06	0.06	-0.63
9,800.00	1.68	120.42	9,798.17	-87.20	99.13	-89.73	0.57	-0.39	12.64
9,900.00	1.69	148.54	9,898.12	-89.20	101.16	-91.78	0.82	0.01	28.12
10,000.00	1.70	158.53	9,998.08	-91.84	102.45	-94.46	0.32	0.01	10.99
10,100.00	1.98	161.84	10,098.03	-94.88	103.51	-97.52	0.29	0.28	2.31
10,200.00	2.16	176.83	10,197.96	-98.40	104.15	-101.06	0.57	0.18	14.99
10,300.00	2.24	180.65	10,297.89	-102.23	104.23	-104.89	0.17	0.08	3.82
10,400.00	2.51	177.91	10,397.81	-106.38	104.29	-109.04	0.29	0.27	-2.74
10,500.00	2.61	181.14	10,497.71	-110.84	104.33	-113.50	0.18	0.10	3.23
10,600.00	2.34	178.35	10,597.61	-115.16	104.34	-117.82	0.30	-0.27	-2.79
10,700.00	2.03	167.88	10,697.54	-118.93	104.77	-121.60	0.50	-0.31	-10.47



Gyrodatta, Inc.
Planning Report

Database: Gyrodatta
Company: EOG Resources
Project: Lea County, NM
Site: Diamond SM 36
Well: Diamond SM 36 State #1H
Wellbore: ST01
Design: Plan #1

Local Co-ordinate Reference: Well Diamond SM 36 State #1H
TVD Reference: RKB=22' @ 3507.00usft (Nomac #133)
MD Reference: RKB=22' @ 3507.00usft (Nomac #133)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,800.00	1.91	159.50	10,797.48	-122.22	105.73	-124.91	0.31	-0.12	-8.38
10,900.00	2.06	159.97	10,897.42	-125.47	106.92	-128.19	0.15	0.15	0.47
11,000.00	1.90	165.38	10,997.36	-128.77	107.96	-131.51	0.25	-0.16	5.41
11,100.00	1.70	156.38	11,097.31	-131.73	108.97	-134.50	0.35	-0.20	-9.00
11,200.00	1.50	165.49	11,197.27	-134.36	109.89	-137.15	0.32	-0.20	9.11
11,300.00	1.39	159.11	11,297.24	-136.76	110.65	-139.57	0.19	-0.11	-6.38
11,400.00	1.44	164.12	11,397.21	-139.10	111.43	-141.93	0.13	0.05	5.01
11,500.00	0.69	176.96	11,497.19	-140.91	111.81	-143.75	0.78	-0.75	12.84
11,600.00	0.83	217.36	11,597.18	-142.08	111.40	-144.91	0.54	0.14	40.40
11,700.00	0.82	220.47	11,697.17	-143.20	110.49	-146.01	0.05	-0.01	3.11
11,800.00	1.35	228.72	11,797.16	-144.53	109.14	-147.30	0.55	0.53	8.25
11,900.00	1.50	233.25	11,897.13	-146.09	107.21	-148.81	0.19	0.15	4.53
12,000.00	2.04	233.45	11,997.08	-147.93	104.73	-150.58	0.54	0.54	0.20
12,100.00	2.57	242.84	12,097.00	-150.01	101.31	-152.58	0.65	0.53	9.39
Start 10.52 hold at 12100.00 MD									
12,110.52	2.57	242.84	12,107.51	-150.23	100.89	-152.78	0.00	0.00	0.00
Start DLS 12.00 TFO 79.79									
12,125.00	3.35	273.58	12,121.97	-150.35	100.18	-152.89	12.00	5.37	212.27
12,150.00	5.78	296.72	12,146.89	-149.74	98.32	-152.23	12.00	9.71	92.59
12,175.00	8.57	305.58	12,171.69	-148.09	95.69	-150.51	12.00	11.19	35.43
12,200.00	11.47	310.05	12,196.31	-145.40	92.27	-147.74	12.00	11.60	17.87
12,225.00	14.41	312.72	12,220.67	-141.69	88.08	-143.92	12.00	11.76	10.70
12,250.00	17.37	314.51	12,244.71	-136.96	83.13	-139.07	12.00	11.84	7.12
12,275.00	20.34	315.78	12,268.37	-131.23	77.43	-133.19	12.00	11.89	5.10
12,300.00	23.32	316.74	12,291.57	-124.51	71.01	-126.30	12.00	11.91	3.85
12,325.00	26.31	317.50	12,314.26	-116.82	63.87	-118.43	12.00	11.93	3.02
12,347.56	29.00	318.05	12,334.24	-109.07	56.84	-110.50	12.00	11.95	2.46
12,347.95	29.00	318.05	12,334.58	-108.93	56.71	-110.35	0.00	0.00	0.00
Start DLS 12.00 TFO 45.32									
12,350.00	29.18	318.41	12,336.37	-108.18	56.05	-109.60	12.00	8.46	17.50
12,375.00	31.36	322.49	12,357.97	-98.46	48.04	-99.67	12.00	8.75	16.31
12,400.00	33.66	326.07	12,379.05	-87.55	40.21	-88.56	12.00	9.20	14.34
12,425.00	36.05	329.24	12,399.56	-75.48	32.58	-76.29	12.00	9.57	12.68
12,450.00	38.52	332.07	12,419.45	-62.28	25.17	-62.90	12.00	9.86	11.29
12,475.00	41.05	334.59	12,438.67	-47.98	18.00	-48.43	12.00	10.11	10.11
12,500.00	43.62	336.88	12,457.15	-32.63	11.09	-32.91	12.00	10.31	9.13
12,525.00	46.24	338.95	12,474.84	-16.27	4.46	-16.38	12.00	10.47	8.30
12,550.00	48.89	340.85	12,491.71	1.06	-1.88	1.11	12.00	10.61	7.60
12,575.00	51.58	342.60	12,507.70	19.30	-7.90	19.50	12.00	10.72	7.01
12,600.00	54.28	344.23	12,522.77	38.42	-13.58	38.76	12.00	10.82	6.50
12,625.00	57.01	345.75	12,536.88	58.35	-18.92	58.82	12.00	10.90	6.07
12,650.00	59.75	347.17	12,549.99	79.05	-23.90	79.64	12.00	10.97	5.71
12,675.00	62.51	348.52	12,562.06	100.45	-28.51	101.15	12.00	11.03	5.40
12,700.00	65.28	349.80	12,573.06	122.49	-32.73	123.30	12.00	11.08	5.13
12,725.00	68.06	351.03	12,582.96	145.13	-36.54	146.02	12.00	11.12	4.91
12,750.00	70.85	352.21	12,591.73	168.28	-39.95	169.26	12.00	11.16	4.72
12,775.00	73.64	353.35	12,599.36	191.90	-42.94	192.95	12.00	11.19	4.56
12,800.00	76.45	354.46	12,605.81	215.92	-45.50	217.02	12.00	11.21	4.43
12,825.00	79.25	355.54	12,611.07	240.26	-47.63	241.41	12.00	11.23	4.33
12,850.00	82.06	356.61	12,615.13	264.87	-49.32	266.05	12.00	11.24	4.25
12,875.00	84.88	357.65	12,617.97	289.67	-50.56	290.88	12.00	11.25	4.19
12,900.00	87.69	358.69	12,619.59	314.60	-51.36	315.82	12.00	11.26	4.16
12,920.48	90.00	359.54	12,620.00	335.08	-51.67	336.30	12.00	11.26	4.14



Gyrodatta, Inc.
Planning Report

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Wellbore: ST01
Design: Plan #1

Local Co-ordinate Reference: Well Diamond SM 36 State #1H
TVD Reference: RKB=22' @ 3507.00usft (Nomac #133)
MD Reference: RKB=22' @ 3507.00usft (Nomac #133)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Start 2405.00 hold at 12920.48 MD - LP (Diamond SM 36 #1H)									
13,000.00	90.00	359.54	12,620.00	414.59	-52.31	415.81	0.00	0.00	0.00
13,085.41	90.00	359.54	12,620.00	500.00	-53.00	501.20	0.00	0.00	0.00
Upper Most Perf. (Diamond SM 36 #1H)									
13,100.00	90.00	359.54	12,620.00	514.59	-53.12	515.79	0.00	0.00	0.00
13,200.00	90.00	359.54	12,620.00	614.59	-53.92	615.77	0.00	0.00	0.00
13,300.00	90.00	359.54	12,620.00	714.58	-54.72	715.76	0.00	0.00	0.00
13,400.00	90.00	359.54	12,620.00	814.58	-55.53	815.74	0.00	0.00	0.00
13,500.00	90.00	359.54	12,620.00	914.58	-56.33	915.73	0.00	0.00	0.00
13,600.00	90.00	359.54	12,620.00	1,014.57	-57.13	1,015.71	0.00	0.00	0.00
13,700.00	90.00	359.54	12,620.00	1,114.57	-57.94	1,115.69	0.00	0.00	0.00
13,800.00	90.00	359.54	12,620.00	1,214.57	-58.74	1,215.68	0.00	0.00	0.00
13,900.00	90.00	359.54	12,620.00	1,314.56	-59.55	1,315.66	0.00	0.00	0.00
14,000.00	90.00	359.54	12,620.00	1,414.56	-60.35	1,415.65	0.00	0.00	0.00
14,100.00	90.00	359.54	12,620.00	1,514.56	-61.15	1,515.63	0.00	0.00	0.00
14,200.00	90.00	359.54	12,620.00	1,614.55	-61.96	1,615.62	0.00	0.00	0.00
14,300.00	90.00	359.54	12,620.00	1,714.55	-62.76	1,715.60	0.00	0.00	0.00
14,400.00	90.00	359.54	12,620.00	1,814.55	-63.56	1,815.58	0.00	0.00	0.00
14,500.00	90.00	359.54	12,620.00	1,914.54	-64.37	1,915.57	0.00	0.00	0.00
14,600.00	90.00	359.54	12,620.00	2,014.54	-65.17	2,015.55	0.00	0.00	0.00
14,700.00	90.00	359.54	12,620.00	2,114.54	-65.97	2,115.54	0.00	0.00	0.00
14,800.00	90.00	359.54	12,620.00	2,214.53	-66.78	2,215.52	0.00	0.00	0.00
14,900.00	90.00	359.54	12,620.00	2,314.53	-67.58	2,315.50	0.00	0.00	0.00
15,000.00	90.00	359.54	12,620.00	2,414.53	-68.38	2,415.49	0.00	0.00	0.00
15,100.00	90.00	359.54	12,620.00	2,514.52	-69.19	2,515.47	0.00	0.00	0.00
15,200.00	90.00	359.54	12,620.00	2,614.52	-69.99	2,615.46	0.00	0.00	0.00
15,300.00	90.00	359.54	12,620.00	2,714.52	-70.80	2,715.44	0.00	0.00	0.00
15,325.48	90.00	359.54	12,620.00	2,740.00	-71.00	2,740.92	0.00	0.00	0.00
TD at 15325.48 - PBHL (Diamond SM 36 #1H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (Diamond SM 36 ; - plan hits target center - Point	0.00	0.00	12,620.00	2,740.00	-71.00	430,027.00	751,848.00	32° 10' 46.711 N	103° 31' 9.579 W
LP (Diamond SM 36 #1H - plan hits target center - Point	0.00	0.00	12,620.00	335.08	-51.67	427,622.08	751,867.32	32° 10' 22.912 N	103° 31' 9.565 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
12,100.00	12,097.00	-150.01	101.31	Start 10.52 hold at 12100.00 MD
12,110.52	12,107.51	-150.23	100.89	Start DLS 12.00 TFO 79.79
12,347.95	12,334.58	-108.93	56.71	Start DLS 12.00 TFO 45.32
12,920.48	12,620.00	335.08	-51.67	Start 2405.00 hold at 12920.48 MD
15,325.48	12,620.00	2,740.00	-71.00	TD at 15325.48