



September 17, 2014

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

Attn: Kanicia Castillo

RE: DODD Federal Unit No. 926H

30-015-42244

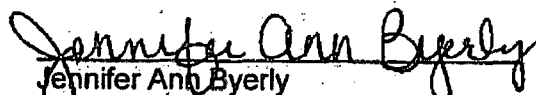
Please find enclosed a copy of the survey from 0.00' to 4162.00' ran on the above referenced well.

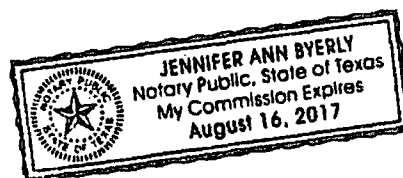
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 17 day of September A.D., 2014, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas



VES Survey International
P.O. Box 261021 Corpus Christi, TX 78426
T (361) 767-0602 F (361) 767-0612
www.vesurvey.com

Company: COG Operating, LLC (Concho)

Lease/Well: DODD Federal Unit/No. 926H



Rig Name: United 43

State/County: New Mexico/Eddy

Latitude: 32.83, Longitude: -104.06

GRID North is 0.15 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 14 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 9/11/2014 / 12:35

VES Survey International

West Texas

(432) 563-5444

Surveyor: Evan Goetz

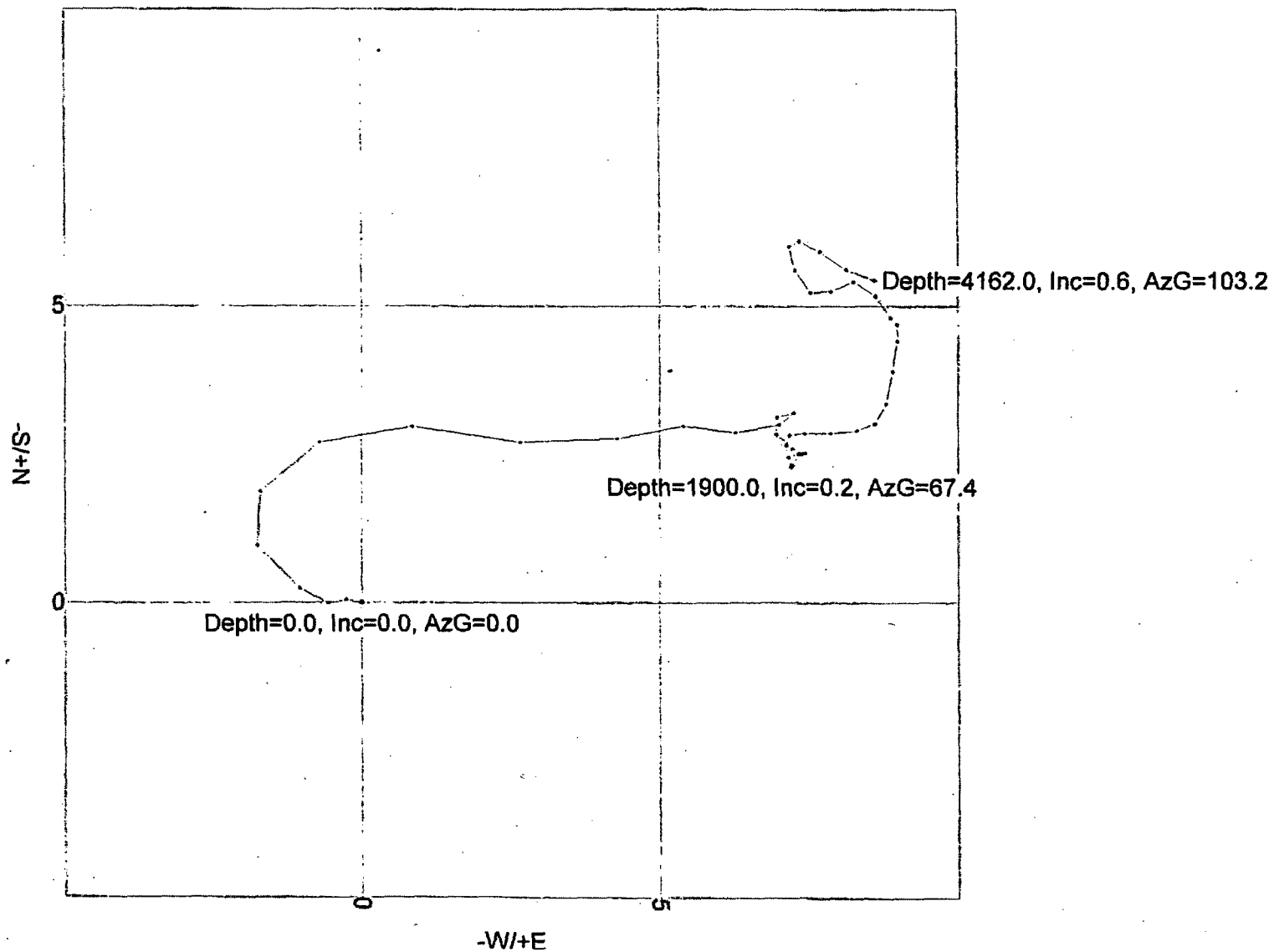
DODD Federal Unit No. 926H / API 30-015-42244

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.31	281.20	100.00	0.06	-0.26	0.06	0.27	281.20	0.31
200.00	0.13	198.54	200.00	0.00	-0.56	0.00	0.56	269.83	0.32
300.00	0.66	309.15	300.00	0.25	-1.04	0.25	1.07	283.64	0.71
400.00	0.51	323.10	399.99	0.97	-1.75	0.97	2.00	298.99	0.20
500.00	0.73	29.63	499.99	1.88	-1.70	1.88	2.53	317.76	0.70
600.00	0.85	67.20	599.98	2.71	-0.71	2.71	2.80	345.41	0.52
700.00	1.01	91.37	699.97	2.98	0.86	2.98	3.10	16.02	0.42
800.00	1.11	104.70	799.95	2.71	2.67	2.71	3.81	44.51	0.26
900.00	0.86	66.08	899.93	2.77	4.29	2.77	5.11	57.11	0.69
1000.00	0.50	101.88	999.93	2.99	5.40	2.99	6.17	61.05	0.54
1100.00	0.51	92.99	1099.92	2.87	6.27	2.87	6.90	65.38	0.08
1200.00	0.39	61.49	1199.92	3.01	7.01	3.01	7.83	66.76	0.27
1300.00	0.08	305.05	1299.92	3.21	7.25	3.21	7.93	66.12	0.43
1400.00	0.29	244.10	1399.92	3.14	6.97	3.14	7.65	65.75	0.26
1500.00	0.32	132.16	1499.92	2.85	6.96	2.85	7.52	67.76	0.50
1600.00	0.31	122.61	1599.92	2.51	7.39	2.51	7.81	71.22	0.05
1700.00	0.27	316.16	1699.92	2.53	7.45	2.53	7.87	71.23	0.57
1800.00	0.30	208.10	1799.92	2.47	7.17	2.47	7.58	70.99	0.46

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.21	67.42	1899.92	2.31	7.21	2.31	7.57	72.24	0.47
2000.00	0.16	348.30	1999.92	2.52	7.35	2.52	7.77	71.09	0.24
2100.00	0.12	238.15	2099.92	2.60	7.23	2.60	7.69	70.20	0.23
2200.00	0.14	350.90	2199.92	2.67	7.13	2.67	7.61	69.48	0.21
2300.00	0.10	57.90	2299.92	2.83	7.18	2.83	7.72	68.48	0.13
2400.00	0.21	93.66	2399.91	2.87	7.44	2.87	7.97	68.92	0.14
2500.00	0.29	88.17	2499.91	2.86	7.87	2.86	8.38	70.01	0.09
2600.00	0.22	77.23	2599.91	2.91	8.32	2.91	8.81	70.89	0.09
2700.00	0.15	58.35	2699.91	3.03	8.62	3.03	9.13	70.65	0.09
2800.00	0.32	15.58	2799.91	3.36	8.80	3.36	9.42	69.09	0.23
2900.00	0.32	5.31	2899.91	3.91	8.90	3.91	9.72	66.30	0.06
3000.00	0.27	13.01	2999.91	4.42	8.98	4.42	10.01	63.82	0.08
3100.00	0.07	309.96	3099.91	4.69	8.99	4.69	10.14	62.45	0.25
3200.00	0.12	319.36	3199.91	4.81	8.87	4.81	10.09	61.54	0.05
3300.00	0.38	329.38	3299.91	5.17	8.64	5.17	10.07	59.10	0.26
3400.00	0.24	259.35	3399.91	5.41	8.26	5.41	9.88	56.78	0.37
3500.00	0.24	233.32	3499.91	5.25	7.89	5.25	9.48	56.36	0.11
3600.00	0.24	298.92	3599.90	5.23	7.54	5.23	9.17	55.26	0.26
3700.00	0.33	343.99	3699.90	5.60	7.28	5.60	9.18	52.39	0.23
3800.00	0.14	352.32	3799.90	6.00	7.18	6.00	9.36	50.10	0.19
3900.00	0.22	101.14	3899.90	6.09	7.35	6.09	9.55	50.34	0.30
4000.00	0.25	130.95	3999.90	5.91	7.70	5.91	9.71	52.46	0.12
4100.00	0.37	120.83	4099.90	5.61	8.14	5.61	9.88	55.44	0.13
4162.00	0.57	103.22	4161.90	5.43	8.61	5.43	10.18	57.75	0.39



VES Survey International
West Texas
(432) 563-5444
Surveyor: Evan Goetz
DODD Federal Unit No. 926H / API 30-015-42244



WELL NAME AND NUMBER Dodd Federal Unit No. 926H
 LOCATION Section 22, T17S, R29E, Unit A, 90 FNL, 963 FEL, Eddy County
 OPERATOR COG Operating LLC
 DRILLING CONTRACTOR United Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and had conducted deviation test and obtained the following results:

Degrees @ Depth	Degrees @ Depth	Degrees @ Depth
1.1° @ 237'	5.5° @ 4301'	62.1° @ 4901'
.5° @ 461'	12.0° @ 4364'	65.5° @ 4932'
.5° @ 804'	15.2° @ 4396'	68.8° @ 4964'
.2° @ 1102'	17.9° @ 4428'	71.2° @ 4996'
.6° @ 1354'	20.5° @ 4459'	90.5° @ 5225'
.7° @ 1625'	23.4° @ 4491'	90.8° @ 5320'
.4° @ 1878'	26.5° @ 4522'	90.9° @ 5415'
.2° @ 2129'	29.5° @ 4554'	91.4° @ 5604'
.4° @ 2372'	32.5° @ 4585'	91.1° @ 5699'
.2° @ 2631'	35.8° @ 4617'	91.6° @ 5793'
.6° @ 2883'	39.5° @ 4648'	90.7° @ 5889'
.6° @ 3138'	43.2° @ 4680'	90.9° @ 6078'
.8° @ 3391'	46.4° @ 4711'	90.7° @ 6173'
.5° @ 3663'	48.7° @ 4743'	90.2° @ 6267'
.5° @ 3920'	52.0° @ 4774'	91.0° @ 6351'
.9° @ 4189'	55.2° @ 4806'	91.4° @ 6541'
.4° @ 4238'	57.5° @ 4837'	91.3° @ 6635'
2.0° @ 4273'	59.4° @ 4869'	90.4° @ 6730'

Drilling Contractor- UNITED DRILLING, INC.

By: Angel Salazar
 (Angel Salazar)

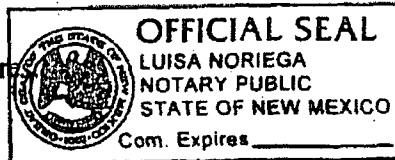
Title: Vice President

Subscribed and sworn to before me this 3rd day of Sept, 2014.

Luisa Noriega
 Notary Public

Chavez NM
 County State

My Commission Expires



WELL NAME AND NUMBER Dodd Federal Unit No. 926H
 LOCATION Section 22, T17S, R29E, Unit A, 90 FNL, 963 FEL, Eddy County
 OPERATOR COG Operating LLC
 DRILLING CONTRACTOR United Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and had conducted deviation test and obtained the following results:

Degrees @ Depth	Degrees @ Depth	Degrees @ Depth
90.3° @ 6835'	90.6° @ 8811'	
90.8° @ 6919'	90.2° @ 8906'	
90.8° @ 7014'	90.0° @ 9001'	
90.8° @ 7108'	91.2° @ 9095'	
90.7° @ 7203'	90.9° @ 9190'	
90.7° @ 7297'	90.8° @ 9285'	
91.3° @ 7392'	91.1° @ 9519'	
91.3° @ 7487'	91.1° @ 9569'	
91.1° @ 7676'	91.3° @ 9708'	
91.0° @ 7771'	91.6° @ 9852'	
91.3° @ 7865'	91.6° @ 9906'	
91.6° @ 7959'		
91.7° @ 8054'		
91.5° @ 8149'		
91.3° @ 8244'		
91.0° @ 8338'		
91.2° @ 8527'		
89.9° @ 8717'		

Drilling Contractor- UNITED DRILLING, INC.

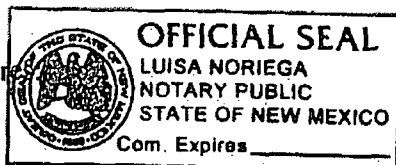
By: *Angel Salazar*
 (Angel Salazar)

Title: Vice President

Subscribed and sworn to before me this 3rd day of Sept., 2014.

Luisa Noriega
 Notary Public
Chaves NM
 County State

My Commission Expires



COG OPERATING

Dodd (NAD27)

Eddy County, NM (Grid North)

Dodd Federal Unit #926H

VH - Job #320814-KW-1022

5

Survey: Gyro

SDI Survey Report

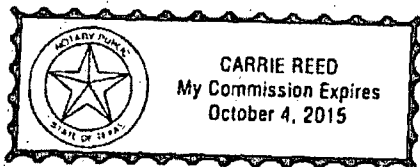
This survey is correct to the best of my knowledge and is supported by actual field data.

R. Wharton

Notarized this date 21st of August, 2014.

Carrie Reed

Notary Signature
County of Midland
State of Texas



SDI
SDI Survey Report

Company:	COG OPERATING	Local Co-ordinate Reference:	Well Dodd Federal Unit #926H
Project:	Dodd (NAD27)	TVD Reference:	Mean Sea Level (System)
Site:	Eddy County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Dodd Federal Unit #926H	North Reference:	Grid
Wellbore:	VH - Job #320814-KW-1022	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320814-KW-1022	Database:	EDM-Regulatory

Project:	Dodd (NAD27)		
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:	Eddy County, NM (Grid North)				
Site Position:		Northing:	666,757.09 usft	Latitude:	32° 49' 57.705 N
From:	Lat/Long	Easting:	584,977.44 usft	Longitude:	104° 3' 24.044 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.15 °

Well:	Dodd Federal Unit #926H, Horizontal					
Well Position	+N-S	0.0 usft	Northing:	666,757.09 usft	Latitude:	32° 49' 57.705 N
	+E-W	0.0 usft	Easting:	584,977.44 usft	Longitude:	104° 3' 24.044 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	0.0 usft	

Wellbore		VH - Job #320814-KW-1022			
Magnetics	Model Name	Sample Date	Declination (p)	Dip Angle (p)	Field Strength (nT)
	IGRF2010	8/14/2014	7.47	60.59	48,638

Design:	VH - Job #320814-KW-1022			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	299.95

Survey Program		Date: 8/20/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	4,494.0	Gyro (VH - Job #320814-KW-1022)	Keeper	Keeper Gyro

Survey:								
(MD)	(Inc)	(Azi (azimuth))	(TVD)	(N/S)	(E/W)	(Closure Azimuth)	(Closure Distance)	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°)	(usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
100.0	0.19	45.68	100.0	0.1	0.1	45.68	0.2	
200.0	0.22	122.95	200.0	0.1	0.4	72.28	0.4	
300.0	0.06	210.74	300.0	0.0	0.5	92.38	0.5	
400.0	0.24	188.34	400.0	-0.3	0.5	119.98	0.5	
500.0	0.55	124.70	500.0	-0.8	0.8	131.95	1.1	
600.0	0.47	99.77	600.0	-1.1	1.6	123.82	2.0	
700.0	0.50	77.65	700.0	-1.1	2.5	113.51	2.7	
800.0	0.55	70.37	800.0	-0.8	3.3	103.76	3.4	
900.0	0.60	78.37	900.0	-0.6	4.3	97.30	4.3	
1,000.0	0.32	93.09	1,000.0	-0.5	5.1	95.17	5.1	
1,100.0	0.42	11.00	1,100.0	-0.1	5.5	91.23	5.5	

SDI SDI Survey Report

Company:	COG OPERATING	Local Co-ordinate Reference:	Well Dodd Federal Unit #926H
Project:	Dodd (NAD27)	TVD Reference:	Mean Sea Level (System)
Site:	Eddy County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Dodd Federal Unit #926H	North Reference:	Grid
Wellbore:	VH - Job #320814-KW-1022	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320814-KW-1022	Database:	EDM-Regulatory

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,200.0	0.39	56.16	1,200.0	0.4	5.8	85.74	5.8
1,300.0	0.30	355.73	1,300.0	0.9	6.1	81.73	6.1
1,400.0	0.49	21.10	1,400.0	1.5	6.2	76.03	6.4
1,500.0	0.29	353.21	1,500.0	2.2	6.3	70.88	6.7
1,600.0	0.35	343.27	1,600.0	2.7	6.2	66.22	6.8
1,700.0	0.12	323.68	1,700.0	3.1	6.1	62.80	6.8
1,800.0	0.18	290.90	1,800.0	3.3	5.9	60.92	6.7
1,900.0	0.04	178.41	1,900.0	3.3	5.7	60.14	6.6
2,000.0	0.30	300.39	2,000.0	3.4	5.5	58.39	6.4
2,100.0	0.26	335.04	2,100.0	3.7	5.2	54.27	6.4
2,200.0	0.33	294.92	2,200.0	4.0	4.8	49.94	6.3
2,300.0	0.53	296.61	2,300.0	4.4	4.1	43.38	6.0
2,400.0	0.46	312.55	2,400.0	4.8	3.4	35.20	5.9
2,500.0	0.34	303.19	2,500.0	5.3	2.9	28.56	6.0
2,600.0	0.44	292.65	2,599.9	5.6	2.3	22.11	6.0
2,700.0	0.53	289.61	2,699.9	5.9	1.5	14.11	6.1
2,800.0	0.19	297.54	2,799.9	6.1	0.9	8.34	6.2
2,900.0	0.05	174.30	2,899.9	6.2	0.8	6.99	6.2
3,000.0	0.13	19.62	2,999.9	6.2	0.8	7.31	6.3
3,100.0	0.23	326.14	3,099.9	6.5	0.7	6.36	6.5
3,200.0	0.24	272.62	3,199.9	6.7	0.4	3.46	6.7
3,300.0	0.27	281.82	3,299.9	6.7	0.0	359.69	6.7
3,400.0	0.39	329.50	3,399.9	7.1	-0.4	356.44	7.1
3,500.0	0.22	344.47	3,499.9	7.5	-0.7	354.97	7.6
3,600.0	0.07	35.86	3,599.9	7.8	-0.7	355.01	7.8
3,700.0	0.22	212.82	3,699.9	7.7	-0.7	354.43	7.7
3,800.0	0.45	218.49	3,799.9	7.2	-1.1	351.34	7.3
3,900.0	0.27	231.14	3,899.9	6.7	-1.5	347.27	6.9
4,000.0	0.44	192.04	3,999.9	6.2	-1.8	343.97	6.6
4,100.0	0.35	198.21	4,099.9	5.6	-2.0	340.54	5.9
4,200.0	0.42	239.56	4,199.9	5.1	-2.4	334.95	5.6
4,300.0	0.72	204.05	4,299.9	4.3	-2.9	325.71	5.2
4,400.0	0.70	214.06	4,399.9	3.2	-3.5	312.45	4.8
4,494.0	0.63	184.52	4,493.9	2.3	-3.9	299.95	4.5



Scientific Drilling

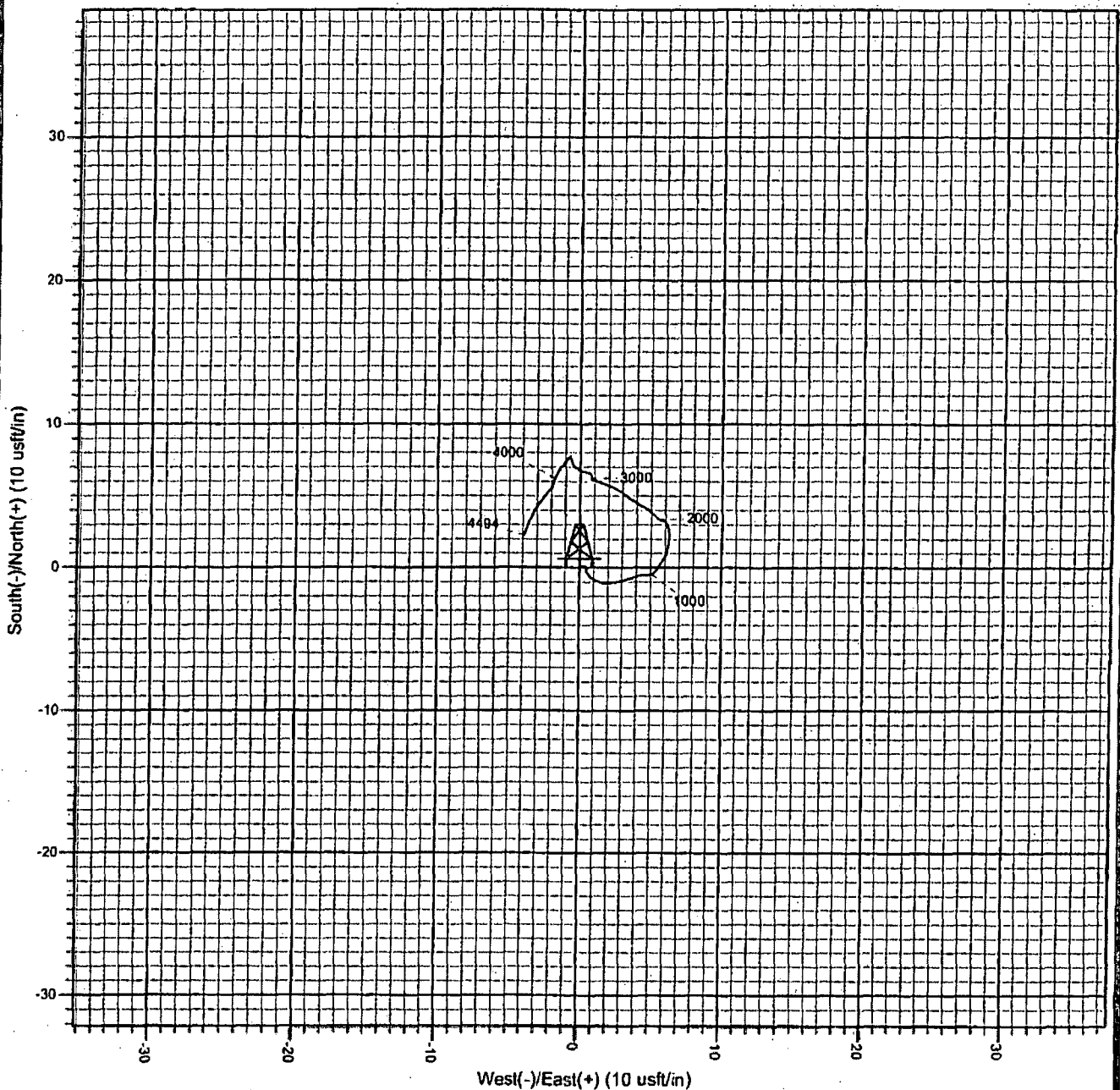
Project: Dodd (NAD27)
Eddy County, NM (Grid North)
Well: Dodd Federal Unit #926H
Wellbore: VH - Job #320814-KW-1022
Design: VH - Job #320814-KW-1022

WELL DETAILS: Dodd Federal Unit #926H

Mean Sea Level (System)

Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Spot
0.0	0.0	666757.09	584977.44	32° 49' 57.705 N	104° 3' 24.044 W	



PROJECT DETAILS: Dodd (NAD27)	SITE DETAILS: Eddy County, NM (Grid North)
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 49' 57.705 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 104° 3' 24.044 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.0
Zone: New Mexico East 3001	Convergence: 0.15
System Datum: Mean Sea Level	Local North: Grid

Archer Survey Report

Company:	COG OPERATING, LLC	Local Co-ordinate Reference:	Well 926H - Slot 926H
Project:	Eddy County, NM	TVD Reference:	3571' GL+12' KB @ 3583.00usft (Planning)
Site:	Dodd Federal Unit 926H	MD Reference:	3571' GL+12' KB @ 3583.00usft (Planning)
Well:	926H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	EDM R5000.1(MULTI)

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

Site:	Dodd Federal Unit 926H		
Site Position:		Northing:	664,669.50 usft
From:	Map	Easting:	584,982.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	32° 49' 37.05 N
		Longitude:	104° 3' 24.04 W
		Grid Convergence:	0.15 °

Well:	926H - Slot 926H		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 49' 37.05 N
		Longitude:	104° 3' 24.04 W
		Ground Level:	3,571.00 usft

Wellbore:	Lateral		
Magnetics:	Model Name	Sample Date	Declination
	IGRF2010	8/20/2014	7.46
			Dip Angle
			60.58
			Field Strength
			48,606

Design:	Survey		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			1.39

Survey Program:	Data 8/31/2014		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	4,162.00	Survey #1 (Lateral)	Gyroscope
4,207.00	9,906.00	Survey #2 (Lateral)	MWD
9,951.00	9,951.00	Survey #3 (Lateral)	Project
			Description
			Gyrocompass Gyro
			MWD - Standard
			Projection

Survey:									
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.31	281.20	100.00	0.05	-0.27	0.05	0.31	0.31	0.00
200.00	0.13	198.54	200.00	0.00	-0.57	-0.02	0.32	-0.18	-82.66
300.00	0.65	309.15	300.00	0.25	-1.04	0.22	0.71	0.52	110.61
400.00	0.51	323.10	399.99	0.96	-1.75	0.92	0.20	-0.14	13.95
500.00	0.73	29.63	499.99	1.87	-1.70	1.83	0.70	0.22	56.53
600.00	0.85	67.20	599.98	2.71	-0.70	2.70	0.52	0.12	37.57
700.00	1.01	91.37	699.97	2.98	0.86	3.00	0.42	0.16	24.17
800.00	1.11	104.70	799.95	2.71	2.68	2.78	0.27	0.10	13.33

Archer Survey Report

Company:	COG OPERATING, LLC	Local Co-ordinate Reference:	Well 926H - Slot 926H
Project:	Eddy County, NM	TVD Reference:	357.1' GL+12' KB @ 3583.00usft (Planning)
Site:	Dodd Federal Unit 926H	MD Reference:	357.1' GL+12' KB @ 3583.00usft (Planning)
Well:	926H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+W.S. (usft)	+E.W. (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
900.00	0.86	66.08	899.93	2.77	4.30	2.87	0.69	-0.25	-38.62
1,000.00	0.50	101.88	999.93	2.99	5.42	3.12	0.54	-0.36	-35.80
1,100.00	0.51	92.99	1,099.92	2.87	6.29	3.02	0.08	0.01	-8.89
1,200.00	0.39	61.49	1,199.92	3.01	7.03	3.18	0.27	-0.12	-31.50
1,300.00	0.08	305.05	1,299.92	3.21	7.27	3.39	0.43	-0.31	-116.44
1,400.00	0.29	244.10	1,399.92	3.14	6.99	3.31	0.26	0.21	-60.95
1,500.00	0.32	132.16	1,499.92	2.85	6.97	3.01	0.51	0.03	-111.94
1,600.00	0.31	122.61	1,599.92	2.51	7.40	2.69	0.05	-0.01	-9.55
1,700.00	0.27	315.15	1,699.92	2.53	7.46	2.71	0.58	-0.04	-167.45
1,800.00	0.30	208.10	1,799.92	2.47	7.17	2.64	0.46	0.03	-107.06
1,900.00	0.21	67.42	1,899.92	2.31	7.22	2.48	0.48	-0.09	-140.68
2,000.00	0.16	348.30	1,999.92	2.52	7.36	2.69	0.24	-0.05	-79.12
2,100.00	0.12	238.15	2,099.92	2.60	7.24	2.77	0.23	-0.04	-110.15
2,200.00	0.14	350.90	2,199.92	2.66	7.14	2.84	0.22	0.02	112.75
2,300.00	0.10	57.90	2,299.91	2.83	7.19	3.00	0.14	-0.04	67.00
2,400.00	0.21	93.66	2,399.91	2.86	7.45	3.04	0.14	0.11	35.76
2,500.00	0.29	88.17	2,499.91	2.86	7.88	3.05	0.08	0.08	-5.49
2,600.00	0.22	77.23	2,599.91	2.91	8.32	3.11	0.08	-0.07	-10.94
2,700.00	0.15	58.35	2,699.91	3.02	8.62	3.23	0.09	-0.07	-18.88
2,800.00	0.32	15.58	2,799.91	3.36	8.81	3.57	0.23	0.17	-42.77
2,900.00	0.32	5.31	2,899.91	3.91	8.91	4.12	0.06	0.00	-10.27
3,000.00	0.27	13.01	2,999.91	4.42	8.99	4.63	0.06	-0.05	7.70
3,100.00	0.07	309.96	3,099.91	4.68	8.99	4.90	0.25	-0.20	-63.05
3,200.00	0.12	319.36	3,199.91	4.80	8.88	5.02	0.05	0.05	9.40
3,300.00	0.38	329.38	3,299.91	5.17	8.64	5.38	0.26	0.26	10.02
3,400.00	0.24	259.35	3,399.91	5.41	8.27	5.61	0.37	-0.14	-70.03
3,500.00	0.24	233.32	3,499.90	5.25	7.89	5.44	0.11	0.00	-26.03
3,600.00	0.24	298.92	3,599.90	5.23	7.54	5.41	0.26	0.00	65.60
3,700.00	0.33	343.99	3,699.90	5.60	7.28	5.78	0.23	0.09	45.07
3,800.00	0.14	352.32	3,799.90	6.00	7.18	6.18	0.19	-0.19	8.33
3,900.00	0.22	101.14	3,899.90	6.09	7.36	6.26	0.30	0.08	108.82
4,000.00	0.25	130.95	3,999.90	5.91	7.71	6.09	0.12	0.03	29.81
4,100.00	0.37	120.83	4,099.90	5.60	8.15	5.79	0.13	0.12	-10.12
4,162.00	0.57	103.22	4,161.90	5.42	8.62	5.63	0.39	0.32	-28.40
4,207.00	0.40	99.90	4,206.90	5.35	9.00	5.58	0.38	-0.38	-7.38
4,238.00	0.40	79.90	4,237.90	5.35	9.21	5.57	0.45	0.00	-64.52
4,270.00	2.00	4.70	4,269.89	5.92	9.36	6.15	6.05	5.00	-235.00
4,301.00	5.50	353.60	4,300.82	7.94	9.24	8.16	11.48	11.29	-35.81
4,333.00	8.90	353.40	4,332.56	11.92	8.79	12.13	10.63	10.63	-0.63
4,364.00	12.00	355.20	4,363.04	17.52	8.24	17.71	10.05	10.00	5.81
4,396.00	15.20	358.70	4,394.14	25.03	7.87	25.21	10.32	10.00	10.94
4,428.00	17.90	2.90	4,424.81	34.14	8.02	34.32	9.22	8.44	13.13
4,459.00	20.50	7.10	4,454.09	44.28	8.93	44.49	8.49	8.39	13.55

Archer Survey Report

Company:	COG OPERATING, LLC	Local Co-ordinate Reference:	Well 926H - Slot 926H
Project:	Eddy County, NM	TVD Reference:	3571'GL+12'KB @ 3583.00usft (Planning)
Site:	Dodd Federal Unit 926H	MD Reference:	3571'GL+12'KB @ 3583.00usft (Planning)
Well:	926H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	(°/100usft)
4,491.00	23.40	11.00	4,483.77	56.08	10.84	56.33	10.14	9.06	12.19
4,522.00	26.50	11.50	4,511.87	68.91	13.39	69.21	10.02	10.00	1.61
4,554.00	29.50	10.20	4,540.12	83.66	16.21	84.03	9.57	9.36	-4.06
4,585.00	32.50	8.50	4,566.69	99.41	18.80	99.84	10.08	9.68	-5.48
4,617.00	35.80	7.50	4,593.17	117.20	21.29	117.68	10.46	10.31	-3.13
4,648.00	39.50	7.50	4,617.71	135.97	23.76	136.51	11.94	11.94	0.00
4,680.00	43.20	7.40	4,641.73	156.93	26.50	157.53	11.56	11.56	-0.31
4,711.00	46.40	6.70	4,663.72	178.61	29.18	179.26	10.44	10.32	-2.26
4,743.00	48.70	6.20	4,685.32	202.07	31.83	202.78	7.28	7.19	-1.56
4,774.00	52.00	6.20	4,705.10	225.79	34.40	226.56	10.65	10.65	0.00
4,805.00	55.20	7.00	4,724.09	251.37	37.37	252.21	10.20	10.00	2.50
4,837.00	57.50	7.00	4,741.26	276.99	40.51	277.89	7.42	7.42	0.00
4,869.00	59.40	7.10	4,758.00	304.05	43.86	305.02	5.94	5.94	0.31
4,901.00	62.10	7.70	4,773.64	331.73	47.46	332.79	8.59	8.44	1.88
4,932.00	65.50	8.50	4,787.32	359.27	51.38	360.41	11.21	10.97	2.58
4,964.00	68.80	8.50	4,799.75	388.43	55.74	389.66	10.31	10.31	0.00
4,996.00	71.20	8.00	4,810.69	418.18	60.05	419.52	7.64	7.50	-1.56
5,027.00	73.50	7.70	4,820.09	447.44	64.08	448.87	7.48	7.42	-0.97
5,059.00	76.50	7.00	4,828.37	478.10	68.04	479.61	9.61	9.38	-2.19
5,091.00	79.30	7.10	4,835.08	509.15	71.88	510.74	8.76	8.75	0.31
5,122.00	81.30	8.00	4,840.30	539.44	75.89	541.12	7.06	6.45	2.90
5,154.00	84.70	8.50	4,844.20	570.86	80.45	572.65	10.74	10.63	1.56
5,185.00	88.30	8.40	4,846.09	601.47	85.00	603.35	11.62	11.61	-0.32
5,225.00	90.50	7.00	4,846.51	641.10	90.35	643.10	6.52	5.50	-3.50
5,320.00	90.80	6.30	4,845.44	735.45	101.36	737.70	0.80	0.32	-0.74
5,415.00	90.90	4.60	4,844.03	830.01	110.38	832.44	1.79	0.11	-1.79
5,510.00	91.60	3.00	4,841.95	924.78	116.67	927.33	1.84	0.74	-1.68
5,604.00	91.40	0.90	4,839.49	1,018.68	119.87	1,021.29	2.24	-0.21	-2.23
5,699.00	91.10	358.80	4,837.42	1,113.65	119.62	1,116.23	2.23	-0.32	-2.21
5,793.00	91.60	358.40	4,835.21	1,207.60	117.32	1,210.09	0.68	0.53	-0.43
5,889.00	90.70	358.60	4,833.28	1,303.55	114.81	1,305.95	0.96	-0.94	0.21
5,984.00	90.80	358.30	4,832.03	1,398.50	112.24	1,400.82	0.33	0.11	-0.32
6,078.00	90.90	357.90	4,830.64	1,492.44	109.13	1,494.65	0.44	0.11	-0.43
6,173.00	90.70	358.50	4,829.31	1,587.39	106.14	1,589.49	0.67	-0.21	0.63
6,267.00	90.20	359.20	4,828.58	1,681.36	104.26	1,683.40	0.92	-0.53	0.74
6,351.00	91.00	359.60	4,827.70	1,765.35	103.38	1,767.34	1.06	0.95	0.48
6,446.00	90.90	359.80	4,826.12	1,860.34	102.88	1,862.29	0.24	-0.11	0.21
6,540.00	91.40	359.80	4,824.23	1,954.32	102.55	1,956.23	0.53	0.53	0.00
6,635.00	91.30	0.20	4,822.00	2,049.29	102.55	2,051.18	0.43	-0.11	0.42
6,730.00	90.40	0.70	4,820.59	2,144.28	103.30	2,146.15	1.08	-0.95	0.53
6,825.00	90.30	0.80	4,820.01	2,239.27	104.54	2,241.14	0.15	-0.11	0.11
6,919.00	90.80	0.50	4,819.10	2,333.26	105.61	2,335.13	0.62	0.53	-0.32
7,014.00	90.80	0.60	4,817.78	2,428.24	106.52	2,430.11	0.11	0.00	0.11

Archer Survey Report

Company:	COG OPERATING, LLC	Local Co-ordinate Reference:	Well 926H - Slot 926H
Project:	Eddy County, NM	TVD Reference:	3571 GL+12 KB @ 3583.00usft (Planning)
Site:	Dodd Federal Unit 926H	MD Reference:	3571 GL+12 KB @ 3583.00usft (Planning)
Well:	926H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000:1(MULTI)

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)
7,108.00	90.80	0.50	4,816.47	2,522.23	107.42	2,524.09	0.11	0.00	-0.11
7,203.00	90.70	0.50	4,815.22	2,617.22	108.25	2,619.07	0.11	-0.11	0.00
7,297.00	90.70	0.50	4,814.07	2,711.21	109.07	2,713.05	0.00	0.00	0.00
7,392.00	91.30	0.40	4,812.42	2,806.19	109.82	2,808.03	0.64	0.63	-0.11
7,487.00	91.30	0.60	4,810.26	2,901.16	110.64	2,902.99	0.21	0.00	0.21
7,582.00	91.20	0.50	4,808.19	2,996.13	111.58	2,997.96	0.15	-0.11	-0.11
7,676.00	91.10	0.50	4,806.30	3,090.11	112.38	3,091.93	0.11	-0.11	0.00
7,771.00	91.00	359.60	4,804.56	3,185.09	112.46	3,186.88	0.95	-0.11	-0.95
7,865.00	91.30	1.10	4,802.67	3,279.07	113.03	3,280.85	1.63	0.32	1.60
7,959.00	91.60	1.20	4,800.30	3,373.02	114.92	3,374.82	0.34	0.32	0.11
8,054.00	91.70	1.20	4,797.56	3,467.96	116.91	3,469.78	0.11	0.11	0.00
8,149.00	91.50	1.20	4,794.91	3,562.90	118.90	3,564.74	0.21	-0.21	0.00
8,244.00	91.30	0.90	4,792.59	3,657.86	120.64	3,659.71	0.38	-0.21	-0.32
8,338.00	91.00	1.20	4,790.70	3,751.82	122.36	3,753.69	0.45	-0.32	0.32
8,433.00	91.20	1.10	4,788.88	3,846.79	124.27	3,848.67	0.24	0.21	-0.11
8,527.00	91.20	1.30	4,786.91	3,940.75	126.23	3,942.65	0.21	0.00	0.21
8,622.00	90.90	1.60	4,785.17	4,035.70	128.64	4,037.63	0.45	-0.32	0.32
8,717.00	89.90	359.90	4,784.50	4,130.68	129.88	4,132.62	2.08	-1.05	-1.79
8,811.00	90.60	359.40	4,784.09	4,224.68	129.31	4,226.57	0.92	0.74	-0.53
8,906.00	90.20	359.40	4,783.43	4,319.67	128.31	4,321.51	0.42	-0.42	0.00
9,001.00	90.00	358.90	4,783.26	4,414.66	126.90	4,416.44	0.57	-0.21	-0.53
9,095.00	91.20	0.60	4,782.28	4,508.65	126.49	4,510.39	2.21	1.28	1.81
9,190.00	90.90	0.30	4,780.54	4,603.63	127.24	4,605.36	0.45	-0.32	-0.32
9,285.00	90.80	359.60	4,779.13	4,698.62	127.15	4,700.32	0.74	-0.11	-0.74
9,380.00	90.60	359.40	4,777.97	4,793.61	126.33	4,795.26	0.30	-0.21	-0.21
9,474.00	91.10	359.40	4,776.57	4,887.59	125.34	4,889.20	0.53	0.53	0.00
9,569.00	91.10	359.30	4,774.75	4,982.57	124.26	4,984.12	0.11	0.00	-0.11
9,663.00	91.30	359.30	4,772.78	5,076.54	123.12	5,078.04	0.21	0.21	0.00
9,758.00	91.10	1.10	4,770.79	5,171.52	123.45	5,172.99	1.91	-0.21	1.89
9,852.00	91.60	1.50	4,768.58	5,266.47	125.58	5,266.96	0.68	0.53	0.43
9,906.00	91.60	1.30	4,767.07	5,319.43	126.90	5,320.94	0.37	0.00	-0.37
9,951.00	91.60	1.30	4,765.81	5,364.40	127.92	5,365.92	0.00	0.00	0.00

Design Targets	Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	N-S (usft)	E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hitman target - Shape	Dodd 926H Surface	0.00	0.01	0.00	0.00	0.00	664,869.50	584,982.90	32° 49' 37.05 N	104° 3' 24.04 W
	- actual wellpath hits target center									
	- Point									
	Dodd 926H BHL	0.00	0.00	4,765.81	5,364.40	127.92	670,033.91	585,110.82	32° 50' 30.13 N	104° 3' 22.38 W
	- actual wellpath hits target center									
	- Point									