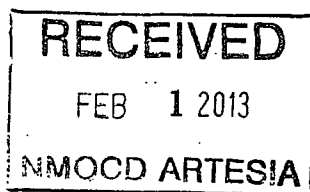


WELL NAME AND NUMBER Dodd Federal Unit No. 909H 30-015-40345
LOCATION Section 11, T17S, R29E, Lot D, 1115 FNL, 155 FWL, Eddy County
OPERATOR COG Operating LLC
DRILLING CONTRACTOR United Drilling, Inc.

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
.3° @ 145'		
.6° @ 422'		
1.5° @ 853'		
1.2° @ 1483'		
.9° @ 1648'		
.6° @ 2086'		
.6° @ 2531'		
.2° @ 2975'		
.3° @ 3419'		
77.9° @ 4385'		



Drilling Contractor- UNITED DRILLING, INC.

By: Luisa Noriega
(Luisa Noriega)

Title: Asst. Office Manager

Subscribed and sworn to before me this 4th day of September 2012.

Carlene M. Pitzer
Notary Public
Charles Hawthorne
County State

My Commission Expires: 10/8/12

Company: COG OPERATING LLC (CONCHO)

Lease/Well: DODD FEDERAL UNIT/909H



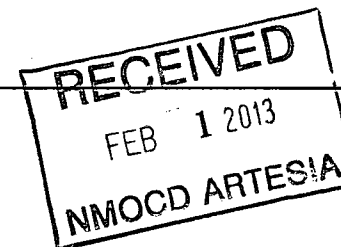
Rig Name: UDI #40

State/County: NEW MEXICO/EDDY

Latitude: 32.85

GRID North is 0.15 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB=14 FT.

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: dodd fed #909h_ed.ut

Minimum Curvature Method

Report Date/Time: 8/22/2012 / 14:28

Vaughn Energy Services

Gardendale Texas

432-563-5444

Surveyor: Danny Spring

Dodd Federal Unit 909H / API 30-015-40345

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W 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	****
100.00	0.09	199.50	100.00	-0.08	-0.03	0.08	199.50	0.09
200.00	0.39	199.50	200.00	-0.47	-0.17	0.50	199.50	0.30
300.00	0.53	224.56	300.00	-1.12	-0.60	1.28	208.25	0.24
400.00	0.62	210.92	399.99	-1.91	-1.20	2.26	212.15	0.16
500.00	0.53	215.99	499.99	-2.75	-1.75	3.27	212.50	0.10
600.00	0.44	128.70	599.98	-3.37	-1.73	3.79	207.11	0.68
700.00	0.88	100.19	699.98	-3.75	-0.67	3.81	190.13	0.53
800.00	1.36	81.69	799.96	-3.72	1.26	3.92	161.29	0.59
900.00	1.42	89.97	899.93	-3.54	3.67	5.10	133.98	0.21
1000.00	1.47	89.13	999.90	-3.52	6.19	7.12	119.64	0.05
1100.00	1.05	89.45	1099.87	-3.50	8.39	9.09	112.62	0.42
1200.00	1.13	96.81	1199.85	-3.60	10.28	10.89	109.31	0.16
1300.00	0.97	99.08	1299.84	-3.85	12.09	12.69	107.67	0.16
1400.00	0.95	98.27	1399.82	-4.11	13.76	14.36	106.62	0.02
1500.00	0.87	95.86	1499.81	-4.30	15.34	15.93	105.68	0.09
1600.00	0.93	89.98	1599.80	-4.38	16.91	17.46	104.53	0.11
1700.00	0.93	90.97	1699.79	-4.40	18.52	19.04	103.35	0.02
1800.00	0.90	83.29	1799.77	-4.32	20.11	20.57	102.12	0.13

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.87	85.48	1899.76	-4.17	21.65	22.04	100.89	0.04
2000.00	0.89	87.22	1999.75	-4.07	23.18	23.54	99.95	0.03
2100.00	0.76	83.25	2099.74	-3.95	24.62	24.93	99.12	0.14
2200.00	0.64	74.69	2199.73	-3.73	25.82	26.08	98.21	0.16
2300.00	0.48	75.21	2299.73	-3.47	26.76	26.99	97.39	0.16
2400.00	0.42	83.17	2399.72	-3.32	27.53	27.73	96.88	0.09
2500.00	0.65	77.93	2499.72	-3.16	28.45	28.63	96.33	0.23
2600.00	0.41	60.11	2599.71	-2.86	29.32	29.46	95.57	0.28
2700.00	0.45	54.73	2699.71	-2.45	29.95	30.05	94.68	0.06
2800.00	0.31	16.79	2799.71	-1.97	30.35	30.42	93.71	0.28
2900.00	0.26	50.81	2899.71	-1.56	30.61	30.65	92.92	0.17
3000.00	0.13	301.47	2999.71	-1.36	30.69	30.72	92.55	0.32
3100.00	0.13	8.04	3099.71	-1.20	30.61	30.63	92.24	0.14
3200.00	0.09	80.83	3199.71	-1.07	30.70	30.72	92.00	0.13
3300.00	0.23	103.82	3299.71	-1.11	30.98	30.99	92.04	0.15
3400.00	0.28	105.65	3399.71	-1.22	31.41	31.43	92.22	0.06
3500.00	0.31	108.36	3499.70	-1.37	31.90	31.93	92.46	0.03
3600.00	0.21	88.25	3599.70	-1.45	32.34	32.37	92.57	0.13
3620.00	0.27	73.20	3619.70	-1.44	32.42	32.45	92.54	0.41

CRESCENT

DIRECTIONAL DRILLING

Minimum Curvature Calculation

Client: Concho Oil and Gas

Well: Dodd Fed Unit 909H

County: Eddy

Rig: UDI #40

M.W.D. OPERATORS: Stephen De Anda, Adrian Castro

DIRECTIONAL DRILLERS: Don Hale, Leroy Saiz

Tool Azimuth to Grid North: 7.72

Job #: PB-12529

Vertical Section Angle: 90.08

API#: 30-015-40345

Sur #	Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	DLS
Tie In	3620.00	0.27	73.20	3619.70	0.00	-1.44	32.42	0.41
1	3656.00	0.20	45.30	3655.70	32.55	-1.37	32.55	0.37
2	3687.00	1.90	83.30	3686.69	33.10	-1.27	33.09	5.63
3	3719.00	5.60	85.20	3718.62	35.18	-1.08	35.18	11.57
4	3750.00	9.40	85.10	3749.35	39.21	-0.74	39.21	12.26
5	3782.00	13.10	87.90	3780.73	45.44	-0.38	45.44	11.68
6	3814.00	16.50	87.70	3811.66	53.61	-0.07	53.61	10.63
7	3845.00	20.00	86.60	3841.10	63.30	0.43	63.30	11.34
8	3877.00	23.70	87.20	3870.79	75.19	1.06	75.19	11.58
9	3909.00	27.50	88.60	3899.65	89.00	1.56	89.00	12.02
10	3940.00	31.10	90.00	3926.68	104.17	1.73	104.17	11.82
11	3971.00	34.70	90.70	3952.70	121.00	1.63	121.01	11.68
12	4005.00	38.30	91.40	3980.03	141.22	1.25	141.22	10.66
13	4036.00	41.80	91.00	4003.76	161.16	0.84	161.16	11.32
14	4067.00	45.30	90.20	4026.22	182.52	0.62	182.52	11.43
15	4098.00	49.10	89.60	4047.28	205.26	0.66	205.26	12.34
16	4130.00	53.00	89.60	4067.39	230.14	0.83	230.14	12.19
17	4163.00	56.80	90.70	4086.36	257.13	0.76	257.13	11.83
18	4194.00	60.30	90.70	4102.54	283.57	0.43	283.57	11.29
19	4226.00	64.20	90.30	4117.43	311.88	0.19	311.88	12.24
20	4258.00	68.20	90.20	4130.34	341.16	0.06	341.16	12.50
21	4290.00	72.20	89.80	4141.18	371.26	0.06	371.26	12.56
22	4321.00	74.90	89.60	4149.96	400.99	0.22	400.99	8.73
23	4353.00	76.90	89.60	4157.75	432.02	0.43	432.02	6.25
24	4385.00	77.90	89.80	4164.73	463.25	0.60	463.25	3.18
25	4417.00	80.20	90.70	4170.81	494.66	0.46	494.66	7.70
26	4449.00	82.30	90.90	4175.68	526.29	0.02	526.29	6.59
27	4480.00	84.80	91.70	4179.16	557.08	-0.68	557.08	8.46
28	4512.00	86.30	91.60	4181.64	588.97	-1.60	588.97	4.70
29	4544.00	86.90	91.40	4183.54	620.90	-2.44	620.90	1.98
30	4576.00	87.30	91.20	4185.16	652.86	-3.16	652.85	1.40
31	4607.00	87.80	90.50	4186.49	683.82	-3.62	683.82	2.77
32	4638.00	88.00	90.70	4187.62	714.80	-3.94	714.80	0.91
33	4702.00	88.80	90.20	4189.41	778.78	-4.45	778.77	1.47
34	4765.00	89.20	89.50	4190.51	841.76	-4.28	841.76	1.28
35	4828.00	89.40	88.80	4191.28	904.75	-3.35	904.75	1.16
36	4892.00	90.20	88.40	4191.50	968.73	-1.78	968.73	1.40
37	4955.00	91.20	88.60	4190.73	1031.70	-0.13	1031.70	1.62
38	5019.00	91.50	88.90	4189.22	1095.66	1.26	1095.67	0.66
39	5114.00	91.50	90.70	4186.74	1190.63	1.59	1190.63	1.89

Minimum Curvature Calculation

Vertical Section Angle: 90.08

API#: 30-015-40345

[illegible]