

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5 Lease Serial No
NMNM1115331a Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff Resvr
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No

2 Name of Operator
CHESAPEAKE OPERATING, INC E-Mail linda.good@chk.com8 Lease Name and Well No
DIAMOND 31 FEDERAL 2H3. Address P.O. BOX 18496
OKLAHOMA CITY, OK 73154-04969 API Well No.
30-015-36022

4 Location of Well (Report location clearly and in accordance with Federal requirements)*

10 Field and Pool, or Exploratory
UND INDIAN FLATS, DELAWARE

At surface NWSE 1722FSL 1542FEL

At top prod interval reported below NESW 1740FSL 1638FWL

At total depth NESW 1740FSL 1638FWL

11 Sec, T, R., M., or Block and Survey
or Area Sec 31 T24S R29E Mer NMP12. County or Parish
EDDY CO.13 State
NM14. Date Spudded
01/05/200815. Date T.D. Reached
01/23/200816. Date Completed
☐ D & A ☒ Ready to Prod.
02/12/200817 Elevations (DF, KB, RT, GL)*
2938 GL18. Total Depth: MD 6991
TVD 506619. Plug Back T.D.: MD 6946
TVD 502120 Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
NA22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23 Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt (#/ft)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol (BBL)	Cement Top*	Amount Pulled
17 500	13.375 H-40	48 0		660		570		0	
11 000	5.625 K-55	36.0		2770		1015		0	
7.875	5.500 P-110	23 0		6991		950		2705	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 875	4435							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No Holes	Perf. Status
JERRY CANYON (DELAWARE)	5260	6901	5260 TO 6901		28	OPEN
B)						
C)						
D)						

27 Acid, Fracture, Treatment, Cement Squeeze, Etc

Depth Interval	Amount and Type of Material
5260 TO 6901	ACID W/5000 GAL 15% NEFE & FRAC W/20,084 GAL 25# LINEAR GEL & 95,500 GAL B FRAC 25 X-LINK GEL

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
02/17/2008	04/05/2008	24	→	98 0	94 0	346 0			
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→	98	94	346		POW	

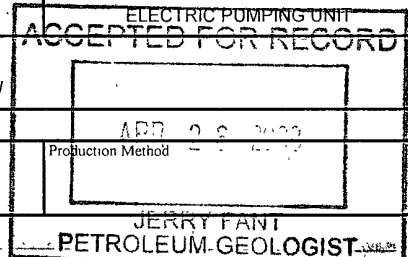
28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #59895 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **



28b Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	

28c Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	

29 Disposition of Gas(Sold, used for fuel, vented, etc)
SOLD

30 Summary of Porous Zones (Include Aquifers)

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
PERMIAN RED BEDS	0	2769	RED BEDS		
CASTILE	2769	2817	SALT/ANHYDRITE		
DELAWARE	2817				
BELL CANYON	2817	5192	SAND/SILT/SHALE		
CHERRY CANYON	5192	5262	SAND/SILT/SHALE		
BRUSHY CANYON	5262	6650	SAND/SILT/SHALE		

32 Additional remarks (include plugging procedure):
NO OPEN HOLE LOGS.

(CHK PN 616912)

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions).

Electronic Submission #59895 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad

Name (please print) LINDA GOOD

Title REGULATORY COMPLIANCE SPECIALI

Signature (Electronic Submission)

Date 04/25/2008

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

OPERATOR
WELL/LEASE
COUNTY

CHESAPEAKE OPERATING, INC.
DIAMOND 31 FED. 2H
EDDY

142-0059

STATE OF NEW MEXICO
DEVIATION REPORT

229	1.25
471	1.00
624	0.25
701	0.40
788	0.10
874	0.30
1,076	1.10
1,169	0.90
1,283	0.60
1,408	0.40
1,626	0.20
1,743	0.30
1,852	0.80
2,042	0.60
2,137	1.60
2,187	1.30
2,282	2.10
2,345	1.90
2,408	2.30
2,517	2.50
2,582	2.20
2,644	1.90
2,708	1.70
2,746	1.20
2,867	1.25
3,120	1.25
3,373	0.75
3,627	1.00
3,849	0.50
4,102	1.00
4,324	0.75
4,580	0.90

BY: Steve Moore

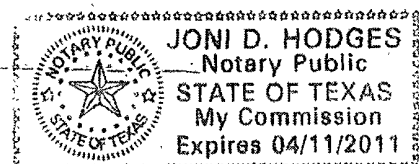
STATE OF TEXAS

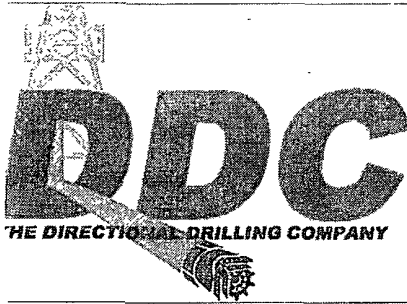
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Moore on behalf of Patterson-UTI Drilling Company LLC.

January 31, 2008, by Steve

Joni D. Hodges
Notary Public for Midland County, Texas
My Commission Expires: 4/11/11





Job Number: MI-08032
 Company: Chesapeake Operating, Inc.
 Lease/Well: Diamond 31 Fed. #2H
 Location: Eddy County
 Rig Name: Patterson #142
 RKB: 2926'
 G.L. or M.S.L.: 2908'

State/Country: New Mexico
 Declination: 8,18511
 Grid: -0.16
 File name: Z:\2008\Q080010\Q080019\Q080019.SVY
 Date/Time: 24-Jan-08 / 15:46
 Curve Name: As-Drilled Diamond 31 Fed #2H

WINSERVE PROPOSAL REPORT
 Minimum Curvature Method
 Vertical Section Plane 270.00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie-in to Gyro									
4545.00	.25	192.98	4544.31	-26.52	7.26	26.52	27.50	74.69	.00
4580.00	.90	248.20	4579.31	-26.25	7.08	26.25	27.19	74.90	2.24
4612.00	3.60	271.30	4611.28	-25.01	7.01	25.01	25.97	74.34	8.73
4644.00	7.90	276.80	4643.11	-21.82	7.30	21.82	23.01	71.51	13.53
4675.00	12.10	280.60	4673.64	-16.51	8.15	-16.51	18.41	63.73	13.71
4707.00	16.60	280.30	4704.63	-8.71	9.58	8.71	12.95	42.27	14.06
4739.00	20.60	280.70	4734.95	1.32	11.44	-1.32	11.52	353.41	12.51
4770.00	24.60	281.30	4763.57	13.01	13.72	-13.01	18.91	316.52	12.92
4802.00	28.50	282.40	4792.19	27.01	16.67	-27.01	31.74	301.68	12.28
4834.00	32.30	283.40	4819.78	42.79	20.29	-42.79	47.35	295.37	11.98
4865.00	36.20	282.80	4845.40	59.78	24.24	-59.78	64.50	292.07	12.63
4897.00	39.40	281.70	4870.68	78.94	28.39	-78.94	83.89	289.78	10.22
4929.00	41.80	280.20	4894.98	99.39	32.34	-99.39	104.52	288.03	8.10
Cross Hardline / MD 4942'									
4942.47	42.84	278.73	4904.94	108.33	33.83	-108.33	113.49	287.34	10.66
4961.00	44.30	276.80	4918.36	120.98	35.55	-120.98	126.10	286.38	10.66
4992.00	47.80	275.10	4939.88	143.18	37.86	-143.18	148.10	284.81	11.96
5024.00	50.90	273.10	4960.72	167.39	39.58	-167.39	172.01	283.30	10.78
5056.00	54.00	270.10	4980.22	192.74	40.28	-192.74	196.91	281.80	12.21
5088.00	56.50	269.20	4998.46	219.03	40.11	-219.03	222.67	280.38	8.15
5119.00	59.20	269.80	5014.96	245.27	39.89	-245.27	248.50	279.24	8.86
5151.00	61.80	270.80	5030.71	273.12	40.04	-273.12	276.04	278.34	8.57
5183.00	65.10	270.00	5045.01	301.74	40.23	-301.74	304.41	277.59	10.55
5214.00	69.60	269.00	5056.95	330.34	39.98	-330.34	332.75	276.90	14.82

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
5246.00	73.90	267.70	5066.97	360.71	39.10	-360.71	362.83	276.19	13.98
5278.00	78.00	266.40	5074.74	391.71	37.50	-391.71	393.50	275.47	13.40
5310.00	83.00	265.60	5080.02	423.18	35.30	-423.18	424.65	274.77	15.82
5342.00	88.80	265.40	5082.30	454.99	32.79	-454.99	456.17	274.12	18.14
5374.00	95.10	265.40	5081.22	486.85	30.23	-486.85	487.79	273.55	19.69
5406.00	98.40	266.10	5077.45	518.54	27.88	-518.54	519.28	273.08	10.54
5437.00	97.40	265.80	5073.19	549.16	25.71	-549.16	549.77	272.68	3.37
5469.00	94.50	266.10	5069.88	580.91	23.46	-580.91	581.38	272.31	9.11
5501.00	93.50	266.30	5067.64	612.76	21.34	-612.76	613.13	271.99	3.19
5533.00	92.60	265.90	5065.94	644.64	19.17	-644.64	644.93	271.70	3.08
5565.00	92.80	265.20	5064.43	676.51	16.69	-676.51	676.71	271.41	2.27
5597.00	93.20	265.30	5062.76	708.35	14.04	-708.35	708.49	271.14	1.29
5629.00	93.50	264.80	5060.89	740.18	11.29	-740.18	740.27	270.87	1.82
5661.00	92.00	266.10	5059.35	772.04	8.75	-772.04	772.09	270.65	6.20
5693.00	91.70	266.80	5058.32	803.96	6.77	-803.96	803.99	270.48	2.38
5725.00	89.70	268.40	5057.93	835.93	5.43	-835.93	835.95	270.37	8.00
5757.00	89.10	269.00	5058.27	867.92	4.71	-867.92	867.93	270.31	2.65
5789.00	89.20	269.20	5058.74	899.91	4.20	-899.91	899.92	270.27	.70
5821.00	89.60	268.90	5059.08	931.91	3.67	-931.91	931.91	270.23	1.56
5853.00	90.30	268.80	5059.10	963.90	3.03	-963.90	963.90	270.18	2.21
5884.00	90.10	269.00	5059.00	994.89	2.44	-994.89	994.90	270.14	.91
5916.00	88.40	268.40	5059.41	1026.88	1.71	-1026.88	1026.88	270.10	5.63
5948.00	88.20	268.40	5060.36	1058.85	.82	-1058.85	1058.86	270.04	.63
5980.00	88.50	268.20	5061.28	1090.83	-.13	-1090.83	1090.83	269.99	1.13
6012.00	89.00	268.20	5061.98	1122.80	-1.14	-1122.80	1122.80	269.94	1.56
6043.00	89.10	267.90	5062.50	1153.78	-2.19	-1153.78	1153.78	269.89	1.02
6074.00	89.60	267.90	5062.85	1184.76	-3.33	-1184.76	1184.76	269.84	1.61
6106.00	88.10	267.00	5063.49	1216.72	-4.75	-1216.72	1216.73	269.78	5.47
6138.00	86.10	268.70	5065.11	1248.65	-5.95	-1248.65	1248.67	269.73	8.20
6170.00	86.90	269.20	5067.06	1280.59	-6.54	-1280.59	1280.60	269.71	2.95
6201.00	89.60	270.30	5068.01	1311.57	-6.67	-1311.57	1311.59	269.71	9.40
6233.00	92.60	272.20	5067.40	1343.55	-5.97	-1343.55	1343.56	269.75	11.10
6265.00	92.80	273.50	5065.89	1375.48	-4.38	-1375.48	1375.48	269.82	4.11
6296.00	92.80	273.80	5064.37	1406.38	-2.41	-1406.38	1406.38	269.90	.97
6328.00	92.60	273.80	5062.87	1438.27	-.29	-1438.27	1438.27	269.99	.63
6360.00	92.60	273.80	5061.41	1470.17	1.82	-1470.17	1470.17	270.07	.00
6391.00	92.90	273.80	5059.93	1501.06	3.88	-1501.06	1501.07	270.15	.97
6423.00	92.80	273.60	5058.34	1532.96	5.94	-1532.96	1532.97	270.22	.70
6455.00	91.70	272.30	5057.08	1564.89	7.58	-1564.89	1564.91	270.28	5.32
6486.00	91.60	272.10	5056.19	1595.85	8.77	-1595.85	1595.88	270.32	.72
6518.00	91.70	272.20	5055.27	1627.82	9.97	-1627.82	1627.85	270.35	.44
6550.00	91.70	272.30	5054.32	1659.78	11.23	-1659.78	1659.82	270.39	.31
6582.00	89.70	271.80	5053.93	1691.75	12.37	-1691.75	1691.80	270.42	6.44
6614.00	89.10	271.80	5054.26	1723.74	13.38	-1723.74	1723.79	270.44	1.87
6646.00	89.40	271.60	5054.68	1755.72	14.33	-1755.72	1755.78	270.47	1.13

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6678.00	89.40	271.50	5055.01	1787.71	15.19	-1787.71	1787.77	270.49	.31
6710.00	89.50	271.60	5055.32	1819.69	16.06	-1819.69	1819.76	270.51	.44
6742.00	89.90	271.40	5055.49	1851.68	16.90	-1851.68	1851.76	270.52	1.40
6774.00	89.70	271.30	5055.60	1883.67	17.65	-1883.67	1883.75	270.54	.70
6806.00	87.90	270.40	5056.27	1915.66	18.13	-1915.66	1915.74	270.54	6.29
6838.00	86.90	270.00	5057.72	1947.63	18.24	-1947.63	1947.71	270.54	3.37
6870.00	86.70	270.10	5059.51	1979.58	18.27	-1979.58	1979.66	270.53	.70
6902.00	87.00	269.90	5061.27	2011.53	18.27	-2011.53	2011.61	270.52	1.13
6934.00	87.40	269.90	5062.83	2043.49	18.21	-2043.49	2043.57	270.51	1.25
6941.00	87.30	269.60	5063.15	2050.48	18.18	-2050.48	2050.56	270.51	4.51

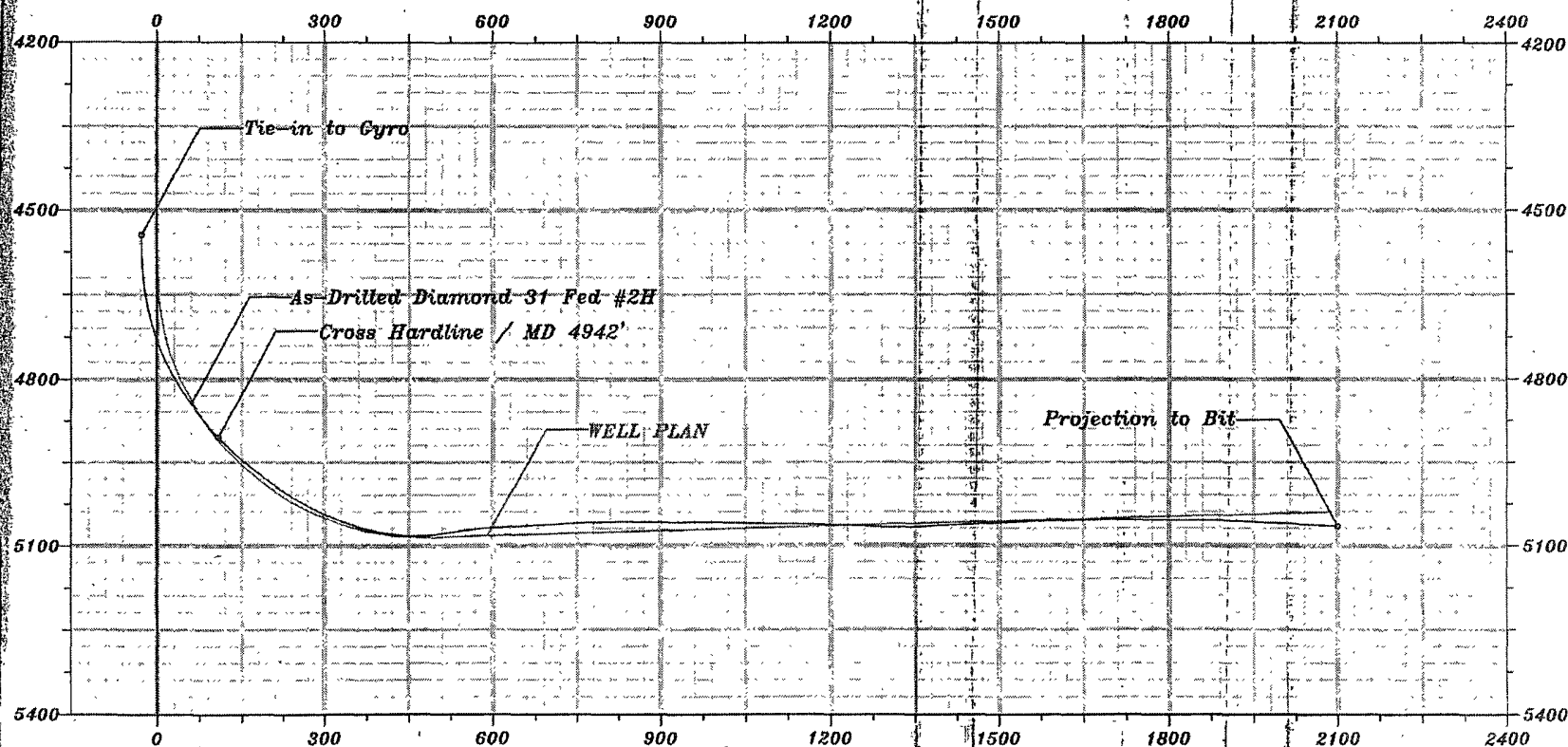
Projection to Bit

6991.00	87.10	269.00	5065.60	2100.42	17.57	-2100.42	2100.49	270.48	1.26
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Diamond 31 Fed #2H
Eddy County, New Mexico
MI-08032

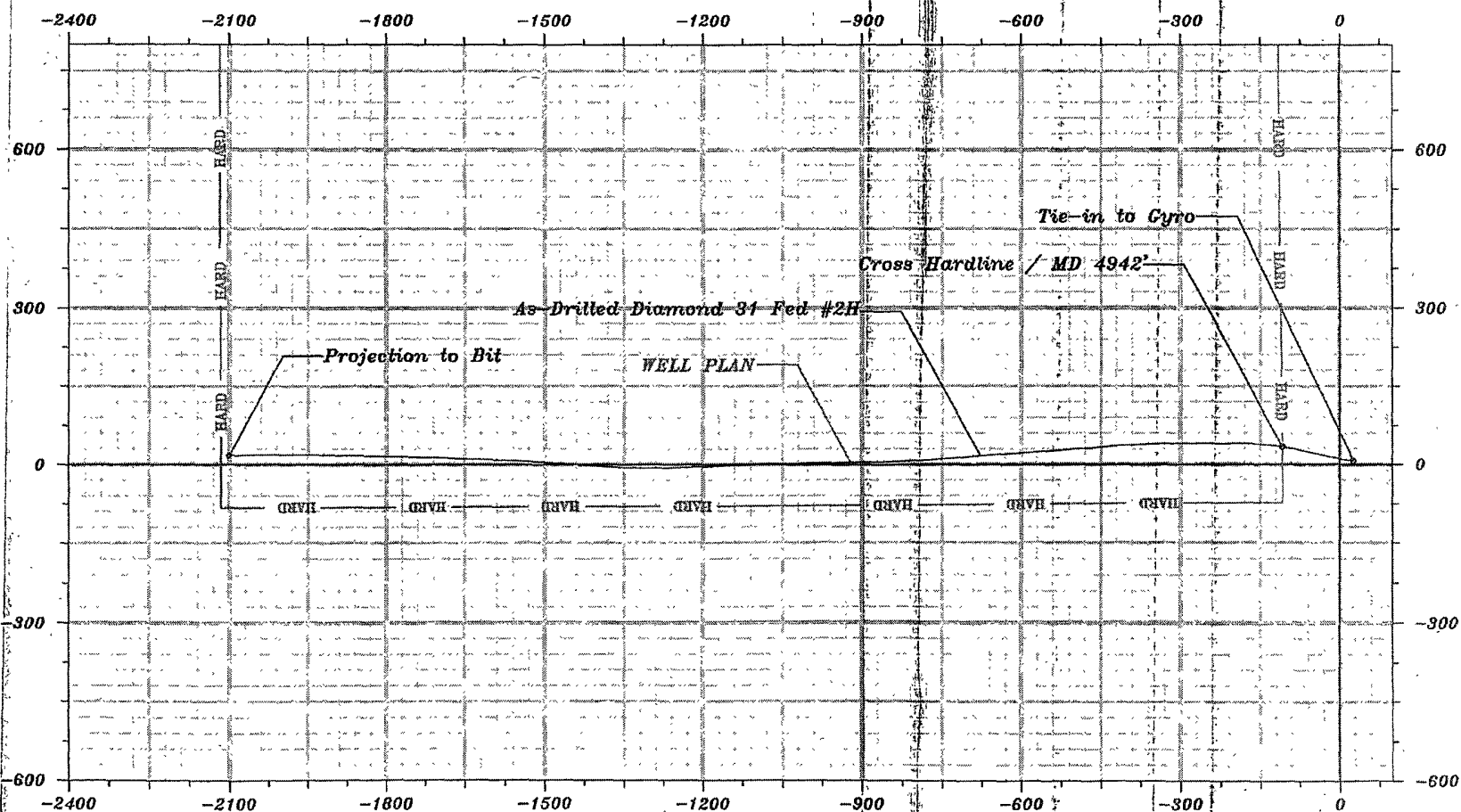
VERTICAL SECTION
SCALE: 1 inch = 300'
VERTICAL SECTION PLANE= 270.00





Diamond 31 Fed #2H
Eddy County, New Mexico
MI-08032

PLAN VIEW
SCALE: 1 inch = 300'





Directional Services

Job Number: 081117505087

Company: Chesapeake Operating, Inc.

Lease/Well: Diamond 31 Fed, Well #2H

Location: Eddy County, New Mexico

Rig Name: Patterson #142

RKB: 22'

G.L. or M.S.L.:

State/Country: New Mexico/USA

Declination: 8.03°

Grid: East To Grid

File name: F:\SURVEY\2008SU~1\CHESAP~1\DIAMON2H.SVY

Date/Time: 17-Jan-08 / 09:21

Curve Name: Surface - 4545' M.D. (gyroscopic)

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane.. 270.00

Vertical Section Referenced to offset from Wellhead: EW=.00 Ft, NS=.00 Ft

Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TRUE Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
0	0	0	0	0	0	0	0	0	0
200	1	216.1	199.99	-1.41	-1.03	1.03	1.75	216.1	0.5
400	0.75	351.37	399.98	-1.53	-2.25	2.25	2.72	235.89	0.81
600	0.5	311.63	599.97	0.35	-3.1	3.1	3.12	276.4	0.24
800	0.75	316.89	799.96	1.88	-4.65	4.65	5.02	292.05	0.13
1000	1	316.42	999.93	4.1	-6.75	6.75	7.9	301.31	0.13
1200	1	290.94	1199.9	5.99	-9.58	9.58	11.3	302.02	0.22
1400	0.5	254.2	1399.89	6.38	-12.05	12.05	13.63	297.89	0.33
1600	0.75	224.77	1599.87	5.21	-13.81	13.81	14.76	290.67	0.2
1800	0.75	313.3	1799.86	5.18	-15.69	15.69	16.52	288.27	0.52
2000	1	36.56	1999.85	7.48	-15.6	15.6	17.3	295.61	0.59
2200	1.25	80.82	2199.81	9.23	-12.4	12.4	15.46	306.65	0.44
2400	2.25	88.08	2399.72	9.71	-6.33	6.33	11.59	326.9	0.51
2600	2.25	103.36	2599.56	8.93	1.42	-1.42	9.04	9.01	0.3
2800	1.25	82.61	2799.47	8.31	7.4	-7.4	11.12	41.7	0.58
3000	1	71.87	2999.43	9.13	11.22	-11.22	14.47	50.87	0.16
3200	1	69.88	3199.4	10.27	14.52	-14.52	17.79	54.72	0.02
3400	1	80.9	3399.37	11.15	17.88	-17.88	21.07	58.06	0.1
3600	1	93.91	3599.34	11.31	21.35	-21.35	24.15	62.09	0.11
3800	0.5	127.92	3799.32	10.65	23.77	-23.77	26.05	65.87	0.32
4000	0.5	131.94	3999.32	9.53	25.11	-25.11	26.86	69.22	0.02
4200	0.25	141.95	4199.31	8.6	26.03	-26.03	27.42	71.71	0.13
4400	0.25	156.96	4399.31	7.86	26.47	-26.47	27.61	73.46	0.03
4545	0.25	192.98	4544.31	7.26	26.52	-26.52	27.5	74.69	0.11



Directional Services

Job Number: 081117505087

Company: Chesapeake Operating, Inc.

Lease/Well: Diamond 31 Fed, Well #2H

Location: Eddy County, New Mexico

Rig Name: Patterson #142

RKB: 22'

G.L. or M.S.L.:

State/Country: New Mexico/USA

Declination: 8.03°

Grid: East To Grid

File name: F:\SURVEY\2008SU~1\CHESAP~1\DIAMON2H.SVY

Date/Time: 17-Jan-08 / 09:20

Curve Name: Surface - 4545' M.D. (gyroscopic)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 270.00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	1.00	216.10	199.99	-1.41	-1.03	1.03	1.75	216.10	.50
400.00	.75	351.37	399.98	-1.53	-2.25	2.25	2.72	235.89	.81
600.00	.50	311.63	599.97	.35	-3.10	3.10	3.12	276.40	.24
800.00	.75	316.89	799.96	1.88	-4.65	4.65	5.02	292.05	.13
1000.00	1.00	316.42	999.93	4.10	-6.75	6.75	7.90	301.31	.13
1200.00	1.00	290.94	1199.90	5.99	-9.58	9.58	11.30	302.02	.22
1400.00	.50	254.20	1399.89	6.38	-12.05	12.05	13.63	297.89	.33
1600.00	.75	224.77	1599.87	5.21	-13.81	13.81	14.76	290.67	.20
1800.00	.75	313.30	1799.86	5.18	-15.69	15.69	16.52	288.27	.52

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
2000.00	1.00	36.56	1999.85	7.48	-15.60	15.60	17.30	295.61	.59
2200.00	1.25	80.82	2199.81	9.23	-12.40	12.40	15.46	306.65	.44
2400.00	2.25	88.08	2399.72	9.71	-6.33	6.33	11.59	326.90	.51
2600.00	2.25	103.36	2599.56	8.93	1.42	-1.42	9.04	9.01	.30
2800.00	1.25	82.61	2799.47	8.31	7.40	-7.40	11.12	41.70	.58
3000.00	1.00	71.87	2999.43	9.13	11.22	-11.22	14.47	50.87	.16
3200.00	1.00	69.88	3199.40	10.27	14.52	-14.52	17.79	54.72	.02
3400.00	1.00	80.90	3399.37	11.15	17.88	-17.88	21.07	58.06	.10
3600.00	1.00	93.91	3599.34	11.31	21.35	-21.35	24.15	62.09	.11
3800.00	.50	127.92	3799.32	10.65	23.77	-23.77	26.05	65.87	.32
4000.00	.50	131.94	3999.32	9.53	25.11	-25.11	26.86	69.22	.02
4200.00	.25	141.95	4199.31	8.60	26.03	-26.03	27.42	71.71	.13
4400.00	.25	156.96	4399.31	7.86	26.47	-26.47	27.61	73.46	.03
Last Survey Depth Recorded									
4545.00	.25	192.98	4544.31	7.26	26.52	-26.52	27.50	74.69	.11

DIAMON2H.TXT

Job Number: 081117505087

State/Country: New Mexico/USA

Company: Chesapeake Operating, Inc.

Declination: 8.03°

Lease/Well: Diamond 31 Fed, Well #2H

Grid: East To Grid

Location: Eddy County, New Mexico

File name:

F:\SURVEY\2008SU-1\CHESAP-1\DIAMON2H.SVY

Date/Time: 17-Jan-08 / 09:21

Rig Name: Patterson #142

RKB: 22'
(gyroscopic)
G.L. or M.S.L.:

Curve Name: Surface - 4545' M.D.

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 270.00

Vertical Section Referenced to offset from Wellhead: EW =.00 Ft , NS=.00

Ft

Rectangular Coordinates Referenced to wellhead

Measured CLOSURE Depth Distance FT	Incl CLOSURE Angle Direction Deg	Drift Dogleg Direction Severity Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	FT
Deg	Deg/100	Deg					
.00	.00	.00	.00	.00	.00	.00	
1.00	200.00	1.00	216.10	199.99	-1.41	-1.03	1.03
1.75	216.10	.50	351.37	399.98	-1.53	-2.25	2.25
2.72	235.89	.81	311.63	599.97	.35	-3.10	3.10
3.12	276.40	.24	316.89	799.96	1.88	-4.65	4.65
5.02	292.05	.13					
1000.00		1.00	316.42	999.93	4.10	-6.75	6.75
7.90	301.31	.13	290.94	1199.90	5.99	-9.58	9.58
1200.00		1.00					
11.30	302.02	.22	254.20	1399.89	6.38	-12.05	12.05
1400.00		.50					
13.63	297.89	.33					

DIAMON2H.TXT							
1600.00	.75	224.77	1599.87	5.21	-13.81	13.81	
14.76 290.67	.20						
1800.00	.75	313.30	1799.86	5.18	-15.69	15.69	
16.52 288.27	.52						
2000.00	1.00	36.56	1999.85	7.48	-15.60	15.60	
17.30 295.61	.59						
2200.00	1.25	80.82	2199.81	9.23	-12.40	12.40	
15.46 306.65	.44						
2400.00	2.25	88.08	2399.72	9.71	-6.33	6.33	
11.59 326.90	.51						
2600.00	2.25	103.36	2599.56	8.93	1.42	-1.42	
9.04 9.01	.30						
2800.00	1.25	82.61	2799.47	8.31	7.40	-7.40	
11.12 41.70	.58						
3000.00	1.00	71.87	2999.43	9.13	11.22	-11.22	
14.47 50.87	.16						
3200.00	1.00	69.88	3199.40	10.27	14.52	-14.52	
17.79 54.72	.02						
3400.00	1.00	80.90	3399.37	11.15	17.88	-17.88	
12.07 58.06	.10						
3600.00	1.00	93.91	3599.34	11.31	21.35	-21.35	
24.15 62.09	.11						
3800.00	.50	127.92	3799.32	10.65	23.77	-23.77	
26.05 65.87	.32						
4000.00	.50	131.94	3999.32	9.53	25.11	-25.11	
26.86 69.22	.02						
4200.00	.25	141.95	4199.31	8.60	26.03	-26.03	
27.42 71.71	.13						
4400.00	.25	156.96	4399.31	7.86	26.47	-26.47	
27.61 73.46	.03						
Last Survey Depth Recorded							
4545.00	.25	192.98	4544.31	7.26	26.52	-26.52	
27.50 74.69	.11						