

Results of Directional Survey

API number:	30-005-29137		
OGRID:		Operator:	CHESAPEAKE OPERATING, INC.
		Property:	PERSEUS 10 FEDERAL COM # 3H

surface	ULSTR:	H	10	T	15S	R	31E
				1980	FNL	200	FEL

BH Loc	ULSTR:	E	10	T	15S	R	31E
13360	MD	8743.3	TVD	2023	FNL	4930	FEL

Top Perf/OH	ULSTR:	H	10	T	15S	R	31E
9240	MD	8796.4	TVD	2001	FNL	821	FEL

Bot Perf/OH	ULSTR:	E	10	T	15S	R	31E
13322	MD	8743.5	TVD	2024	FNL	4896	FEL

	MD	N/S	E/W	VD
	9148	-19.39	-528.78	8795.29
TOP PERFS/OH	9240	-20.52	-620.76	8796.41
	9242	-20.54	-622.76	8796.43
	13277	-45.19	-4655.28	8743.65
BOT PERFS/OH	13322	-44.06	-4695.91	8743.46
	13308	-44.41	-4683.27	8743.52

NEXT TO LAST	13277	-45.19	-4655.28	8743.65
LAST READING	13308	-44.41	-4683.27	8743.52
TD	13360	-43.10	-4730.22	8743.30

Surface Location	1980	FN	200	FE
Projected BHL	2023	FN	4930	FE
Location of				
Top Perfs/OH	2001	FN	821	FE
Bottom Perfs/OH	2024	FN	4896	FE

SUMMARY of Subsurface Locations

Surface Location	H-10-15S-31E	1980	FN	200	FE	Vert. Depth
Top Perfs/OH	H-10-15S-31E	2001	FN	821	FE	8796.41
Bottom Perfs/OH	E-10-15S-31E	2024	FN	4896	FE	8743.46
Projected TD	E-10-15S-31E	2023	FN	4930	FE	8743.30

MAY 23 2011



SUR: H-10-15s-31e, 1980/N & 200/E
BHL: E-10-15s-31e, 2023/N & 4930/E
API #30-005-29137

04 Aug 2010

State of New Mexico
Oil Conservation Division
1000 Rio Brazos Road
Aztec N. M. 87410

RECEIVED

AUG 13 2010

HOBBSOCD

Attention: To whom it may concern.

RCVD AUG 9 '10

Re: Chesapeake Operating Inc.
Perseus 10 Federal Com 3H
Chavez County, NM
API #~~618836~~ 30 005 29137
Job No. 1010364

OIL CONS. DIV.

DIST. 3

Enclosed please find the survey certification, and the original and one copy of the survey performed on the above referenced well by Nevis Energy Services Houston, Inc. (P-5 No. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Scott E. dean	3H	8305	13305	07/06/10	07/16/10	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Jose L. Hernandez
Well Planner

Certified mail receipt number: _____

RECEIVED

**NEVIS ENERGY SERVICES INC.
SURVEY DATA CERTIFICATION**

 AUG 13 2010
HOBSOCD


NEVIS JOB NUMBER

1010364

OPERATOR

Chesapeake

WELL NAME

Perseus 10 Federal Com 3H

COUNTY & STATE

Chaves Co., NM

API WELL NUMBER

618836

PROPOSED DIRECTION

269.5

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
8,200 ft	8,199.25 ft	2.84	101.42	-14.1	-7.19	Gyrodata Gyro

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
06-Jul-10	8,305 ft	4.1	95.1

SURVEY INSTRUMENT

TYPE

Nevis MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
16-Jul-10	13,305 ft	90.1	271.6

 TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
16-Jul-10	13,360 ft	90.1	271.6

Scott E. Dean

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.6
DECLINATION OR GRID	7.87

07/16/10

TODAY'S DATE

MWD SUPERVISOR 1

Scott Dean

DIRECTIONAL DRILLER 1

Ron Vestal

MWD SUPERVISOR 2

Ron Alexis

DIRECTIONAL DRILLER 2

Dustin Taylor

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)



Job Number: 1010364
Company: Chesapeake Operating Inc.
Lease/Well: Perseus 10 Federal Com #3H
Location: Chavez County
Rig Name: Western Rig #6
RKB: 17'

State/Country: New Mexico, USA
Declination: 7.86647
Grid: -0.27
File name: C:\101036-1\PEF3H.SVY
Date/Time: 17-Jul-10 / 07:53

Curve Name: Perseus 10 Federal Com # 3H Surveys

G.L. or M.S.L.: GL - 4404' X - 663124.3 Y - 739618.4

SUR: H-10-15s-31e, 1980/N & 200/E
BHL: E-10-15s-31e, 2023/N & 4930/E
API #30-005-29137

Perseus 10 Federal Com # 3H Surv

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 269.50
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

11/11/10

AUG 13 2010

HOBBSCOCD

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
Gyro Tie In point									
8200.00	2.84	101.42	8199.33	-11.92	-3.54	3.65	12.43	196.56	.00
First Nevis MWD Surveys									
8305.00	4.10	95.10	8304.13	-12.77	2.75	-2.63	13.06	167.86	1.25
8336.00	3.60	97.50	8335.06	-12.99	4.81	-4.70	13.85	159.67	1.69
8366.00	1.80	104.10	8365.03	-13.23	6.21	-6.09	14.61	154.87	6.08
8397.00	2.40	255.50	8396.02	-13.51	6.05	-5.93	14.80	155.88	13.14
8428.00	6.60	263.50	8426.92	-13.87	3.65	-3.53	14.35	165.26	13.67
8460.00	11.70	267.30	8458.50	-14.24	-1.42	1.55	14.31	185.71	16.04
8491.00	16.90	269.00	8488.53	-14.46	-9.07	9.20	17.07	212.10	16.83
8523.00	21.80	268.80	8518.71	-14.67	-19.67	19.80	24.54	233.29	15.31
8553.00	26.50	269.40	8546.08	-14.86	-31.94	32.07	35.22	245.06	15.69
8585.00	30.60	270.00	8574.18	-14.93	-47.23	47.36	49.53	252.46	12.84
8617.00	34.70	271.50	8601.12	-14.69	-64.49	64.61	66.14	257.17	13.06
8648.00	38.80	271.40	8625.95	-14.22	-83.02	83.15	84.23	260.28	13.23
8680.00	42.80	272.00	8650.17	-13.60	-103.92	104.04	104.81	262.54	12.56
8711.00	46.70	272.70	8672.18	-12.70	-125.72	125.83	126.36	264.23	12.68
8742.00	50.60	272.90	8692.66	-11.56	-148.96	149.06	149.41	265.56	12.59
8772.00	53.80	273.40	8711.05	-10.26	-172.63	172.71	172.93	266.60	10.75
8804.00	56.90	272.90	8729.24	-8.81	-198.91	198.98	199.10	267.46	9.77
8835.00	60.20	272.00	8745.41	-7.69	-225.33	225.38	225.46	268.05	10.93
8865.00	63.50	270.00	8759.56	-7.23	-251.77	251.82	251.87	268.35	12.47
8897.00	68.00	268.20	8772.70	-7.70	-280.93	280.99	281.04	268.43	14.97

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
8928.00	73.40	267.00	8782.95	-8.93	-310.15	310.22	310.28	268.35	17.80
8959.00	79.80	266.60	8790.13	-10.61	-340.24	340.32	340.41	268.21	20.68
8993.00	87.20	267.00	8793.97	-12.50	-373.95	374.04	374.16	268.09	21.80
9023.00	90.00	267.00	8794.71	-14.06	-403.90	404.00	404.14	268.01	9.33
9053.00	90.00	266.90	8794.71	-15.66	-433.85	433.97	434.14	267.93	.33
9148.00	89.30	268.60	8795.29	-19.39	-528.78	528.92	529.13	267.90	1.94
9242.00	89.30	270.00	8796.43	-20.54	-622.76	622.91	623.10	268.11	1.49
9335.00	89.80	271.10	8797.16	-19.65	-715.75	715.89	716.02	268.43	1.30
9426.00	90.70	272.40	8796.77	-16.87	-806.70	806.82	806.88	268.80	1.74
9521.00	91.10	271.80	8795.28	-13.39	-901.63	901.71	901.73	269.15	.76
9614.00	91.60	271.70	8793.08	-10.55	-994.56	994.61	994.61	269.39	.55
9704.00	91.60	271.50	8790.57	-8.04	-1084.49	1084.52	1084.52	269.58	.22
9792.00	91.30	271.50	8788.34	-5.73	-1172.43	1172.44	1172.44	269.72	.34
9887.00	91.00	271.10	8786.44	-3.58	-1267.39	1267.37	1267.39	269.84	.53
9979.00	90.90	271.00	8784.91	-1.89	-1359.36	1359.32	1359.36	269.92	.15
10074.00	90.50	270.90	8783.75	-.32	-1454.34	1454.28	1454.34	269.99	.43
10168.00	90.30	270.70	8783.10	1.00	-1548.33	1548.26	1548.33	270.04	.30
10263.00	90.00	270.20	8782.85	1.74	-1643.32	1643.24	1643.32	270.06	.61
10357.00	89.60	270.00	8783.18	1.91	-1737.32	1737.24	1737.32	270.06	.48
10452.00	90.80	269.40	8782.84	1.41	-1832.32	1832.24	1832.32	270.04	1.41
10545.00	90.70	269.30	8781.63	.35	-1925.30	1925.23	1925.30	270.01	.15
10640.00	92.30	270.10	8779.14	-.14	-2020.27	2020.19	2020.27	270.00	1.88
10735.00	92.70	270.10	8775.00	.02	-2115.17	2115.09	2115.17	270.00	.42
10829.00	92.80	270.20	8770.49	.27	-2209.07	2208.98	2209.07	270.01	.15
10924.00	91.40	270.30	8767.00	.68	-2304.00	2303.91	2304.00	270.02	1.48
11018.00	91.20	269.80	8764.87	.76	-2397.97	2397.88	2397.97	270.02	.57
11113.00	91.10	269.70	8762.97	.35	-2492.95	2492.86	2492.95	270.01	.15
11205.00	90.40	269.10	8761.76	-.61	-2584.94	2584.85	2584.94	269.99	1.00
11297.00	90.00	268.30	8761.44	-2.70	-2676.92	2676.84	2676.92	269.94	.97
11391.00	89.80	268.30	8761.60	-5.49	-2770.87	2770.82	2770.88	269.89	.21
11486.00	89.80	267.70	8761.94	-8.81	-2865.81	2865.78	2865.83	269.82	.63
11581.00	89.90	267.70	8762.18	-12.62	-2960.74	2960.74	2960.77	269.76	.11
11676.00	90.30	267.40	8762.02	-16.68	-3055.65	3055.68	3055.70	269.69	.53
11770.00	89.80	267.20	8761.94	-21.11	-3149.55	3149.61	3149.62	269.62	.57
11864.00	89.90	267.20	8762.18	-25.70	-3243.43	3243.53	3243.54	269.55	.11
11958.00	89.90	267.20	8762.35	-30.29	-3337.32	3337.46	3337.46	269.48	.00
12053.00	89.90	266.70	8762.51	-35.35	-3432.19	3432.36	3432.37	269.41	.53
12148.00	89.20	267.80	8763.26	-39.90	-3527.07	3527.29	3527.30	269.35	1.37
12243.00	90.10	268.00	8763.84	-43.38	-3622.01	3622.25	3622.27	269.31	.97
12338.00	91.90	267.80	8762.18	-46.86	-3716.92	3717.19	3717.22	269.28	1.91
12431.00	93.00	267.80	8758.21	-50.43	-3809.77	3810.06	3810.10	269.24	1.18
12525.00	93.10	268.50	8753.20	-53.46	-3903.59	3903.90	3903.95	269.22	.75
12618.00	91.20	269.30	8749.72	-55.25	-3996.50	3996.83	3996.88	269.21	2.22
12713.00	91.40	269.10	8747.56	-56.57	-4091.46	4091.80	4091.86	269.21	.30
12807.00	90.60	270.60	8745.92	-56.82	-4185.45	4185.78	4185.83	269.22	1.81

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
12902.00	89.60	271.20	8745.75	-55.32	-4280.43	4280.75	4280.79	269.26	1.23
12997.00	90.10	271.50	8746.00	-53.09	-4375.41	4375.70	4375.73	269.30	.61
13090.00	91.20	271.80	8744.95	-50.41	-4468.36	4468.63	4468.64	269.35	1.23
13183.00	90.00	271.50	8743.97	-47.73	-4561.31	4561.56	4561.56	269.40	1.33
13277.00	90.40	271.60	8743.65	-45.19	-4655.28	4655.50	4655.50	269.44	.44

Last nevis MWD Surveys

13305.00	90.10	271.60	8743.52	-44.41	-4683.27	4683.48	4683.48	269.46	1.07
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Projection to TD

13360.00	90.10	271.60	8743.43	-42.87	-4738.25	4738.44	4738.44	269.48	.00
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RECEIVED

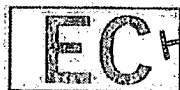
OPERATOR'S COPY

Form 3160-5
(August 2007)

DEC 18 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

NOV 1 2010

5. Lease Serial No.
NMNM105885
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side. BY:

7. If Unit or CA/Agreement, Name and/or No.
NMNM124555

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PERSEUS 10 FEDERAL COM 3H

2. Name of Operator

CHESAPEAKE OPERATING INC

Contact: LINDA GOOD

E-Mail: linda.good@chk.com

9. API Well No.
30-005-29137-00-S1

3a. Address

OKLAHOMA CITY, OK 73154-0496

3b. Phone No. (include area code)
Ph: 405-935-4275

10. Field and Pool, or Exploratory
UNDESIGNATED-WOLFCAMP

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 10 T15S R31E SENE 1980FNL 200FEL

11. County or Parish, and State
CHAVES COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☒ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

PERF AND FRAC TREATMENT:

9/14 TO 9/18/2010 PERF WOLFCAMP FROM 9240' - 13,322' W/732 HOLES TOTAL. FRAC 9240' - 13,322' W/1,895,093# SAND; 2,509,122 GAL.

10/6/2010 TURNED OVER TO PRODUCTION.

10/15/2010 RIG DOWN, MOVE OFF.

CBL LOG SENT BY EMAIL TO DAVID GLASS.

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #95485 verified by the BLM Well Information System For CHESAPEAKE OPERATING INC, sent to the Roswell Committed to AFMSS for processing by DAVID GLASS on 10/21/2010 (11DG0011SE)	
Name (Printed/Typed) LINDA GOOD	Title SR. REGULATORY COMPLIANCE SPEC
Signature (Electronic Submission)	Date 10/21/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	DAVID R GLASS Title PETROLEUM ENGINEER	Date 10/27/2010
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office Roswell		

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.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Revisions to Operator-Submitted EC Data for Sundry Notice #95485

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	FRAC SR	FRAC SR
Lease:	NMNM105885	NMNM105885
Agreement:		NMNM124555
Operator:	CHESAPEAKE OPERATING, INC. P.O. BOX 18496 OKLAHOMA CITY, OK 73154-0496 Ph: 405-935-4275	CHESAPEAKE OPERATING INC OKLAHOMA CITY, OK 73154-0496 Ph: 405.767.4275
Admin Contact:	LINDA GOOD SR. REGULATORY COMPLIANCE SPEC E-Mail: linda.good@chk.com Ph: 405-935-4275	LINDA GOOD SR. REGULATORY COMPLIANCE SPEC E-Mail: linda.good@chk.com Ph: 405-935-4275
Tech Contact:	LINDA GOOD SR. REGULATORY COMPLIANCE SPEC E-Mail: linda.good@chk.com Ph: 405-935-4275	LINDA GOOD SR. REGULATORY COMPLIANCE SPEC E-Mail: linda.good@chk.com Ph: 405-935-4275
Location:		
State:	NM	NM
County:	CHAVES	CHAVES
Field/Pool:	WILDCAT - WOLFCAMP	UNDESIGNATED-WOLFCAMP
Well/Facility:	PERSEUS 10 FEDERAL COM 3H Sec 10 T15S R31E SENE 1980FNL 200FEL	PERSEUS 10 FEDERAL COM 3H Sec 10 T15S R31E SENE 1980FNL 200FEL