

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL API NO. 30 025 34264
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐		7. Lease Name or Unit Agreement Name RUNNELS '8'
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DEEP RESVR ☐ OTHER ☐		
2. Name of Operator Chesapeake Operating, Inc.		8. Well No. 1
3. Address of Operator P. O. Box 18496, Oklahoma City, OK 73154-0496		9. Pool name or Wildcat N.E. Shoe Bar-Strawn
4. Well Location Sur Unit Letter N : 780 Feet From The south Line and 1510 Feet From The west Line BHL Section 8 Township 1-S Range 36E NMPM LEA County		
10. Date Spudded 01-31-98	11. Date T.D. Reached 03/03/98	12. Date Compl. (Ready to Prod.) 03/14/98
13. Elevations (DF & RKB, RT, GR, etc.) 3936'		14. Elev. Casinghead -
15. Total Depth 11,875'	16. Plug Back T.D. -	17. If Multiple Compl. How Many Zones? -
18. Intervals Drilled By Rotary Tools 0-TD		Cable Tools
19. Producing Interval(s), of this completion - Top, Bottom, Name 11,458'-494' Strawn		20. Was Directional Survey Made Yes
21. Type Electric and Other Logs Run Dual Induction GR/Comp. Neutron		22. Was Well Cored No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	48#	489'	17-1/2"	470	
9-5/8	40#	4,200'	12-1/4"	1635	
5-1/2"	17#	11,875'	7-7/8"	590 1st stg 850 2nd stg	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-7/8"	11,366'	11,366'

26. Perforation record (interval, size, and number) 11,458'-460' 8 holes 4 spf 90° Phase 11,476'-494' 72 holes 4 spf 90° Phase	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	1458-494'	24 bbls 5% HCL, 253 bbls 2% KCL

PRODUCTION

28. Date First Production 03-14-98		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing				Well Status (Prod. or Shut-in) Prod.	
Date of Test 03/16/98	Hours Tested 24	Choke Size 30/64	Prod'n For Test Period 223	Oil - Bbl. 223	Gas - MCF 369	Water - Bbl. 0	Gas - Oil Ratio 1657
Flow Tubing Press. 100#	Casing Pressure 0	Calculated 24-Hour Rate	Oil - Bbl. 223	Gas - MCF 369	Water - Bbl. 0	Oil Gravity - API - (Corr.) 44.4 65°	
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold						Test Witnessed By Jimmy Hayes	

30. List Attachments

C-103, C-104, Deviation Survey, Logs

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Barbara J. Bale Printed Name Barbara J. Bale Title Regulatory Analyst Date 03-18-98

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

T. Anhy _____
 T. Salt _____
 T. Salt _____
 T. Yates _____
 T. 7 Rivers _____
 T. Queen _____
 T. Grayburg _____
 T. San Andres 4756'
 T. Glorieta 6368'
 T. Paddock 6948'
 T. Blinberry _____
 T. Tubb 7527
 T. Drinkard 7652
 T. Abo 8204
 T. Wolfcamp 9618'
 T. Penn _____
 T. Cisco (Bough C) 10898'

Northwestern New Mexico

T. Ojo Alamo _____
 T. Kirtland-Fruitland _____
 T. Pictured Cliffs _____
 T. Cliff House _____
 T. Menefee _____
 T. Point Lookout _____
 T. Mancos _____
 T. Gallup _____
 Base Greenhorn _____
 T. Dakota _____
 T. Morrison _____
 T. Todilto _____
 T. Entrada _____
 T. Wingate _____
 T. Chinle _____
 T. Permian _____
 T. Penn "A" _____

T. Penn. "B" _____
 T. Penn. "C" _____
 T. Penn. "D" _____
 T. Leadville _____
 T. Madison _____
 T. Elbert _____
 T. McCracken _____
 T. Ignacio Otzte _____
 T. Granite _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from _____ to _____
 No. 2, from _____ to _____
 No. 3, from _____ to _____
 No. 4, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet
 No. 2, from _____ to _____ feet
 No. 3, from _____ to _____ feet

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
8300	8530		Anhydrite & Dolomite				
8530	8980		Dolomite				
8980	9130		Limestone & Dolomite				
9130	9618		Dolomite				
9618	10898		Limestone				
10898	11454		Shale & Limestone				
11454	11630		Limestone				
11630	11738		Conglomerate				
11738	11822		Shale				
11822	11826		Conglomerate				

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer 80, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artee, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-34264		Pool Code 96649	Pool Name N.E. Shoe Bar-Strawn	
Property Code 22188	Property Name RUNNELS "8"		Well Number 1	
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING, INC.		Elevation 3936	

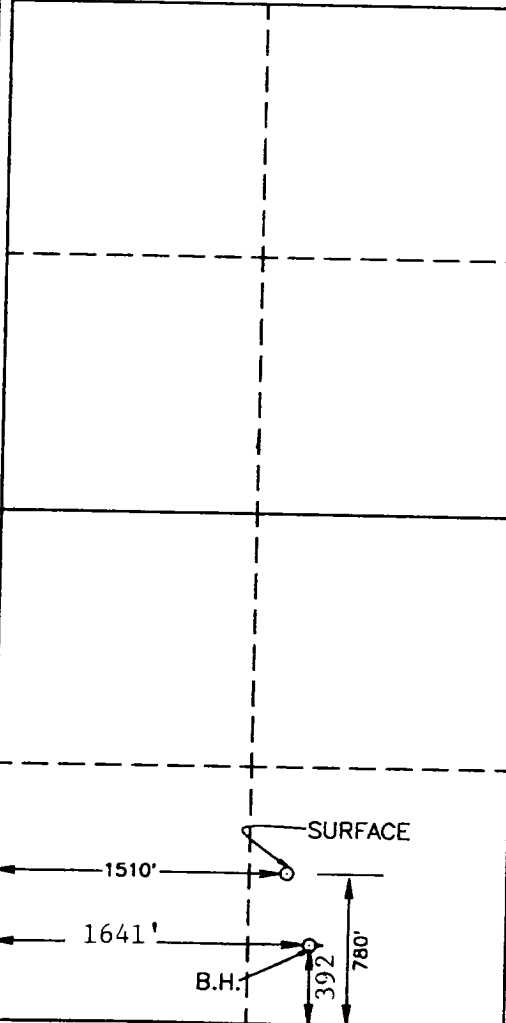
Surface Location

UL or lot No. N	Section 8	Township 16 S	Range 36 E	Lot Idn	Feet from the 780	North/South line SOUTH	Feet from the 1510	East/West line WEST	County LEA
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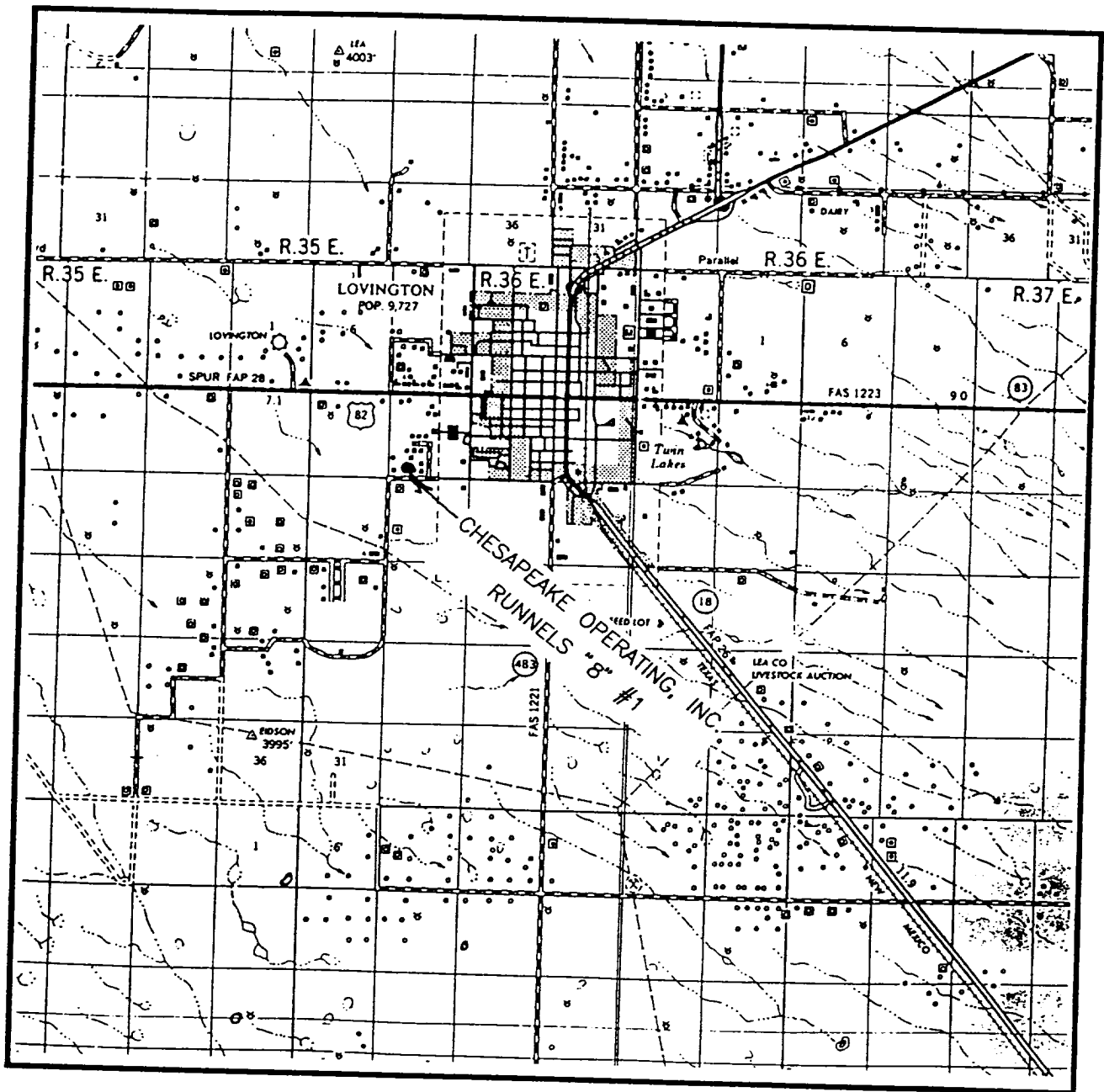
Bottom Hole Location If Different From Surface

UL or lot No. N	Section 8	Township 16 S	Range 36 E	Lot Idn	Feet from the 392	North/South line SOUTH	Feet from the 1641	East/West line WEST	County LEA
Dedicated Acres		Joint or Infill		Consolidation Code		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

		B.H. SPC 27 NME Y=703500 N X=792573 E	
OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Barbara J. Bale</i> Signature Barbara J. Bale Printed Name Regulatory Analyst Title 03/24/98 Date		SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. SEPTEMBER 29, 1997 Date Surveyed <i>Ronald J. Eidson</i> Signature & Seal of Professional Surveyor W.O. Num. 97-11-1610 Certificate No. RONALD J. EIDSON, 3239 GARY G. EIDSON, 12641	

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 8 TWP. 16-S RGE. 36-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 780' FSL & 1510' FWL

ELEVATION 3936'

OPERATOR CHESAPEAKE OPERATING, INC.

LEASE RUNNELS "8"

**JOHN WEST ENGINEERING
HOBBS, NEW MEXICO**

(505) 393-3117



CONTOUR INTERVAL - 10'

LOVINGSTON NW, N.M.

(505) 393-3117



March 5, 1998

WELL NAME AND NUMBER:

LOCATION:

OPERATOR:

DRILLING CONTRACTOR:

Runnels #1-8
Sec 8 T16S R36E
CHESAPEAKE OPERATING
PATTERSON DRILLING

#1 Unit N 780S & 1510W
30-025-34264

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

DEGREE AND DEPTH			DEGREE AND DEPTH			DEGREE AND DEPTH		
0.50	489		5.20	8646	S11.5E	6.00	10307	S12.2E
0.50	957	S9W	5.00	8707	S16.3E	7.20	10400	S12.5E
0.50	1457	S11E	0	8768	0	8.30	10431	S17.8E
0.25	1952	N64W	5.80	8797	S24.2E	8.10	10495	S19.0E
1.00	2448	N44E	5.70	8921	S23.8E	8.10	10554	S18.3E
1.00	2946	S21E	5.50	8982	S22.2E	7.80	10584	S16.4E
0.50	3068	S9E	5.60	9044	S21.7E	8.00	10611	S16.7E
0.50	3569	S14E	5.90	9105	S19E	9.10	10647	S19.7E
0.00	4064		5.90	9164	S16.2E	9.90	10708	S22E
0.50	4651	W	6.20	9227	S18.2E	9.70	10738	S21.8E
1.00	5181	S24W	6.30	9289	S19.5E	9.60	10770	S23.9E
0.50	5642	S14W	6.40	9343	S22.2E	9.30	10802	S22.4E
0.00	6136		6.30	9502	S25.1E	9.20	10834	S23.3E
1.00	6200	N89E	6.30	9533	S24.2E	9.90	10865	S23.7E
0.50	6690	N36E	6.00	9718	S24.5E	9.90	10896	S23.2E
0.25	7208	N21W	6.00	9720	S24.2E	9.40	11057	S22.9E
0.00	7694	0	6.00	9844	S24.3E	9.00	10987	S21.6E
0.20	8218	N1.6W	5.70	9905	S25E	8.60	11017	S21.1E
0.80	8279	S7.6E	5.70	9978	S21.3E	NS	11057	NS
4.30	8463	S1.7E	5.50	10057	S15.1E	8.25	11122	S19E
4.90	8524	S22.7E	5.70	10120	S13.3E	6.25	11245	S19E
5.00	8586	S22.7E	0	10213	NS	5.25	11399	S15E

Drilling Contractor: PATTERSON DRILLING.

By: Billy Jensen
Billy Jensen

Subscribed and sworn to before me on this 5th day of March, 1998.

My Commission Expires:
June 30, 2001

Mary G. Henson
Mary G. Henson



HALLIBURTON
ENERGY SERVICES

Drilling Systems

9800 West Reno / Oklahoma City, OK 73127 / (405) 241-1111

March 19, 1998

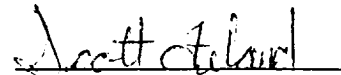
Re: Chesapeake Energy
Runnels #F-8
Sec. 8-T16S-R36E
Lea County, New Mexico

surface 780/S & 1510/W
BHL 392/S & 1641/W

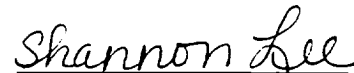
Enclosed please find the original surveys performed on the referenced well by Halliburton Energy Services.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Larry Mooney Directional Driller	Original Hole	8218' - 11017'	02/17/98 - 02/26/98	Directional/MWD

If any other information is required, please contact the undersigned at the letterhead address and phone number.


Scott Feland
Well Planner

My Commission Expires: 11-30-99


Shannon Lee
Notary Public

F. J. Liburton Drilling Systems

Page 1

Survey Report

Date: 3/19/98

Time: 10:22 am

Wellpath ID: SURVEYS

Date Created: 2/2/98

Last Revision: 3/19/98

Calculated using the Minimum Curvature Method

Computed using WIN-CADDS REV2.2.2

Vertical Section Plane: S 18.57 E

Survey Reference: WELLHEAD

Vertical Section Reference: WELLHEAD

Closure Reference: WELLHEAD

TVD Reference: WELLHEAD

CHESAPEAKE ENERGY
RUNNELS #1-8
LEA COUNTY, NEW MEXICO
SEC. 8-T16S-R36E

SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	T O T A L Rectangular Offsets (ft)		DLS (dg/100ft)
957.00	0.50	S 9.00 W	0.00	957.00	0.00	0.00 N	0.00 E	0.00
1457.00	0.50	S 11.00 E	500.00	1456.98	4.10	4.30 S	0.07 E	0.03
1952.00	0.25	N 64.00 W	495.00	1951.97	5.48	5.94 S	0.48 W	0.14
2448.00	1.00	N 44.00 E	496.00	2447.95	2.73	2.36 S	1.55 E	0.22
2946.00	1.00	S 21.00 E	498.00	2945.91	5.07	3.29 S	6.13 E	0.34
3068.00	0.50	S 9.00 E	122.00	3067.90	6.65	4.81 S	6.59 E	0.43
3569.00	0.50	S 14.00 E	501.00	3568.88	10.99	9.09 S	7.46 E	0.01
4064.00	0.00	N 0.00 E	495.00	4063.87	13.14	11.18 S	7.99 E	0.10
4651.00	0.50	N 90.00 W	587.00	4650.87	12.33	11.18 S	5.42 E	0.09
5181.00	1.00	S 24.00 W	530.00	5180.83	15.00	15.41 S	1.23 E	0.17
5661.00	0.50	S 14.00 W	480.00	5660.79	19.85	21.27 S	0.98 W	0.11
6690.00	0.50	N 36.00 E	1029.00	6689.77	21.03	21.99 S	0.57 E	0.10
7208.00	0.25	N 71.00 W	518.00	7207.76	19.03	19.79 S	0.83 E	0.12
7694.00	0.00	N 0.00 E	486.00	7693.76	18.38	19.45 S	0.17 W	0.05
BHA #1 @ 7860' 6 1/2" SLO SPEED _ 7 7/8" F57OD								
8218.00	0.20	N 1.60 W	524.00	8217.76	17.51	18.53 S	0.20 W	0.04
BHA #2 @ 8265' 6 1/2" SLO SPEED _ 7 7/8" F57OD								
8279.00	0.80	S 7.60 E	61.00	8278.76	17.82	18.85 S	0.14 W	1.64
8341.00	3.00	S 19.40 E	62.00	8340.72	19.87	20.81 S	0.45 E	3.59
8401.00	4.20	S 23.70 E	60.00	8400.60	23.63	24.30 S	1.86 E	2.05
8463.00	4.30	S 21.70 E	62.00	8462.43	28.21	28.54 S	3.63 E	0.29
8524.00	4.90	S 22.70 E	61.00	8523.23	33.09	33.07 S	5.48 E	0.99
8586.00	5.00	S 15.70 E	62.00	8585.00	38.43	38.11 S	7.23 E	0.99

Hilburton Drilling Systems

Page 2

Date: 3/19/98

Survey Report

Wellpath ID: SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	T O T A L Rectangular Offsets (ft)		DLS (dg/100ft)
8646.00	5.20	S 11.50 E	60.00	8644.77	43.74	43.29 S	8.48 E	0.71
8707.00	5.00	S 16.30 E	61.00	8705.52	49.14	48.55 S	9.78 E	0.77
8797.00	5.80	S 24.20 E	90.00	8795.13	57.59	56.47 S	12.75 E	1.21
BHA #3 @ 8857' 6 1/2" SLO SPEED _ 7 7/8" F57								
8860.00	5.70	S 25.00 E	63.00	8857.81	63.86	62.21 S	15.37 E	0.20
8921.00	5.70	S 23.80 E	61.00	8918.51	69.89	67.72 S	17.88 E	0.20
8982.00	5.50	S 22.30 E	61.00	8979.22	75.82	73.20 S	20.21 E	0.41
9044.00	5.60	S 21.70 E	62.00	9040.92	81.81	78.76 S	22.45 E	0.19
9105.00	5.90	S 19.00 E	61.00	9101.62	87.92	84.49 S	24.58 E	0.66
9164.00	5.90	S 16.20 E	59.00	9160.31	93.98	90.27 S	26.41 E	0.49
9227.00	6.20	S 18.40 E	63.00	9222.96	100.62	96.61 S	28.39 E	0.60
9289.00	6.30	S 19.50 E	62.00	9284.59	107.36	102.99 S	30.58 E	0.25
9349.00	6.40	S 22.20 E	60.00	9344.22	113.99	109.19 S	32.94 E	0.52
9410.00	6.50	S 24.30 E	61.00	9404.83	120.82	115.48 S	35.65 E	0.42
9471.00	6.30	S 25.10 E	61.00	9465.45	127.58	121.66 S	38.49 E	0.36
9530.00	6.30	S 24.20 E	62.00	9527.08	134.35	127.84 S	41.32 E	0.16
9597.00	6.10	S 24.90 E	64.00	9590.71	141.22	134.13 S	44.20 E	0.33
BHA # 4 @ 9622' 6 1/2" SLO SPEED _ 7 7/8" F57								
9658.00	6.00	S 24.50 E	61.00	9651.37	147.61	139.97 S	46.88 E	0.18
9720.00	6.00	S 24.20 E	62.00	9713.03	154.06	145.88 S	49.55 E	0.05
9782.00	6.20	S 23.20 E	62.00	9774.67	160.62	151.91 S	52.20 E	0.37
9844.00	6.00	S 24.30 E	62.00	9836.32	167.19	157.94 S	54.85 E	0.37
9905.00	5.70	S 25.00 E	61.00	9897.00	173.37	163.59 S	57.45 E	0.51
9965.00	5.70	S 21.30 E	60.00	9956.71	179.30	169.07 S	59.79 E	0.61
10057.00	5.50	S 15.10 E	92.00	10048.27	188.27	177.58 S	62.60 E	0.69
10120.00	5.70	S 13.30 E	63.00	10110.97	194.40	183.54 S	64.10 E	0.42
10245.00	5.20	S 13.00 E	125.00	10235.40	206.22	195.10 S	66.80 E	0.40
BHA # 5 @ 10305' 6 1/2" SLO SPEED _ 7 7/8" F47H								
10307.00	6.00	S 12.20 E	62.00	10297.11	212.23	201.01 S	68.12 E	1.30
10369.00	7.20	S 12.50 E	62.00	10358.69	219.32	207.97 S	69.65 E	1.94
10431.00	8.30	S 17.80 E	62.00	10420.13	227.66	216.02 S	71.86 E	2.11
10495.00	8.10	S 19.00 E	64.00	10483.47	236.78	224.68 S	74.74 E	0.41
10554.00	8.10	S 18.30 E	59.00	10541.88	245.10	232.56 S	77.39 E	0.17
10584.00	7.80	S 16.40 E	30.00	10571.60	249.25	236.52 S	78.63 E	1.33
10616.00	8.00	S 16.60 E	32.00	10603.29	253.64	240.74 S	79.88 E	0.63
10647.00	9.10	S 19.70 E	31.00	10633.95	258.25	245.11 S	81.32 E	3.85

Halliburton Drilling Systems

Survey Report

Page 3
Date: 3/19/98
Wellpath ID: SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	T O T A L Rectangular Offsets (ft)		DLS (dg/100ft)
10677.00	9.90	S 20.70 E	30.00	10663.54	263.20	249.76 S	83.04 E	2.72
10708.00	9.90	S 22.00 E	31.00	10694.07	268.52	254.72 S	84.98 E	0.72
10738.00	9.70	S 21.80 E	30.00	10723.64	273.62	259.46 S	86.88 E	0.68
10770.00	9.60	S 23.90 E	32.00	10755.18	278.97	264.40 S	88.96 E	1.14
10802.00	9.30	S 22.40 E	32.00	10786.75	284.20	269.23 S	91.03 E	1.21
10834.00	9.20	S 23.30 E	32.00	10818.33	289.33	273.97 S	93.03 E	0.55
10865.00	9.90	S 23.70 E	31.00	10848.90	294.46	278.69 S	95.08 E	2.27
10896.00	9.90	S 23.20 E	31.00	10879.44	299.77	283.58 S	97.20 E	0.28
10926.00	9.60	S 23.00 E	30.00	10909.01	304.83	288.25 S	99.19 E	1.01
10957.00	9.40	S 22.90 E	31.00	10939.58	309.93	292.96 S	101.19 E	0.65
10987.00	9.00	S 21.60 E	30.00	10969.20	314.72	297.40 S	103.00 E	1.50
LAST MWD SURVEY								
11017.00	8.60	S 21.10 E	30.00	10998.84	319.30	301.67 S	104.68 E	1.36
SINGLE SHOT SURVEYS @ 11222' MD								
11122.00	8.25	S 19.00 E	105.00	11102.71	334.68	316.12 S	109.95 E	0.44
11245.00	6.50	S 19.00 E	123.00	11224.69	350.47	331.05 S	115.09 E	1.42
11399.00	5.25	S 15.00 E	154.00	11377.88	366.22	346.10 S	119.76 E	0.85
STRAIGHT LINE PROJECTION TO TD @ 11875' MD								
11875.00	5.25	S 15.00 E	476.00	11851.88	409.69	388.17 S	131.03 E	0.00

CHESAPEAKE ENERGY RUNNELS #1-8 LEA COUNTY, NEW MEXICO SEC. 8-T16S-R36E

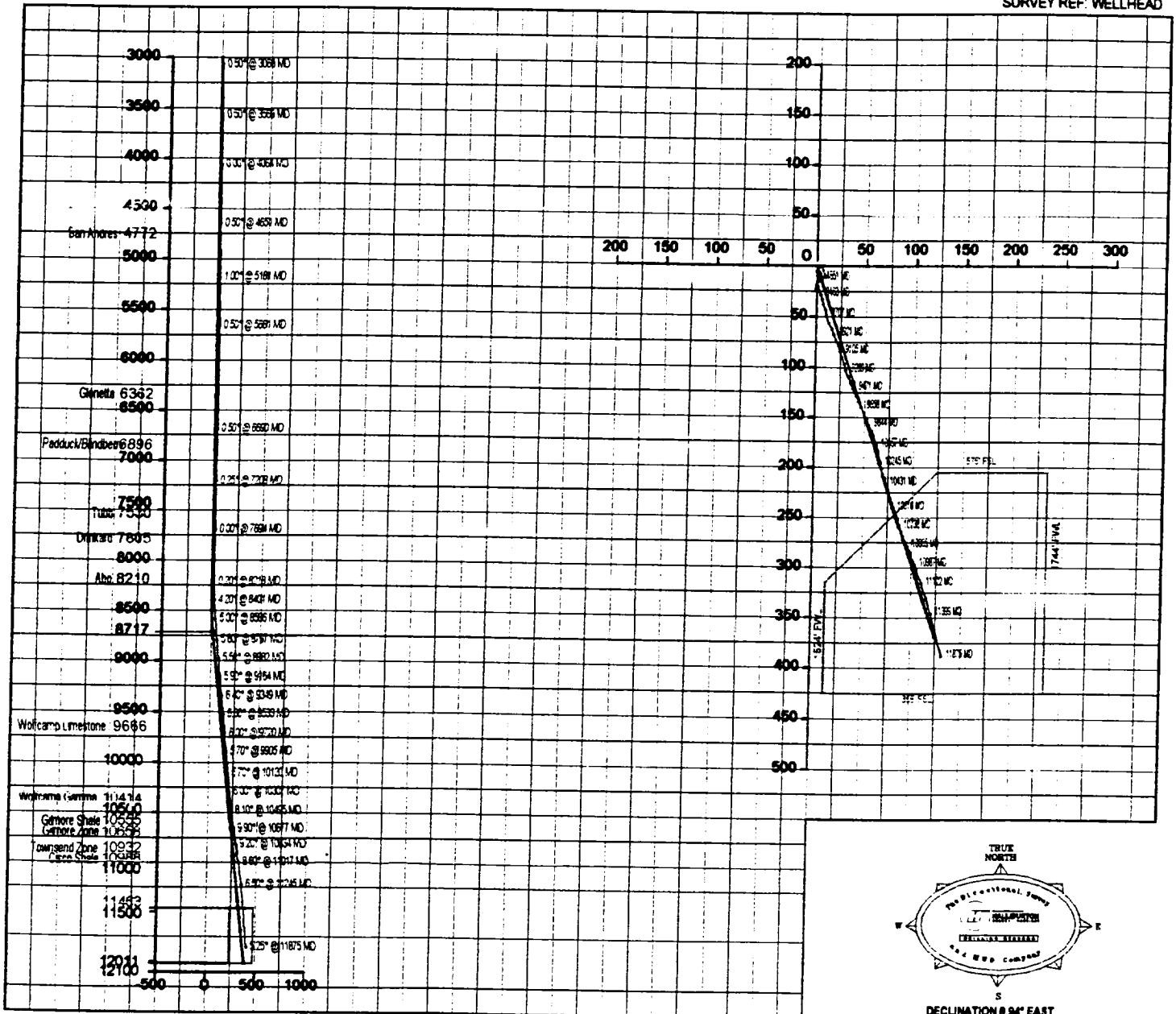
SHL: 780' FSL, 1510' FWL

TD 392' FSL, 1641' FWL, 11852' TVD



VERTICAL VIEW
SCALE 500 ft. / DIVISION

HORIZONTAL VIEW
SCALE 50 ft. / DIVISION
SURVEY REF. WELLHEAD



VERTICAL SECTION PLANE: S 18.57 E

