

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas



Well Operator's Report of Well Work

Farm name: HENZMAN, HAROLD

Operator Well No.: P&M/HAUGHT #1

LOCATION: Elevation: 875.00' Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE
Latitude: 13,650 Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude 8,590 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: EASTERN AMERICAN ENERGY C
P. O. BOX N
GLENVILLE, WV 26351-0000

Agent: DONALD C. SUPCOE

Inspector: CARLOS W. HIVELY
Permit Issued: 12/03/90
Well work Commenced: 05/14/91
Well work Completed: 05/20/91
Verbal Plugging
Permission granted on: Rig
Rotary Cable
Total Depth (feet) 5050'
Fresh water depths (ft) 5', 30', 205'

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N
Coal Depths (ft): None

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	94'	94'	C.T.S.
8-5/8"	1027.60'	1027.60'	C.T.S.
4-1/2"		4995.80'	340

OPEN FLOW DATA

Riley, Balltown (Commingled)

Producing formation Alexander, Benson/3rd Riley, Pay zone depth (ft) 4857'-3498'
Gas: Initial open flow 671 MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 636 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 15 Hours
Static rock Pressure 1150 psig (surface pressure) after 24 Hours

Second producing formation

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED, GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EASTERN AMERICAN ENERGY CORP.

BY: Ronald L. Rech, Regional Drilling Manager
Date: July 16, 1991

AUG 12 1991

DETAILS OF PERFORMED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

4-STAGE FOAM FRAC

- Stage 1: Alexander - 15 holes (4857'-4797.5') 70 Quality foam, 20 lbs Gel/1000 gals, 50,000 lbs 20/40 sand, 500 gals 15% HCl acid, 478,000 scf of N₂
- Stage 2: Benson/3rd Riley - 13 holes (4546'-4466.5') 70 Quality foam, 20 lbs Gel/1000 gals, 50,000 lbs 20/40 sand, 500 gals 15% HCl acid, 528,100 scf of N₂
- Stage 3: Riley - 14 holes (4156'-4130') 70 Quality foam, 20 lbs Gel/1000 gals, 30,000 lbs 20/40 sand, 500 gals 15% HCl acid, 530,000 scf of N₂
- Stage 4: Balltown - 13 holes (3519'-3498.5') 70 Quality foam, 20 lbs Gel/1000 gals, 20,000 lbs 20/40 sand, 500 gals 15% HCl acid, 480,000 scf of N₂

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Top Soil			0	5	Including indication of all fresh and salt water, coal, oil and gas
Shale			5	15	
Shale and Sand			15	30	1-1/2" Water @ 5'
Shale and Red Rock			30	40	1-1/2" Water @ 30'
Shale			40	65	2" Water @ 205'
Sand			65	143	GAS CHECKS: 1394' - No show 1549' - 22/10 thru 1/2" p w/water 1671' - 30/10 thru 1" p w/water 1797' - 12/10 thru 1" p w/water 2013' - 08/10 thru 1" p w/water 2291' - 6/10 thru 1" p w/water 2508' - 4/10 thru 1" p w/water 2878' - 6/10 thru 1/2" w/water 3465' - 2/10 thru 1/2" p w/water 4017' - No show 4263' - No show 4509' - 40/10 thru 1/2" w/water 4693' - 22/10 thru 1/2" w/water T.D. - 26/10 thru 1/2" w/water D.C. - 16/10 thru 1/2" p w/water
Shale and Sand			143	159	
Shale and Red Rock			159	166	
Sand			166	177	
Shale and Red Rock			177	190	
Sand			190	195	
Shale and Red Rock			195	200	
Sand			200	205	
Sand and Shale			205	210	
Sand			210	253	
Sand and Shale			253	262	
Red Rock			262	280	
Sand and Shale			280	350	
Sand			350	361	
Red Rock			361	363	
Sand and Shale			363	395	
Shale and Red Rock			395	410	
Sand			410	473	
Sand and Shale			473	500	
Sand			500	515	
Red Rock			515	533	
Sand and Shale			533	598	
Red Rock			598	619	
Sand			619	630	
Red Rock			630	675	
Red Rock and Shale			675	720	
Sand			720	758	
Sand and Shale			758	889	
Sand			889	905	
Sand and Lime			905	909	
Sand			909	1006	
Sand and Shale			1006	1126	
Sand			1126	1144	

(Continued)

(Attach separate sheets as necessary)

DETAILS OF PERFORMED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

P&M/HAUGHT #1. (Cont.inued)

API NO. 47-017-3873

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all. fresh and salt water, coal, oil and gas
Sand and Shale			1144	1231	
Sand			1231	1340	
Sand and Lime			1340	1367	
Sand and Shale			1367	1415	
Sand			1415	1563	
Little Lime			1563	1592	
Sand and Shale			1592	1604	
Big Lime			1604	1668	
Big Injun			1668	1740	
Sand and Shale			1740	1892	
Weir			1892	2016	
Sand and Shale			2016	2067	
Sand			2067	2078	
Sand and Shale			2078	2291	
Sand			2291	2299	
Sand and Shale			2299	2946	
Warren			2946	3002	
Lt. Brown Sand & Shale			3002	3040	
Sand and Shale			3040	3230	
Sand			3230	3295	
Sand and Shale			3295	4107	
Riley			4107	4176	
Sand and Shale			4176	4459	
3rd Riley			4459	4488	
Sand and Shale			4488	4541	
Benson			4541	4588	
Sand and Shale			4588	4795	
Alexander			4795	4884	
Sand and Shale			4884	5050 T.D.	

AUG 12 1991

11643

(Attach separate sheets as necessary)

017-3873
Issued 1/4/91
Expires 1/4/93
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STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Eastern American Energy Corporation 14980 (7) 525
- 2) Operator's Well Number: P&M/Haught #1 - WVDOD002201 3) Elevation: 875'
- 4) Well type: (a) Oil or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow
- 5) Proposed Target Formation(s): Alexander ⁴³⁹
- 6) Proposed Total Depth: 5020 feet
- 7) Approximate fresh water strata depths: 49', 401'
- 8) Approximate salt water depths: None
- 9) Approximate coal seam depths: None
- 10) Does land contain coal seams tributary to active mine? Yes / No
- 11) Proposed Well Work: Drill and complete new well.
- 12)

RECEIVED
DEC 07 1990
DEPT. OF ENERGY

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)	
Conductor	11"	F-25	37.5	80'	---80'		
Fresh Water	8-5/8"	J-55	20.0	1000'	1000'		C.T.S. 38CSR18-11.3 38CSR18-11.2.2
Coal							
Intermediate							
Production	4-1/2"	J-55	10.5	4980'	4980'		38CSR18-11.1
Tubing	1-1/2"	H-40	2.75				
Liners							

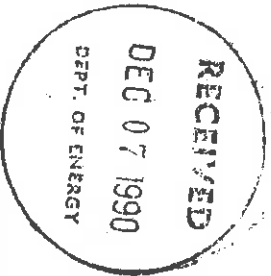
PACKERS : Kind _____
Sizes _____
Depths set _____

11/25/90

FOR Division of Oil and GAS Use Only

Fee(s) paid Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond Security Deposit (Type) Agent



1) Date: November 27, 1990
2) Operator's well number
P&M/Haught #1 - WVDDDD002201
3) API Well No: 47 - 017 - 3873
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Harold Hinzman Name None 5) (a) Coal Operator:
Address Rt. 1, Box 184-A Address None
West Union, WV 26456
(b) Name _____ (b) Coal Owner(s) with Declaration
Address None
(c) Name _____ Name _____
Address _____ Address _____
6) Inspector Mike Underwood (c) Coal Lessee with Declaration
Address Rt. 2, Box 135 Name None
Salem, WV 26426 Address _____
Telephone (304) - 782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 8 on the above named parties, by:
XX Personal service (Affidavit attached)
XX Certified Mail (Postmarked postal receipt attached)
 Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Eastern American Energy Corporation
By: John M. Paletti
Its: Designated Agent John M. Paletti
Address P.O. Box N
Glenville, WV 26351

Telephone (304) 462-5781
Subscribed and sworn before me this 27th day of November, 1990

My commission expires July 2, 1996 John M. Paletti Notary Public