

**CERTIFICATE**

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Minimum degree of accuracy is one part in 200

Signed

*Jameil H. Barlow* 165#280

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY <b>KAISER EXPLORATION &amp; MINING CO.</b>	
ADDRESS <b>P.O. BOX 537 RIPLEY, W.VA.</b>	
FARM <b>EVERETTE SULLIVAN</b>	
MAP _____ ACRES <b>63</b>	LEASE NO. _____
WELL (FARM) NO. <b>1</b>	SERIAL NO. <b>KEM. 11</b>
ELEVATION (SPIRIT LEVEL) <b>748.56'</b>	
QUADRANGLE <b>ELMWOOD, WINFIELD 15'</b>	
COUNTY <b>MASON</b>	DISTRICT <b>UNION</b>
POINT OF PROVEN ELEVATION <b>U.S.G.S. DATUM</b>	
FILE NO. _____	DRAWING NO. _____
DATE <b>FEBRUARY 20, 1979</b>	SCALE <b>1"=500'</b>

WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 #10 McJUNKIN ROAD  
 NITRO, WEST VIRGINIA 25143-2506

*ARL WELLS* 47-053-00179-A  
 partial plug ↑

JUN 22 1980

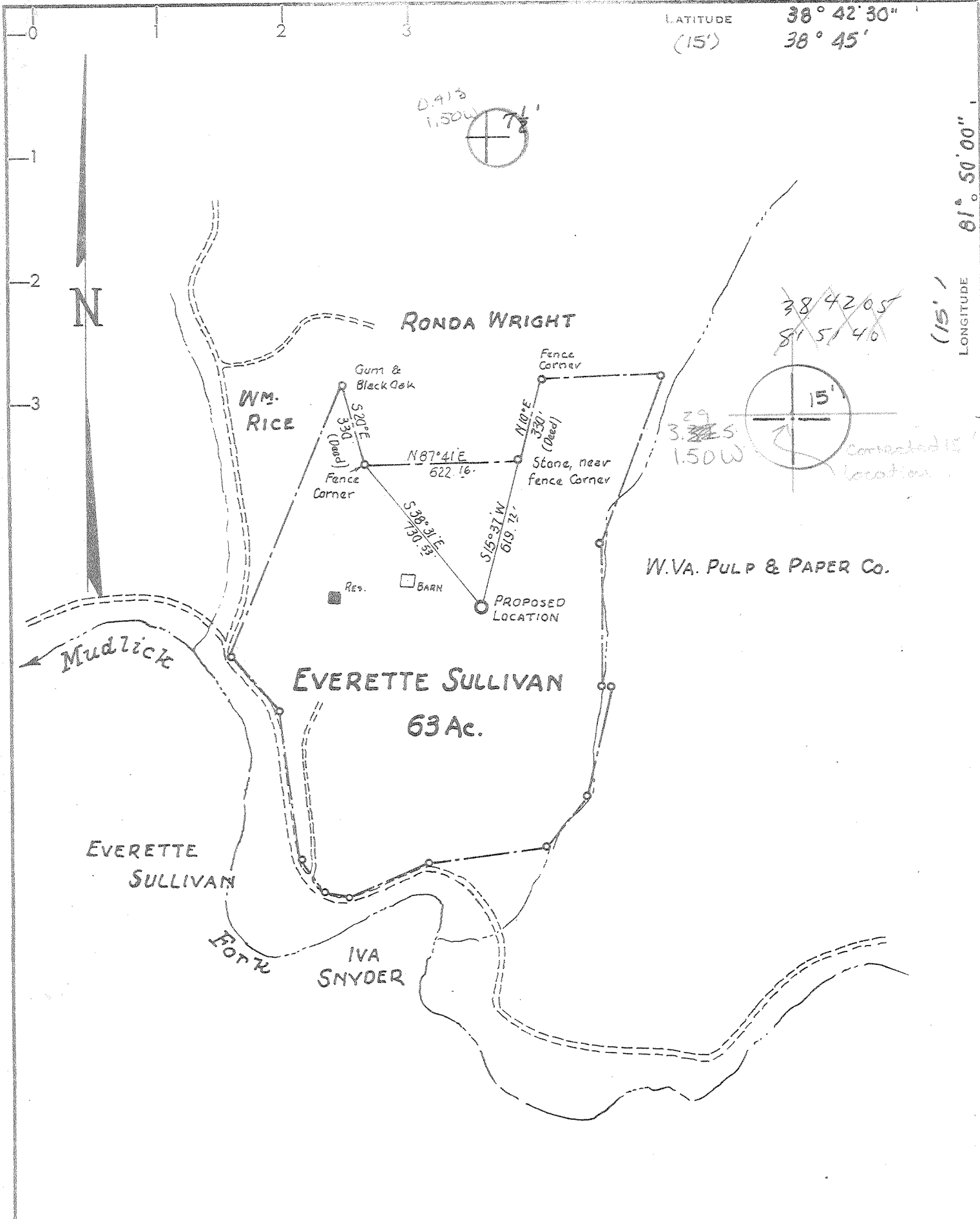
DEEP WELL

11750-1

MASON 0179-A

LATITUDE 38° 42' 30"  
(15') 38° 45'

LONGITUDE 81° 50' 00"  
(15') 81° 51' 46"



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- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING CO.  
 ADDRESS P.O. Box 537 Ripley, W.Va.  
 FARM EVERETTE SULLIVAN  
 MAP \_\_\_\_\_ ACRES 63 LEASE NO. \_\_\_\_\_  
 WELL (FARM) NO. 1 SERIAL NO. KEM. 11  
 ELEVATION (SPIRIT LEVEL) 748.56'  
 QUADRANGLE ELMWOOD, WINFIELD 15' NC  
 COUNTY MASON DISTRICT UNION  
 POINT OF PROVEN ELEVATION U.S.G.S. DATUM  
 FILE NO. \_\_\_\_\_ DRAWING NO. \_\_\_\_\_  
 DATE FEBRUARY 20, 1979 SCALE 1"=500'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. 47-053-0179

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 62,500. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

- DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING. MAR 21 1979

Deep Well 5-5 Rock Castle (346)



RECEIVED

FEB 20 1980

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
Oil and Gas Division DEPT. OF MINES

WELL RECORD 34

Rotary X Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas X  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Quadrangle Elmwood

Permit No. 47-053-0179

Company <u>Kaiser Exploration and Mining Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 8, Ravenswood, WV 26164</u>				
Farm <u>Everette E. Sullivan</u> Acres <u>63</u>	Size			
Location (waters) <u>Mud Lick</u>	20-16			
Well No. <u>KEM 11</u> Elev. <u>748.56</u>	Cond.			
District <u>Union</u> County <u>Mason</u>	13-10" 10 3/4"	255' (KB)	Same	125 sx class A (To surface) (Halliburton)
The surface of tract is owned in fee by <u>Everette E. Sullivan</u>	9 5/8			
Address <u>114 Garnett Drive, Dunbar, WV 25064</u>	8 5/8			65 sx pozmix
Mineral rights are owned by <u>Same</u>	7	2483' (KB)	Same	100 sx class A (Halliburton)
Address <u>Same</u>	5 1/2			
Drilling Commenced <u>8/18/79</u>	4 1/2	4700' (KB)	Same	225 sx pozmix (Halliburton)
Drilling Completed <u>8/27/79</u>	3			
Initial open flow <u>25,000</u> cu. ft. <u>--</u> bbls.	2		4630'	(KB)
Final production <u>400 M</u> cu. ft. per day <u>--</u> bbls.	Liners Used			
Well open <u>N/A</u> hrs. before test <u>1790</u> RP.				

Well treatment details:

Attach copy of cementing record.

Perforated the Oriskany S.S. from 4632' - 4638' (K.B.), 4 holes/ft (8/31/79);  
Aircowell and Halliburton fractured zone w/30,000# 80/100 mesh sand, 30,000#  
20/40 mesh sand, 500 gal 28% HCL, 873 BBL water, and 176,000SCF nitrogen.

400MCF

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Oriskany Depth 4632-38

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	11		TOPS PROBABLY FROM KB 762'
Shale			11	103		
Red Rock			103	229		
Sand & Shale			319	449		
Siltstone			449	576		
Shale			576	759		
Siltstone			759	778		
Shale			778	801		
Siltstone			801	852		
Sand			852	860		
Shale			860	870		
Sand			870	898		
Shale			898	923		
Siltstone & Sand			923	964		
Sand			964	1032		
Siltstone			1032	1071		
Shale			1071	1133		
Sand			1133	1137		
Shale			1137	1154		
Siltstone & Shale			1154	1291		
Sand			1291	1294		
Shale			1294	1453		
Siltstone			1453	1534		

(over)

\* Indicates Electric Log tops in the remarks section.

MAR 10 1980

Formation	Color	Hard or Soft	Top Feet <sup>34</sup>	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			1534	1557		
Siltstone			1557	1593		
Shale			1593	1630		
Sand & Siltstone			1630	1808		
Maxton Sand			1808	1906		
Shale			1906	1940		
Big Lime			1940	2078		
Shale			2078	2098		
Big Injun			2098	2268		
Shale			2268	2377		
Coffee Shale			2377	2393		
Berea <i>GR log from 702 KB</i>			2393	2403		
Shale			2403	3574		
Brown Shale			3574	4009		
Shale			4009	4338		
Marcellus <i>Rh</i>			4338	4538		
Onondaga			4538	4622		
Oriskany			4622	4650		
Helderberg			4650	4719		
T.D.			4719			

*GR log from 702 KB*

- Q 2581*
- J 4586*
- A 4139*
- 2 2341*
- 0 2238*

*GR log of 702 KB*

*Big Lime 1804-1906*  
*Shale 1906-1940*  
*Big Injun 1940-7*

Date February 20 1980

APPROVED Kaiser Exploration and Mining Company

By *[Signature]*  
 Operations Manager



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

FEB 23 1979

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE February 19, 1979

Surface Owner Everette E. Sullivan  
Address 114 Garnett Drive, Dunbar, WV 25064  
Mineral Owner Same as above  
Address Same as above  
Coal Owner Same as above  
Address Same as above  
Coal Operator None  
Address None

Company Kaiser Exploration and Mining Company  
Address P. O. Box 537, Ripley, WV 25271  
Farm Everette E. Sullivan Acres 63  
Location (waters) Mud Lick  
Well No. KEM #11 Elevation 748.56  
District Union County Mason  
Quadrangle Elmwood

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 10-27-79.

INSPECTOR TO BE NOTIFIED Kenneth Butcher  
ADDRESS RFD #1, Barboursville, WV 25504  
PHONE 736-4885

Robert R. [Signature]  
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated August 18 19 78 by Everette E. Sullivan made to Kaiser Exploration & Mining Co and recorded on the 1st day of August 19 78 in Mason County, Book 43 Page 585

XXX NEW WELL                      DRILL DEEPER                      REDRILL                      FRACTURE OR STIMULATE  
                     OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address                      day                      before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

Very truly yours,  
(Sign Name) R. A. Pryor  
R. A. Pryor, Operator Operations Manager  
P. O. Box 537  
Ripley  
West Virginia 25271

W. VA. OIL & GAS CONSERVATION COMMISSION  
1613 WASHINGTON STREET, EAST  
CHARLESTON, WEST VIRGINIA 25311

Address of all Operator

\*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND



WR-35  
**RECEIVED**  
 Office of Oil and Gas  
 FEB 22 1999  
 WV Division of  
 Environmental Protection

17-Jun-98  
 API # 47- 53-00179 W

State of West Virginia  
 Division of Environmental Protection Reviewed RB  
 Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name: SULLIVAN, EVERETT Operator Well No.: KEM 11-SULLIVAN

LOCATION: Elevation: 748.00 Quadrangle: ELMWOOD

District: UNION County: MASON  
 Latitude: 2310 Feet South of 38 Deg. 42Min. 30 Sec.  
 Longitude 7880 Feet West of 81 Deg. 50 Min. 0 Sec.

Company: PEAKE ENERGY, INC.  
 P. O. BOX 8  
 RAVENSWOOD, WV 26164-0008

Agent: THOMAS S. LIBERATORE

Inspector: DAVE BELCHER  
 Permit Issued: 06/17/98  
 Well work Commenced: W: (9/01/98)  
 Well work Completed: W: (9/01/98)  
 Verbal Plugging  
 Permission granted on: \_\_\_\_\_  
 Rotary Cable Rig  
 Total Depth (feet) UNCHG'D @ 4719'  
 Fresh water depths (ft) \_\_\_\_\_  
 UNCHANGED  
 Salt water depths (ft) \_\_\_\_\_  
 UNCHANGED  
 Is coal being mined in area (Y/N)? \_\_\_\_\_  
 Coal Depths (ft): UNCHANGED

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size AS EXISTING - UNCHANGED			
10 3/4"	255'	255'	125 SKS CLASS A
7"	2,483'	2,483'	656 SKS POZ 100 SKS CL A
4 1/2"	4,700'	4,700'	225 SKS POZ

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) Unchg'd  
 Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 400 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests N/A Hours  
 Static rock Pressure 1000 psig (surface pressure) after 24 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
 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: PEAKE ENERGY, INC.

By: Thomas S. Liberatore  
 Date: 2-19-99

MAR 2 1999

MAS 0179W

WR-35  
(Reverse)

January 25, 1999

API/Permit #: 470530179  
'Peake' Well #: KEM 11  
Elevation: 748.

DETAILS OF PERFORATING, FRACTURING, OR PHYSICAL CHANGE, ETC.

9/1/98  
Nitrogen Frac - Shale  
Total N2 of 1,000,000 was based on Time due to the fact  
the N2 flowmeter was not working  
Perforated in 500 gallon of 15% H.C.L. acid  
Pump into @ 40,000 SCF/min  
With cumulative total of N2 pumped away @ 900,000,  
started pumping another 250 gallon of 15% H.C.L. Acid  
Pump acid 2 BBL/Min: 4 Perf Balls per BBL w/ acid  
Total: 24 Perf Balls  
SHALE-Single: 3572, 3575, 3582, 3620, 3623, 3700, 3705,  
3813, 3834, 3840, 3862, 3910, 3917, 3932, 3936, 3970,  
3976, 3998, 4002, 4005. Double: 3579, 3702, 3816, 3828,  
3836, 3859, 3893, 3898, 3934, 3972  
3.50 BRIDGE PLUG @ 4050'

BHTP SCF/BBL Breakdown 1,858 ISIP. 1,550  
Max Pressure 2,193 Avg Pressure 2,047 N2 PAD Rate  
Total N2 1,000,000 Total Sand Total Fluid/BBL  
Foam % V.Q. % Fluid Type Gel Gel Concentration 15# per 1000 g

WELL LOG

ROCK TYPE OR FORMATION NAME	TOP	BOTTOM	REMARKS
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N/A