

9950'

LATITUDE 38° 12' 30"

LONGITUDE 91° 20' 30"

REFERENCE POINTS

PROPOSED LOCATION TO:

- 8" IRONWOOD = N 59° 15' E - 51.2'
- 16" SYCAMORE = N 3° 59' W - 210.52'

PENN VIRGINIA COAL COMPANY

K-5365

PROPOSED LOCATION

K-4730 10  
K-4629 5  
K-4630 6  
K-5272  
SET STONE FOUND  
CALL, SET STONE 1164.30  
N 77° 47' E 7399.90  
K-5367  
K-5368  
S 80° 30' E

NORTH

K-4639  
K-4567 11  
K-4725 53  
K-4635 12  
K-5185  
K-5186  
K-5183  
S 44° 47' W 15117.56  
PROPERTY LINE WITH CREEK

PENN VIRGINIA COAL COMPANY

TOPO LOCATION K-5182

Bradley

Fork

Creek

CARBON FUEL COORDINATES  
N. 55,539.43  
E. 47,165.04

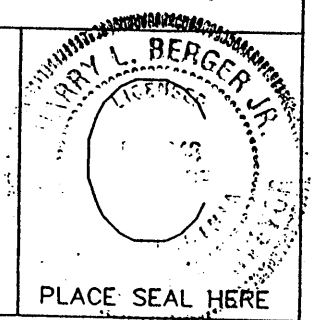
LEASE LINES  
PENN VIRGINIA COAL COMPANY  
3600 AC.  
SET STONE FOUND  
N 13° 20' E  
K-5179  
K-5173  
K-5177  
K-5180  
K-5253  
K-5174  
K-5178  
K-4653 13  
K-5184  
K-5252  
Blk 780

NOTE

ALL EXISTING GAS WELLS LOCATED WITHIN 2500' OF THE PROPOSED LOCATION ARE SHOWN HEREON.

FILE NO. CARBON BOND TRACT  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 2000'  
MINIMUM DEGREE OF ACCURACY 1 : 2500  
PROVEN SOURCE OF ELEVATION G.P.S. DATA POINTS

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.  
(SIGNED) Harry J. Berger Jr  
R.P.E. \_\_\_\_\_ L.L.S. 248/



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION



DATE MAY 16, 2002  
OPERATOR'S WELL NO. C.F. 32  
API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION \_\_\_ STORAGE X DEEP \_\_\_ SHALLOW X  
STATE COUNTY PERMIT 47 - 39 - 05540

LOCATION: ELEVATION 639' WATERSHED SLAUGHTERS CREEK OF THE KANAWHA RIVER  
DISTRICT CABIN CREEK COUNTY KANAWHA

QUADRANGLE Cedar Grove  
SURFACE OWNER PENN VIRGINIA COAL COMPANY ACREAGE 3600  
OIL & GAS ROYALTY OWNER PENN VIRGINIA COAL COMPANY LEASE ACREAGE 3600  
LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
TARGET FORMATION Berea ESTIMATED DEPTH 2600'  
WELL OPERATOR NORTHSTAR ENERGY COPORATION DESIGNATED AGENT W. THOMAS WHITE  
ADDRESS 1 MEADOW ROAD DUNBAR WV 25064 ADDRESS 1 MEADOW ROAD DUNBAR WV 25064

COUNTY NAME KAN  
PERMIT 5540

NOV 27 2002

241 Slaughter Creek 6-6

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas
Well Operator's Report of Well Work

Handwritten initials: ALB

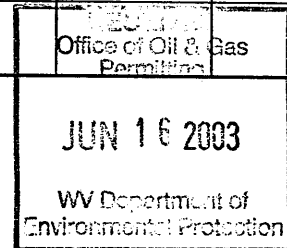
Farm Name: Carbon Fuel
Location: Elevation: 639'
District: Cabin Creek
Latitude: 9,120' Feet South of
Longitude: 9,950' Feet West of

Operator Well No. CF #32
Quadrangle: Cedar Grove
County: Kanawha
38 Degrees 12 Minutes 30 Seconds
81 Degrees 27 Minutes 30 Seconds

Company: Northstar Energy Corporation
1018 Kan. Blvd. E., Suite 309
Charleston, WV 25301

Agent: W. Thomas White
Inspector: Carlos Hively
Permit Issued: 11-25-02
Well work Commenced: 12-8-02
Well work Completed: 12-16-02
Verbal Plugging Permission granted on: N/A
Rotary x Cable Tool Rig
Total Depth (feet): LTD- 2244' DTD-2242'
Fresh water depths (ft): 90', 325'
Salt water depths (ft):
Is coal being mined in area: no
Coal Depths: none recorded

Table with 4 columns: Casing & Tubing Size, Used in Drilling, Left in well, Cement Fill Up Cu. Ft.
Rows: 13 3/8" (40' used, 40' left, 0 cement), 9 5/8" (265.20' used, 265.20' left, 118 cement), 7" (1415.90' used, 1415.90' left, 284 cement), 4 1/2" (- used, 2220.30' left, 147 cement)



OPEN FLOW DATA:

Producing formation(s): Big Lime, Big Injun, Weir, Berea Pay zone depth (ft) See back
Gas: Initial open flow smell MCF/D Oil: Initial open flow Bbl/d
Final open flow 323 MCF/D Final open flow Bbl/d
Time of open flow between initial and final tests: 168 Hours
Static rock Pressure 465 psig (surface pressure) after 168 Hours

Second producing formation(s): Pay zone depth (ft) See back
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: Northstar Energy Corporation
BY: W. Thomas White
DATE: 6-12-03

AUG 01 2003

KAN 5540

**12-18-2003**

MIRU Fisher Well Surveys, run GR/CTL/CCL. Logger's TD - 2223'. Calc TOC - 1003', Actual TOC - 1110'. Marker joint at 1419-1429'. Perforate Berea.

**12-19-2003**

MIRU DS Schlumberger Oilfield Services to conduct 5-stage completion. Top pressure set at 4000 psi. 250 gals. 15% HCl in hole. Break on fluid.

**1<sup>st</sup> Stage - Berea (2122-2126', 12 holes) 75 Quality Foam Frac**

6 Bbls. (250 gals) 15% HCl, 25,570 lbs. 20/40 sand, 1-4 ppg, 114 Bbls. Twtr, 114 Mscf, N<sub>2</sub> flush  
BKDN - 1099 psi, ATP - 1865 psi, AIR - 23.6 BPM, ISIP - 1934 psi, 3 Min SI - 1790 psi

Perforate Lower Weir. 3 3/8" baffle at 1958'. Dropped frac ball in 9 Bbls. (375 gals.) 15% HCl, followed by N<sub>2</sub> breakdown.

Shutdown after Lower Weir breakdown to perforate Upper Weir.

**2<sup>nd</sup> Stage - Lower Weir (1870-1894', 14 holes) 75 Quality Foam Frac**

9 Bbls. (375 gals) 15% HCl, 45,267 lbs. 20/40 sand, 1-4 ppg, 196 Bbls. Twtr, 311 Mscf, N<sub>2</sub> flush  
BKDN - 3072 psi, ATP - 2718 psi, AIR - 20.3 BPM, ISIP - 2556 psi

Dropped 20 perf balls in 6 Bbls. HCl to breakdown Upper Weir.

**3<sup>rd</sup> Stage - Upper Weir (1776-1790', 10 holes) 75 Quality Foam Frac**

9 Bbls. (375 gals) 15% HCl, 22,051 lbs. 20/40 sand, 1-4 ppg, 109 Bbls. Twtr, 119 Mscf, N<sub>2</sub> flush  
BKDN - 2184 psi, ATP - 2036 psi, AIR - 20.6 BPM, ISIP - 2219 psi, 3 Min SI - 2092 psi

Perforate Big Injun. 3 9/16" frac baffle at 1737'. Dropped frac ball in 6 Bbls. (250 gals.) 15% HCl, followed by N<sub>2</sub> breakdown.

**4<sup>th</sup> Stage - Big Injun (1692-1698', 14 holes) 75 Quality Foam Frac**

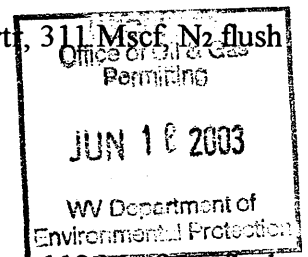
6 Bbls. (250 gals) 15% HCl, 18,093 lbs. 20/40 sand, 1-4 ppg, 73 Bbls. Twtr, 129 Mscf, N<sub>2</sub> flush  
BKDN - 2765 psi, ATP - 2765 psi, AIR - 20.3 BPM

Dropped 20 perf balls to ball out Big Injun, followed by acid for treatment in the Big Lime.

**5<sup>th</sup> Stage, Big Lime (1518-1652', 10 holes) N<sub>2</sub> Energized Acid Frac**

45 Bbls. (1875 gals) 15% HCl, 26 Bbls. Twtr, 39 Mscf, N<sub>2</sub> fluid flush  
BKDN - 2577 psi, ATP - 2260 psi, AIR - 3 BPM, ISIP - 1986 psi, 3 Min SI - 1891 psi

RDMO DS Schlumberger and Fisher Well Surveys. RU flowback and open well on 1/4" choke.

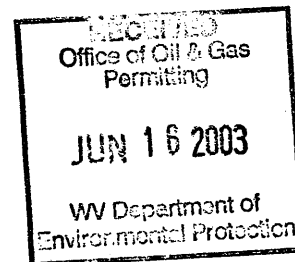


*Formation Depths taken from Gamma Ray Log*

Sub Base	0	-	10'	
Sand & Shale	10	-	85'	
Sand	85	-	120'	Wet at 90'
Sand & Shale	120	-	172'	
Sand	172	-	211'	
Shale	211	-	250'	
Sand	250	-	330'	Hit water at 325'
Shale	330	-	365'	
Sand	365	-	392'	
Shale	392	-	456'	
Salt Sand	456	-	943'	Pit full at 712', drill rest of 8 3/4" hole on mud pump
Sand & Shale	943	-	1136'	
<b>Maxton</b>	<b>1136</b>	-	<b>1277'</b>	
Sand & Shale	1277	-	1402'	
<b>Little Lime</b>	<b>1402</b>	-	<b>1440'</b>	
Sand & Shale	1440	-	1469'	
<b>Big Lime</b>	<b>1469</b>	-	<b>1678'</b>	
<b>Big Injun</b>	<b>1678</b>	-	<b>1700'</b>	Gas check at 1689'- no show
Silt & Shale	1700	-	1772'	
<b>Weir</b>	<b>1772</b>	-	<b>1902'</b>	
Shale	1902	-	2106'	Gas check at 1912'- 60 Mcf/d
<b>Sunbury</b>	<b>2106</b>	-	<b>2117'</b>	
<b>Berea</b>	<b>2117</b>	-	<b>2129'</b>	
Shale	2129	-		Gas check at 2132'- smell

**Total Depth****2244'**

Well logged by Allegheny Wireline Services, Inc.



AUG 01 2003

KAN 5540