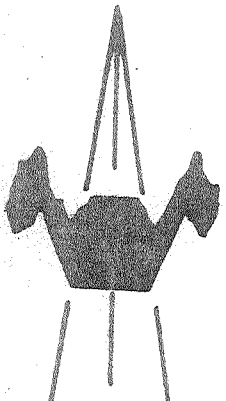
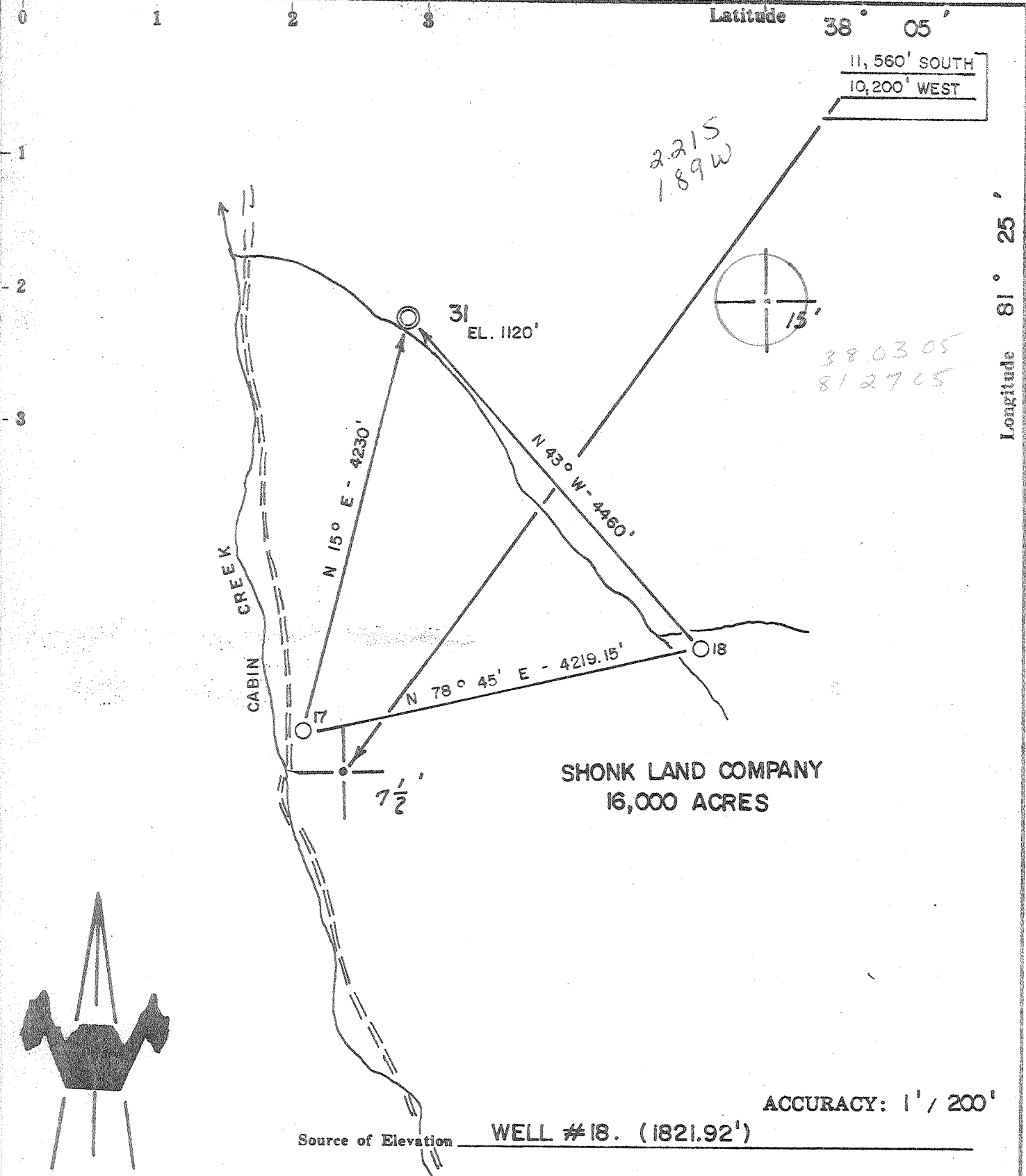


10/4/77



ACCURACY: 1' / 200'

Source of Elevation WELL #18. (1821.92')

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.

*Chet Waterman*

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

Company APPALACHIAN EXPL. & DEV., INC.  
 Address CHARLESTON, WV  
 Farm SHONK LAND COMPANY  
 Tract \_\_\_\_\_ Acres 16,000 Lease No. \_\_\_\_\_  
 Well (Farm) No. 31 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1120' *SW*  
 Quadrangle EKSDALE (7.5' SERIES), MONTGOMERY 15'  
 County KANAWHA District CABIN CREEK  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 77003-370 Drawing No. \_\_\_\_\_  
 Date 9/14/77 Scale 1" = 1320'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. KAN-2796

Denotes location of well on United States Topographic Maps, scale 1 to ~~24,000~~ <sup>62,500</sup> latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

OCT 21 1977  
 47-039

64 PC. Newburn 5-5 Burnwell (262) Deep Well



RECEIVED

JAN 25 1978

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Eskdale (7.5' Series)

Permit No. Kan-2796

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

Company Appalachian Exploration & Dev. Inc.  
Address P.O. Box 628, Charleston, W. Va. 25322

Farm Shonk Land Co. Acres 16.000

Location (waters) Cabin Creek

Well No. 31 Elev. 1120'

District Cabin Creek County Kanawha

The surface of tract is owned in fee by Shonk

Land Co.

Attn: Mr. J.S. Stevens

Address Box 969, Charleston, W. Va. 25324

Mineral rights are owned by Same as above

Address Same as above

Drilling Commenced 10/12/77

Drilling Completed 10/31/77

Initial open flow \_\_\_\_\_ cu. ft. \_\_\_\_\_ bbls.

Final production 219 M cu. ft. per day \_\_\_\_\_ bbls.

Well open 4 hrs. before test 285# RP.

Well treatment details:

Attach copy of cementing record.

Perforated Big Lime 2270-2271' (4 holes); 2267-2268' (4 holes); 2198-2206' (4 holes); 2226-2240' (7 holes). Break down pressure 1300#. Treated at 12 BPM at average treating pressure 1650#. Flushed with 144 bbls. gelled water. Dropped 5 ball sealers after pumping 84 bbls. of acid and water. ISIP 400#: 15 min., 50#.

Coal was encountered at None logged Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water 50 Feet \_\_\_\_\_ Salt Water 1070 Feet \_\_\_\_\_  
Producing Sand Big Lime Depth 2270-2271'; 2267-2268'; 2198-2206'; 2226-2240'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			0	142		
Shale			142	350		
Sand			350	456		
Shale			456	695		
Sand			695	828		
Shale			828	870		
Salt Sand			870	1091		
Shale			1091	1108		
Salt Sand			1108	1218		
Shale			1218	1392		
Shaley Sand			1392	1560		
Sand			1560	1582		
Shale			1582	1706		
Sandy Shale			1706	1864		
Maxton			1864	1938		
Little Lime			1938	1982	*	
Lime and Shale			1982	2024		
Big Lime			2024	2308	*	
Sand			2308	2354		
Shale			2354	2785		
Berea			2785	2802	*	
Shale			2802	3017		
Gordon			3017	3028	*	

6660  
2240  
-----  
4420 dry

(over)

\* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			3028	4370		
Brown Shale			4370	4700		
Shale			4700	5260		
Brown Shale			5260	5806		
Onondoga			5806	5910	*	
Oriskany			5910	5926	*	
Helderberg			5926	6112		
Dolomite and Anhydrite			6112	6394		
Dolomite			6394	6574		
Newburg			6574	6594	*	
			6594	T.D.	L.T.D. 6657'	D.T.D. 6660'
<u>Cement Record</u>						
<u>Casing</u>			<u>No. of sks.</u>		<u>Type Cement</u>	
16"			20 sks.			
9-5/8"			400 sks.		Pozmix	
			100 sks.		Class A, cement circ.	
4-1/2"			175 sks.		Thixotropic	
						<p>5806 5910 6574</p> <p>1120 1120 1120</p> <hr/> <p>4686 4790 5454</p>

Date January 19, 1978

APPALACHIAN EXPLORATION & DEVELOPMENT, INC.

APPROVED *James R. Cramblitt*

Owner

By Regional Manager, Drilling & Production

(Title)



THIS IS AN ESTIMATE ONLY  
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:  
 NAME Union Drilling Company, Inc. NAME James R. Cramblett  
 ADDRESS Drawer 40, Buckhannon, W.Va. 26201 ADDRESS Box 628, Charleston, W.Va. 25322  
 TELEPHONE -- TELEPHONE 344-8355  
 ESTIMATED DEPTH OF COMPLETED WELL: 6480' ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Newburg  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS X COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - <del>XX</del>	60'	60'	circ.
9 - 5/8	1500'	1500'	circ.
8 - 5/8			
7			
5 1/2			
4 1/2	6480'	6480'	100 sks.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 30 FEET SALT WATER 1070 FEET  
 APPROXIMATE COAL DEPTHS 33'  
 IS COAL BEING MINED IN THE AREA? No. BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title