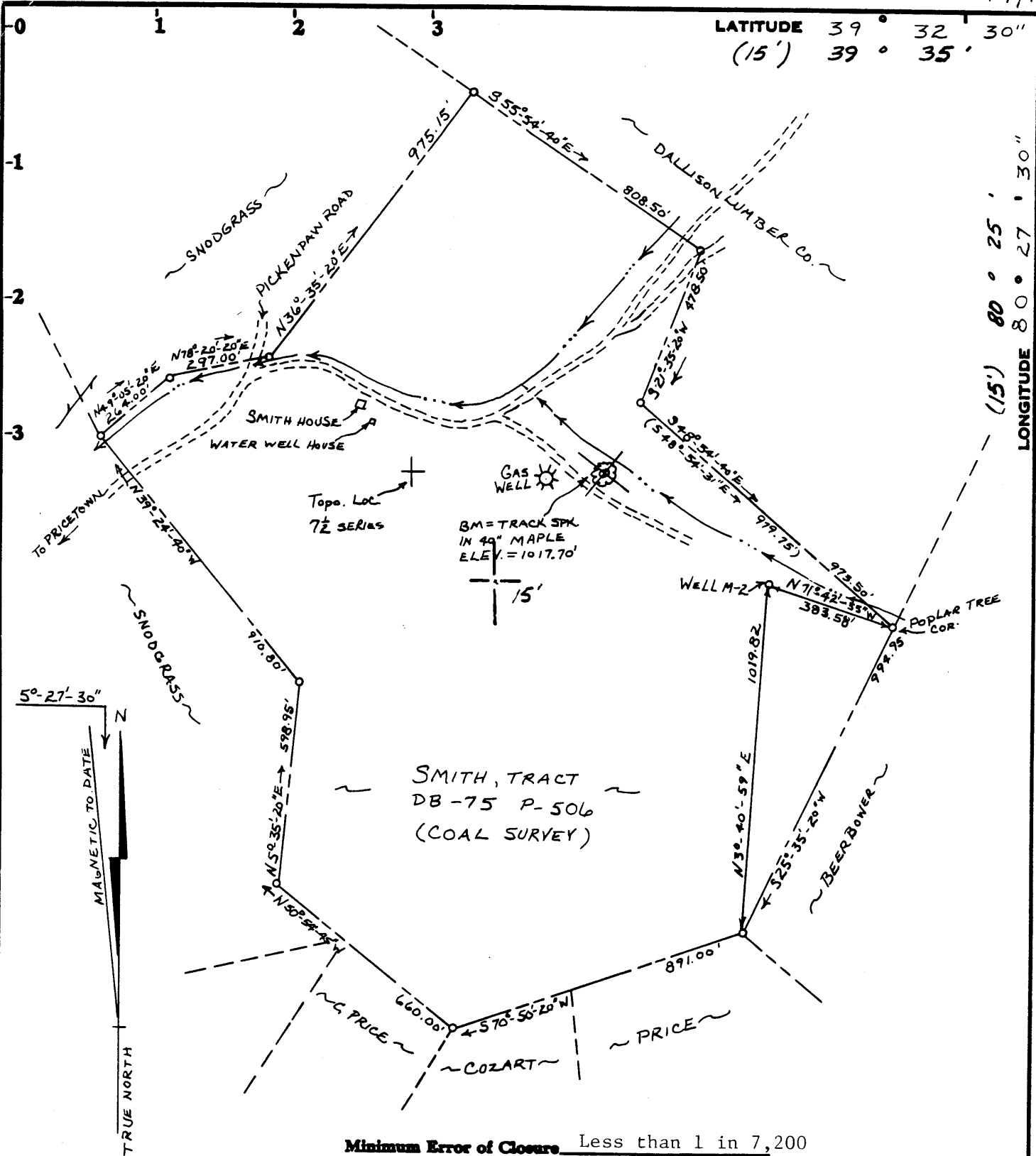


12/4/77



Minimum Error of Closure Less than 1 in 7,200

Source of Elevation USGS BM#165 RHP on Pickenpaw Run Road
Elev. = 980 (979.89)

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

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.

Signed: *C. D. Locke*

Map No.

Squares: N S E W

Company	U.S. Energy Research and Development Administration
Address	P.O. Box 880, Morgantown, WV 26505
Farm	Walter B. Smith
Tract	Acres 15 Lease No.
Well (Farm) No.	M-2 Serial No.
Elevation (Spirit Level)	1051.23' MANNINGTON 15'
Quadrangle	Glover Gap, W.Va. (7.5')
County	Wetzel District Grant
Surveyor	C. D. Locke
Surveyor's Registration No.	6981 O. & G.E.
File No.	Drawing No.
Date	June 28, 1977 Scale 1" = 400'

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

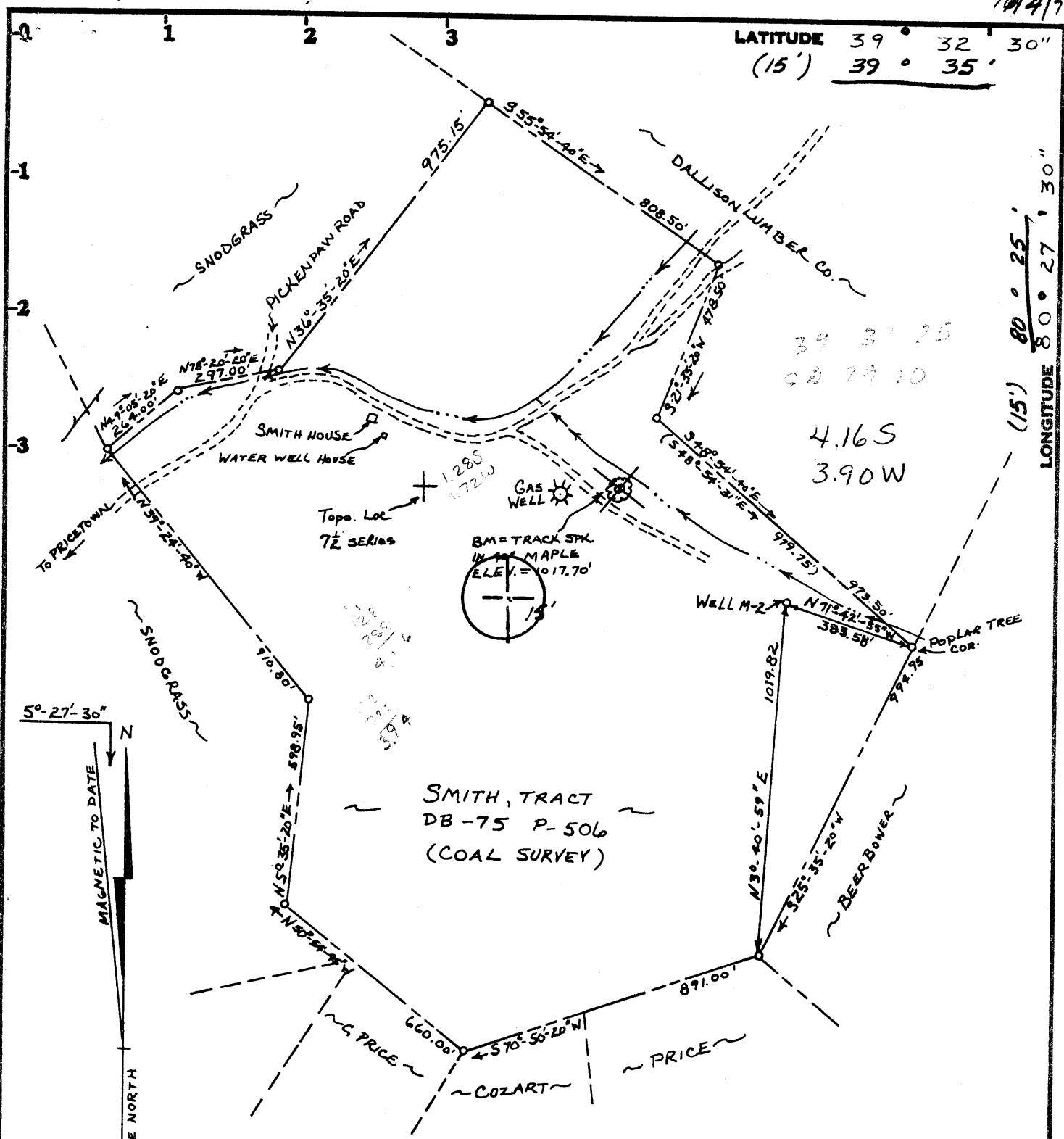
WELL LOCATION MAP
FILE NO. WET-635-P

+ 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.

AUG 28 1977
47-103

10/4/77 R



Minimum Error of Closure Less than 1 in 7,200

Source of Elevation USGS BM#165 RHP on Pickenpaw Run Road
Elev. = 980 (979.89)

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Signed: *C. D. Locke*
Squares: N S E W

Map No. _____

Company U.S. Energy Research and Development Administration

Address P.O. Box 880, Morgantown, WV 26505

Farm Walter B. Smith

Tract _____ Acres 15 Lease No. _____

Well (Farm) No. M-2 Serial No. SW

Elevation (Spirit Level) 1051.23' MANNINGTON 15'

Quadrangle Glover Gap, W.Va. (7.5')

County Wetzel District Grant

Surveyor C. D. Locke

Surveyor's Registration No. 6981 O. & G.E.

File No. _____ Drawing No. _____

Date June 28, 1977 Scale 1" = 400'

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

WELL LOCATION MAP
FILE NO. WET-635

+ 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.

OCT 7 1977

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

47-103



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

Rotary
Spudder
Cable Tools
Storage

Quadrangle GLOVER GAP (7.5')

Permit No. WET - 635

WELL RECORD 1

Oil or Gas Well RESEARCH (KIND)

Company U.S. D.O.F./Morgantown Energy Tech. Cntr.
Address P. O. Box 880, Morgantown, WV 26505
Farm Walter B. Smith Acres 15
Location (waters) Pickenpaw Run
Well No. Smith-ERDA M-2 Elev. 1051.23'
District Grant County Wetzel
The surface of tract is owned in fee by Walter B. Smith
Address Smithfield, WV 26437
Mineral rights are owned by Mr. & Mrs. Rex Smith
Address Smithfield, WV 26437
Drilling commenced Rotary October 13-17, 1977
Drilling completed Cable Tools August 4, 1978
Date Shot From To
With
Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS)
WELL FRACTURED (DETAILS)

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10			Size of
8 5/8"	201'	201'	Depth set
6"			
5 1/2"	893'	893'	
4 1/2"			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom
Attach copy of cementing record. 8-5/8"-201' 10-15-77			
5-1/2"-893' 10-17-77			
CASING CEMENTED	SIZE	No. Ft.	D.
	8-5/8"	105	sacks
	5-1/2"	170	sacks
Name of Service Co. Halliburton			
COAL WAS ENCOUNTERED AT 394 FEET INCH			
471	FEET	INCHES	526 FEET INCH
795	FEET	INCHES	896 FEET INCH

RESULT AFTER TREATMENT (Initial open Flow or bbls.)
ROCK PRESSURE AFTER TREATMENT HOURS
Fresh Water Feet Salt Water Feet
Producing Sand Pittsburgh Coal Seam Depth 896-903

Formation	Color	Hard or Soft	(FT.) Top	(FT.) Bottom	Oil, Gas or Water	Depth	Remarks
UNCONSOLIDATED SEDIMENTS			0	10			
SILTSTONES AND SHALES			10	65			
SANDSTONE			65	73			
SILTSTONES			73	136			
SANDSTONE			136	141			
SHALE			141	146			
SANDSTONE			146	151			
LIME SHALES			151	190			
SANDSTONE			190	201			
SILTSTONE			201	209			
SANDSTONE			209	212			
SHALES AND SILTSTONE			212	354			
SANDSTONE			354	369			
SHALE			369	394			
WASHINGTON COAL			394	398			
LIME SHALE			398	471			
WAYNESBURG A COAL			471	473			
SHALES AND LIMESTONES			473	514			
WAYNESBURG SANDSTONE			514	525			
SHALE			525	526			
WAYNESBURG COAL			526	530			
SILTSTONE AND SHALES			530	605			

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DEPT. OF MINES

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
SANDSTONE			605	610		
SHALE AND LIMESTONE			610	795		
SEWICKLEY COAL			795	797		
LIMESTONE AND SHALE			797	896		
PITTSBURGH COAL			896	903		
SHALE			903	915		

Date AUGUST 30, 19 78

APPROVED U.S. D.O.E./Morgantown Energy Technology Center, Owner

By G. E. Rennick
(Title)

G. E. RENNICK, PETROLEUM ENGINEER



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OCT - 4 1977

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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 September 29, 1977
Company U.S. Energy Research and Development Administration
Address P.O. Box 880, Morgantown, WV 26505
Farm Walter B. Smith Acres 15
Location (waters) Pickenpaw Run
Well No. Smith-ERDA-M-2 Elevation 1051.23'
District Grant County Wetzel
Quadrangle Glover Gap (7.5')

Surface Owner Mr. Walter B. Smith
Address Smithfield, WV 26437
Mineral Owner Mr. & Mrs. Rex Smith
Address Smithfield, WV 26437
Coal Owner Consolidation Coal Company
Address P.O. Box 1632, Fairmont, WV 26554
Coal Operator _____
Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

If 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 2-4-78.

Robert H. ...
Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Phillip Tracy
PH: 758-4573 ADDRESS Middlebourn, W. Va.

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for research purposes title thereto, (or as the case may be) under cooperative agreement dated 14 June 1974 by Consolidation Coal Co. made to The U.S. of America and recorded on the Fourth day of March 19 77, in Wetzel County, Book Miscellaneous #45 Page 173

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:

West Virginia Geological and Economic Survey
P. O. Box 879
Morgantown, W. Va. 26505

Very truly yours,

(Sign Name) L. D. Strickland
Well Operator L. D. Strickland

Address
of
Well Operator

Morgantown Energy Research Center
Street
P.O. Box 880
Morgantown,
City or Town
West Virginia 26505
State

*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.

Wet-635 PERMIT NUMBER
47-103

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

PROPOSED WORK ORDER TO XXX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Paramount Exploration, Inc. NAME L. D. Strickland
 ADDRESS P.O. Box 551 ADDRESS P.O. Box 880
Waynesburg, PA 15370 ADDRESS Morgantown, WV 26505
 TELEPHONE 412/627-6144 TELEPHONE 599-7494
 ESTIMATED DEPTH OF COMPLETED WELL: 915 ft. ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Pittsburgh coal
 TYPE OF WELL: OIL _____ GAS _____ COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____ *

TENTATIVE CASING PROGRAM: *Underground Coal Gasification Research

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	200 ft.	200 ft.	Surface to 200 ft.
7			
5 1/2	897 ft.	897 ft.	Surface to 897 ft.
4 1/2			
3	Well (M-2) will be an instrumentation well.		Perf. Top
2	Drilling will commence soon; however, it will be		Perf. Bottom
Liners	10-12 months before completion.		Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 40 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS 900 ft.
 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 Consolidation 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 Consolidation 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.

Ray M. Henderson
 For Coal Company
Regional Mgr of Engineering
 Official Title

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

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OCT 25 1982

AFFIDAVIT OF PLUGGING AND FILLING WELL

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE. ONE COPY MAILED TO THE DEPARTMENT. ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

Consolidation Coal Company
COAL OPERATOR OR OWNER
 Northern West Virginia Region
 P.O. Box 1314, Morgantown, WV 26505
ADDRESS

COAL OPERATOR OR OWNER
ADDRESS
 Mr. Walter B. Smith

LEASE OR PROPERTY OWNER
ADDRESS
 Smithfield, WV 26437

U.S. Department of Energy
NAME OF WELL OPERATOR
 P.O. Box 880, Morgantown, WV 26505
COMPLETE ADDRESS

September 29 19 82
WELL AND LOCATION

Grant District
 Wetzel County

Well No. Smith-ERDA-M-2

Walter B. Smith Farm

STATE INSPECTOR SUPERVISING PLUGGING Robert A. Lowther

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wetzel } ss:

Chisler Brothers and
being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by U.S. Department of Energy, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 22 day of September, 19 82, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
			SSS PULLED	SSS LEFT IN
FORMATION	This monitor well is filled from the Pittsburgh coal (900') to the surface with cement containing monitor wires and 1/4" s.s. tubing.	SIZE & KING	8 5/8" - 201'	5 1/2" - 893'
	Plugging entailed cutting off the casing 2 feet below the surface and welding a steel plate on top of casing.			
COAL SEAMS		DESCRIPTION OF MONUMENT		
(NAME)		Well location is referenced from		
(NAME)		monument erected on Well M-3		
(NAME)		103-0636-P		
(NAME)				

and that the work of plugging and filling said well was completed on the 22 day of September, 19 82

And further deponents saith not.

Sworn to and subscribed before me this 6th day of October, 19 82

My commission expires:

3-4-87

Robert P. Chisler
Chisler Brothers
Don Ferguson

Notary Public.

Permit No. 103-0635-P

WET-635 P