

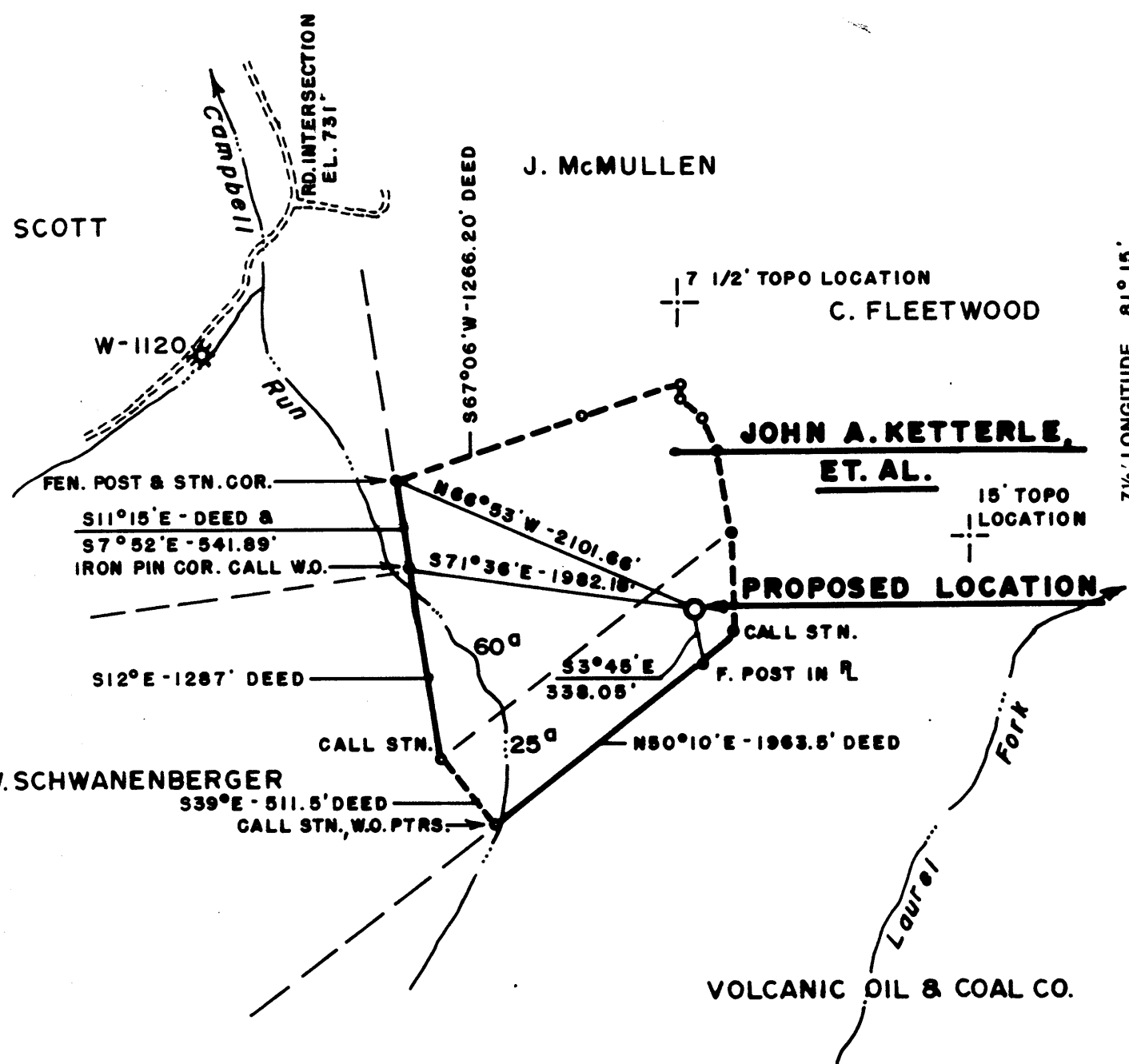
M.S. 6/28/82

15' LATITUDE 39°20'  
7 1/2' LATITUDE 39°17'30"

6080'

4400'  
7 1/2' LONGITUDE 81°15'  
15' LONGITUDE 81°15'

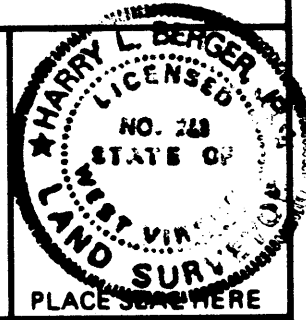
MAGNETIC NORTH



N.B. H-18, PG. 60

FILE NO. 179-003 NO. 1  
 MAP NO. 20-D  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION RD. INTERSECTION SHOWN - EL. 731'

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 MINES.  
 (SIGNED) Harry L. Berger, Jr.  
 HARRY L. BERGER, JR. L.L.S. 248



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE JUNE 25, 1982  
 OPERATOR'S WELL NO. 678  
 API WELL NO. 47-107-1218  
 STATE WEST VIRGINIA COUNTY WOOD PERMIT CONCEALED

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1000.86' WATER SHED CAMPBELL RUN OF BULL CREEK  
 DISTRICT WALKER COUNTY WOOD  
 QUADRANGLE 7 1/2' WILLOW ISLAND (MARIETTA S.E.)  
 SURFACE OWNER JOHN A. KETTERLE, ET. AL. ACREAGE 85  
 OIL & GAS ROYALTY OWNER JOHN A. KETTERLE, ET. AL. LEASE ACREAGE 85.5  
 LEASE NO. 179-003  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 4900'  
 OPERATOR STERLING DRILLING & PRODUCTION CO. INC. AGENT HARRY L. BERGER JR.  
 ADDRESS 360 MADISON AVE. - 5TH FLOOR ADDRESS 710 VIRGINIA STREET EAST  
NEW YORK, N.Y. 10017 CHARLESTON WV 25301

JAN 28 1985

M.S. 6/28/82

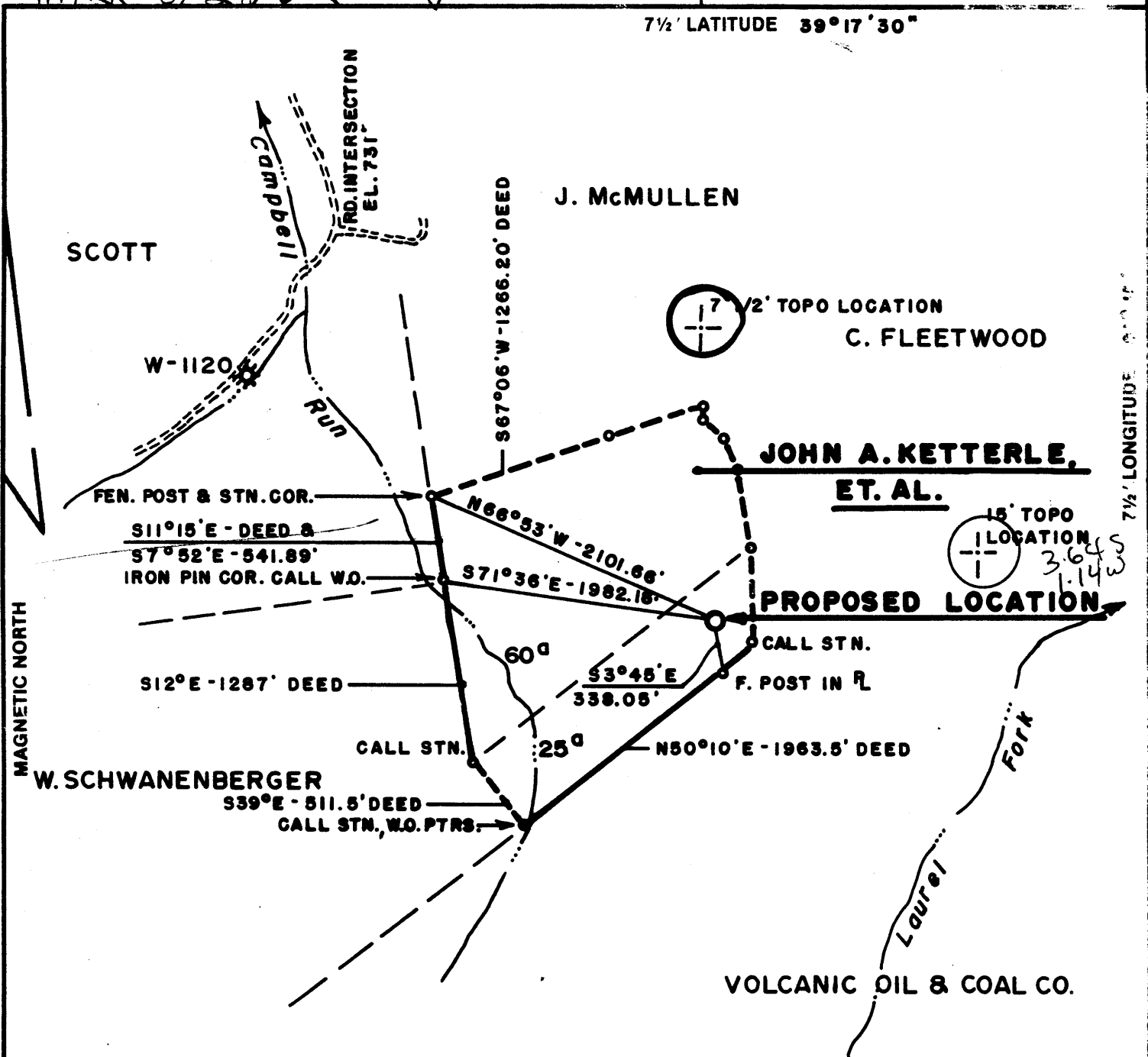
Plot Card

CSD 15

LATITUDE 39°20'

6000

7 1/2' LATITUDE 39°17'30"

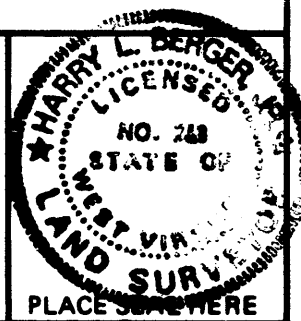


4400  
15' LONGITUDE 81°15'  
7 1/2' LONGITUDE

N.B. N-18, PG. 60

FILE NO. 179-003 NO. 1  
 MAP NO. 20-D  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION RD. INTERSECTION - SHOWN - EL. 731'

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 MINES.  
 (SIGNED) Harry L. Berger, Jr.  
 HARRY L. BERGER, JR. L.L.S. 248



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE JUNE 25, 19 82  
 OPERATOR'S WELL NO. 678  
 API WELL NO. 47-107-1218  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
 LOCATION: ELEVATION 1000.00' WATERSHED CAMPBELL RUN OF BULL CREEK  
 DISTRICT WALKER COUNTY WOOD  
 QUADRANGLE 7 1/2' WILLOW ISLAND (MARIETTA S.E.)  
 SURFACE OWNER JOHN A. KETTERLE, ET AL. ACREAGE 85  
 OIL & GAS ROYALTY OWNER JOHN A. KETTERLE, ET AL. LEASE ACREAGE 85.8  
 LEASE NO. 179-003

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

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 4900'  
 OPERATOR STERLING DRILLING & PRODUCTION CO. INC. AGENT HARRY L. BERGER JR.  
 ADDRESS 360 MADISON AVE. - 5TH FLOOR ADDRESS 710 VIRGINIA STREET EAST  
NEW YORK, N.Y. 10017 CHARLESTON WV 25301

JUL 6 1982



(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) UNKNOWN AT THIS TIME

Address \_\_\_\_\_

GEOLOGICAL TARGET FORMATION BROWN SHALE  
Estimated depth of completed well 4900 feet. Rotary x / Cable tools     /  
Approximate water strata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.  
Approximate coal seam depths: 0  
Is coal being mined in this area: Yes     / No x /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh water	9 5/8"	LS	33#	X		300'	300'	To Surface	
Coal									Sizes
Intermed.	7"	J-55	20#	X		1800'	1800'	100 sks	
Production	4 1/2"	ERW	10.6#	X		4900'	4900'	250 sks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.  
ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,  
ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY  
APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE  
IF OPERATIONS HAVE NOT COMMENCED BY 3-1-83.  
BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator     / owner     / lessee     / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_, 19\_\_\_\_.

By: \_\_\_\_\_

Its: \_\_\_\_\_