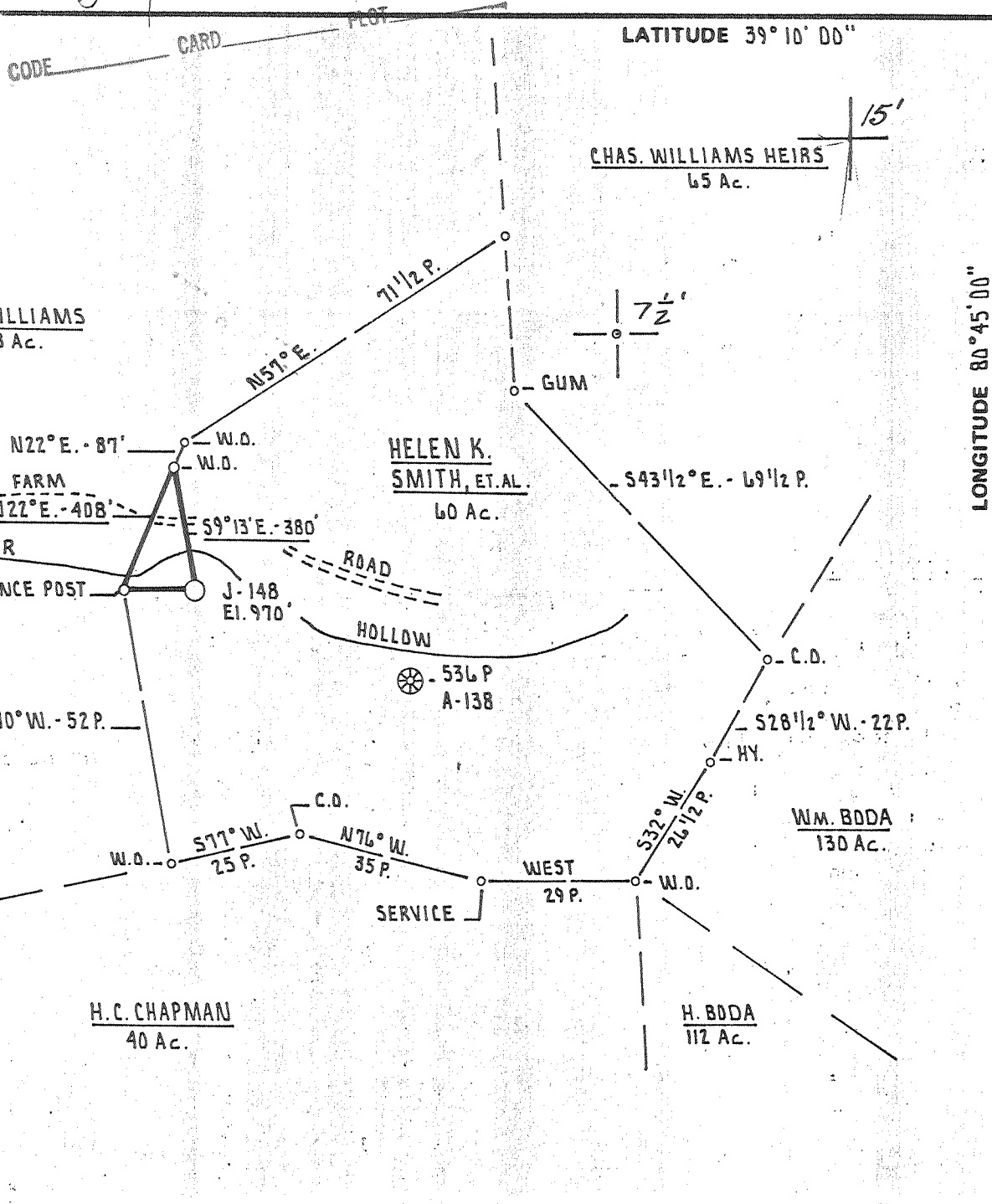


6-4



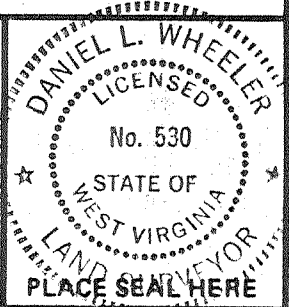
NORTH

LATITUDE 39° 10' 00"

LONGITUDE 80° 45' 00"

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION INT. RT. 23 and FARM ROAD ELEV. 938'

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) Daniel L. Wheeler
 R.P.E. _____ L.L.S. 530



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

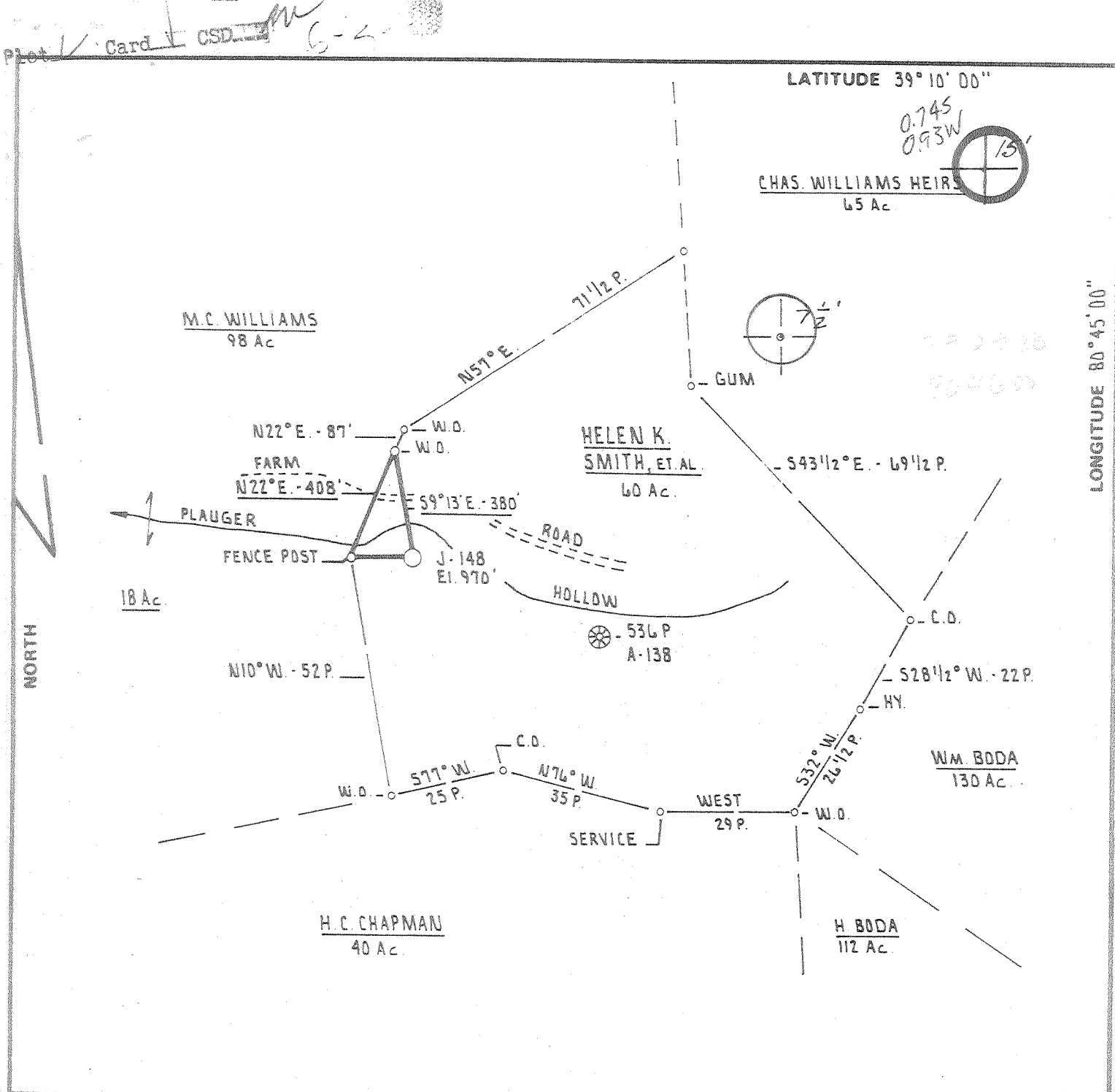


DATE SEPTEMBER 17th, 19 80
 OPERATOR'S WELL NO. J-148
 API WELL NO. _____
 47 - D17 - 2836-P
 STATE COUNTY PERMIT

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 970' WATER SHED PLAUGER HOLLOW TO MIDDLE FORK
 DISTRICT COVE COUNTY DODDRIDGE
 QUADRANGLE DXFDRD 7.5' Holbrook 15'
 SURFACE OWNER HARRY and FRENA REED ACREAGE 60 Ac.
 OIL & GAS ROYALTY OWNER HELEN K. SMITH, ET AL. LEASE ACREAGE 60 Ac.
 LEASE NO. M-287
 PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ REVISED LOCATION # 2 STK
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'
 WELL OPERATOR J. and J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT
 ADDRESS P.O. BOX 48 BUCKHANNON, WEST VIRGINIA 26201
 ADDRESS P.O. BOX 48 BUCKHANNON, WEST VIRGINIA 26201

JUN 2 1980



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION INT. RT. 23 and FARM ROAD ELEV. 938'

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) Samuel L. Wheeler
 R.P.E. _____ L.L.S. 530

PLACE SEAL HERE

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



DATE SEPTEMBER 17th, 19 80
 OPERATOR'S WELL NO. J-148
 API WELL NO. _____
 47 - 017 - 2836
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 970' WATER SHED PLAUGER HOLLOW TO MIDDLE FORK
 DISTRICT COVE COUNTY DODDRIDGE
 QUADRANGLE DXFORD 7.5' Holbrook 15' 2C
 SURFACE OWNER HARRY and FRENA REED ACREAGE 60 Ac.
 OIL & GAS ROYALTY OWNER HELEN K. SMITH, ET AL. LEASE ACREAGE 60 Ac.
 LEASE NO. M-287
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ REVISED LOCATION # 2 STK
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400 6-6 Porto Rico (134) 133
 WELL OPERATOR J. and J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT
 ADDRESS P.O. BOX 48 BUCKHANNON, WEST VIRGINIA 26201 ADDRESS P.O. BOX 48 BUCKHANNON, WEST VIRGINIA 26201

ACT 10 1980

[08-78,

WELL OPERATOR'S REPORT

API Well No. 47 - 017 - 2836

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

State County Penn.

TYPE: Oil / Gas / Liquid Injection / Waste Disposal
 (If "Gas", Production / Underground storage / Deep / Shallow /
 Elevation: 970 Watershed: Plauger Hollow to Middle Fork
 District: Cove County: Doddridge Quadrangle: Oxford 7.5'

OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT H.L. Barnett
 Address P.O. Box 48 Address P.O. Box 48
 Buckhannon, WV 26201 Buckhannon, WV 26201

PERMITTED WORK: Drill / Convert / Drill deeper / Redrill / Fracture or stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify):
 NOV - 3 1980

PERMIT ISSUED ON 9/10 19 80 OIL & GAS INSPECTOR FOR THIS WORK: Name Paul Garrett
 ADDRESS 321 Beech St.
 Clarksburg, WV 26301

LOGICAL TARGET FORMATION: Alexander Depth 5020-5100 feet
 Depth of completed well, 5309 feet Rotary / Cable Tools
 Water strata depth: Fresh, 150, 1675 feet; salt, 1060-1125, 1195-1240 feet.
 Coal seam depths: 795-800 Is coal being mined in the area? No
 Work was commenced 10/3, 19 80, and completed 10/9, 19 80

DRILLING AND TUBING PROGRAM

DRILLING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft	New	Used	For drilling		Left in well	Top
Conductor	113/4	H-40	42	<input checked="" type="checkbox"/>		32	0	0 sks.	Kinds
Production	8 5/8	ERW	23	<input checked="" type="checkbox"/>		1427.20	1427.20	255 sks.	Sizes
Intermediate	8 5/8	ERW	23	<input checked="" type="checkbox"/>		1427.20	1427.20	255 sks.	
Production	4 1/2	J-55	10.5	<input checked="" type="checkbox"/>		2401	2401	125 sks.	Depth set
Packers									Perforations:
									2303 2305
									2102 2136

OPEN FLOW DATA

Producing formation Berea Pay zone depth 2303-05 feet
 Gas: Initial open flow, Mcf/d Oil: Initial open flow, Bbl/d
 Combined Final open flow, 98 Mcf/d Final open flow, Bbl/d
 Time of open flow between initial and final tests, 4 hours
 Static rock pressure, 350 psig (surface measurement) after 96 hours shut in.
 [If applicable due to multiple completion--]
 Second producing formation Weir Pay zone depth 2102-36 feet
 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

TAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING. PHYSICAL CHANGE. ETC.

Berea:Perfs. 2303-05 (6 holes)
 Fracturing: 10,000 lbs. 80/100 sand:30,000 lbs. 20/40 sand: 450 Bbls. fluid.

Weir:Perforations: 2102-36 (12 holes)
 Fracturing: 30,000 lbs. 80/100 sand: 60,000 lbs. sand: 500 gal. Acid:
 500 Bbls. fluid.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all free gas and salt water, coal, oil and ...
Fill			0	15	
Red rock & shale			15	25	
Red rock, shale & sand			25	80	
Red rock, sand & shale			80	130	
Red rock, sand & shale			130	150	
Sand, red rock & shale			150	230	
Red rock & shale			230	300	1/4" stream @ 135'
White sand			300	365	
Sand & shale			365	400	
Red rock & shale			400	415	1" stream @ 150'
Sand & shale			415	505	
Sand, shale & Red rock			505	625	
Red rock, sand & shale			625	710	
Red rock, sand & shale			710	795	
Coal			795	800	
Shale & red rock			800	850	
Sand & shale			850	885	
Red rock, sand & shale			885	980	
Red rock & sand			980	1035	
Sand & shale			1035	1060	1/4" stream @ 1675
Salt sand			1060	1125	
Sand, shale & red rock			1125	1195	Oil Odor @ 2080
Salt sand			1195	1240	
Sand, shale & red rock			1240	1340	Gas ck. @ 5124 4/10 thru 1/2"
Sand & shale			1340	1755	12400 cu.ft. w/water
Sand & shale			1755	1820	
Big Lime			1820	1875	
Big Injun			1875	1970	
Sand & shale			1970	2102	
Weir			2102	2165	
Sand & shale			2165	2303	
Berea			2303	3950	
Sand & shale			3950	4685	
Sand & shale			4685	4775	
Benson			4775	4780	
Shale & sand			4780	5020	
Alexander			5020	5100	
Shale & sand			5100	5309 T.D	

(Attach separate sheets to complete as necessary)

J & J Enterprises, Inc.
 Well Operator
 By Peter Battles
 Peter Battles
 Geologist

NOTE: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's
Well No. J-148

API Well No. 47-0172836
State County Pe

WELL TYPE: Oil / Gas x /
(If "Gas", Production x / Underground storage / Deep / Shallow x /)

LOCATION: Elevation: 1090 Watershed: Plauger Hollow to Middle Fork
District: Cove County: Doddridge Quadrangle: Oxford 7.5"

WELL OPERATOR J & J Enterprises, Inc.
Address Box 48
Buckhannon, WV 26201

DESIGNATED AGENT H.L. Barnett
Address Box 48
Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER Helen K. Smith
Address 204 Duncan Ave.
Clarksburg, WV 26301
Acreage 60

COAL OPERATOR None
Address

SURFACE OWNER Ronald & Omendia Frye
Address Rt. # 7, Box 144
Moxley Rd., Mt. Airy, Md. 21771
Acreage 60

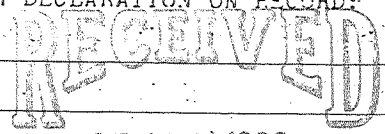
COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Ralph Kemper Heirs
Address C/O Helen K. Smith
204 Duncan Ave. Clarksburg, WV
26301

FIELD SALE (IF MADE) TO:
Name
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address 321 Beech St.
Clarksburg, WV 26301

OIL & GAS DIVISION
DEPT. OF MINES



The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract X / dated Aug. 22, 1979, to the undersigned well operator from Mr. Mutschelknaus

[If said deed, lease, or other contract has been recorded:]
Recorded on Oct. 3, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Lease Book 111 at page 351. A permit is requested as follows:

PROPOSED WORK: Drill x / Drill deeper / Redrill / Fracture or stimulate x /
Plug off old formation / Perforate new formation /
Other physical change in well (specify)

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
1614 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 548-3092

BLANKET BOND

J & J Enterprises, Inc.
Well Operator
By Peter Battles
Peter Battles
Geologist

[08-78]

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) S.W. Jack Drilling Company

Address Box 48
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5400 feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 1000 feet; salt, 80 feet.

Approximate coal seam depths: None Is coal being mined in the area? Yes No X

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor	11 3/4	H-40	42	x		30	30	0 sks.	Kinds
Fresh water	8 5/8	ERW	23	x		1200	1200	315 sks.	
Coal	8 5/8	ERW	23	x		1200	1200	315 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5			5350	5350	400 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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

A separate Form IV-2 shall be filed 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.

of the W. Va. Code, the location is hereby approved for drilling

This permit shall expire if operations have not commenced by 5-25-81

[Signature]
Deputy Director - Oil & Gas Division

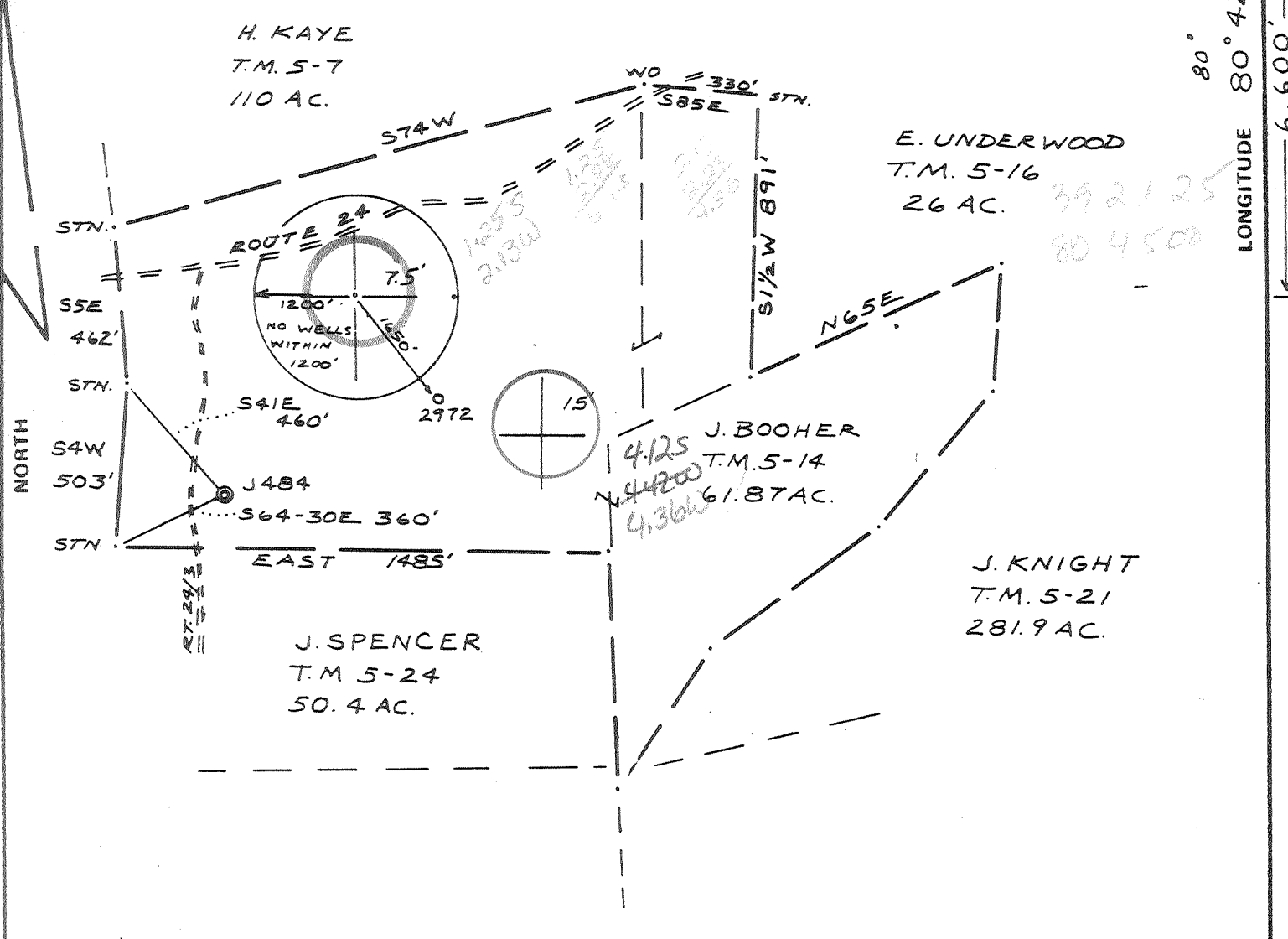
The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt hereof:

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



FILE NO. K1042
 DRAWING NO. 3
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION BM 850'

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) Neal Hughes
 R.P.E. _____ L.L.S. 632

PLACE SEAL HERE

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



DATE SEPT. 30, 19 81
 OPERATOR'S WELL NO. J484
 API WELL NO. _____
47 - 017 - 3047-Rev.
 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 870' WATER SHED LITTLE FLINT RUN
 DISTRICT GRANT COUNTY DODDRIDGE
 QUADRANGLE SMITHBURG 7.5' Underpoint WC
 SURFACE OWNER JAMES BOOHER ACREAGE 61.87
 OIL & GAS ROYALTY OWNER GALE KNIGHT, ET. AL. LEASE ACREAGE 61.87
 LEASE NO. K1042
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 NOV 9 1981
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION BENSON ESTIMATED DEPTH 4600
 WELL OPERATOR J. J. ENTERPRISES, INC. DESIGNATED AGENT JAMES R. WILLETT
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48
BUCKHANNON, W.VA. 26201 BUCKHANNON, W.VA. 26201