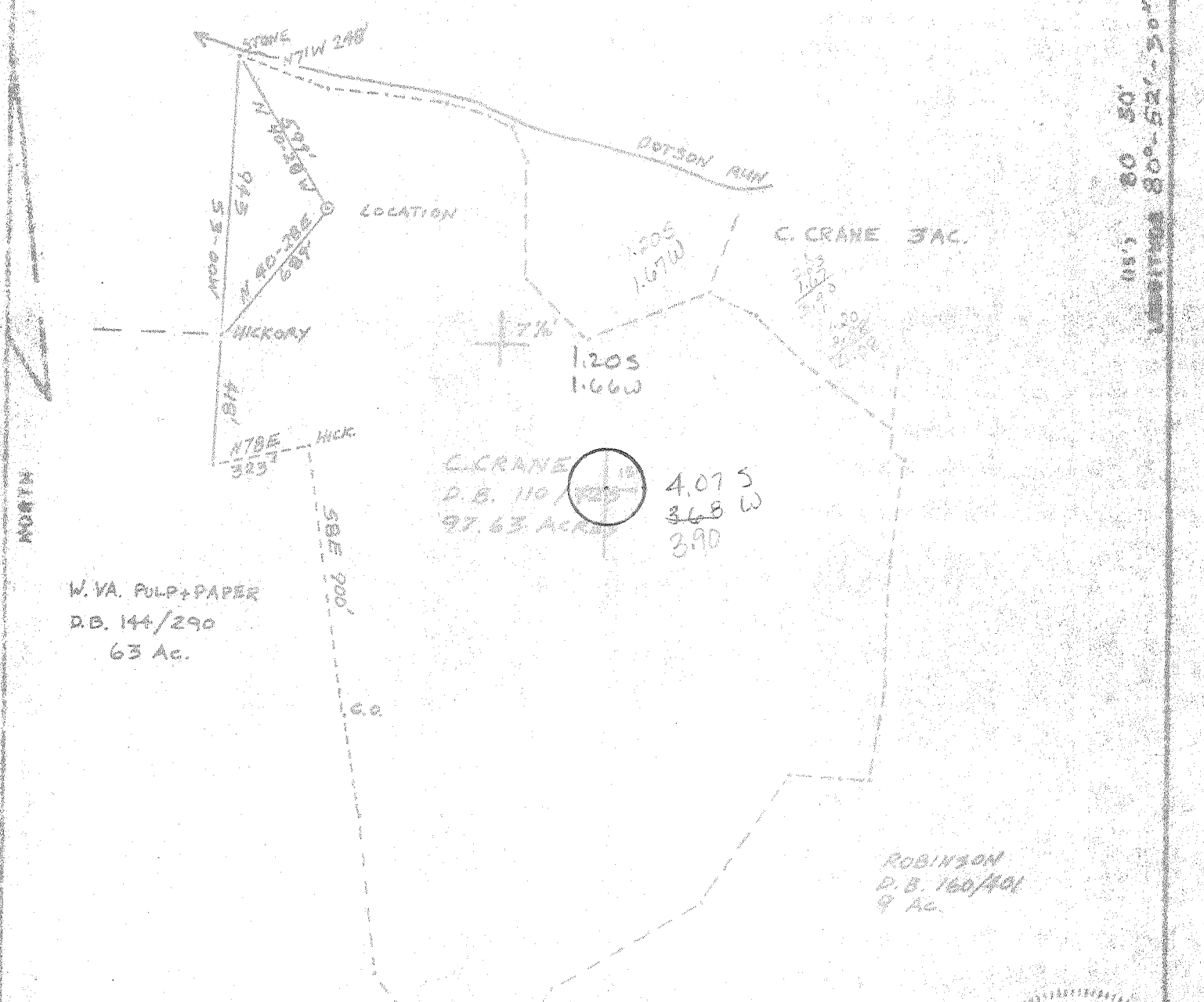
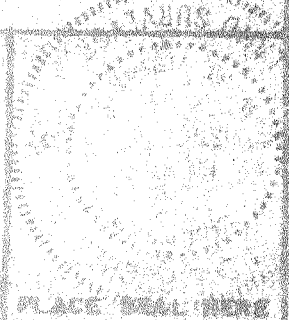


LONGITUDE 39° - 17' - 30"
(45) 39° 20'



FILE NO. K-912
 DRAWING NO. 1 REVISED
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION RAILROAD

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 High
 H.P.E. L.L.S. 632



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



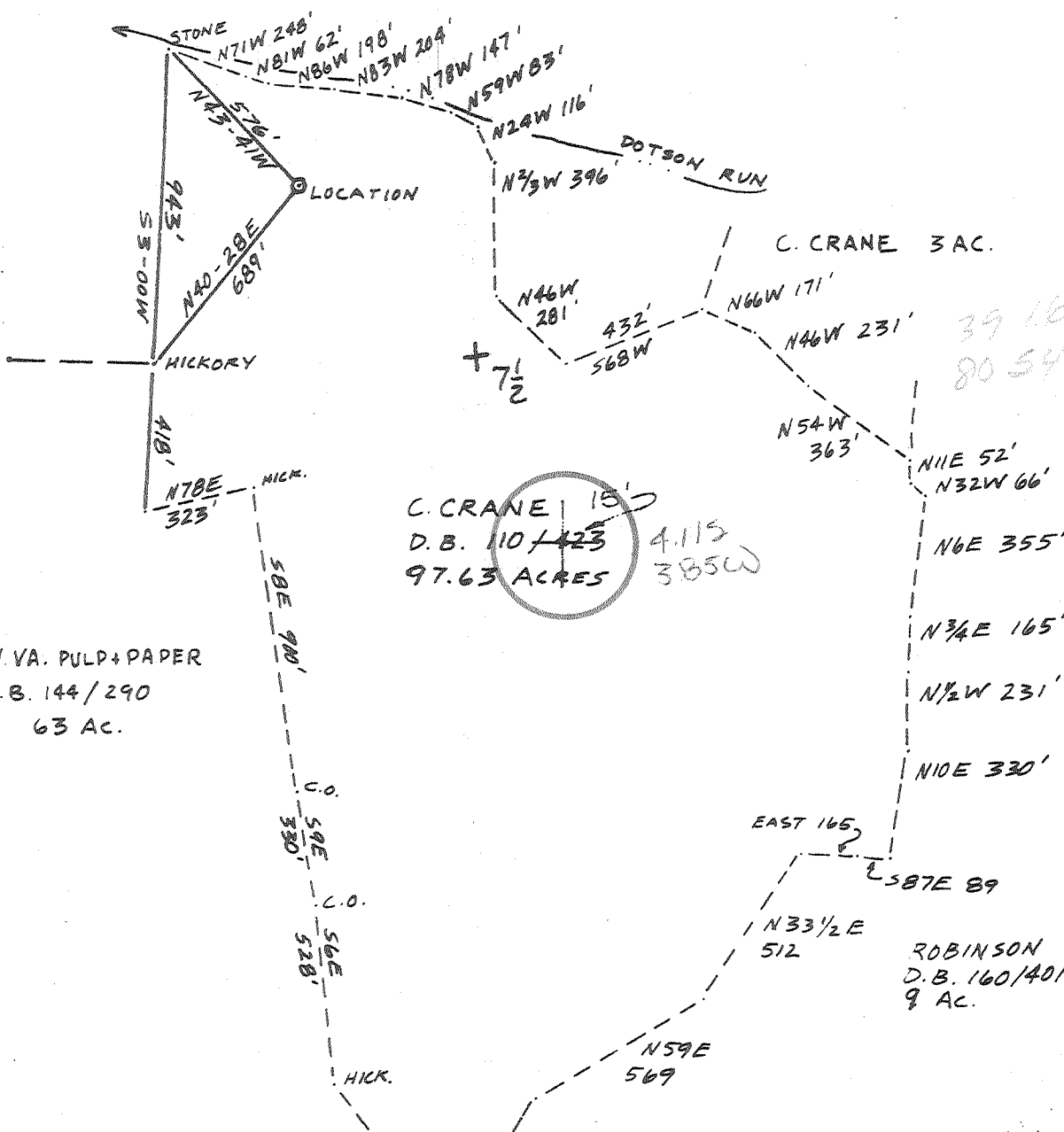
DATE March 12, 1980
 OPERATOR'S WELL NO. K-912
 API WELL NO. REC-1000-3-93
47-017 2487 REV
 STATE COUNTY PERMIT

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 1015' WATER SHED DOTSON RUN
 DISTRICT CENTRAL COUNTY BOYD
 QUADRANGLE PENNINGTON (7 1/2) WEST UNION IS 5C
 SURFACE OWNER C. CRANE ACRES 97.63
 OIL & GAS ROYALTY OWNER LEASE NO. LEASE ACRES 97.63
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REFRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER ON ALL IN WELL (SPECIFY)
 PLUS AND ABANDON CLEAN OUT AND REPER
 TARGET FORMATION PROPOSED DEPTH
 WELL OPERATOR
 ADDRESS

LATITUDE 39°-17'-30"
(15) 39° 20'

LONGITUDE 80°-50'-30"
80°-52'-30"



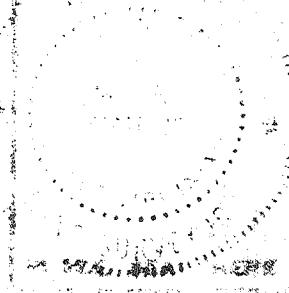
W. VA. PULP & PAPER
D.B. 144/290
63 AC.

C. CRANE 15'
D.B. 110/423 4.115
97.63 ACRES 385W

ROBINSON
D.B. 160/401
9 AC.

FILE NO K-912
DATE 1
SCALE 1" = 500'
MINIMUM LEGALE OF
ACCLAS 1/200
PROVEN SURVEY OF
ELEVATION BM 834 - B+0
RAILROAD

THE UNDERSIGNED HEREBY CERTIFY
THAT THIS PLAN IN RESPECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF
SHOWS ALL THE INFORMATION REQUIRED
BY LAW AND THE REGULATIONS ISSUED
AND PRESCRIBED BY THE DEPARTMENT OF
MINES.
(SIGNED) Neal Hughes
R.P.E. 632



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
LAND AND GAS DIVISION



K-912-#1

017 2487

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
LAND AND GAS DIVISION

990' WATER SHEET DOTSON RUN
CENTRAL COUNTY DODDRIDGE
PENNBORO (7 1/2) WEST UNION 15' SC
C. CRANE 97.63 ACRES
OWNER L. Dotson; H. Dotson; E. Hallerman; H. Hewitt
STATE NO K-912-#1
ESTIMATED DEPTH 5400
OCT 9 1979
HARRY GARNETT
Box 48
BUCKHANNON WV 26201
GREENWOOD 89

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

WELL OPERATOR'S REPORT 7
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X)
LOCATION: Elevation: 990 Watershed: Dotson Run
District: Central County: Doddridge Quadrangle: Pennsboro 7.5'

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

PERMITTED WORK: Drill X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate X
Plug off old formation ___ / Perforate new formation ___ /
Other physical change in well (specify) _____

PERMIT ISSUED ON 9-11, 19 79 OIL & GAS INSPECTOR FOR THIS WORK:
Name Paul Garrett
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Address 321 Beech St.
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Alexander Depth _____ feet
Depth of completed well, 5350 feet Rotary X / Cable Tools ___
Water strata depth: Fresh, 1215 feet; salt, None feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced 3-4, 19 80 and completed 3-10, 19 80

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	113/4H-40	42	X			20	0	0 sks	None
Fresh water	5/8ERW	23	X			1846.85	1846.45	400 sks	None
Coal	5/8ERW	23	X			1846.45	1846.45	400 sks	None
Intermediate									
Production	1/2 J-55	9.5	X			5163.75	5163.75	800 sks	None set
Tubing									
Liners									Perforations:
									Top Bottom
									4798 5092
									3294 3300
									2170 2342

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OIL & GAS DIVISION
DEPT. OF MINES

OPEN FLOW DATA
Producing formation Alexander Pay zone depth 5070-5120 feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 298 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1050 psig (surface measurement) after 24 hours shut in
[If applicable due to multiple completion--]
Second producing formation _____ Pay zone depth _____ 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, _____ psig (surface measurement) after _____ hours shut in

[08-78]

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

Alexander: Perforations 4798-5092 (11 holes) 3294-3300 (13 holes)
2170-2342 (12 holes)

Fracturing 500 gal Acid, 400 sks 80/100 sand, 700 sks 20/40 sand
560 Bbls fluid

WELL LOG

FORMATION	Color	Hard or Soft	7		Remarks Including indication of all fractures and salt water, coal, etc. and gas
			Top Feet	Bottom Feet	
Conductor			0	29	
Sandy shale			29	50	
Sand			50	81	
Red Rock & Shale			81	105	
Sandy			105	200	
Red Rock & Shale			200	210	
Sandy Shale			210	277	
Sand			277	323	Damp @ 280'
Red Rock & Shale			323	342	
Sandy Shale			347	367	
Sand			367	380	
Red Rock & Shale			380	389	
Sand			389	394	
Red Rock & Shale			394	410	
Sandy Shale			410	430	
Red Rock & Shale			430	480	
Sand & Lime			480	600	
Shale			600	640	
Sand			640	656	
Shale			656	664	
Sand			664	670	
Sandy Shale			670	690	
Sand			690	720	
Sandy Shale			720	823	
Shale & red rock			823	840	
Sandy			840	850	
Sandy Shale			850	890	
Red rock & shale			890	930	
Sandy Shale			930	1095	Damp @ 1095
Sand			1095	1105	
Shaly Sand			1105	1260	
Sand			1260	1265	
Sandy Shale			1265	1378	1" stream water @ 1380

(Attach separate sheets to complete as necessary)

J & J Enterprises, Inc.

Well Operator

By Peter Battles
Its Peter Battles Geologist

NOTE: Regulation 2.02(d) 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."

Sand	1378	1418	7
Shale	1418	1430	
Sandy Shale	1430	1770	
Sand	1770	1945	oil odor @ 1770
Big Lime& Injun	1945	2065	
Shale	2065	2160	
Weir	2160	2280	
Shale	2280	2340	
Berea	2340	2345	
Shale & Sand	2345	2630	
Gordon	2630	2640	
Shale & Sand	2640	4920	
Shale	4920	3270	
Speechley	3270	3360	
Shale	3360	3580	
Shale & Sand	3580	3820	
Sand	3820	3850	
Shale	3850	3890	
Sand	3890	3895	
Shale & Sand	3895	4040	
Sand	4040	4240	
Shaly Sand	4240	4415	
Sand	4415	4458	
Shale	4458	4625	
Sand	4625	4660	
Shaly Sand	4660	4790	
Benson	4790	4810	
Shaly Sand	4810	5070	
Alexander	5070	5120	
Shale	5120	5349	TD. 5349'

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. K-912-#1

API Well No. 47 - 017 - 2487
State County Permit

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

LOCATION: Elevation: 990 Watershed: Dotson Run
District: Central County: Doddridge Quadrangle: Pennboro 7 1/2'

WELL OPERATOR J & J Enterprises
Address Box 48
Buckhannon, West Virginia 26201

DESIGNATED AGENT Harry Barnett
Address Box 48
Buckhannon, West Virginia 26201

OIL & GAS ROYALTY OWNER H. Dotson; E. Halterman
Address Box 387
Greenwood, W. Va.

COAL OPERATOR
Address

Acreage 97.63

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Cecil Crane
Address Box 128, Greenwood,
West Virginia
Acreage 97.63

Name Cecil Crane
Address Box 128
Greenwood, West Virginia

FIELD SALE (IF MADE) TO:
Name
Address

Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address Clarksburg
West Virginia

COAL LESSEE WITH DECLARATION ON RECORD:
Name
Address

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SEP 11 1979

The undersigned well operator is entitled to operate for oil or gas purposes at the location under a deed ___ / lease X / other contract ___ / dated January 1, 19 79, to the undersigned well operator from H. Hewitt, Edgar and Mildred Hewitt
[If said deed, lease, or other contract has been recorded;]

Recorded on January 1, 19 79, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Book 107 at page 315. 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
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

J & J ENTERPRISES, INC.
Well Operator
By Peter Battles
Its Geologist

BLANKET BOND

[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, West Virginia 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5400 feet Rotary / Cable tools /
Approximate water strata depths: Fresh, 60 feet; salt, 1000 feet.
Approximate coal seam depths: None Is coal being mined in the area? Yes / No /

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	25	Kinds	None
Fresh water	8 5/8	ERW	23	X		1200	1200	130	To Surface	
Coal	8 5/8	ERW	23	X		1200	1200	130	Sizes	
Intermediate										
Production	4 1/2	J-55	9.5	X		5350	5350	400	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.

All 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 5-14-80.

[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 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

REC'D