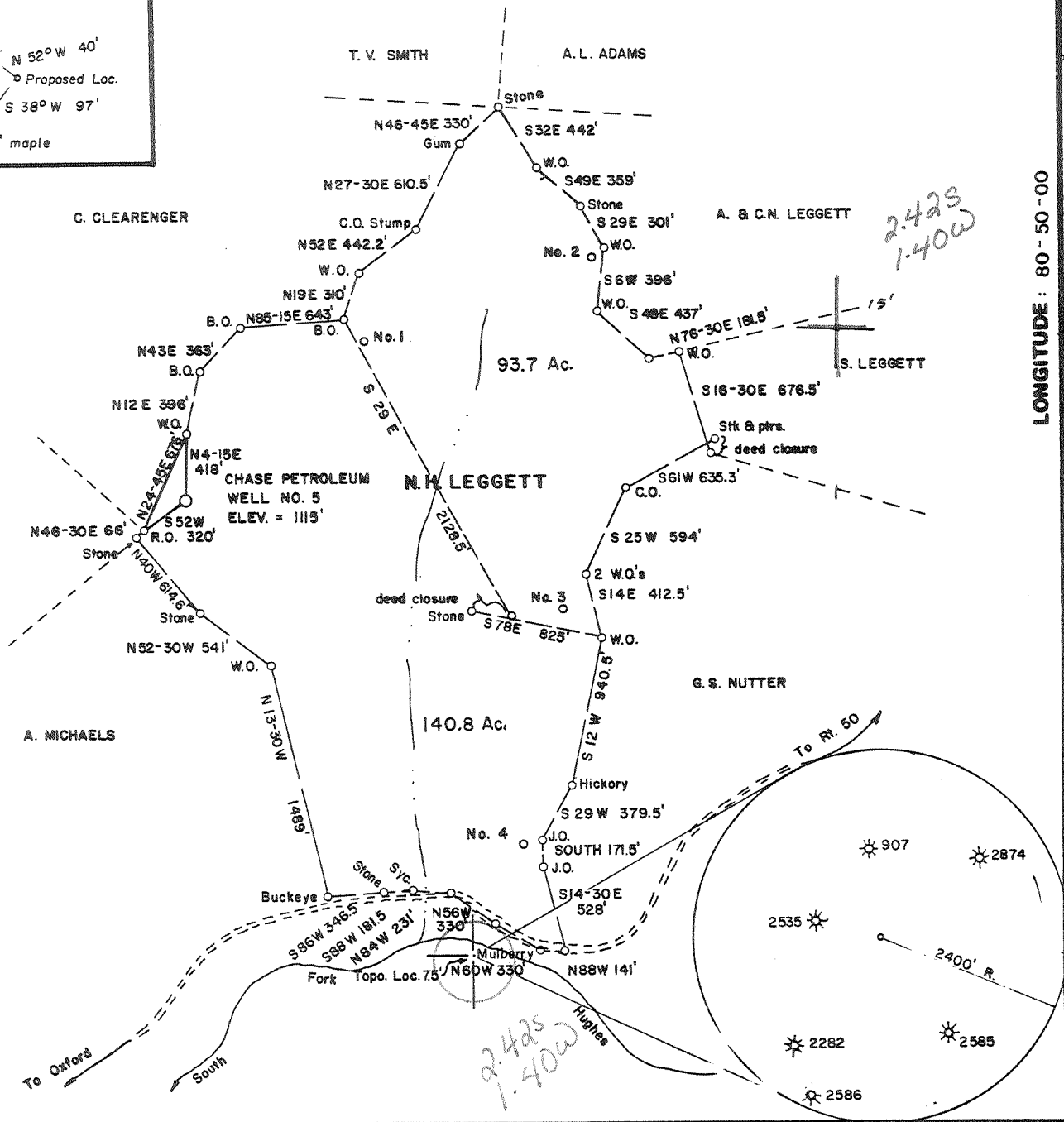
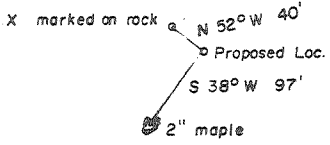


WELL REFERENCES



NORTH

LONGITUDE : 80-50-00

12650' S

FILE NO. _____
 DRAWING NO. _____
 SCALE 1 inch = 1000 feet
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION Top Knob 3200' E
 of Location Elev. = 1182'

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. *Mark C. Echard*
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490

PLACE SEAL HERE

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



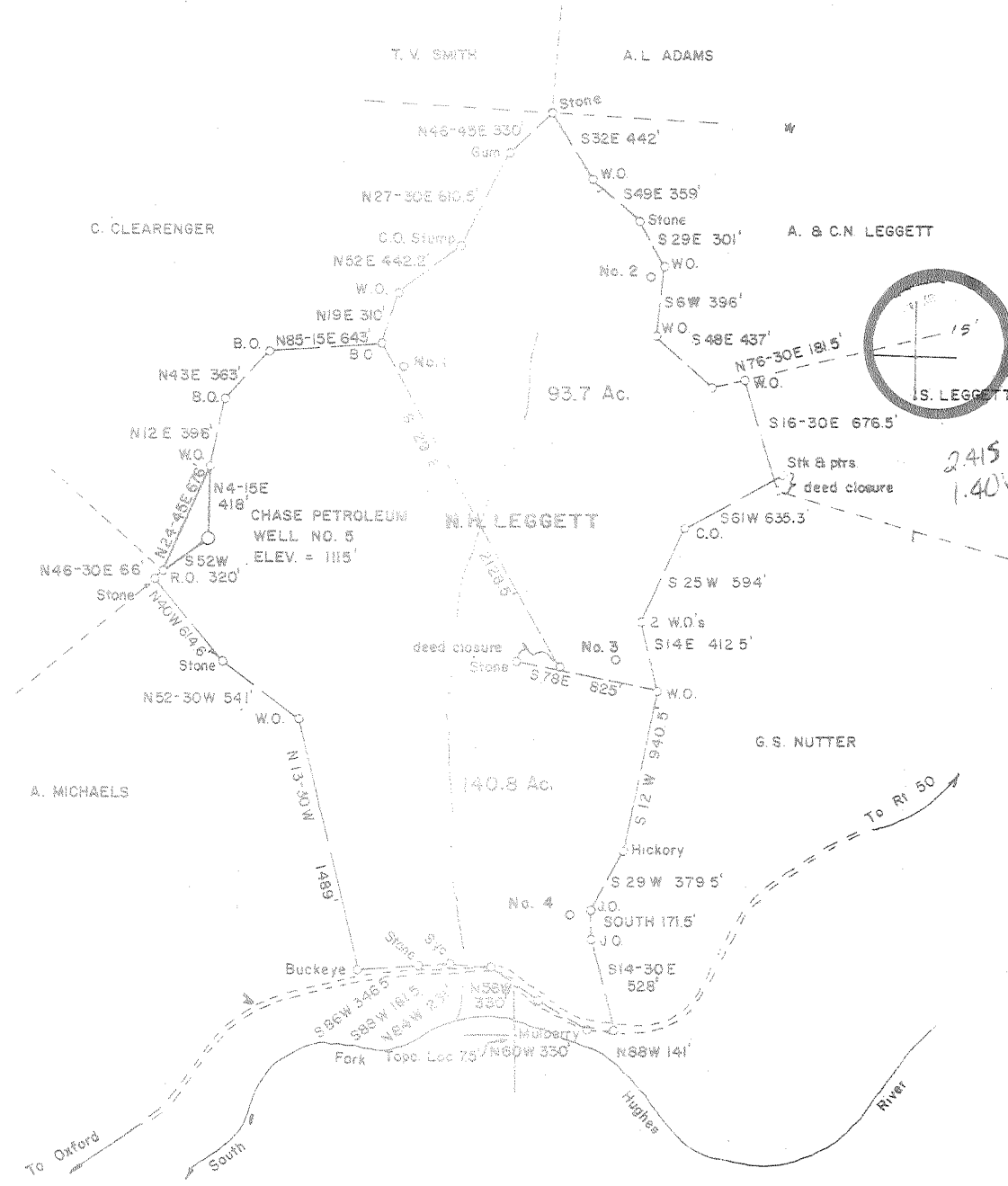
DATE OCTOBER 22, 1984
 OPERATOR'S WELL NO. FIVE
 API WELL NO. 47-017-2878-Rev
 STATE COUNTY PERMIT

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 1115' WATER SHED South Fork of Hughes River
 DISTRICT Southwest COUNTY Doddridge
 QUADRANGLE Oxford 7.5 526 Holbrook 15' N22
 SURFACE OWNER N. H. LEGGETT ACREAGE 234.5
 OIL & GAS ROYALTY OWNER N. H. LEGGETT, et al LEASE ACREAGE 140.8
 LEASE NO. _____
 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 ALEXANDER ESTIMATED DEPTH 5850'
 WELL OPERATOR CHASE PETROLEUM CORP. DESIGNATED AGENT MR. ALTON SKINNER
 ADDRESS BOX 297 ADDRESS BOX 297
 GLENVILLE, W.V. 26351 GLENVILLE, W.V. 26351

NORTH

LONGITUDE : 80-50-00



FILE NO. _____
 DRAWING NO. _____
 SCALE 1 inch = 1000 feet
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION Top Knob 3200' E of Location Elev. = 1182'

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. *Mark C. Echard*
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490

PLACE SEAL HERE

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



DATE November 5, 19 80
 OPERATOR'S WELL NO. FIVE
 API WELL NO. 47 - 017 - 2878
 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 1115' WATER SHED South Fork of Hughes River
 DISTRICT Southwest COUNTY Doddridge
 QUADRANGLE Oxford 7.5' Hickory 15' NC
 SURFACE OWNER N. H. LEGGETT ACREAGE 234.5
 OIL & GAS ROYALTY OWNER N. H. LEGGETT, et al LEASE ACREAGE 140.8
 LEASE NO. _____
 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 ALEXANDER ESTIMATED DEPTH 5850'
 WELL OPERATOR CHASE PETROLEUM CORP. DESIGNATED AGENT MR. ALTON SKINNER DEC 19 1980
 ADDRESS BOX 297 ADDRESS BOX 297
 GLENVILLE, W.V. 26351 GLENVILLE, W.V. 26351

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APR 1 - 1985



IV-35
Rev 8-81)

OIL & GAS DIVISION
DEPT. OF MINES
State of West Virginia
Department of Mines
Oil and Gas Division

Date March 29, 1985
Operator's
Well No. Stinespring #5
Farm Roy Leggett
API No. 47 - 017 - 2878

WELL OPERATOR'S REPORT
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: 1115 Watershed South Fork Hughes River
District: Southwest County Doddridge Quadrangle Oxford 7.5

COMPANY Chase Petroleum, Inc.
ADDRESS P.O. Drawer 369, Glenville, WV 26351
DESIGNATED AGENT Alton Skinner
ADDRESS P.O. Drawer 369, Glenville, WV 26351
SURFACE OWNER Roy Leggett
ADDRESS Route 1 - Box 98, West Union, WV 26456
MINERAL RIGHTS OWNER Roy Leggett
ADDRESS Route 1 - Box 98, West Union, WV 26456
OIL AND GAS INSPECTOR FOR THIS WORK Mike
Underwood ADDRESS Salem, WV 26426
PERMIT ISSUED 12/20/84
DRILLING COMMENCED 3/07/85
DRILLING COMPLETED 3/14/85

Casing & Tubing Size Cond.	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16			
13-10"	31	0	-
9 5/8			
8 5/8	1300	1300	340
7			
5 1/2			
4 1/2	5480	5480	820
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

GEOLOGICAL TARGET FORMATION Alexander (Devonian) Depth 5850 feet
Depth of completed well 5500 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 395 feet; Salt ^{none} recorded feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Alexander, Benson/Riley, Balltown Pay zone depth 5266-5296 feet
4583-4978
3826-3896
Gas: Initial open flow 18 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 680 Mcf/d Final open flow Show Bbl/d
Time of open flow between initial and final tests n/a hours
Static rock pressure 1725 psig (surface measurement) after 8 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 Oil: 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

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

Fraced Alexander 5266-5296, 10 holes, 554 Bbls Water, 10,000# 80/100, 40,000# 20/40
 Fraced Benson/Riley ^{Riley/Benson} 4583-4978, 10 holes, 619 Bbls Water, 10,000# 80/100, 40,000# 20/40
 Fraced Balltown 3826-3896, 9 holes, 578 Bbls Water, 10,000# 80/100, 40,000# 20/40

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres. and salt water, coal, oil and ga
Clay, Red Rock, Sand			0	18	
Sand, Red Rock, Shale			18	1420	1/2" stream H2O @ 395'
Sand, Shale			1420	2060	
Big Lime			2060	2120	
Sand, Shale			2120	2124	
Injun			2124	2182	
Sand, Shale			2182	2350	
Weir			2350	2482	78/10 - 1" F.M. W/H2O @ 2369'
Sand, Shale			2482	2544	
Berea			2544	2550	
Sand, Shale			2550	2944	24/10 - 1" F.M. W/H2O @ 2877'
Fifth Sand			2944	2948	
Sand, Shale			2948	3410	12/10 - 1" F.M. W/H2O @ 3381'
Speechley			3410	3480	
Sand, Shale			3480	3826	
Balltown			3826	3920	
Sand, Shale			3920	4150	10/10 - 1" F.M. W/H2O @ 3923'
1st Riley			4150	4216	
Sand, Shale			4216	4340	
2nd Riley			4340	4370	
Sand, Shale			4370	4602	10/10 - 1" F.M. W/H2O @ 4433'
3rd Riley			4602	4610	
Sand, Shale			4610	4998	
Benson			4998	5003	
Sand, Shale			5003	5260	8/10 - 1" F.M. W/H2O @ 5069'
Alexander			5260	5320	
Sand, Shale			5320	5500	TD

(Attach separate sheets as necessary)

Chase Petroleum, Inc.

Well Operator

By: Alton Skinner

Date: March 29, 1985

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
 encountered in the drilling of a well."

FILE COPY
RECEIVED

NOV 18 1984



1) Date: November 5, 19 84
 2) Operator's Well No. Stinespring #5
 3) API Well No. 47 - 017 - 2878-REN
 State County Permit

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

Renewal

OIL & GAS DIVISION APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A or B Gas /
 B (If "Gas", Production / Underground storage _____ / Deep _____ / Shallow)
 5) LOCATION: Elevation: 1115 Watershed: South Fork Hughes River
 District: Southwest County: Doddridge Quadrangle: Oxford 7.5
 6) WELL OPERATOR Chase Petroleum 7) DESIGNATED AGENT Alton Skinner
 Address P.O. Drawer 369 Address P.O. Drawer 369
Glenville, WV 26351 9500 Glenville, WV 26351
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Mike Underwood Name Unknown
 Address Route 2 - Box 114 Address _____
Salem, WV 26426
 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, Alexander (Devonian)
 12) Estimated depth of completed well, 5850 feet
 13) Approximate trata depths: Fresh, 100 feet; salt, 1000 feet.
 14) Approximate coal seam depths: None Is coal being mined in the area? Yes _____ / No /

15) 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									Kinds
Fresh water									
Coal									Sizes
Intermediate	<u>8-5/8</u>		<u>20#</u>	<input checked="" type="checkbox"/>		<u>400</u>	<u>400</u>	<u>CTS</u>	<u>NEAT</u>
Production	<u>4-1/2</u>		<u>10.5#</u>	<input checked="" type="checkbox"/>		<u>5800</u>	<u>5800</u>	<u>725 Sks</u>	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-017-2878-REN Date December 20, 19 84

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires December 20, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>35</u>	<u>Se</u>	<u>MTU</u>	<u>MTU</u>	<u>3910</u>

Margaret J. Hesse
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File

OIL AND GAS WELL PERMIT APPLICATION

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

LOCATION: Elevation: 1115 Watershed: South Fork of Hughes River

District: Southwest County: Doddridge Quadrangle: Oxford 7.5

WELL OPERATOR Chase Petroleum
Address PO Drawer 369
Glenville, WV 26351

DESIGNATED AGENT Alton Skinner
Address PO Drawer 369
Glenville, WV 26351

OIL & GAS ROYALTY OWNER N.H. Leggett, et al
Address Oxford, WV 26414

COAL OPERATOR None
Address

Acreage 937 140.8

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER N.H. Leggett
Address Oxford, WV 26414

Name No Coal

Acreage 234.5

Address

FIELD SALE (IF MADE) TO:
Name Uncommitted

Name

Address

Address

OIL AND GAS INSPECTOR TO BE NOTIFIED:
Name Paul Garrett

Address

COAL LESSEE WITH DECLARATION ON RECORD:

Name None

Address

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease x / other contract ___ / dated November 14, 1980, to the undersigned well operator from N. H. Leggett, et al

(If said deed, lease or other contract has been recorded:)
Recorded on _____, 19____, in the office of the Clerk of the County Commission of _____ county, West Virginia, in _____ Book _____, at page ____.

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 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 lessees on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

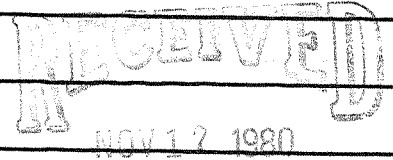
PLEASE SUBMIT COPIES OF ALL PHYSICAL LOGS DIRECTLY TO: OFFICE OF OIL AND GAS

15 Washington Street, East

BLANKET BOND

Chase Petroleum Well Operator

Alton Skinner



OIL & GAS DIVISION DEPT. OF MINES

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 Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5850 feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 50 feet; salt, -- feet.

Approximate coal seam depths: No Coal Is coal being mined in the area? Yes / No X /

HOUSING AND TUBING PROGRAM

HOUSING 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				x	30	-0-		Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5/8		23#	X		1900	1900	CTS	
Production	4 1/2		10.5#	X		5800	5800	725 Sks	Depths set
Tubing								<i>or as reqd.</i>	
Liners								<i>by rule 15.01</i>	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, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 7-19-81.

J. E. Muzey
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