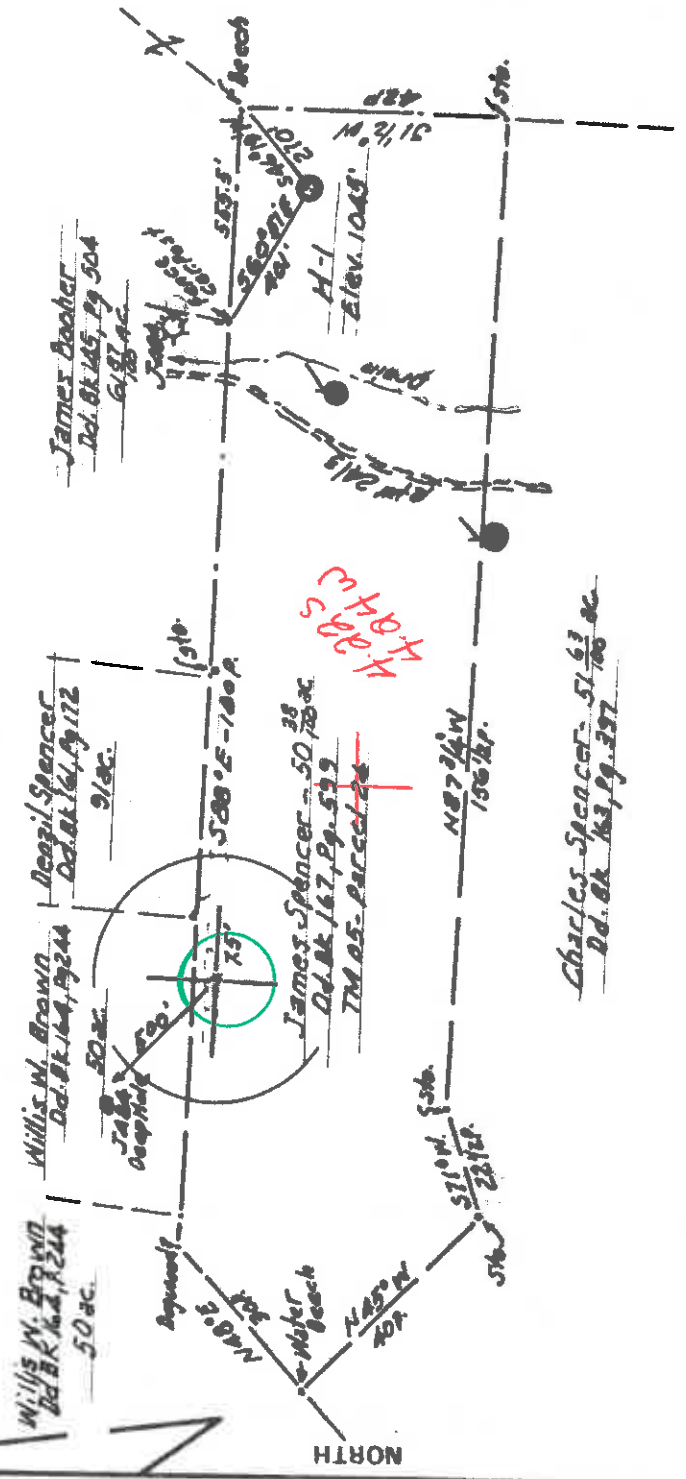


LATITUDE 39° 22' 30"

39 25

LONGITUDE 80° 42' 30" 7.000

13145
13101
1312



Well Reference
 N 87° 21' 14" E - 2110' to 24' out in fence line
 N 14° 00' E - 190.0' to marked fence post

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION S. Jack Well # J484 Elev. 870'

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) M. S. Mastroy L.L.S. 7
 R.P.E. _____

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE August 15, 1925
 OPERATOR'S WELL NO. H-1
 API WELL NO. _____

47-017-3473
 STATE _____ COUNTY _____ PERMIT _____

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW

LOCATION: ELEVATION 1045' WATER SHED Little Flint Run
 DISTRICT Grant COUNTY Putnam

QUADRANGLE Smithburg T.S. 611 ACRES 50.78
 SURFACE OWNER James Spencer
 OIL & GAS ROYALTY OWNER James Spencer LEASE ACREAGE 50.78

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 Big Injun ESTIMATED DEPTH 2200'
 WELL OPERATOR George Abalena DESIGNATED AGENT Kenneth L. Aite
 ADDRESS P.O. Denton 190 ADDRESS P.O. Denton 190
Charleston, W. Va. 25301 722 OCT 21 1925



State of West Virginia
Department of Mines
Oil and Gas Division

Date November 19, 1985
Operator's Well No. H-1
Farm Spencer
API No. 47 - 017 - 3473

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: 1045 Watershed Little Flint Run of Big Flint Run
District: Grant County Doddridge Quadrangle Smithburg 7.5'

COMPANY Ranger Petroleum, Ltd.
ADDRESS P.O. Drawer 510 Clarksburg, WV 26301
DESIGNATED AGENT Kenneth L. Pote
ADDRESS P.O. Drawer 510 Clarksburg, WV 26301
SURFACE OWNER James Spencer
ADDRESS P.O. Box 216, New Manchester WV 26056
MINERAL RIGHTS OWNER same
ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK Mike

Underwood ADDRESS Salem, WV 26426

PERMIT ISSUED 10-11-85

DRILLING COMMENCED 10-26-85

DRILLING COMPLETED 10-30-85

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
13-10"	20	- 0 -	
9 5/8			
8 5/8	527	527	150 sacks
7			
5 1/2			
4 1/2		2156	105 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Injun

Depth of completed well 2200 feet Rotary X / Cable Tools

Water strata depth: Fresh 95' feet; Salt 1500 feet

Coal seam depths: Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 2066 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow 650 Mcf/d Final open flow show Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 440 psig (surface measurement) after 72 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

(Continue on reverse side)

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

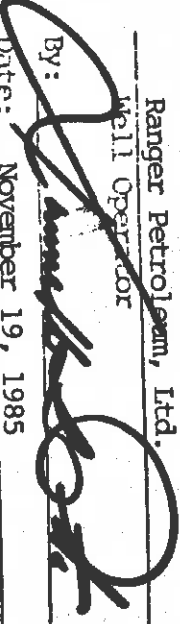
Big Injun perforated 2070-92 with 16 holes. Fraced with 27,500 #sand, 285 BBL s/L Fluid.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Shale and Red Rock			0	20	Including indication of all fresh and salt water, coal, oil and gas
Sand			20	45	
Sand and Shale			45	175	1/2" H2O @ 95'
Sand			175	185	
Sand and Shale			185	198	
Sand			198	210	
Sandy Shale			210	226	
Sand			226	240	
Sand and Shale			240	280	
Sand			280	310	
Shale and Red Rock			310	360	
Sand			360	380	
Sand and Shale and Red Rock			380	441	
Sandy Shale			441	495	
Sand and Shale			495	564	
Shale and			564	704	
Sand			704	716	
Shale			716	737	
Sandy Shale			737	847	
Shale			847	896	
Sandy Shale			896	927	
Sand			927	940	
Shale			940	954	
Sandy Shale			954	965	
Shale			965	971	
Sandy Shale			971	1122	
Sand			1122	1157	
Sandy Shale			1157	1221	
Shale			1221	1233	
Sandy Shale			1233	1500	
Sand			1500	1568	
Sand & Shale			1568	1688	
Sand			1688	1766	
Sand and Shale			1766	1815	
Shale			1815	1828	
Sandy Shale			1828	1930	
Shale			1930	1942	
Sandy Shale			1942	1976	
Lime			1976	2061	
Shale			2061	2095	
LOG TOPS	✓		2200		

Check gas at 2000' No Show
 (at 2061 separates as necessary)
 Show oil at 2095'

Injun @ TD

Ranger Petroleum, Ltd.
 Well Operator
 By: 
 Date: November 19, 1985

Note: Regulation 3.02(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."

Little Lime 1940
 Big Lime 1988
 Big Injun 2066
 Total Depth 2203



1) Date: September 9, 1985
2) Operator's Well No. H-1 (Spencer)
3) API Well No. 47 017 -3473
State County Permit

SEP 12 1985
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
DEPARTMENT OF ENERGY
APPLICATION FOR A WELL WORK PERMIT

4) WELL TYPE: A Oil Gas B (If "Gas", Production Undergrnd storage Deep Shallow
Elevation: 1045 Watershed: Little Flint Run of Big Flint Run
District: Grant County: Doddridge Quadrangle: Smithburg 7.5'
6) WELL OPERATOR Ranger Petroleum, L.P. 7) DESIGNATED AGENT Kenneth L. Pote
Address P.O. Drawer 190 732 Address P.O. Drawer 190 Clarksburg, WV 26301
8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Mike Underwood 9) DRILLING CONTRACTOR:
Address Route 2, Box 114 Name Unknown
Salem, WV 26426 Address

10) PROPOSED WELL WORK: Drill Redrill Stimulate
Plug off old formation Perforate new formation
Other physical change in well (specify) _____

11) GEOLOGICAL TARGET FORMATION, Big Injun 371
12) Estimated depth of completed well, 2200 feet
13) Approximate traata depths: Fresh, _____ feet; salt, _____ feet.
14) Approximate coal seam depths: _____ 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.	For drilling	Left in well		
Conductor	11 3/4"	H		20'			
Fresh water							
Coal							
Intermediate	8 5/8"	H	20#	500'	500'	Circulate to Surface	
Production	4 1/2"	J	10.5#		2100'	150 SX as per rule by rule 1501	
Tubing							
Liners							

Perforations: Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-017-3473 Date October 11 19 85

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 October 11, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>AW</u>	Plat: <u>MW 1029</u>	Casing Fee	WPCP	S&E	Other
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NOTE: Keep one copy of this permit posted at the drilling location.

Director, Division of Oil and Gas

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

File

