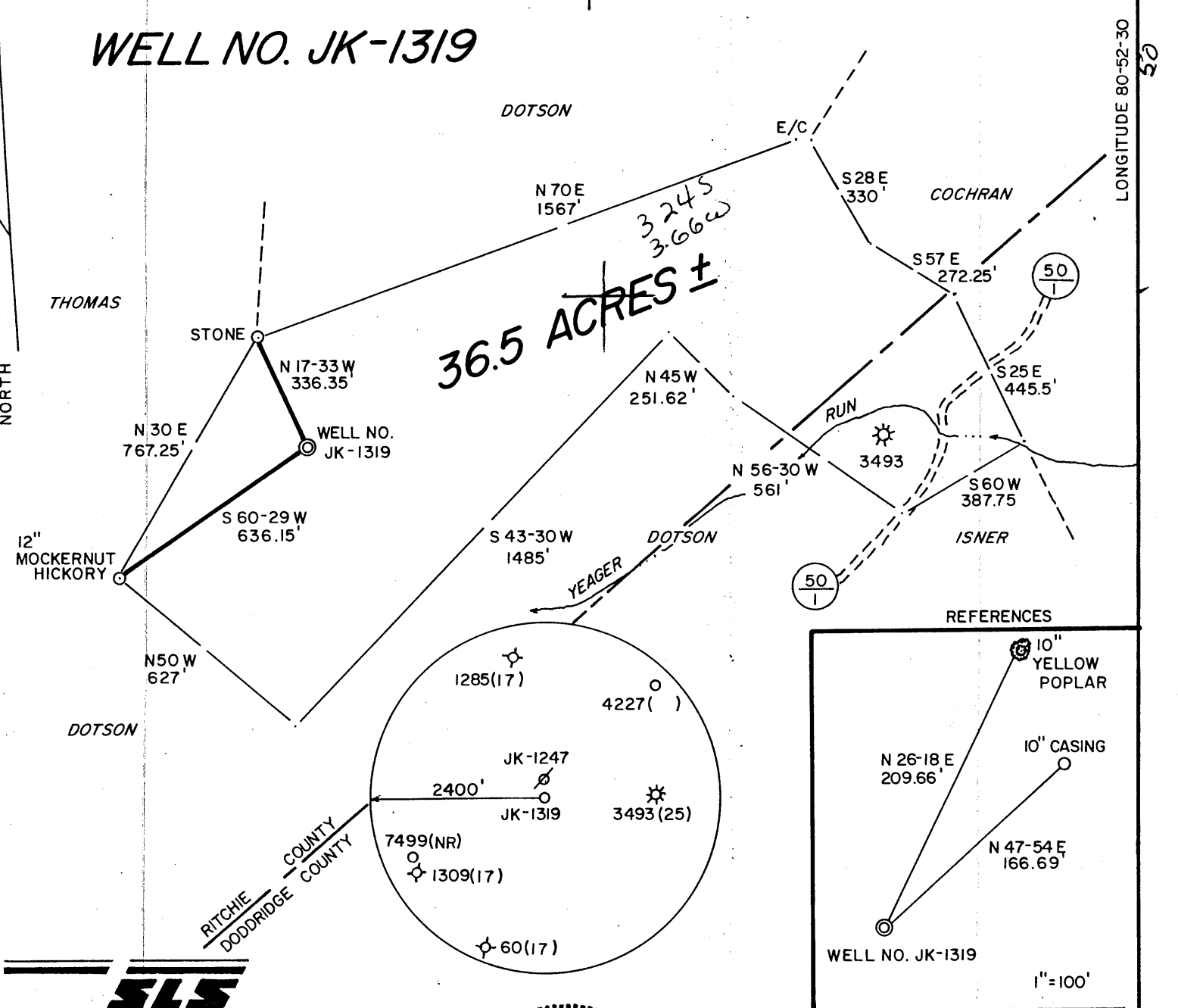
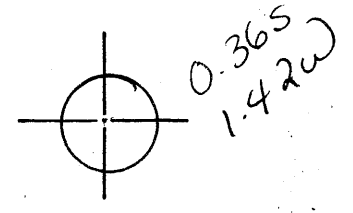
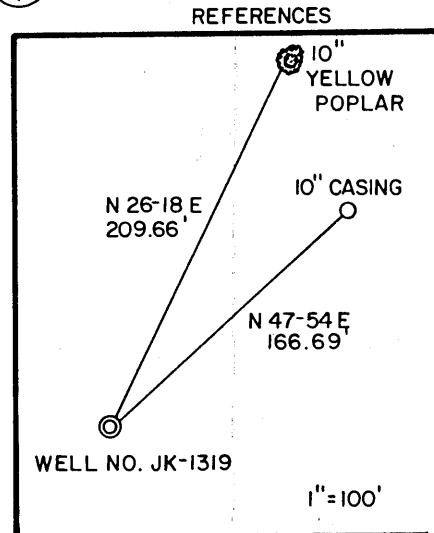
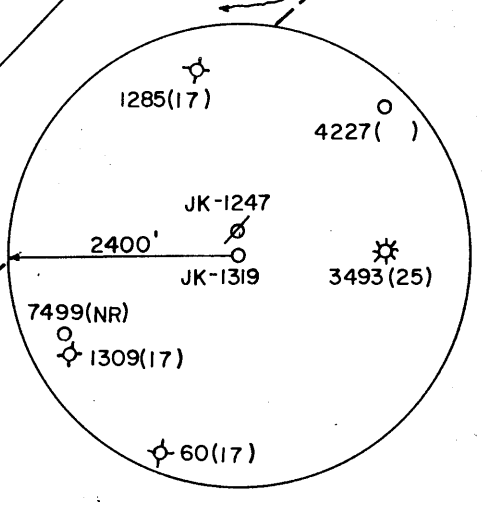


# DOTSON LEASE

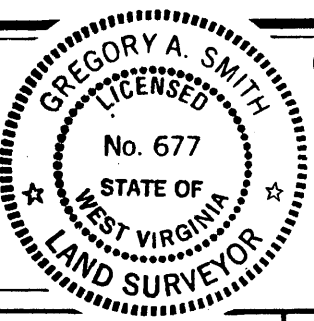
## WELL NO. JK-1319



### 36.5 ACRES ±



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 ENERGY.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE APRIL 29, 19 87  
 OPERATORS WELL NO. JK-1319  
 API WELL NO. 47 - 085 - 7650  
 STATE COUNTY PERMIT

L.L.S. 677 Gregory A. Smith

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. (18-55,22-8) 1372  
 PROVEN SOURCE OF ELEVATION BM. ELEV.=854' SCALE 1"=400'

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENERGY  
**OIL AND GAS DIVISION**

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1087' WATERSHED YEAGER RUN West Union  
 DISTRICT CLAY COUNTY RITCHIE QUADRANGLE PENNSBORO 7.5' 539  
 SURFACE OWNER ROGER D. DOTSON ACREAGE 39.23 of 64.01 133  
 ROYALTY OWNER ROGER D. DOTSON et.al. LEASE ACREAGE 40 SCg  
 PROPOSED WORK: LEASE NO. JJ-2040  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD  
 FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ALEXANDER  
 ESTIMATED DEPTH 570' **MAY 11 1987**

WELL OPERATOR J&J ENTERPRISES, INC. 427 DESIGNATED AGENT RICHARD REDDECLIFF  
 ADDRESS P.O. BOX 48 BUCKHANNON, WV 26201 ADDRESS P.O. BOX 48 BUCKHANNON, WV 26201



(REVERSE)

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

Alexander: Perforations: 5194-5214 (14 holes)  
Fracturing: 425 sks. 20/40 sand: Foam frac.

Benson: Perforations: 4910-12 (6 holes)  
Fracturing: 350 sks. 20/40 sand: 500 gal. acid.

Riley: Perforations: 4424-4525 (11 holes)  
Fracturing: 200 sks. 20/40 sand: 500 gal. acid.

BOTTOM HOLE PRESSURE Pf=Pwe<sup>XGLS</sup>

t = 60 + (0.0075 x 5345) + 459.7 = 560    X = 53.35 x 560 = 29869    = 0.000033    Pf = 1400 x 2.72 (0.000033)

(0.661) (4819) (0.9) = 1400 x 2.72<sup>0.1</sup> = 1400 x 1.1

Pf=1540 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fr and salt water, coal, oil and
Fill			0	5	
Sand, shale & red rock			5	168	
Sand & shale			168	670	1/2" stream @ 1580'
Sand, shale & red rock			670	768	
Coal			768	770	
Shale & red rock			770	905	Oil @ 1855
Red rock & shale			905	1029	
Sand & shale			1029	1185	Gas ck @ 3508 No show
Sand & sandy shale			1185	1652	
Shale & sand			1652	1895	Gas ck @ 4469 No show
Big Lime			1895	1993	
Sand & shale			1993	2239	Gas ck @ 4469 No show
Sandy shale			2239	2889	
Sand & shale			2889	3198	Gas ck @ 4936 No show
Sand & shale			3198	4424	
Riley			4424	4525	Gas ck @ 5309 No show
Sand & shale			4525	4910	
Benson			4910	4912	Gas ck @ collars 2/10-1" w/wat 14.90 cu.ft.
Sand & shale			4912	5194	
✓ Alexander			5194	5214	
Sandy shale			5214	5527	

T.D.

RECEIVED  
JUN 05 1987

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

J&J Enterprises, INC.

Well Operator

By:

Date: 6/4/87

Robert Dahlin - 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 sand, encountered in the drilling of a well."



1) Date: May 1, 1987  
 2) Operator's Well No. JK-1319  
 3) API Well No. 47 085 7650  
 State County Permit

7/85  
**RECEIVED**  
MAY 05 1987

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

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil  Gas   
 B (If "Gas", Production  Underground storage  Deep  Shallow )  
 5) LOCATION: Elevation: 1087' Watershed: Yeager Run  
 District: Clay County: Ritchie Quadrangle: Pennsboro 7.5'  
 6) WELL OPERATOR J & J Enterprises CODE: 24150 7) DESIGNATED AGENT Richard M. Reddecliff  
 Address P.O. Box 48 Address P.O. Box 48  
Buckhannon, WV 26201 Buckhannon, WV 26201  
 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Samuel Hersman 9) DRILLING CONTRACTOR:  
 Address P.O. Box 66 Name S.W. Jack Drilling Co.  
Smithville, WV 26178 Address P.O. Box 48  
Smithville, WV 26178 Buckhannon, WV 26201  
 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  
 12) Estimated depth of completed well, 5700 feet  
 13) Approximate trata depths: Fresh, 125 feet; salt, N/A feet.  
 14) Approximate coal seam depths: N/A 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		Kinds	
Conductor	11 3/4	H-40	42	X		30'	0'	0 Sacks		
Fresh water	8 5/8	ERW	23	X		1237'	1237'	To Surface	By Rule 15.05	
Coal	8 5/8	ERW	23	X		1237'	1237'	To Surface	Sizes By Rule 15.05	
Intermediate										
Production	4 1/2	J-55	10.5	X		5700'	5600'	By Rule 15.05	Depths of <u>OR 5600 SCS</u>	
Tubing										
Liners										
									Perforations:	
									Top	Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-085-7650

May 5 19 87  
Date

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 May 5, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

85001

Bond:	Agent:	Plat:	Casing	Fee	WBCEP	S&E	Other
				2165			
				200			

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

Director, Division of Oil and Gas

File

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