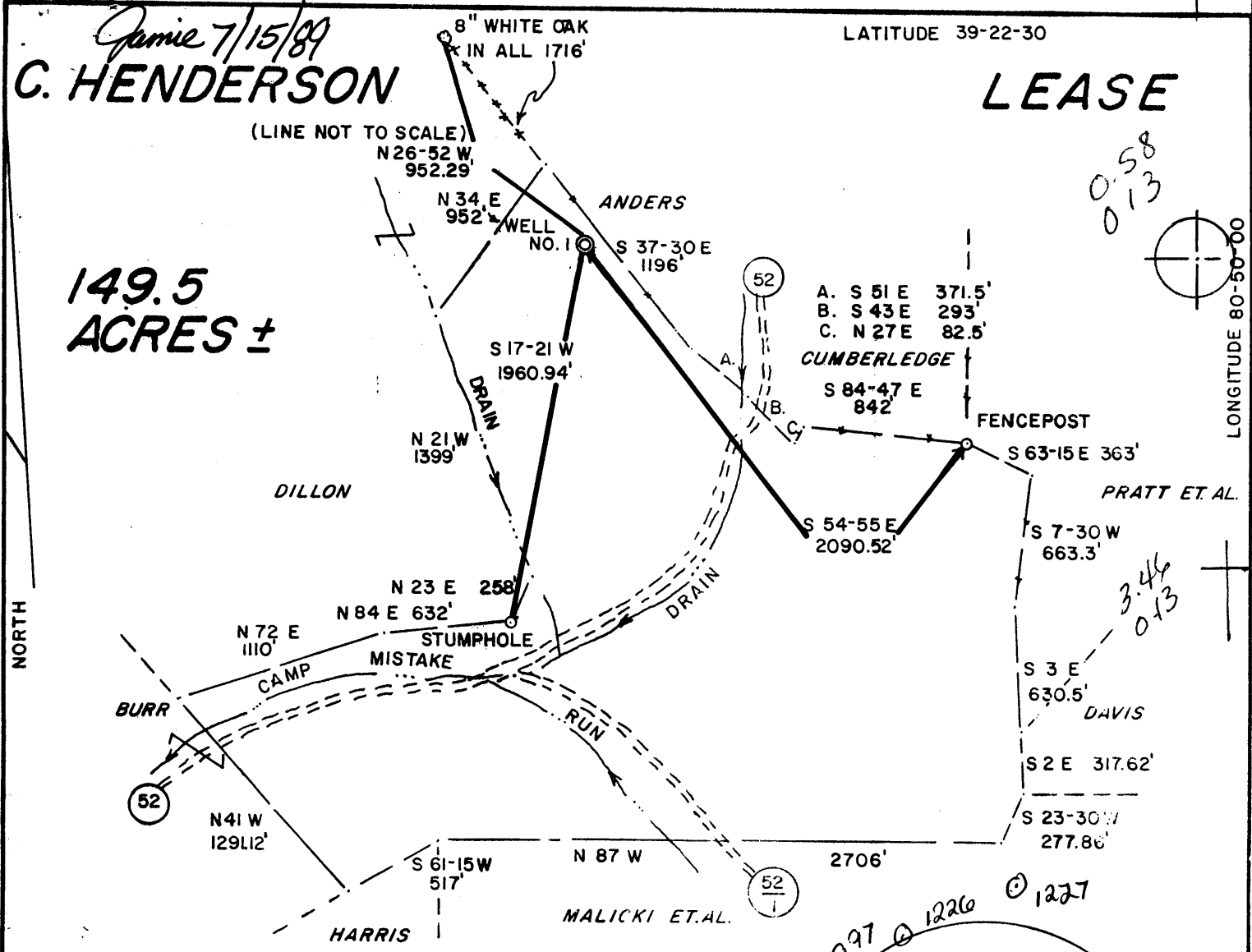


Janie 7/15/89
C. HENDERSON

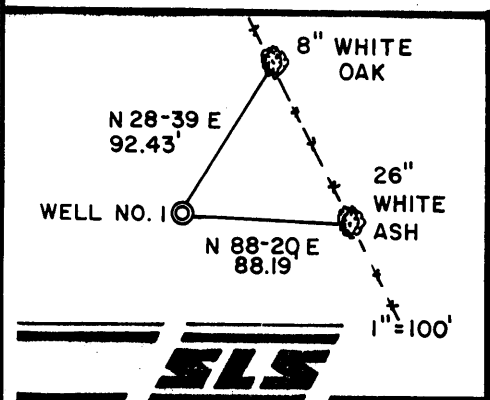
LEASE

**149.5
ACRES ±**

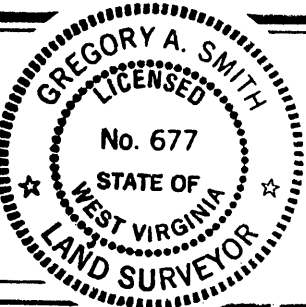


WELL NO. 1

REFERENCES



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.



L.L.S. *Gregory A. Smith*
677

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE JUNE 22, 19 89

OPERATORS WELL NO. C. HENDERSON NO. 1
WVTYL001001

API WELL NO. 47 - 095 - 1318
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1666 (24-10)
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. = 996' SCALE 1" = 800'

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 1012' WATERSHED CAMP MISTAKE RUN QUADRANGLE WEST UNION 7.5'621
DISTRICT CENTERVILLE COUNTY TYLER ACREAGE 149.5 133

SURFACE OWNER CHARLES W. HENDERSON ET AL. LEASE ACREAGE 149.5
ROYALTY OWNER CHARLES W. HENDERSON ET AL. LEASE NO. WVO1754-A

PROPOSED WORK: 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 BENSON
ESTIMATED DEPTH 5020' JUL 21 1989

WELL OPERATOR EASTERN AMERICAN ENERGY CORP. DESIGNATED AGENT JOHN M. PALETTI
ADDRESS BOX N GLENVILLE, WV. 26351 ADDRESS 501 56th. ST. CHARLESTON, WV. 25304

COUNTY NAME PERMIT

259
6-6 Wilbur (092)

WR-15
RECEIVED
 DEC 04 1989

21-Jul-89
 API # 47- 95- 01318

State of West Virginia
 DEPARTMENT OF ENERGY
 Division of Oil and Gas

Well Operator's Report of Well Work
 DEPARTMENT OF ENERGY

Farm name: DAUGHERTY, CHARLES ETAL. Operator Well No.: C. HENDERSON #1

LOCATION: Elevation: 1012.00 Quadrangle: WEST UNION

District: CENTERVILLE County: TYLER
 Latitude: 3120 Feet South of 39 Deg. 22Min. 30 Sec.
 Longitude 720 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: EASTERN AMERICAN ENERGY C
 501 56TH ST.
 CHARLESTON, WV 25304-0000

Agent: DONALD C. SUPCOE

Inspector: GLEN P. ROBINSON
 Permit Issued: 07/21/89
 Well work Commenced: 09/25/89
 Well work Completed: 10/10/89
 Verbal Plugging _____
 Permission granted on: _____
 Rotary Cable _____ Rig _____
 Total Depth (feet) 5167'
 Fresh water depths (ft) 50', 168', 530'
 Salt water depths (ft) 1440'

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	112.70'	112.70'	C.T.S.
8-5/8"	1196.50'	1196.50'	C.T.S.
4-1/2"	4987.50'	4987.50'	903
1-1/2"	---	5010.45'	---

Is coal being mined in area (Y/N)? N
 Coal Depths (ft): _____

OPEN FLOW DATA

Producing formation Benson, Riley (Commingle) Pay zone depth (ft) 4920'-4504'
 Gas: Initial open flow 671 MCF/d Oil: Initial open flow N/A Bbl/d
 Final open flow 432 MCF/d Final open flow N/A Bbl/d
 Time of open flow between initial and final tests 15 Hours
 Static rock Pressure 1300 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____
 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 pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: Rich Heffelfinger
 EASTERN AMERICAN ENERGY CORP.
 By: Vice President - Regional Operations
 Date: October 18, 1989

DEC 08 1989

(REVERSE)

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

2-STAGE FOAM FRAC:

STAGE 1: Benson - 8 holes (4920.5'-4917.5') Breakdown 2320 psi, 60 Quality foam, 30 lbs/1000 gals Gel, 5000 lbs 80/100 sand and 40,000 lbs 20/40 sand, 500 gals 15% HCl acid and 578,000 scf of N₂

STAGE 2: Riley - 12 holes (4534.5'-4504') Breakdown 1465 psi, 60 Quality foam, 30 lbs/1000 gals Gel, 5000 lbs 80/100 sand and 30,000 lbs 20/40 sand, 500 gals 15% HCl acid and 499,000 scf of N₂

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Soil			0	10	
Sand and Shale			10	120	1/2" water @ 50'
Shale and Red Rock			120	168	1/4" water @ 168
Sand			168	180	1/2" water @ 530'
Red Rock and Shale			180	256	1/2" water @ 1440'
Sand and Shale and Red Rock			256	330	Soap hole @ 1455'
Shale and Red Rock			330	460	
Shale and Sand			460	1815	
Little Lime			1815	1830	<u>GAS CHECKS:</u>
Sand and Shale			1830	1856	1856' - No show
Big Lime			1856	1906	1951' - 12/10 thru 2" w/mercury
Sand and Shale			1906	2058	2204' - 10/10 thru 2" w/mercury
Shale			2056	2188	2361' - 8/10 thru 2" w/mercury
Siltstone			2188	2215	2805' - 6/10 thru 2" w/mercury
Weir			2215	2328	3309' - 8/10 thru 2" w/mercury
Shale			2328	2415	3403' - 8/10 thru 2" w/mercury
Berea			2415	2422	4004' - 4/10 thru 2" w/mercury
Shale w/Tr. Sand			2422	3326	4477' - 4/10 thru 2" w/mercury
Warren			3326	3382	4793' - 6/10 thru 2" w/mercury
Shale w/Tr. Sand			3382	4500	5167' - 6/10 thru 2" w/mercury
Riley			4500	4550	D.C. - 80/10 thru 2" w/water
Shale and Sand			4550	4910	
Benson			4910	4934	
Shale			4934	5167 T.D.	

RECEIVED
DEC 04 1998

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

9/55