

5/18/82

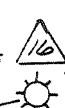
Plot Card 47-017-2905

LATITUDE 39°17'30"
39°20'

Shallow Well Drilled in 1910



Leeman Gains



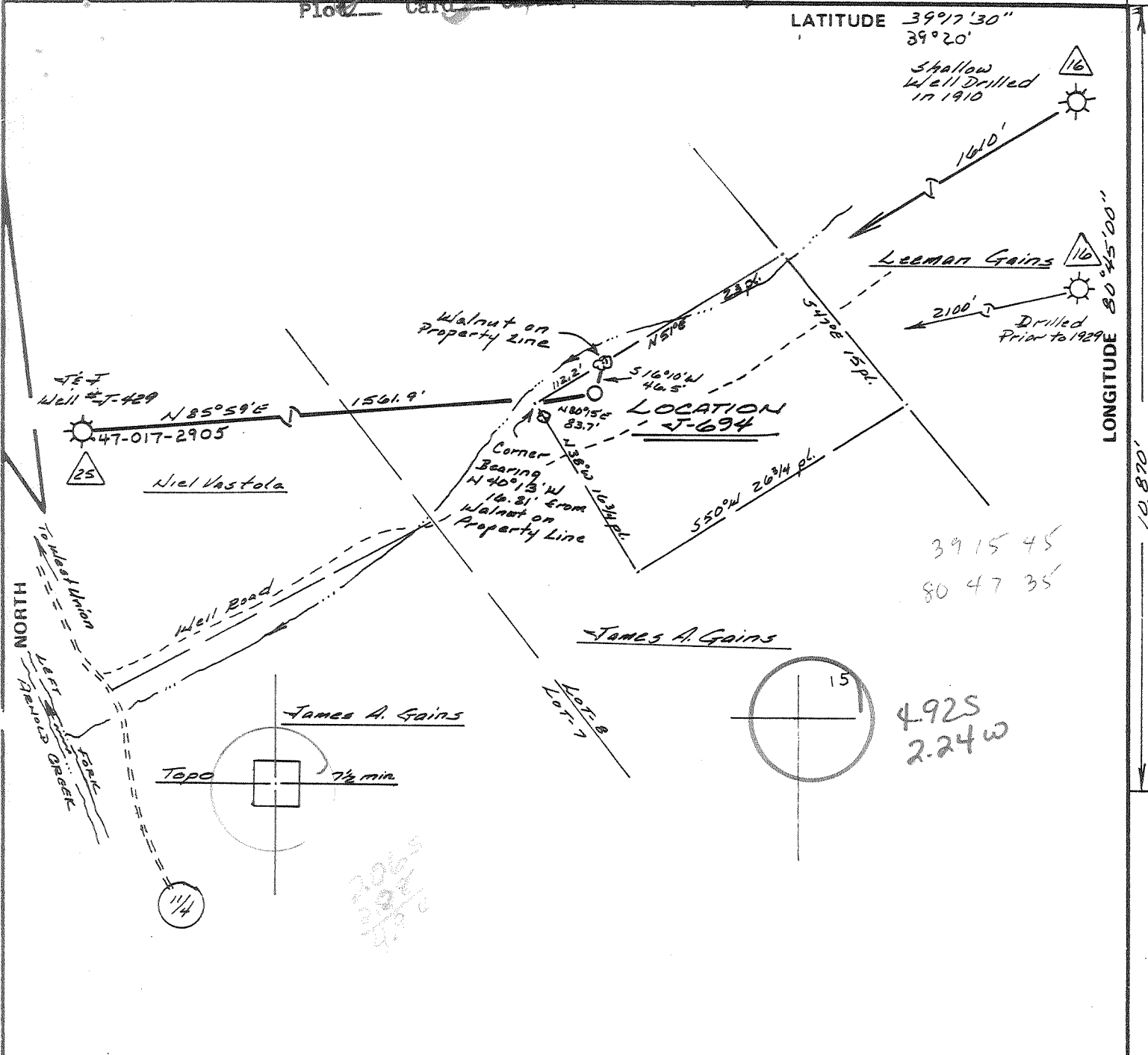
Drilled Prior to 1929

LONGITUDE 80°45'00"

10,870'

39 15 45
80 47 35

4925
2.24w



FILE NO. 346.01
DRAWING NO. 82-7
SCALE 1" = 200'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION Spot El. = 860'
South of Location on Route 114

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) Ruford J. Ostrander
R.P.E. _____ L.L.S. 555
Buckhannon, W. Va.

PLACE SEAL HERE

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



DATE 12 May, 19 82
OPERATOR'S WELL NO. J-694
API WELL NO. _____
47 - 017 - 3104
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 895' WATER SHED Left Fork Middle Creek
DISTRICT West Union COUNTY Doddridge
QUADRANGLE West Union 915 SE
SURFACE OWNER James A. Gains ACREAGE 2.5
OIL & GAS ROYALTY OWNER James A. Gains LEASE ACREAGE 2.5
LEASE NO. J-1341
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 4950
WELL OPERATOR JET ENTERPRISES, INC. DESIGNATED AGENT HARRY L. BARNETT
ADDRESS P.O. Box 48 ADDRESS P.O. Box 48
BUCKHANNON, W. VA. 26201 BUCKHANNON, W. VA. 26201

JUN 2 1982

6-4 STRAIGHT FK-BLUESTONE CK 133

RECEIVED

Operator's Well No. J-694
API Well No. 47 - 017 - 3104
State County Permit

JUN 18 1982

**OIL AND GAS DIVISION
WV DEPARTMENT OF MINES**

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

**WELL OPERATOR'S REPORT
OF**

DRILLING, FRACURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection Waste Disposal
(If "Gas", Production / Underground storage / Deep / Shallow)

LOCATION: Elevation: 895 Watershed: Left Fork Middle Creek
District West Union County: Doddridge Quadrangle: West Union

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

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

PERMIT ISSUED ON 5/13, 1982 OIL & GAS INSPECTOR FOR THIS WORK:
Name Stephen Casey
IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED Address Rt. # 2, Box 232-D
Jane Lew, WV 26378

GEOLOGICAL TARGET FORMATION: Alexander Depth 4965-75 feet
Depth of completed well, 5205 feet Rotary / Cable Tools
Water strata depth: Fresh, 90 feet; salt, None feet.
Coal seam depths: 50-54 Is coal being mined in the area? No
Work was commenced 5/27, 1982, and completed 6/3, 1982

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		28	0	0 sks.	Wands
Fresh water	8 ⁵ / ₈	ERW	23	x		1041	1041	270sks.	
Coal	8 ⁵ / ₈	ERW	23	x		1041	1041	270 sks.	Sizes
Intermediate									
Production Tubing	4 ¹ / ₂	J-55	10.5	x		5059	5059	135 sks.	Depths set
Liners									Perforations:
									Top Bottom
									4965 4975

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 4965-75 feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 880 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 4 hours

Static rock pressure, 1814 psig (surface measurement) after 48 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

Bottom Hole Pressure Static rock pressure, _____ psig (surface measurement) after _____ hours shut in
Pf=pweXGLS
 $t=60+(0.0075 \times 5059) + 459.7=557$ $X=\frac{1}{53.35 \times 558} = \frac{1}{29750} = 0.0000336$ Pf=1814x2,72 (0,0000336) (0.670)
(4970) (0.9) =1814 x 2.72 0.1 =1814 x 1.1
Pf=2004 psi

JUN 28 1982

108-78

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

Alexander: Perforations: 4965-75 (15 holes)

Fracturing: 300 sks. 80/100 sand: 500 sks. 20/40 sand: 670 Bbls. fluid.

*ELL 100

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Fill			0	50	
Coal			50	54	Damp @ 55'
Sand & sandy shale			54	105	
Red rock, shale & sandy shale			105	173	3/4" stream @ 90'
Sand & sandy shale			173	274	
Sandy shale & red rock			274	324	Gas ck @ 2005 No show
Sand, Lime & red rock			324	350	
Sandy shale & red rock			350	450	Gas ck @ 2515 No show
Sand, shale & red rock			450	544	
Sand, shale & red rock			544	718	Gas ck @ 2611 90/10-1" w/water 71,444 cu.ft.
Shale & sand			718	930	
Shale, lime & sand			930	941	
Shale & sandy shale			941	1077	Gas ck @ 3030 90/10-1" w/water 71,444 cu.ft.
Sandy shale & sand			1077	1108	
Shale & sand			1108	1160	Gas ck @ 3511 108/10-1" w/water 407.92 MCF
Sandy shale & sand			1160	1222	
Shale & sandy shale			1222	1320	
Sandy shale & sand			1320	1620	Gas ck @ 4023 60/10-1 1/4" w/Water 91,192 cu.ft.
Little lime			1620	1630	
Shale			1630	1654	
Big Lime & Injun			1654	1794	Gas ck @ 4506 60/10-1 1/4" w/water 91,192 cu.ft.
Sandy shale			1794	2170	
Sandy shale			2170	2378	
Shale & sandy shale			2378	3895	Gas ck @ 4827 60/10-1 1/4" w/water 91,192 cu.f.t.
Shale & sandy shale			3895	4965	
Alexander			4965	4975	
Sandy shale			4975	5205	
				TD	

(Attach separate sheets to complete as necessary.)

J&J Enterprises, Inc.

Well Operator

By

Peter Battles Geologist

Its

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 coal, encountered in the drilling of a well."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-694
API Well No. 47 0173104
State County Per

WELL TYPE: Oil / Gas
(If "Gas", Production / Underground storage / Deep / Shallow)
LOCATION: Elevation: 895 Watershed: Left Fork Middle Creek
District: West Union County: Doddridge Quadrangle: West Union

WELL OPERATOR J&J Enterprises, Inc.
Address P.O. Box 48
Buckhannon, WV 26201

DESIGNATED AGENT Harry L. Barnett
Address P.O. Box 48
Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER James A. Gain
Address Box 54
West Union, WV 26456

COAL OPERATOR None
Address _____

ACREAGE 2.5
SURFACE OWNER James A. Gain
Address Box 54
West Union, WV 26456
ACREAGE 2.5

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name James A. Gain
Address Box 54
West Union, WV 26456

FIELD SALE (IF MADE) TO:
Name Unknown
Address _____

Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Stephen Casey
Address Rt. 2, Box 232-D
Jane Lew, WV 26378

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

RECEIVED

MAY 13 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated 3/15, 1982, to the undersigned well operator from James A. Gain (Single)

[If said deed, lease, or other contract has been recorded:]
Recorded on 3/16, 1982, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Lease Book 23 at page 802. A permit is requested as follows:

PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or stimulate /
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
615 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3092

BLANKET BOND

J&J Enterprises, Inc.
Well Operator

By Peter Battles
Geologist

[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 P.O. Box 48
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 4950 feet Rotary x / Cable tools /
Approximate water strata depths: Fresh, 95 feet; salt, 565 feet.
Approximate coal seam depths: None Is coal being mined in the area? Yes No x

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		300 200	200	0 0.75	Kinds
Fresh water	8 ⁵ / ₈	ERW	23	x		800	800	To surface	
Coal	8 ⁵ / ₈	ERW	23	x		800	800	To surface	Sizes
Intermediate									
Production	4 ¹ / ₂	J-55	10.5	x		4900	4900	375 sks.	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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE
ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,
ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY
APPROVED FOR drilling THIS PERMIT SHALL EXPIRE
IF OPERATIONS HAVE NOT COMMENCED BY 1-19-83

BY [Signature]

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