



Well No. Collins #4A  
Farm Jacob Minnich  
API #47-021-3932  
Date August 16, 1982

STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

LOCATION: Elevation: 942' Watershed: Collins Run  
District: Glennville County: Gilmer Quadrangle: Glennville 7.5

WELL OPERATOR Waco Oil & Gas Co., Inc.  
Address 1297 N. Lewis St.  
Glennville, WV 26351

DESIGNATED AGENT Kenny Greenlief  
Address 1297 N. Lewis St.  
Glennville, WV 26351

OIL AND GAS ROYALTY OWNER Granville Collins Heirs  
Address Rd. #2, Rt. 303  
Grafton, Ohio 44044  
Acreage 88.5

COAL OPERATOR None  
Address \_\_\_\_\_

SURFACE OWNER Jacob Minnich  
Address \_\_\_\_\_  
Glennville, WV 26351  
Acreage 88.5

COAL OWNER(S) WITH DECLARATION ON RECORD:  
NAME None  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
NAME uncommitted  
Address \_\_\_\_\_

NAME \_\_\_\_\_  
Address \_\_\_\_\_

OIL AND GAS INSPECTOR TO BE NOTIFIED:  
NAME Samuel N. Hersman  
Address P. O. Box 66  
Smithville, WV 26178  
Telephone 477-3597

COAL LESSEE WITH DECLARATION ON RECORD:  
NAME None  
Address \_\_\_\_\_

**RECEIVED**  
AUG 18 1982

OIL & GAS DIVISION  
DEPT. 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 x / dated Mar. 25 1977, to the undersigned well operator from Bernard S. & Mary Graves.

(If said deed, lease, or other contract has been recorded:)

Recorded on Mar. 25, 19 77, in the office of the Clerk of County Commission of Gilmer County, West Virginia, in 288 Book at page 720. A permit is requested as follows:

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 receipt of this Application by the Dept. 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 Application to the Department of Mines at Charleston, West Virginia.

12/01/2023

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1613 WASHINGTON ST., E.  
CHARLESTON, WV 25311  
Telephone - 304/348-3092

Waco Oil & Gas Co., Inc.  
Well Operator

By: Kenneth Greenlief

Its: Agent

**BLANKET BOND**





IV-9  
Revised 11-81

DATE July 27, 1982

WELL NO. Collins #4A

State of West Virginia

API NO. 47 - 021 - 3932

Department of Mines  
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Waco Oil & Gas Co., / DESIGNATED AGENT Kenneth Greenlief

Address Glenville, WV 26351

Address Glenville, WV 26351

Telephone 462-5347

Telephone 462-5347

LANDOWNER Jacob Minnich

SOIL CONS. DISTRICT West Fork

Revegetation to be carried out by Main Line Construction Co. (Agent)

This plan has been reviewed by West Fork SCD. All corrections and additions become a part of this plan: 8/13/82

Kenneth Knight  
(SCD Agent)

ACCESS ROAD

LOCATION

Structure CROSS DRAINS

(A)

Structure DIVERSION DITCH (1)

Spacing 45 FT. apart

Material EARTHEN

Page Ref. Manual 2-4

Page Ref. Manual 2-12

Structure DRAINAGE DITCH

(B)

Structure \_\_\_\_\_ (2)

Spacing EARTHEN ALONG SIDE OF ROAD

Material \_\_\_\_\_

Page Ref. Manual 2-12

Page Ref. Manual \_\_\_\_\_

Structure CULVERTS

(C)

Structure \_\_\_\_\_ (3)

Spacing 15" MINIMUM AS NEEDED

Material \_\_\_\_\_

Page Ref. Manual 2-7

Page Ref. Manual \_\_\_\_\_

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I

Treatment Area II

\* Lime \_\_\_\_\_ Tons/acre  
or correct to pH 6.5  
Fertilizer 500 lbs/acre  
(10-20-20 or equivalent)  
Mulch H. Seed-paper 3/4 Tons/acre  
Seed\* Ky 31 Fescue 35 lbs/acre  
Ladino Clover 5 lbs/acre  
\_\_\_\_\_ lbs/acre

\* Lime \_\_\_\_\_ Tons/acre  
or correct to pH 6.5  
Fertilizer 500 lbs/acre  
(10-20-20 or equivalent)  
Mulch H. Seed-paper 3/4 Tons/acre  
Seed\* Ky 31 Fescue 35 lbs/acre  
Ladino Clover 5 lbs/acre  
\_\_\_\_\_ lbs/acre

\*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

\* LIME ACCORDING TO PH TEST

PLAN PREPARED BY Kenneth Greenlief - Agent

ADDRESS Waco Oil & Gas Co., Inc.

Glenville, WV 26351

PHONE NO. 462-5347

NOTES: Please request landowners' cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

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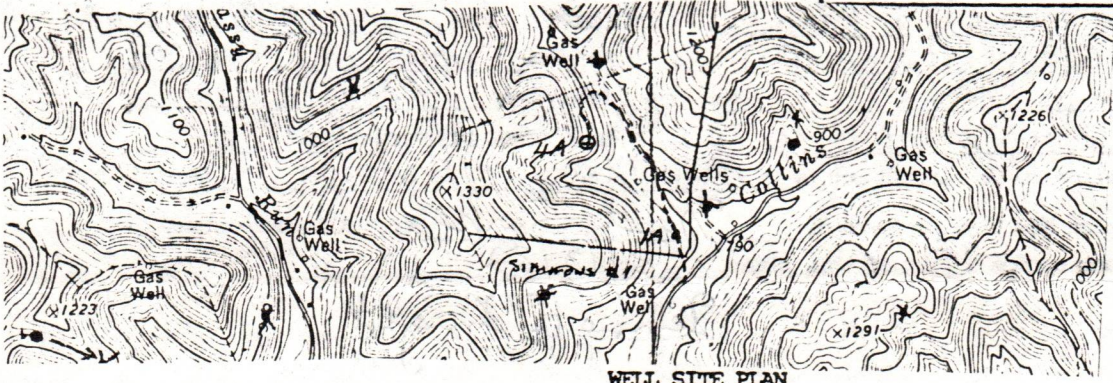
OIL & GAS DIVISION  
DEPT. OF MINES

IV-9 REVERSE  
 Revised 11-81

ATTACH OR PHOTOCOPY SECTION OF  
 INVOLVED TOPOGRAPHIC MAP.  
 QUADRANGLE Glenville 7.5

**LEGEND**

Well Site ⊕  
 Access Road ———



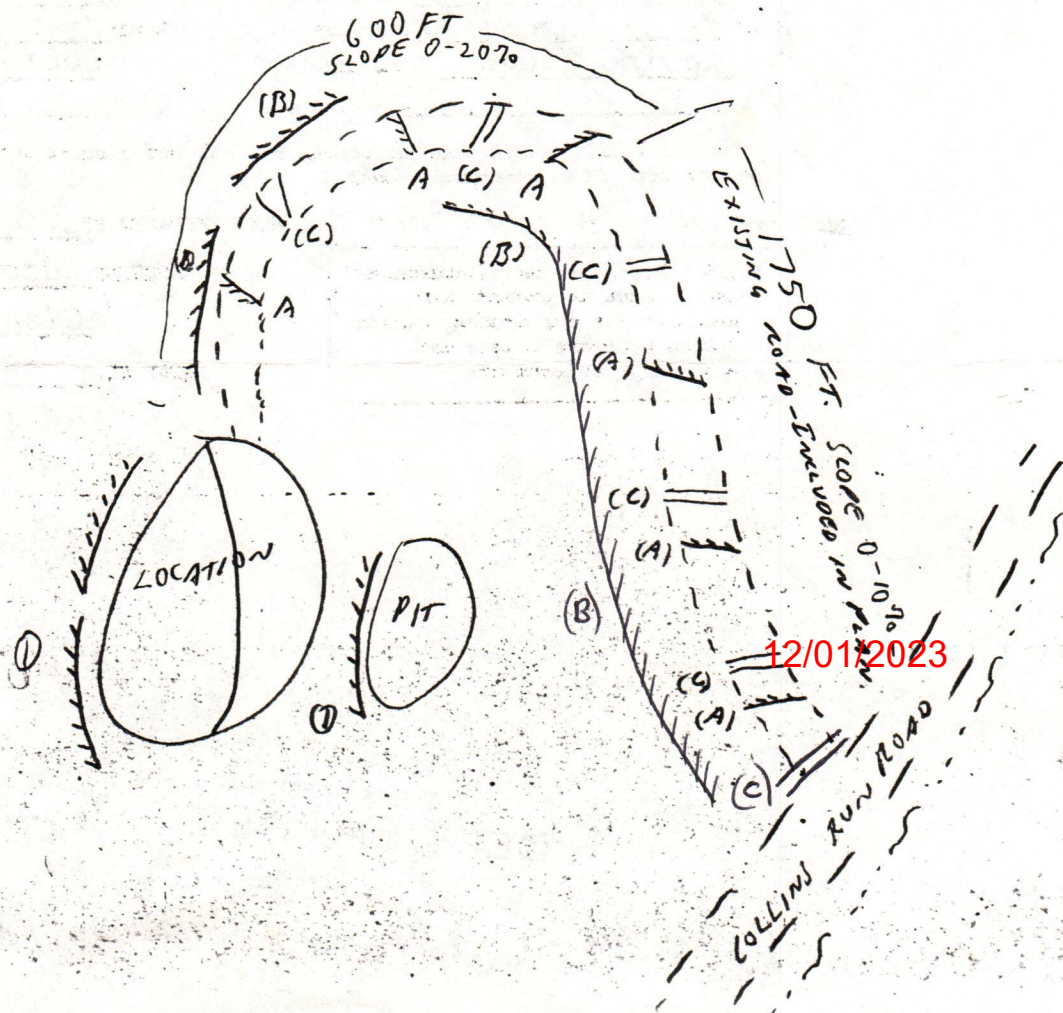
WELL SITE PLAN

Sketch to include well location, existing access road, roads to be constructed, length and slope of road, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

Land Use: Pasture  Hayland  Cropland  Woodland

**LEGEND**

Property boundary ———	North Arrow ↗
Road = = = = =	Diversion // // // //
Existing fence — X — X —	Spring ○ →
Planned fence — / — / —	Wet Spot ☀
Stream ~ ~ ~ ~ ~	Building □
Open Ditch —> —> —> —>	Drain pipe —○—○—○—
Waterway (=> => => =>)	





# WACO OIL & GAS, INC.

1297 N. LEWIS STREET • PHONE 304-462-5347

GLENVILLE, WEST VIRGINIA 26351

I. L. MORRIS

## LEASE INFORMATION

Coal-3932

### 1. Description of Lease:

North by: GRANVILLE COLLINS HAS.  
East by: GRANVILLE COLLINS HAS.  
South by: S.C. SIMMONS  
West by: A.L. COTTRELL & JOHN MCGINNIS HAS.

Containing 100 acres, on the waters of Collins Run  
in Glenville District of Gilmer County.

### 2. (a) Lessors:

JOHN J. HENDRICK, EXECUTOR OF LAST WILL & TESTAMENT  
OF GRANVILLE COLLINS, DECEASED

(B) Lessee: E.L. BUSH

### 3. Lease(s) is(are) recorded in the office of the clerk of the the County Commission of Gilmer County as follows:

Book <u>165</u>	Page <u>191</u>	250-300	292-622
Book <u>167</u>	Page <u>508</u>	260-702	292-623
Book <u>173</u>	Page <u>370</u>	328-249	326-614
Book <u>16</u>	Page <u>305</u>	272-312	291-53
Book <u>126</u>	Page <u>354</u>	288-676	WB 11-450
BookWB <u>6</u>	Page <u>423</u>	288-720	PLUS 9 ASSIGNMENTS AT
Book <u>250</u>	Page <u>248</u>	169-126	COURTHOUSE NOW BEING
		173-218	RECORDED
		292-621	

### 4. Royalty provisions (quoted from lease):

"SAID LESSOR SHALL BE PAID AT THE RATE OF ONE-EIGHTH OF PROCEEDS FOR SALE OF GAS"

"PAYING TO THE LESSOR ONE-EIGHTH OF ALL THE OIL"

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AUG 18 1982

OIL & GAS DIVISION  
DEPT. OF MINES

12/01/2023



IV-35  
(Rev 8-81)

Date February 10, 1983  
Operator's  
Well No. Collins #4A  
Farm Jacob Minnich  
API No. 47 - 021 - 3932

State of West Virginia  
Department of Mines  
Oil and Gas Division

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    / Underground Storage    / Deep    / Shallow x /)

LOCATION: Elevation: 942 Watershed Collins Run  
District: Glenville County Gilmer Quadrangle Glenville 7.5

COMPANY Waco Oil & Gas Company, Inc.  
ADDRESS Glenville, WV 26351  
DESIGNATED AGENT Kenneth Greenlief  
ADDRESS Glenville, WV 26351  
SURFACE OWNER Jacob Minnich  
ADDRESS Glenville, WV 26351  
MINERAL RIGHTS OWNER Granville Collins Heirs  
ADDRESS Grafton, OH 44044  
OIL AND GAS INSPECTOR FOR THIS WORK: Deo  
Mace ADDRESS Sandridge, WV 25274  
PERMIT ISSUED August 18, 1982  
DRILLING COMMENCED December 28, 1982  
DRILLING COMPLETED January 1, 1983

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	713	713	180 sacks
7			
5 1/2			
4 1/2		4960	265 sacks
3			
2			
Liners used		FEB 6 1983	
		OIL AND GAS DIVISION WV DEPARTMENT OF MINES	

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GEOLOGICAL TARGET FORMATION Benson-Elk Depth 4950 feet  
Depth of completed well 5009 feet Rotary x / Cable Tools     
Water strata depth: Fresh 100' feet; Salt n/a feet  
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Benson-Elk Pay zone depth 4441-4450 feet  
4618-4865 feet  
Gas: Initial open flow 300 Mcf/d Oil: Initial open flow 0 Bbl/d  
Final open flow 925 Mcf/d Final open flow 1 Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1480 psig (surface measurement) after 24 hours shut in  
(If applicable due to multiple completion--)

12/01/2023

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)

GIL - 3932

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

Benson-Elk  
4441-4450  
4618-4865  
30,000 lbs. 80/100 sand  
60,000 lbs. 20/40 sand  
1,000 gal. acid  
915 bbls. water  
Dowell Cemented

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
FILL			0	5	
SAND & SHALE			5	15	
SHALE & REDROCK			15	30	
SAND & SHALE			30	85	
SHALE			85	104	Fresh water @ 100'
SHALE & REDROCK			104	194	
SAND & SHALE			194	340	
REDROCK & SHALE			340	460	
SHALE			460	576	
SAND & SHALE			576	1566	
BLUE MONDAY			1566	1590	
PENCIL CAVE			1590	1600	
BIG LIME			1600	1654	
BIG INJUN			1654	1753	
SAND & SHALE			1753	1830	
WEIR SAND			1830	2038	
BEREA SAND			2038	2140	
GANTZ SAND			2140	2148	
SAND & SHALE			2148	2568	
FIFTH SAND			2568	2870	
WARREN SAND			2870	3628	
BALLTOWN SAND			3628	4052	
RILEY SAND			4052	4440	
BENSON SAND			4440	4600	
ALEXANDER SAND			4600	4740	
ELK SAND			4740	5009	
		TD		5009	

(Attach separate sheets as necessary)

WACO OIL & GAS COMPANY, INC.

Well Operator

By: Kenneth Dico-luf, Agent 12/01/2023

Date: February 10, 1983

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."

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

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DEC 27 1984

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION  
DEPT. OF MINES

Permit No. 21-3932

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company WACO

Address \_\_\_\_\_

Farm Collins

Well No. HA

District Glenville County Gil.

Drilling commenced \_\_\_\_\_

Drilling completed \_\_\_\_\_ Total depth \_\_\_\_\_

Date shot \_\_\_\_\_ Depth of shot \_\_\_\_\_

Initial open flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch

Open flow after tubing \_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch

Volume \_\_\_\_\_ Cu. Ft.

Rock pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.

Oil \_\_\_\_\_ bbls., 1st 24 hrs.

Fresh water \_\_\_\_\_ feet \_\_\_\_\_ feet

Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. FT. \_\_\_\_\_ Date \_\_\_\_\_

NAME OF SERVICE COMPANY \_\_\_\_\_

COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Drillers' Names \_\_\_\_\_

Remarks:

*Slip below location has broken Equitable Gas line & will continue to slip if water is not diverted from area. Saw Elke Morris & notified 12-18-84 4 PMA*

12-18-84  
DATE

Dee Morris 12/01/2023  
DISTRICT WELL INSPECTOR





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

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JAN 4 - 1983

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 21-3932

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company Waco

Address \_\_\_\_\_

Farm Collins

Well No. 4 A

District Steville County Gilmer

Drilling commenced 12-28-82

Drilling completed \_\_\_\_\_ Total depth \_\_\_\_\_

Date shot \_\_\_\_\_ Depth of shot \_\_\_\_\_

Initial open flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch

Open flow after tubing \_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch

Volume \_\_\_\_\_ Cu. Ft.

Rock pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.

Oil \_\_\_\_\_ bbls., 1st 24 hrs.

Fresh water \_\_\_\_\_ feet \_\_\_\_\_ feet

Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. FT. \_\_\_\_\_ Date \_\_\_\_\_

NAME OF SERVICE COMPANY \_\_\_\_\_

COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Drillers' Names I. L. MORRIS 7

Remarks: 712' of 8 5/8" casing, down well cemented 180 SKS, 12-29-82

12-29-82  
DATE

Waco Mace 12/01/2023  
DISTRICT WELL INSPECTOR



8-20-82



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DEPARTMENT OF MINES  
OIL AND GAS

State of West Virginia  
Department of Mines  
Oil and Gas Division  
Charleston 25305

APR 22 1986

FINAL INSPECTION REPORT  
INSPECTORS COMPLIANCE REPORT  
April 3, 1984

COMPANY Waco Oil & Gas Co., Inc.  
1297 N. Lewis Street  
Glenville, West Virginia 26351

PERMIT NO 021-3932  
FARM & WELL NO Jacob Minnich, Collins 4A  
DIST. & COUNTY Glenville/Gilmer

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work	_____	_____
25.04	Prepared before Drilling to Prevent Waste	_____	_____
25.03	High-Pressure Drilling	_____	_____
16.01	Required Permits at Wellsite	_____	_____
15.03	Adequate Fresh Water Casing	_____	_____
15.02	Adequate Coal Casing	_____	_____
15.01	Adequate Production Casing	_____	_____
15.04	Adequate Cement Strength	_____	_____
15.05	Cement Type	_____	_____
23.02	Maintained Access Roads	_____	_____
25.01	Necessary Equipment to Prevent Waste	_____	_____
23.04	Reclaimed Drilling Pits	_____	_____
23.05	No Surface or Underground Pollution	_____	_____
23.07	Requirements for Production & Gathering Pipelines	_____	_____
16.01	Well Records on Site	_____	_____
16.02	Well Records Filed	_____	_____
7.05	Identification Markings	_____	_____

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Craig Duckworth  
DATE 4/18/86

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. H. ...  
Administrator - Oil & Gas Division

April 25, 1986  
DATE

Handwritten text, possibly a signature or name, and the date 11/18/82.



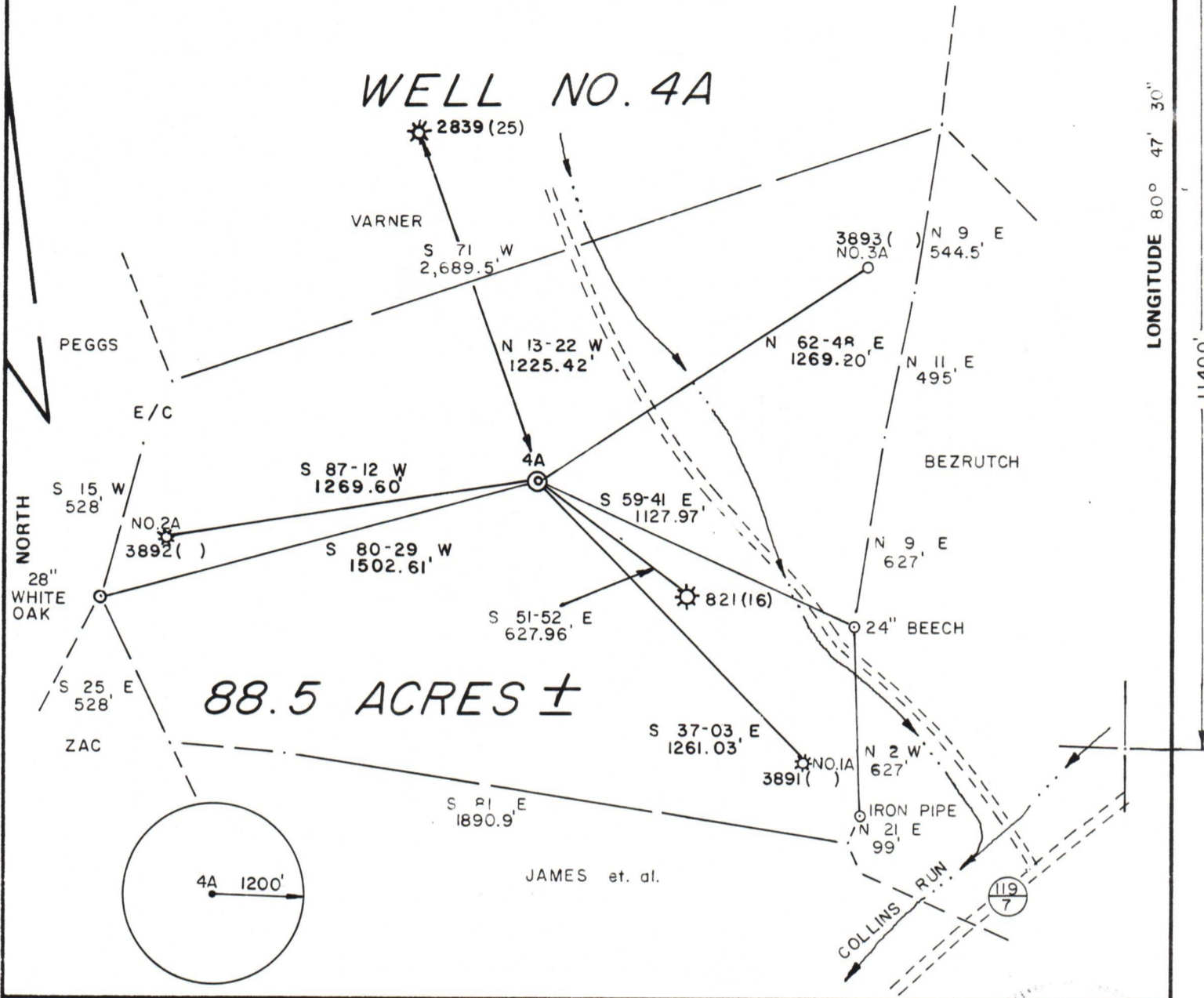
M.S. 8/19/82

650'

LATITUDE 39° 00' 00"

# COLLINS LEASE

## WELL NO. 4A



88.5 ACRES ±

LONGITUDE 80° 47' 30"

11400'

FILE NO. 9 - 5  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 / 200  
 PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS  
ELEV. 790'

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) Gregory A. Smith  
 R.P.E. \_\_\_\_\_ L.L.S. 677

PLACE SEAL HERE

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



DATE JULY 22, 1982  
 OPERATOR'S WELL NO. 4A  
 API WELL NO. 47 - 021 - 3932  
 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 942' WATER SHED COLLINS RUN  
 DISTRICT GLENVILLE COUNTY GILMER  
 QUADRANGLE GLENVILLE 7.5'  
 SURFACE OWNER JACOB A. & JESSIE B. MINNICH ACREAGE 88.5  
 OIL & GAS ROYALTY OWNER GRANVILLE COLLINS HEIRS LEASE ACREAGE 88.5  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X 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 BENSON ESTIMATED DEPTH 5250'  
 WELL OPERATOR WACO OIL & GAS DESIGNATED AGENT KENNY GREENLIEF  
 ADDRESS 1273 N. LEWIS ST. GLENVILLE, W. V. 26351 ADDRESS 1273 N. LEWIS ST. GLENVILLE, W. V. 26351

12/01/2023