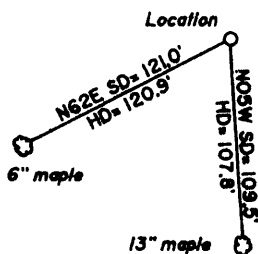


REFERENCES

Amel
5/7/93

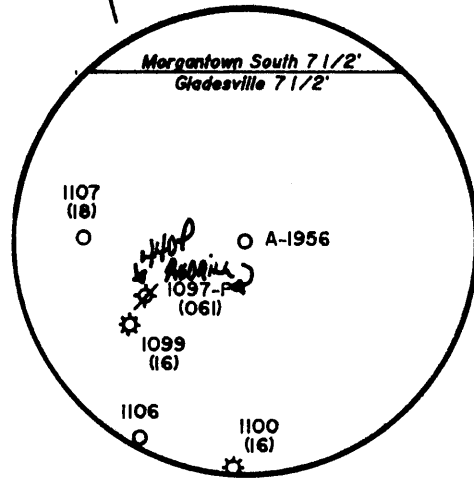
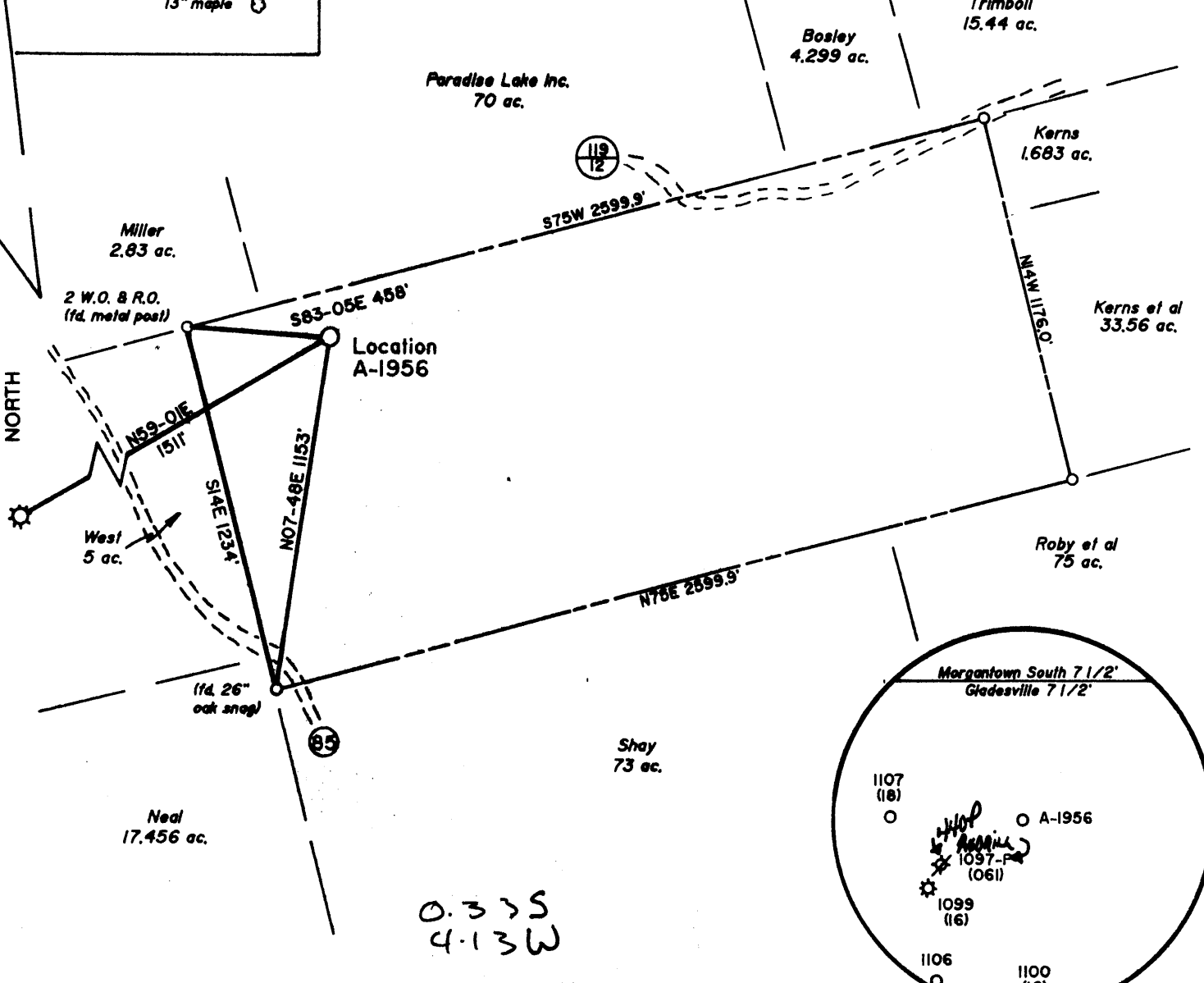
7 1/2'

0.335
190W



NORTH

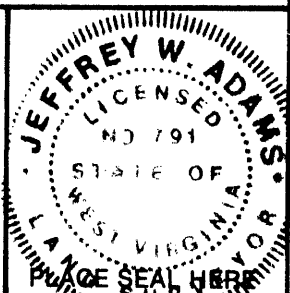
LONGITUDE 79-52-30 W



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

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Road junction 1100'
West of Location: elev. 1988'

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
 (SIGNED) *Jeffrey W. Adams*
 R.P.E. _____ L.L.S. 791



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS



DATE April 29, 1993
 OPERATOR'S WELL NO. A-1956
 API WELL NO. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE X DEEP ___ SHALLOW X

LOCATION: ELEVATION 2016 WATERSHED Boyd Run
 DISTRICT Clinton 4 COUNTY Monongalia
 QUADRANGLE Gladesville 7 1/2' Thornton NC

SURFACE OWNER Arden Brown ACREAGE 67.21
 OIL & GAS ROYALTY OWNER Arden Brown et ux LEASE ACREAGE 69.522
 LEASE NO. 4651

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

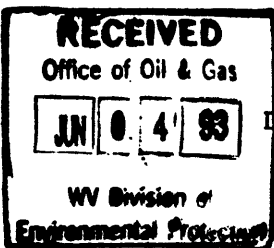
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION 4th Sand ESTIMATED DEPTH 2000
 WELL OPERATOR Alamco, Inc. DESIGNATED AGENT Marty Perri
 ADDRESS P.O. Box 1740, Clarksburg, WV 26302-1740 ADDRESS P.O. Box 1740, Clarksburg, WV 26302-1740
6-6 S. Burns Chapel (313)

MAY 07 1993

FORM WW-6

COUNTY NAME

PERMIT



State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: BROWN, ARDEN

Operator Well No.: BROWN A-1956

LOCATION: Elevation:

Quadrangle:

District: CLINTON

County: MONONGALIA

Latitude: Feet South of

Deg. Min. Sec.

Longitude: Feet West of

Deg. Min. Sec.

Company: ALAMCO, INC.

200 W. MAIN ST., P.O. BOX 1740
CLARKSBURG, WV 26302-1740

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	35'	-	-
8-5/8"	658.40'	658.40'	218 cu.ft.
4-1/2"		1893.75'	194 cu.ft.

Agent: MARTY L. PERRI

Inspector: RANDAL MICK

Permit Issued: 05/06/93

Well work Commenced: 05/13/93

Well work Completed: 05/24/93

Verbal Plugging

Permission granted on: _____

Rotary X Cable _____ Rig _____

Total Depth (feet) 1911' Drlg. T.D.

Fresh water depths (ft) 55'

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N

Coal Depths (ft): 20'; 34'; 157'

OPEN FLOW DATA

Producing formation 4th Sand Pay zone depth (ft) 1736-1756
 Gas: Initial open flow 22 MCF/d Oil: Initial open flow - Bbl/d
 Final open flow 119 MCF/d Final open flow - Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 380 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.

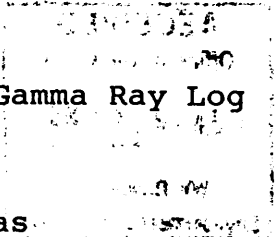
JUN 4 1993

By: ALAMCO, INC.

Reviewed TMG
Recorded _____

By: Richard R. Hoffman
Date: _____

Formations: 0-627 Drillers Log Book - 627 to TD Gamma Ray Log



<u>Top</u>	<u>Bottom</u>	<u>Type</u>
0	20	Fill
20	22	Coal
22	34	SH
34	36	Coal
36	157	Sand
157	159	Coal
159	470	Sand
470	596	SH & RR
596	607	Lime
607	627	SH & RR
627	750	Big Lime
750	806	Big Injun
806	930	SH
930	1036	Weir
1036	1158	SH
1158	1210	Gantz/50'
1210	1723	SD & SH
1723	1757	4th Sand
1757	1907	SD & SH
	1907	Logger TD

Water, Coal, Gas

1/4" Stream @ 55'

Coals: 20 - 22'; 34 - 36';
157 - 159'

Gas Checks:

944'	N/S
1098'	N/S
1129'	N/S
1506'	58 MCF/D
1599'	47 MCF/D
1693'	36 MCF/D
1786'	54 MCF/D
1911'	42 MCF/D
@ Collars	22 MCF/D

Perforations:

4th Sand (1736-1756) 11 Holes

Fracture:

Water Frac 20# Gel w/N2
Assist.
40,000 #20/40 Sand,
96,000 Cu. Ft. N2

6/11

RECEIVED
 WV Division of Environmental Protection
 FORM WW-2B
 MAY 03 83
 Permitting Office of Oil & Gas

061-1109
 Issued 05/06/93
 Page 3 of 9
 Expires 05/06/95

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

- 1) Well Operator: ALAMCO, INC. (975) ④ 368
 2) Operator's Well Number A-1956 BROWN 3) Elevation: 2,016'
 4) Well type: (a) OIL ___/ or GAS XX/
 (b) If Gas: Production XX/ Underground Storage ___/
 Deep ___/ Shallow XX/
 Proposed Target Formation(s): FOURTH SAND 421
 Proposed Total Depth: 1,916 feet
 Approximate fresh water strata depths: 53'
 Approximate salt water depths: NONE
 Approximate coal seam depths: 53'
 10) Does land contain coal seams tributary to active mine? Yes ___/ No XX/
 11) Proposed Well Work: SEE ATTACHED
 12) CASING AND TUBING PROGRAM

17149

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILL-UP (Cu. Ft.)
	SIZE	GRADE	WEIGHT PER FT.	FOR DRILLING	LEFT IN WELL	
Conductor	11-3/4"	LS	32#	40'	40'	NONE
Fresh Water						
Coal						
Intermediate	8-5/8"	J-55	23#	644'	644'	As req by Rule 38 CSR 18-11-2
Production	4-1/2"	J-55	10.50	1,916'	1,916'	As req by Rule 38 CSR 18-11-1
Tubing						
Liners						

PACKERS: Kind NONE
 Sizes ___
 Depths Set ___

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent

RECEIVED WV Environmental Protection MAY 03 93 Permitting Office of Oil & Gas

- 1) Date: April 30, 1993
2) Operator's well number A-1956 (BROWN)
3) API Well No: 47 - 061 - 1109 State - County - Permit

STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served: (a) Name Arden Brown, Address 15517-1/2 Eucalyptus Ave. Bellflower, CA 90706
5) (a) Coal Operator: Name None of Declaration, Address
(b) Coal Owner(s) with Declaration Name Arden Brown, Address 15517 1/2 Eucalyptus Avenue Bellflower, CA 90706
6) Inspector Randal Mick, Address 111 Blackshere Drive Mannington, WV 26582, Telephone (304)-987-3324
(c) Coal Lessee with Declaration Name None of Declaration, Address

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 8 on the above named parties, by:

- Personal Service (Affidavit attached)
XX Certified Mail (Postmarked postal receipt attached)
Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator ALAMCO, INC.
By: Marty L. Perri
Its: Marty L. Perri
Address P. O. Box 1740, Clarksburg, WV 26302-1740
Telephone 304-623-6671

Subscribed and sworn before me this 30th day of April, 1993

Edna M. Coy (Signature)

Notary Public

My commission expires December 9, 2002

ATTACHMENT TO:
FORM WW-2B

REC
Environmental Protection
MAY 03 93
Permitting
Office of Oil & Gas

Page 4 of 9

WELL OPERATOR ALAMCO, INC.
OPERATOR WELL NO: A-1956 (BROWN)
FILE NUMBER 47-061- 1109

11. Proposed Well Work:

Well A-1956 will be drilled to approximately 660' KB. The 8-5/8" casing will be set at approximately 644' KB and then cemented to surface. The well will then be drilled to 1,916' KB and the 4-1/2" casing set at approximately 1,916' KB. The 4-1/2" casing will be cemented to 1,000' KB. The well will then be hydraulically fractured in the Fourth Sand Formation.

12. Plan for partial abandonment:

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