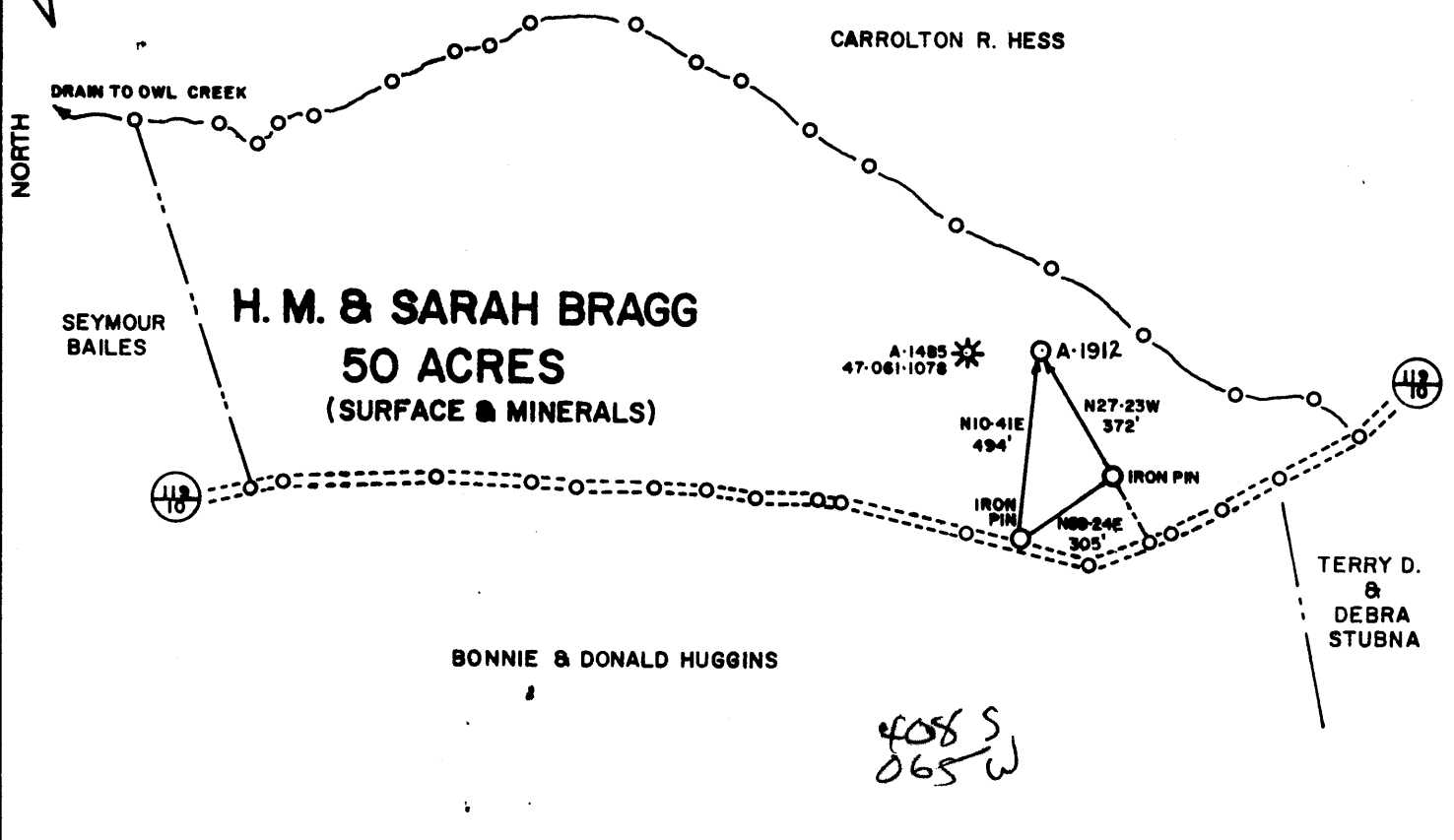


WELL REFERENCES
 LOC. TO A-1485 WEST 200'
 LOC. TO STAKE N10-15E 128'

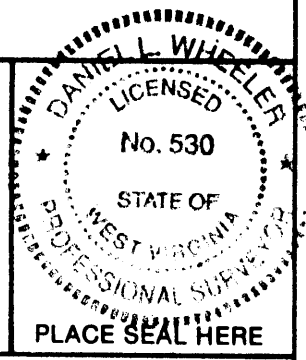
1.20 S
0.65 W



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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION ALAMCO WELL A-1485
 API NO. 47-061-1078 ELEV. 1676'

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) Daniel L. Wheeler
 R.P.E. _____ L.L.S. 530



STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION

DATE: DECEMBER 10, 19 92
 OPERATOR'S WELL NO. A-1912
 API WELL NO. 47-061-1088
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1688' WATER SHED OWL CREEK
 DISTRICT CLINTON 4 COUNTY MONONGALIA
 QUADRANGLE MORGANTOWN SOUTH 7.5' +15' SW

SURFACE OWNER H. M. & SARAH E. BRAGG ACREAGE 50
 OIL & GAS ROYALTY OWNER H. M. & SARAH E. BRAGG LEASE ACREAGE 50
 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 BALLTOWN ESTIMATED DEPTH 3,000'
 WELL OPERATOR ALAMCO, INC. DESIGNATED AGENT MARTI PERRI
 ADDRESS P.O. BOX 1740 ADDRESS P.O. BOX 1740
 CLARKSBURG, WV 26301 CLARKSBURG, WV 26301

FORM WW-6

COUNTY NAME

PERMIT

6-6 S. Burns Chapel (313)

RECEIVED
WV Division of
Environmental Protection

18-Jun-93
API # 47- 61-01088 F

JUL 13 93

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

Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: BRAGG, H. M. & SARAH Operator Well No.: A-1912

LOCATION: Elevation: 1,688.00 Quadrangle: MORGANTOWN SOUTH

District: CLINTON County: MONONGALIA
Latitude: 6290 Feet South of 39 Deg. 32Min. 30 Sec.
Longitude 3410 Feet West of 79 Deg. 55 Min. Sec.

Company: ALAMCO, INC.
200 W. MAIN ST., P.O. BOX 1740
CLARKSBURG, WV 26302-1740

Agent: MARTY L. PERRI

Inspector: RANDAL MICK
Permit Issued: 06/22/93
Well work Commenced: 06/29/93
Well work Completed: 06/30/93
Verbal Plugging
Permission granted on:
Rotary Cable x Rig
Total Depth (feet) 2,928' Drlg. TD Orig.
Fresh water depths (ft) 01'
Salt water depths (ft) None
Is coal being mined in area (Y/N)? N
Coal Depths (ft):

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	10'	-	
8-5/8"	606'	606'	To Surface
4-1/2"		2881'	To 1287'

OPEN FLOW DATA

Producing formation 4th Sand Pay zone depth (ft) 1688-1716
 Gas: Initial open flow 169 MCF/d Oil: Initial open flow _____ Bbl/
 Final open flow 904 MCF/d Final open flow _____ Bbl/
 Time of open flow between initial and final tests 4 Hour
 Static rock Pressure 400 psig (surface pressure) after 24 Hour

Second producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/
 Final open flow _____ MCF/d Final open flow _____ Bbl/
 Time of open flow between initial and final tests _____ Hour
 Static rock Pressure _____ psig (surface pressure) after _____ Hour

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

JUL 16 1993

Reviewed TM6
Recorded _____

For: ALAMCO, INC.
By: Richard R. Hoffman
Date: 7/9/93

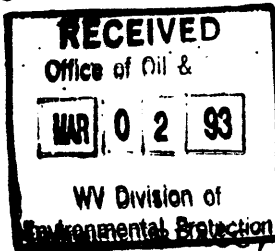
(orig 3/2/93 batch)

0	10	KB to GL
10	109	Sand
109	200	Sand & Shale
200	204	Shale & <u>Coal</u> <i>Up Fpt? via alloy</i>
204	221	Sand
221	270	Sand & Shale
270	334	Sand
334	348	Sand & Shale
348	371	Red Rock
371	430	Sand
430	496	Red Rock & Shale
496	500	Sand & Shale
500	566	Red Rock & Shale
566	580	Little Lime
580	601	Sand & Shale
601	610	Little Lime
610	614	Sand & Shale
614	700	Big Lime
700	721	Sand & Shale
721	826	Big Injun
826	920	Sand & Shale
920	1021	Weir
1021	1140	Sand & Shale
1140	1150	Sand
1150	1175	Sand & Shale
1175	1195	Sand
1195	1250	Sand & Shale
1250	1264	Sand
1264	1281	Sand & Shale
1281	1333	Sand
1333	1459	Sand & Shale & Red Rock
1459	1473	Sand
1473	1555	Sand & Shale & Red Rock
1555	1564	Sand
1564	1643	Sand & Shale & Red Rock
1643	1683	Sand & Shale
1683	1910	Sand
1910	2498	Sand & Shale
2498	2570	Speechley
2570	2710	Sand & Shale
2710	2718	Balltown
2718	2928	Sand & Shale

Set 4-1/2" Solid Bridge Plug @ 1800' KB

Perforations: 4th Sand
06/30/93 (1688' - 1716') 15 holes

Frac: 4th Sand 06/30/93
40,000# 20/40 Sand, 87,000 SCF N₂
698 Bbls.



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

Well Operator's Report of Well Work

Farm H.M. & SARAH Operator Well No.: A-1912

LOCATION: Elevation: 1688.00 Quadrangle: MORGANTOWN SOUTH

District: CLINTON County: MONONGALIA
Latitude: 6290 Feet South of 39 Deg. 32Min. 30 Sec.
Longitude 3410 Feet West of 79 Deg. 55 Min. 0 Sec.

Company: ALAMCO, INC.
200 W. MAIN ST., P.O. BOX 1740
CLARKSBURG, WV 26302-1740

Agent: MARTY L. PERRI

Inspector: RANDAL MICK
Permit Issued: 12/30/92
Well work Commenced: 01/16/93
Well work Completed: 02/12/93
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 2928'
Fresh water depths (ft) 61'
Salt water depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	10'	0'	-
8 5/8"	606'	606'	To Surface
4 1/2"	2881'	2881'	To 1287' KB

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 200-204

OPEN FLOW DATA

NO TEST

Producing formation 1st & 2nd Speechley, Balltown Pay zone depth (ft) 2508'-2718'
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

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: ALAMCO, INC.

Reviewed JMG
Recorded _____

By: Richard R. Hoffman Richard R. Hoffman
Date: 2/25/93

0	10	KB to GL
10	109	Sand
109	200	Sand & Shale
200	204	Shale & Coal
204	221	Sand
221	270	Sand & Shale
270	334	Sand
334	348	Sand & Shale
348	371	Red Rock
371	430	Sand
430	496	Red Rock & Shale
496	500	Sand & Shale
500	566	Red Rock & Shale
566	580	Little Lime
580	601	Sand & Shale
601	610	Little Lime
610	614	Sand & Shale
614	700	Big Lime
700	721	Sand & Shale
721	826	Big Injun
826	920	Sand & Shale
920	1021	Weir
1021	1140	Sand & Shale
1140	1150	Sand
1150	1175	Sand & Shale
1175	1195	Sand
1195	1250	Sand & Shale
1250	1264	Sand
1264	1281	Sand & Shale
1281	1333	Sand
1333	1459	Sand & Shale & Red Rock
1459	1473	Sand
1473	1555	Sand & Shale & Red Rock
1555	1564	Sand
1564	1643	Sand & Shale & Red Rock
1643	1683	Sand & Shale
1683	1910	Sand
1910	2498	Sand & Shale
2498	2570	Speechley
2570	2710	Sand & Shale
2710	2718	Balltown
2718	2928	Sand & Shale

1/2" H₂O @ 61' KB

Gas Check @ 712' KB = N/S
 Gas Check @ 838' KB = N/S
 Gas Check @ 959' KB = N/S
 Gas Check @ 1264' KB = N/S
 Gas Check @ 1449' KB = N/S
 Gas Check @ 1786' KB = 16/10 - 2" w/H₂O
 Gas Check @ 2373' KB = 4/10 - 2" w/H₂O
 Gas Check @ 2709' KB = 42/10 - 2" w/H₂O
 Gas Check @ 2771' KB = 24/10 - 2" w/H₂O
 Gas Check @ 2928' KB = 24/10 - 2" w/H₂O

Perforation Intervals:

1st Speechley (2508-2524')
 5 shots
 2nd Speechley (2546-2567')
 8 shots
 Balltown (2714-2718')
 2 shots

Fracture:

Well fractured on 02/08/93 with 41,900 lbs.
 20/40 sand with 5% HCl ran throughout job.

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WV Division of Environmental Protection

JUN 1 8 93

Permitting

Office of Oil & Gas

061-1088-Frac.
Issued 06/22/93
Expires 06/22/95

Page 3 of 9

FORM WW-2B

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

47-061-1088 F

Well Operator: ALAMCO, INC. 010 (975) (4) 484

Operator's Well Number A-1912 (BRAGG) 3) Elevation: 1688'

Well type: (a) OIL ___/ or GAS XX /
(b) If Gas: Production XX / Underground Storage ___/
Deep ___/ Shallow XX /

5) Proposed Target Formation(s): Fourth Sand 421

5) Proposed Total Depth: 2,881' feet

7) Approximate fresh water strata depths: 61'

3) Approximate salt water depths: NONE

9) Approximate coal seam depths: NONE

10) Does land contain coal seams tributary to active mine? Yes ___/ No XX /

11) Proposed Well Work: SEE ATTACHED

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	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	24#	606'	606'	As required by 38 CSR 18-11-22
Production	4-1/2"	J-55	10.50	2,881'	2,881'	As required by 38 CSR 38-11-1
Tubing						
Liners						

ACKERS: Kind NONE
Sizes ---
Depths Set ---

077084 12
For Division of Oil and Gas Use Only
Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Agent
TYPE

17447

RECEIVED
Division of
Environmental Protection

DEC 24 92

Permitting
Office of Oil & Gas

1) Date: December 16, 1992
2) Operator's well number
A-1912 BRAGG
3) API Well No: 47 - 061 - 1088
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- | | |
|--|--|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>H. M. & Sarah Bragg</u>
Address <u>Route 9, Box 90</u>
<u>Morgantown, WV 26505</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name <u>None OF RECORD</u>
Address _____</p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name <u>H. M. & Sarah Bragg</u>
Address <u>Route 9, Box 90</u>
<u>Morgantown, WV 26505</u></p> <p>Name _____
Address _____</p> |
| <p>6) Inspector <u>Randal Mick</u>
Address <u>Route 3, Box 248</u>
<u>Weston, WV 26452</u>
Telephone (304)- <u>987-3324</u></p> | <p>(c) Coal Lessee with Declaration</p> <p>Name <u>NONE OF RECORD</u>
Address _____</p> |

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:

- XX Personal Service (Affidavit attached)
- _____ 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: *Mark J. Bern*
 Its: C Manager, Land
 Address 200 West Main Street
Clarksburg, WV 26301
 Telephone 304 623-6671

Subscribed and sworn before me this 16th day of December, 19 92

My commission expires February 21, 1999

John D. Cox

COMMISSIONER
Notary Public

RECEIVED

061-1033
Issued 12/30/92
Expires 12/30/94

FORM WW-2B

DATE

DEC 24

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

- 1) Well Operator: ALAMCO, INC. (975) (4) 484
- 2) Operator's Well Number A-1912 BRAGG 3) Elevation: 1688'
- 4) Well type: (a) OIL / or GAS XX /
(b) If Gas: Production XX / Underground Storage /
Deep / Shallow XX /
- 5) Proposed Target Formation(s): Balltown 483
- 6) Proposed Total Depth: 3000 feet
- 7) Approximate fresh water strata depths: 95'
- 8) Approximate salt water depths: -0-
- 9) Approximate coal seam depths: -0-
- 10) Does land contain coal seams tributary to active mine? Yes / No XX
- 11) Proposed Well Work: SEE ATTACHED
- 12) CASING AND TUBING PROGRAM

TYPE SPECIFICATIONS FOOTAGE INTERVALS CEMENT

TYPE	SIZE	GRADE	WEIGHT PER FT.	FOR DRILLING	LEFT IN WELL	FILL-UP (Cu. Ft.)
Conductor	11-3/4"	LS		40'	40'	NONE
Fresh Water						
Coal						
Intermediate	8-5/8"	J-55	23#	600'	600'	As required by 38 CSR 18-11-38 CSR 18-11-
Production	4-1/2"	J-55	10.50#	2900'	2900'	As required by 38 CSR 38-11-
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 TYPE Agent

RECEIVED

WV Division of
Environmental Protection

JUN 18 93

Permitting

Office of Oil & Gas

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

- 1) Date: June 4, 1993
- 2) Operator's well number
A-1912 (BRAGG)
- 3) API Well No: 47 - 061 - 1088 F
State - County - Permit

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name H. M. & Sarah Bragg
 - Address Route 9, Box 90
Morgantown, WV 26505
 - (b) Name _____
 - Address _____
 - (c) Name _____
 - Address _____

- 5) (a) Coal Operator:
 - Name None of Record
 - Address _____
 - (b) Coal Owner(s) with Declaration
 - Name H. M. & Sarah Bragg
 - Address Route 9, Box 90
Morgantown, WV 26505
 - Name _____
 - Address _____

- 6) Inspector Randal Mick
- Address Route 3, Box 248
Weston, WV 26452
- Telephone (304)- 987-3324

- (c) Coal Lessee with Declaration
 - Name None of Record
 - 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 ___ on the above named parties, by:

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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 Penn
 Its: Manager, Land
 Address 200 West Main Street
Clarksburg, WV 26301
 Telephone 304 623-6671

Subscribed and sworn before me this 15th day of June, 1993

Lebbie M. Cox Notary Public
 My commission expires December 9, 2002

RECEIVED

WV Division of
Environmental Protection

ATTACHMENT TO:
FORM WW-2B

JUN 1 8 93

Page 4 of 9

Permitting
of Oil & Gas

WELL OPERATOR ALAMCO, INC.
OPERATOR WELL NO: A-1912 (BRAGG RECOMPLETE)
FILE NUMBER 47-061-1088 F

11. Proposed Well Work:

Well A-1912 will be recompleted to the shallower Fourth Sand from the Speechley/Balltown Formations. A solid cast iron bridge plug will be set above the Speechley @ approximately 1,800' KB to temporarily abandon the Speechley/Balltown Formations. The well will then be hydraulically fractured in the Fourth Sand.

*after frac of fourth sand remove plug &
commingle production*

12.) Plan for partial abandonment:

NONE