



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

October 14, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3301992, issued to CHESAPEAKE APPALACHIA, L.L.C., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: A-773
Farm Name: FLANAGAN, E. C.
API Well Number: 47-3301992
Permit Type: Plugging
Date Issued: 10/14/2014

Promoting a healthy environment.

10/17/2014

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

3301992P

WW-4B
Rev. 2/01

1) Date August 11, 2014
2) Operator's Well No. 910773
3) API Well No. 47-033 - B1992

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1196' Watershed Wolf Summit
District Union County Harrison Quadrangle Wolf Summit

6) Well Operator Chesapeake Appalachia, LLC 7) Designated Agent Eric B. Gillespie
Address P.O. Box 1300 Address P.O. Box 6070
Jane Lew, WV 26378 Charleston, WV 25301

8) Oil and Gas Inspector to be notified Name Sam Ward
Address PO Box 2327
Buckhannon, WV 26201
9) Plugging Contractor Name R & J Well Service
Address P.O. Box 37
Hueysville, KY 41640

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Office of Oil & Gas
SEP 02 2014

OK
9-2-14

10) Work Order: The work order for the manner of plugging this well is as follows:
MIRU construction equipment if necessary to repair road / location in order to get workover rig in. Remove any tanks, separators, well lines, meter runs, etc. MIRU service rig & needed BOP equipment. NOTE: Blow down well to pit or tank. RIH with GR and dummy plug to 3,415' to ensure wellbore is clear. TOH and laydown GR and dummy plug. RIH and set 5K CIBP at 3,365'. TIH strapping 2 3/8" tubing to PBTD of 3,365' & tag 5K CIBP. Load hole with 54 bbls of 6% gelled water. Pump 40 sks of Class A cement for 473' cement plug across open perforations, flush tubing with 13 bbls 6% gelled water. TOOH with 2 3/8" tubing to surface. SD & WOC for 8 hours. RIH w/ sandline tools & tag plug @ 2,892' +/- . Plug must be at 2,892' or higher; Add additional cement if needed. ND BOP & 'B' Section. Weld on 4 1/2" pull sub. RU casing jacks and remove slips. Work casing for free point and ensure casing is free at or deeper than 2,800'. NU 'B' Section & BOP. RU Wireline and cut 4 1/2" 10.5# casing @ 2,600'. Pull and laydown casing. (Note TOC @ 2,700' per Completion Report). 13. TIH w/ 2 3/8" tubing to 2,650' (50' inside of 4 1/2" casing). Circulate hole w/ 97 bbls of 6% gelled water. Pump 14 sks of Class A cement for 100' cement plug (50' inside of 4 1/2" & 50' above casing stub), flush tubing with 11 bbls 6% gelled water. TOOH + 300' with 2 3/8" tubing. SD & WOC for 8 hours. TIH w/ 2 3/8" tubing & tag plug @ 2,550'. Plug must be at 2,550' or higher; Add additional cement if needed. TOOH w/ 2 3/8" tubing to 1,246' and and Pump 54 sks of Class A cement for 248' elevation and intermediate shoe cement plugs, flush tubing with 5 bbls 6% gelled water. TOOH + 350' with 2 3/8" tubing. SD & WOC for 8 hours.

TIH w/ 2 3/8" tubing & tag plug @ 998'. Plug must be at 998' or higher; Add additional cement if needed. TOOH w/ 2 3/8" tubing to 100' Pump 6 bbl of 6% gelled water or break circulation. Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Sam DW Ward Date 8/28/2014

10/17/2014

WW-4B
Rev. 2/01

1) Date August 11, 2014
2) Operator's
Well No. 910773
3) API Well No. 47-033 - 01992

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1196' Watershed Wolf Summit
District Union County Harrison Quadrangle Wolf Summit

6) Well Operator Chesapeake Appalachia, LLC 7) Designated Agent Eric B. Gillespie
Address P.O. Box 1300 Address P.O. Box 6070
Jane Lew, WV 26378 Charleston, WV 25301

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Sam Ward Name R & J Well Service
Address PO Box 2327 Address P.O. Box 37
Buckhannon, WV 26201 Hueysville, KY 41640

10) Work Order: The work order for the manner of plugging this well is as follows:

Pump 32 sks of Class A cement for 100' surface cement plug, TOOH w/ tubing. 20. Top off well with required Class A cement as needed. Install a 36 inch casing monument
w/ 2" vent. Install a Aluminum plat monument with ALL required WV dates and WV API number. RDMO all service equipment providers and reclaim location to WV State requirements.

OK
gmm

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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector [Signature] Date 8/28/2014

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

Date March 22, 1979

FORM IV-35
(Obverse)

Operator's
Well No. A-773

[08-78,

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

API Well No. 47 - 033 - 1992
State County Permit

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow ___)
LOCATION: Elevation: 1196' Watershed: Sycamore Creek
District: Union County: Harrison Quadrangle: Clarksburg

WELL OPERATOR Allegheny Land & Mineral Co. DESIGNATED AGENT Allegheny Land & Mineral Co.
Address P. O. Box 1740 Address same
Clarksburg, WV 26301

PERMITTED WORK: Drill X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate X
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) _____
APR - 9 1979

OIL & GAS DIVISION

DEPT. OF MINES

PERMIT ISSUED ON December 8, 1978

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Paul Garrett
Address 321 Beech St.
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Benson Depth 4434' feet

Depth of completed well, 4650' feet Rotary X / Cable Tools ___

Water strata depth: Fresh, @ 94', 285', 335' feet, salt, ___ feet.

Coal seam depths: 936-940' Is coal being mined in the area? no

Work was commenced February 22, 1979, and completed February 27, 1979

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		
Conductor	11-3/4"			X		32'	32'	Minds
Fresh water								
Coal	8-5/8"			X		1048'	1048'	Cemented to surface
Intermediate								
Production	4 1/2"			X		3415'	3415'	" " 2700' set
Tubing								
Liners								Perforated as: Top Bottom

OPEN FLOW DATA

Producing formation Speeclly Sand Pay zone depth 2992-3026' & 3077-3088'

Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d

All sands - Final open flow, 671 Mcf/d Final open flow, ___ Bbl/d

Time of open flow between initial and final tests, ___ hours

Static rock pressure, 690# psig (surface measurement) after 72 hours shut in

[If applicable due to multiple completion--]

10/17/2014

Second producing formation Balltown Pay zone depth 3300-3330' 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

Static rock pressure, ___ psig (surface measurement) after ___ hours shut in

FORM IV-35
(Reverse)

[08-78]

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

Perforations: 2992-2996' - 6 holes
 3015-3018' - 4 "
 3077-3083' - 7 "
 3301-3307' - 8 "
 3317-3325' - 8 "

Well was fractured March 7, 1979 by Halliburton.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Clay			0	5	
Sand & Shale			5	936	
COAL *****			936	940	Water @ 94', 285' & 335'
Sand & Shale			940	1460	Coal *****
Big Lime			1460	1580	
Injun Sand			1580	1592	
Sand & Shale			1592	1962	
4th Sand			1962	2028	
Sand & Shale			2028	2058	
Sand			2058	2078	
Sand & Shale			2078	2382	
5th Sand			2382	2404	
Sand & Shale			2404	2992	
Speechly Sand			2992	3026	
Sand & Shale			3026	3077	
Speechly Sand			3077	3088	
Sand & Shale			3088	3300	
Balltown Sand			3300	3330	
Sand & Shale			3330	4416	
Shale			4416	4650	
			total depth	4650	

Well was partially abandoned by verbal permission of Mr. Garrett - 2-28-79 as follows:

Total depth - 4650'
 Aquagel - 4650 - 4460'
 Cement - 4460 - 4360'
 Aquagel - 4360 - 3414'
 4 1/2" Casing run at 3414'

(Attach separate sheets to complete as necessary.)

Allegheny Land & Mineral Company
 Well Operator

By Claron Dawson, Jr.

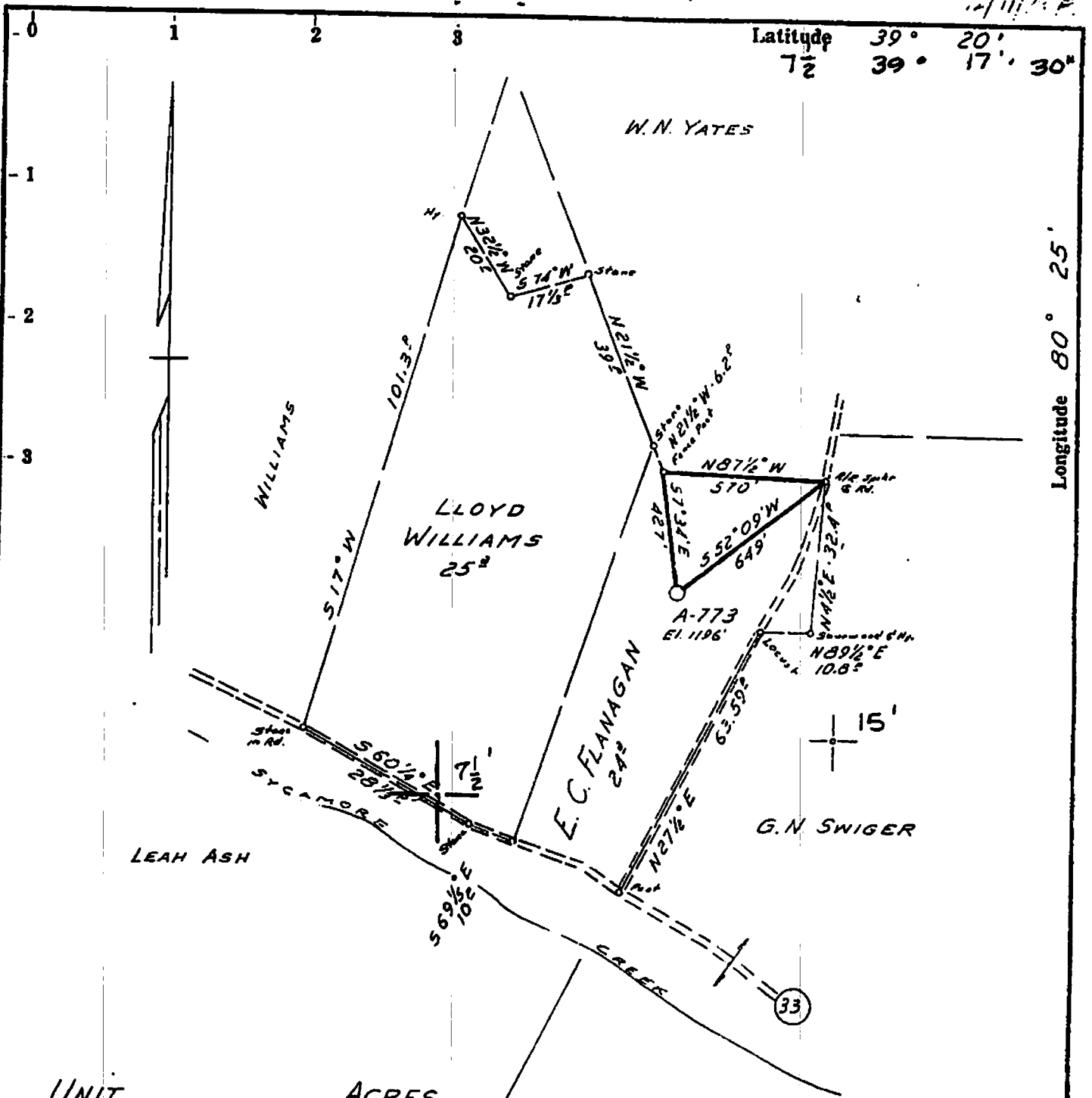
Its Superintendent

10/17/2014

NOTE: Regulation 8.02(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."

12/11/78



UNIT	ACRES
E. C. FLANAGAN	24 ²
LLOYD WILLIAMS	25 ²
B. & LUCY M. YATES	2 1/2 ²

- Fracture.....
- Redrill.....
- New Location.
- Drill Deeper.....
- Abandonment.....

Source of Elevation CG.S.C. WELL # 8012 ELEV. 1126'

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Minimum accuracy, one part in 200

Company ALLEGHENY LAND & MINERAL CO.
 Address CLARKSBURG, W.V. 26301
 Farm E. C. FLANAGAN
 Tract _____ Acres 24 Lease No. _____
 Well (Farm) No. _____ Serial No. A-773
 Elevation (Spirit Level) 1126'
 Quadrangle CLARKSBURG, Wolf Summit
 County HARRISON District UNION
 Engineer (Signature)
 Engineer's Registration No. 530 LLS
 File No. 242 Drawing No. _____
 Date 11-30-78 Scale 1" = 500'

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

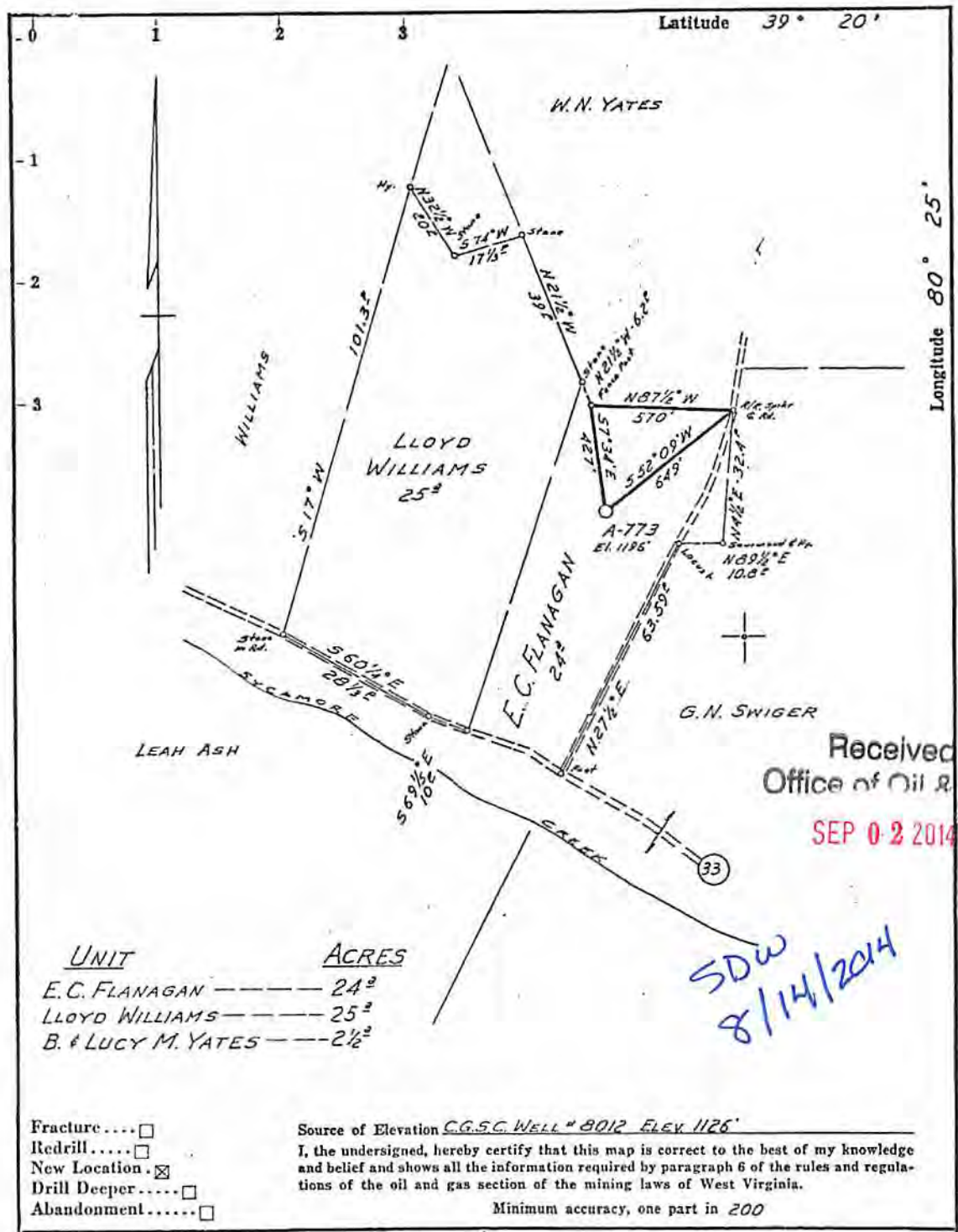
WELL LOCATION MAP
 FILE NO. 47-033-1992

Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

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8/14/2014

UNIT	ACRES
E.C. FLANAGAN	24 ²
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STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP

FILE NO. _____

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

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Flanagan 1 (910773)
P&A Procedure
Harrison County, WV
API Number: 47-033-01992
GWI: 0.98856910 NRI: 0.8657124

August 25, 2014

Discussion

Approval is requested to plug and abandon the subject well, Flanagan 1. The subject well is located in Harrison County, WV. It was spud on 2/22/1979 and drilled to a depth of 4,650' where it was completed in the Speechley and Balltown formations. Presently the well is non-producing with last recorded production on January 01, 2013. The subject well is still open to the Speechley formation at: 2,992'- 3,083' and the Balltown formation at: 3,301'- 3,325'. Since there is not any further uphole potential, it is recommend that COI plug and abandon the subject well to eliminate operating cost associated with the asset and mitigate any future liability associated with the well. Additionally the well is listed on the WVDEP plug or produce ultimatum expiring 2019.

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SDW
8/28/2014

10/17/2014

WELL DATA

Location (Surface)	Lat. 39.2611813 Long. -80.4478207
TD	4,650'

CASING AND TUBULAR DATA

STRING	SIZE	WEIGHT/GRADE	DEPTH
Surface	8 5/8"	Unknown; assume: 32 lb/ft;J-55	1,048'
Production	4 1/2"	Unknown; assume: 10.5 lb/ft;J-55	3,415'

PRESSURE AND DIMENSIONAL DATA

SIZE	WEIGHT	GRADE	BURST	COLLAPSE	DRIFT
8 5/8"	32 lb/ft (assumed)	J-55 (assumed)	3,930	2,530	7.796"
4 1/2"	10.5 lb/ft (assumed)	J-55 (assumed)	4,790	4,010	3.927"
2 3/8"	4.7 lb/ft	N-80	11,200	11,780	1.901"

CAPACITIES

SIZE	WEIGHT	CAPACITY (FT ³ /FT.)	CAPACITY (BBL/FT.)
8 5/8"	32 lb/ft (assumed)	0.3420	0.0609
6 1/8"	Open Hole	0.2046	0.0364
4 1/2"	10.5 lb/ft (assumed)	0.0895	0.0159
2 3/8"	4.7 lb/ft	0.0216	0.0038

WELLHEAD EQUIPMENT

COMPONENT	SIZE & RATING
Manufacturer	?
Tubing Spool	?
Casing Spool	?
Bradenhead	?

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DRIVING DIRECTIONS

Contact Field Personnel

10/17/2014

SCOPE OF OPERATION

1. Safety is the highest priority. Control costs and avoid unnecessary expenditures.
2. TIH with 2-3/8" tubing to PBTD of 3,415'.
3. Pump required cement and gel plugs per WV DEP state requirements
4. Plant a well monument with WV State API number

PROCEDURE

1. **Contact the WV State Inspector 48 hours prior to operations.**
2. **Safety is the highest priority.** Hold wellsite safety meetings prior to each significant operation. Review critical parameters and objectives as well as emergency action plans.
3. MIRU construction equipment if necessary to repair road / location in order to get workover rig in. Remove any tanks, separators, well lines, meter runs, etc.
4. MIRU service rig & needed BOP equipment. **NOTE: Blow down well to pit or tank.**
5. RIH with GR and dummy plug to 3,415' to ensure wellbore is clear. TOH and laydown GR and dummy plug.
6. RIH and set 5K CIBP at 3,365'.
7. TIH strapping 2 3/8" tubing to PBTD of 3,365' & tag 5K CIBP.
8. Load hole with 54 bbls of 6% gelled water. Pump 40 sks of Class A cement for 473' cement plug across open perforations, flush tubing with 13 bbls 6% gelled water.
9. TOOH with 2 3/8" tubing to surface. **SD & WOC for 8 hours.**
10. RIH w/ sandline tools & tag plug @ 2,892' +/- . Plug must be at 2,892' or higher; Add additional cement if needed.
11. ND BOP & 'B' Section. Weld on 4 1/2" pull sub, RU casing jacks and remove slips. Work casing for free point and ensure casing is free at or deeper than 2,600'.
12. NU 'B' Section & BOP. RU Wireline and cut 4 1/2" 10.5# casing @ 2,600'. Pull and laydown casing. (Note TOC @ 2,700' per Completion Report).

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13. TIH w/ 2 3/8" tubing to 2,650' (50' inside of 4 1/2" casing). Circulate hole w/ 97 bbls of 6% gelled water. Pump 14 sks of Class A cement for 100' cement plug (50' inside of 4 1/2" & 50' above casing stub), flush tubing with 11 bbls 6% gelled water.
14. TOOH \pm 300' with 2 3/8" tubing. **SD & WOC for 8 hours.**
15. TIH w/ 2 3/8" tubing & tag plug @ 2,550'. Plug must be at 2,550' or higher; Add additional cement if needed.
16. TOOH w/ 2 3/8" tubing to 1,246' and Pump 54 sks of Class A cement for 248' elevation and intermediate shoe cement plugs, flush tubing with 5 bbls 6% gelled water
17. TOOH \pm 350' with 2 3/8" tubing. **SD & WOC for 8 hours.**
18. TIH w/ 2 3/8" tubing & tag plug @ 998'. Plug must be at 998' or higher; Add additional cement if needed.
19. TOOH w/ 2 3/8" tubing to 100' Pump 6 bbl of 6% gelled water or break circulation. Pump 32 sks of Class A cement for 100' surface cement plug, TOOH w/ tubing.
20. Top off well with required Class A cement as needed.
21. Install a 36 inch casing monument w/ 2" vent. Install a Aluminum plat monument with **ALL required WV dates and WV API number.**
22. RDMO all service equipment providers and reclaim location to WV State requirements.

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PERSONNEL / PHONE LISTCentral District Team

Production Engineer	Robert Bradley	Office: (405) 935-1886 Mobile (817) 805-0957
Operations Manager	Chris Flanagan	Office: (304) 517-1416 ext 86044 Mobile: (304) 203-4985
Production Superintendent	Manny Johnson	Office: (740) 695-1623 ext 87804 Mobile: (304) 641-0085
Land Man	Randy Orsburn	Office: (304) 517-1416 ext 86020
WV State Inspector	Sam Ward	Cell: (304) 389-7583

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Current Wellbore Schematic

WELL (PN): FLANAGAN 1 (910773)
 FIELD OFFICE: MARCELLUS SOUTH
 FIELD:
 STATE / COUNTY: WEST VIRGINIA / HARRISON
 LOCATION: T/D UNION, Q-WOLF SUMMIT
 ROUTE: CE-JLN-RT 330 - SHANE BONNELL
 ELEVATION: GL: 1,196.0 KB: 1,202.0 KB Height: 6.0
 DEPTHS: TD: 4,650.0

API #: 4703301992
 Serial #: 1992
 SPUD DATE: 2/22/1979
 RIG RELEASE: 2/27/1979
 1ST SALES GAS: 5/30/1979
 1ST SALES OIL:
 Current Status: SHUTIN

Original Hole, 7/29/2014 10:02:38 AM		Conductor Casing; Set @ 32.0 ftKB ; Original Hole									
Vertical schematic (actual)	Zones	Set Tension (kips)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)			
		Item Des	OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)
		11 3/4 in; 0.00 lb/ft; 32.0 ftKB		Casing Joints	11 3/4					6.0	31.0
8 5/8 in; 0.00 lb/ft; 1,048.0 ftKB		Float Shoe	11 3/4					31.0	32.0	1.00	
TOC @ 2,700' per Completion Report		Surface Casing; Set @ 1,048.0 ftKB ; Original Hole									
PERFS 2,992' - 2,996'		Set Tension (kips)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)			
PERFS 3,015' - 3,018'		Item Des	OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)
PERFS 3,077' - 3,083'		Casing Joints	8 5/8					6.0	1,047.0	1,041.00	
PERFS 3,301' - 3,307'		Float Shoe	8 5/8					1,047.0	1,048.0	1.00	
PERFS 3,317' - 3,325'		Production Casing; Set @ 3,415.0 ftKB ; Original Hole									
4 1/2 in; 0.00 lb/ft; 3,415.0 ftKB		Set Tension (kips)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)			
		Item Des	OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)
		Casing Joints	4 1/2					6.0	3,414.0	3,408.00	
		Float Shoe	4 1/2					3,414.0	3,415.0	1.00	
		Description: Surface Casing Cement									
		6.0-1,048.0									
		Top of Cement (ftKB): 6.0 Top Measurement Method:									
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)			
		Description: Conductor Cement									
		6.0-32.0									
		Top of Cement (ftKB): 6.0 Top Measurement Method:									
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)			
		Description: Production Casing Cement									
		2,700.0-3,415.0									
		Top of Cement (ftKB): 2,700.0 Top Measurement Method:									
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)			
		Description: Cement Plug									
		4,360.0-4,460.0									
		Top of Cement (ftKB): 4,360.0 Top Measurement Method:									
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)			
		Description: Cement Plug									
		3,373.0-3,415.0									
		Top of Cement (ftKB): 3,373.0 Top Measurement Method:									
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)			

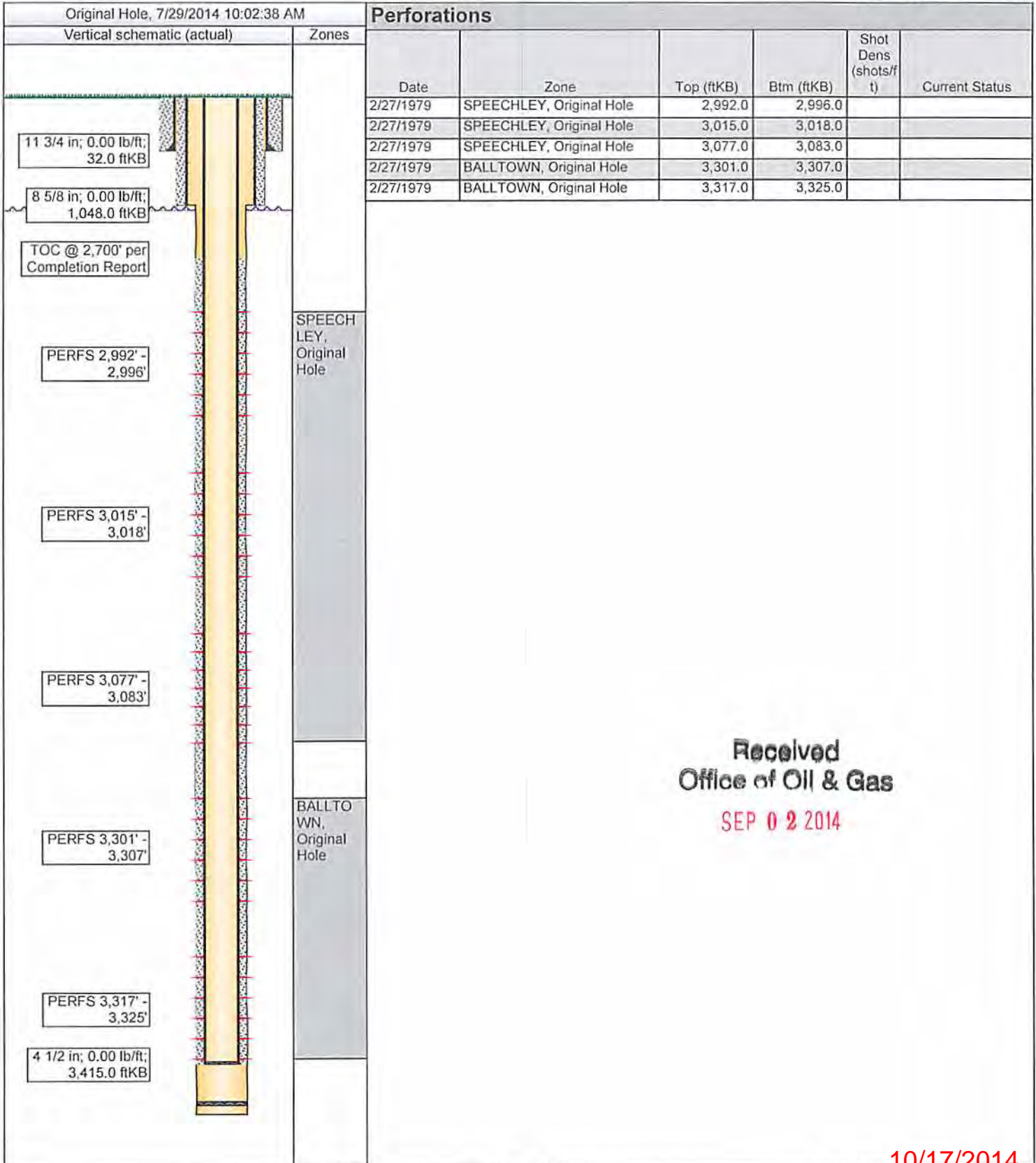
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 SEP 02 2014

3301992P

Current Wellbore Schematic

WELL (PN): FLANAGAN 1 (910773)
 FIELD OFFICE: MARCELLUS SOUTH
 FIELD:
 STATE / COUNTY: WEST VIRGINIA / HARRISON
 LOCATION: T/D UNION, Q-WOLF SUMMIT
 ROUTE: CE-JLN-RT 330 - SHANE BONNELL
 ELEVATION: GL: 1,196.0 KB: 1,202.0 KB Height: 6.0
 DEPTHS: TD: 4,650.0

API #: 4703301992
 Serial #: 1992
 SPUD DATE: 2/22/1979
 RIG RELEASE: 2/27/1979
 1ST SALES GAS: 5/30/1979
 1ST SALES OIL:
 Current Status: SHUTIN



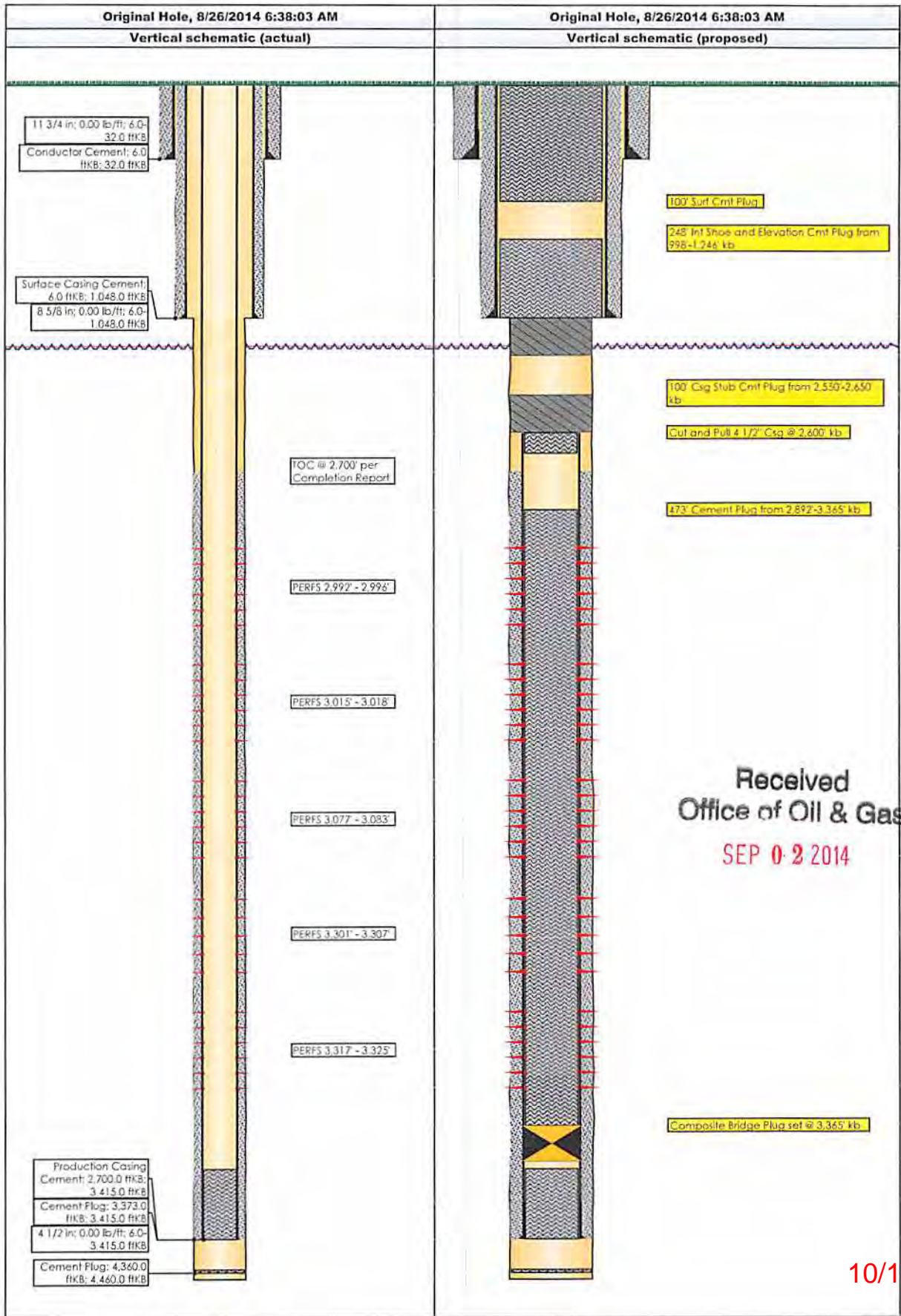
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Proposed Plugging Wellbore Schematic

WELL (PN): FLANAGAN 1 (910773)
 STATE / COUNTY: WEST VIRGINIA / HARRISON
 FIELD:
 LOCATION: T/D UNION, Q-WOLF SUMMIT
 ELEVATION: GL: 1,196.0 KB: 1,202.0 KB HEIGHT: 6.0
 DEPTHS: TD: 4,650.0

API #: 470330199200
 SPUD DATE: 2/22/1979
 RIG RELEASE: 2/27/1979
 1ST SALES GAS: 5/30/1979
 1ST SALES OIL:
 CURRENT STATUS: SHUTIN



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WW-4A
Revised 6-07

1) Date: Aug 11 2014
2) Operator's Well Number
910773

3) API Well No.: 47 - 033 - 01992

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Elmer, Clifford, Lester Flanagan & Barbara Davis</u>	Name _____
Address <u>Rt 1 Box 502</u> ✓	Address _____
<u>Clarksburg, WV 26301</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Elmer, Clifford, Lester Flanagan & Barbara Davis</u>
_____	Address <u>Rt 1 Box 502</u> ✓
_____	<u>Clarksburg, WV 26301</u>
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 2327</u>	Name _____
<u>Buckhannon, WV 26201</u>	Address _____
Telephone <u>304-389-7583</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator Chesapeake Appalachia, LLC
 By: Dee Southall
 Its: Regulatory Analyst II
 Address P.O. Box 1300
Jane Lew, WV 26378
 Telephone 304-517-1416 EXT. 86024

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Office of Oil & Gas
SEP 02 2014

Subscribed and sworn before me this 11th day of August 2014
Brittany R Woody Notary Public
My Commission Expires 11/27/2022

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

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Restricted Delivery Fee (Endorsement Required)				

Elmer, Clifford, Lester Flanagan & Barbara Davis
Rt 1 Box 502
Clarksburg, WV 26301

PS Form 3800, August 2006 See Reverse for Instructions

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SEP 02 2014

10/17/2014

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 033 - 01922
Operator's Well No. 910773

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Chesapeake Appalachia, LLC OP Code 494477557

Watershed Monongahela Quadrangle Wolf Summit 692

Elevation 1196' County Harrison District Union 6

Description of anticipated Pit Waste: Water from plugging process

Will a synthetic liner be used in the pit? yes 20 mil.

*SPW
8/28/2014*

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- XX Underground Injection (UIC Permit Number 2D0072539/2D0413175/2D0610306/2D0610317)
- Reuse (at API Number at next anticipated well, API# will be included on the WR34/&or permit addendum)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain flowback will be put in steel tanks and reused or taken to permitted disposal facility)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- XX Plugging

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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 thereto 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 or imprisonment.

Company Official Signature _____

Received
Office of Oil & Gas

Company Official (Typed Name) Dee Southall

~~SEP 02 2014~~

Company Official Title Regulatory Analyst II

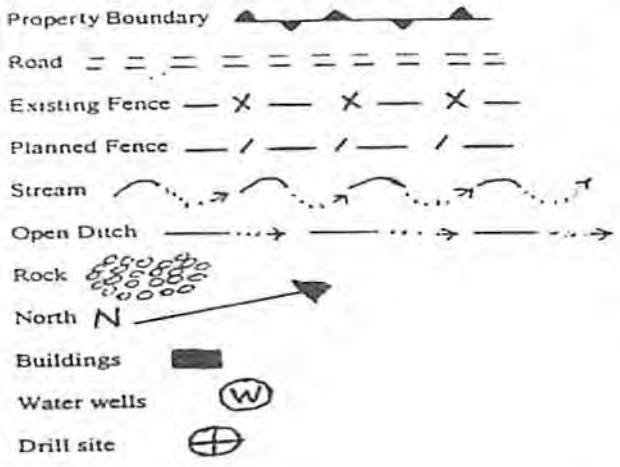
Subscribed and sworn before me this 11th day of August, 2014

Brittany R Woody

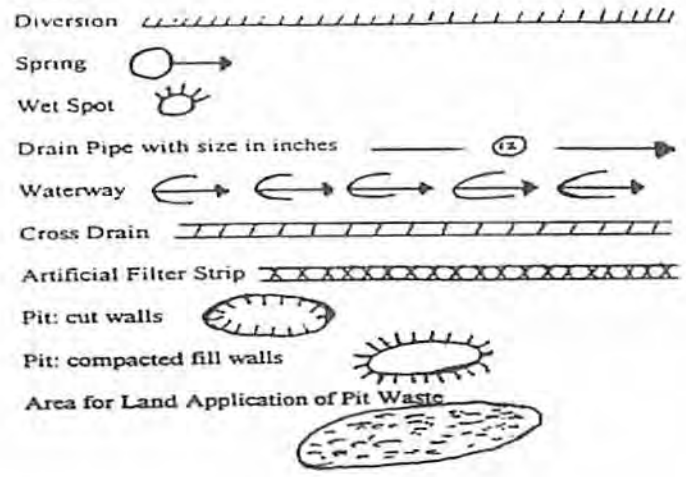


My commission expires 11/27/22

10/17/2014



LEGEND



Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH _____

Lime ^{as determined by pH test min. 2} _____ Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) ⁵⁰⁰ _____ lbs/acre (500 lbs minimum)

Mulch ^{Hay/Straw} _____ Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Orchard Grass	20		Orchard Grass	20	
Red Top	15		Red Top	15	
White Clover	15		White Clover	15	

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

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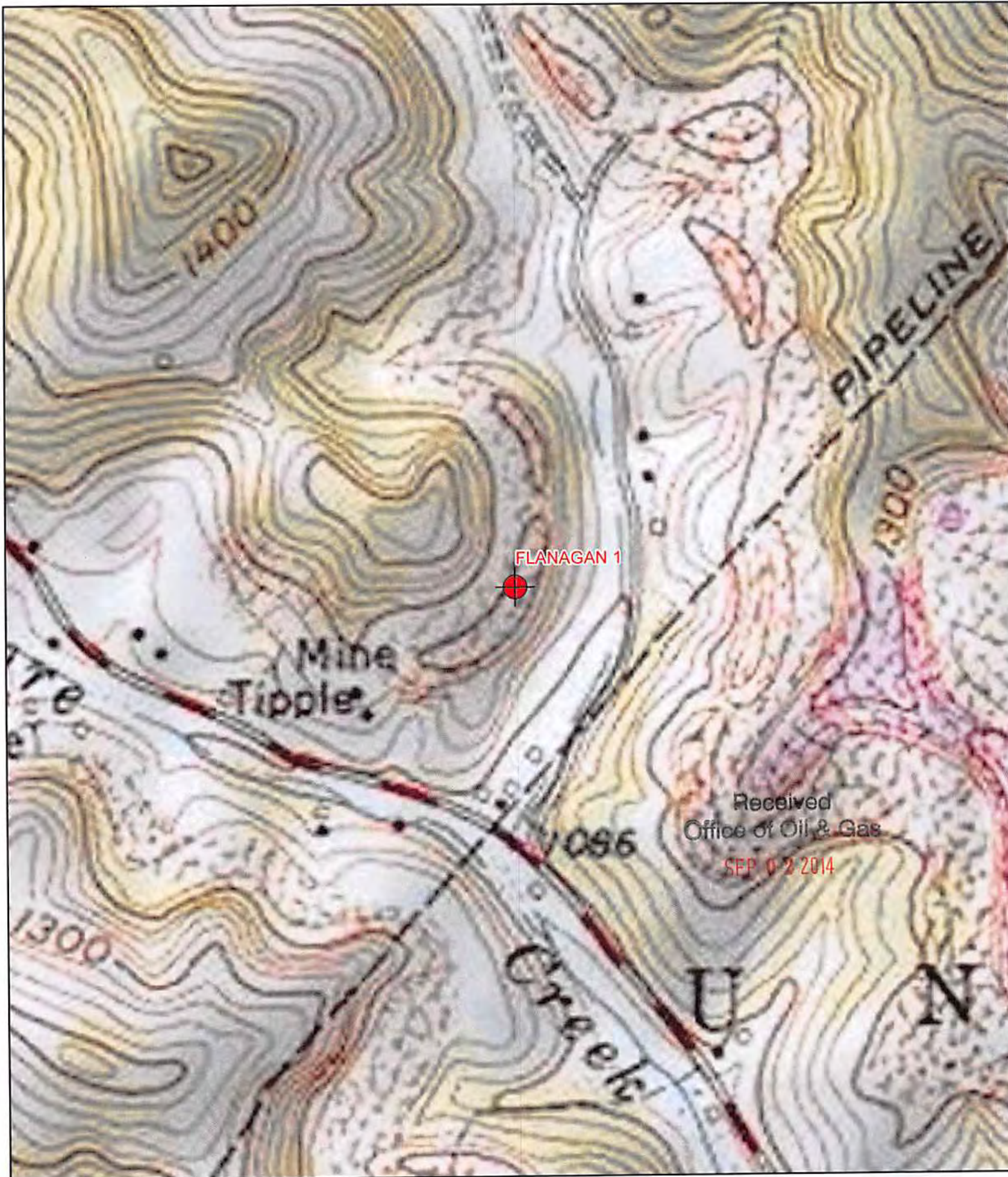
Plan Approved by: S. D. Warratt

Comments: _____

Title: Oil and Gas Inspector _____

Date: 8/28/2014

Field Reviewed? () Yes (X) No



Well: Flanagan 1
 Permit : 4703301992
 Quad: Wolf Summit
 District: Union
 County: Harrison
 State: WV

Geographic NAD83 UTM 17N
 Latitude 39.261277
 Longitude -80.447637
UTM NAD83 (Meters)
 547653.8 E
 4345916.8 N

Chesapeake ENERGY

0 250 500 1,000 Feet

10/17/2014



Danielle Southall
Regulatory Analyst II

August 29, 2014

Mr. Jeff McLaughlin
WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Received
Office of Oil & Gas
SEP 02 2014

Re: Plugging Permit for well #910773 Flanagan 1

Dear Jeff:

Enclosed please find Plugging Permit Applications for the above captioned well. This well is situated in Union District, Harrison County, West Virginia.

If you have any questions or require additional information, please do not hesitate to contact me at (304) 517-1416.

Sincerely,

Chesapeake Appalachia, LLC

Dee Southall

Enclosures

\$100.
ck. # 5189316