

west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Monday, November 1, 2021 PERMIT MODIFICATION APPROVAL Vertical / Plugging

HAMPSHIRE GAS COMPANY 114 HAMPSHIRE GAS DRIVE

ROMNEY, WV 267570000

Re:

Permit Modification Approval for 8

47-027-00014-00-00

WILL DRILL EXISTING PLUG OUT AND REPLUG USING CLASS H CEMENT WITH FLUID LOSS AND GAS STOP ADDITIVES FOR THE BOTTOM HOLE PLUG.

HAMPSHIRE GAS COMPANY

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

Operator's Well Number: 8

Farm Name: HEARE, L. H.

U.S. WELL NUMBER: 47-027-00014-00-00

Vertical Plugging

Date Modification Issued: 11/01/2021

Promoting a healthy environment.

9/27/21 MVS

Well #8 - Re-Plugging Procedure

- 1. Move in Hampshire Gas welder and Downing 9 5/8" SOW x 11" 5M casing head with 2" valves and fittings for LPO's.
- 2. Cutoff and bevel existing 9 5/8" casing. Weld on 9 5/8" x 11" 5M casing head. Bolt circular ½" steel plate with 2" vent pipe (5' long) to the top of casing head.
- 3. Notify WVDEP inspector that well operations are about to commence.
- 4. Move in trac hoe, roller, and dozer. Install 6' diameter x 6' high corrugated steel cellar around wellhead. Backfill around outside of cellar with ready mix concrete, and pour a 1' floor in the bottom of the cellar with ready mix.
- 5. Stone access roadway.
- 6. Construct well location to approximately 150' x 150' dimension. Silt sock to be installed around perimeter of location. Top soil to be piled on each end of the location, and then seeded and mulched.
- 7. Stone entire location if required. Compact stone with smooth drum roller.
- 8. Install 8 oz felt liner and 40 mil plastic containment over entire location. Install rig mats on top of containment liner.
- 9. Move in drilling rig and support equipment. Rig up all equipment. Haul in empty rolloff boxes from Waste Management. Haul in wood pellet drying material.
- 10. Conduct Pre-Job Safety orientation for all personnel.
- 11. Haul in 700 bbls of 10 ppg brine water. Fill mud pits and reserve tank.
- 12. N/U 11" 5M flow cross and 11" 5M double ram BOP. P/U jt of DP and test plug. Seat test plug in casing head. Pressure test pipe rams and blind rams to 250 psig low pressure and 3000 psig high pressure.
- 13. Pick up 8 ¾" tricone bit on 6 ½" DC. Drill cement from surface to top of 7" casing stub at approximately 12'. L/D tricone bit. P/U flat bottom mill.
- 14. Mill out 7" casing stub (there has previously been 13' of 7" removed from the well by Cudd. The exact length of 7" stub left in the well is unknown, but assumed to be 1' to 2' long).
- 15. L/D mill. P/U 8 %" tricone bit. Drill cement to 1355' (50' below bottom of 9 5/8" casing).
- 16. Rig up mud logger at 1000'. Monitor drill cutting returns and background gas.
- 17. Move in directional tools and directional personnel.
- 18. TOH. P/U directional bottomhole assembly, to consist of tricone bit (4 type), mud motor (set at ~1.15 degrees), monel DC, MWD, and 10ea 6" steel DC's. TIH.
- 19. Drill cement from 1350' to 5930'. Monitor drill cuttings closely to confirm that wellbore "side track" is not occurring. Monitor background gas.
- 20. The directional drilling company will compare actual wellbore path vs the original 1964 directional surveys.
- 21. If the hole appears to be trending towards a "side track", then the directional drillers will "directionally drill" back into the original wellbore.

- 22. While drilling cement, the drilling fluid will be checked daily to maintain acceptable pH levels. Cement drill cuttings will be "dried" by adding wood pellets, and then be loaded into rolloff boxes. These boxes will be hauled to Waste Management for disposal. Manifests will be required for all waste material leaving location.
- 23. At 5930' (total depth), the hole will be circulated clean, and background gas will be closely monitored.
- 24. Short trip from 5930' to 5500'. Trip back to 5930' and circulate hole 1.5 "bottoms up".
- 25. Monitor background gas to assure that no gas is migrating into the wellbore.
- 26. TOH, keeping hole full at all times.
- 27. L/D directional tools. L/D DC's.
- 28. P/U 20 jts (~620') of 2 3/8", 4.7#, J55, EUE tubing with sawtooth guide.
- 29. TIH with tubing "stinger" on bottom of DP to 5760'.
- 30. MIRU cementing company. MI potable fresh water for cement mixing (use water truck or set storage tank).
- 31. Circulate hole two "bottoms up" to confirm that no gas is migrating into the wellbore.
- 32. Mix and spot Class H (with fluid loss and "gas stop" additives) cement plug #1 across Oriskany and Marcellus Shale F/5760'-T/5260'.
- 33. Pull bottom of tubing to 5200'and circulate hole clean
- 34. WOC 8 hrs
- 35. Tag top of cement plug #1 and circulate hole to confirm that gas is no longer present in the wellbore
- 36. Mix and spot Class H cement plug #2 F/5260'-T/4760'.
- 37. Pull bottom of tubing to 4700' and circulate hole clean
- 38. WOC 8 hrs
- 39. Tag top of cement plug #2 and circulate hole to confirm that gas is no longer present in the wellbore.
- 40. Mix and spot Class H cement plug #3 F/4760'-T/4260'.
- 41. Pull bottom of tubing to 4230' and circulate hole clean.
- 42. Mix and spot 6% gel F/4230'-T/3000'.
- 43. Pull bottom of tubing to 3000'.
- 44. Mix and spot Class A cement plug #4 F/3000'-T/2500'.
- 45. Pull bottom of tubing to 2470' and circulate hole clean
- 46. Mix and spot 6% gel F/2470'-T/1750'.
- 47. Pull bottom of tubing to 1750'.
- 48. Mix and spot Class A cement plug #5 F/1750'-T/1250'.
- 49. Pull bottom of tubing to 1250' and circulate hole clean.
- 50. TOH, keeping hole full.
- 51. MIRU wireline company. RIH and set cast iron bridge plug in bottom of the 9 5/8" casing @ 1240'. POH with setting tool. Close blind rams and pressure test CIPB to 1500 psig.
- 52. TIH with tubing "stinger" on DP to top of CIBP. Establish circulation.
- 53. Mix and spot Class A cement F/1240'-T/surface in 2ea 600' lifts.
- 54. TOH. Top off casing with Class A cement.

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- 55. Clean mud pits.
- 56. Rig down and move off all equipment.
- 57. Haul all drill cuttings and waste water to disposal.
- 58. Install monument per WVDEP requirements.
- 59. Reclaim well location
- 60. Complete WV DEP plugging reports and submit.
- 61. Job complete.



McLaughlin, Jeffrey W <jeffrey.w.mclaughlin@wv.gov>

RE: Class H Cement Use Request

1 message

Mathuria, Varun < VMathuria@washgas.com>

Fri, Oct 22, 2021 at 12:14 PM

To: "McLaughlin, Jeffrey W" <jeffrey.w.mclaughlin@wv.gov>

Cc: "Smith, Chadwick" <CSmith@washgas.com>, "Maloney, Shannon" <SMaloney@washgas.com>, "Fitzpatrick, Richard" <RichardFitzpatrick@washgas.com>, "Knitowski, Gayne J" <gayne.j.knitowski@wv.gov>

Hello Jeff

As requested, please see below the justifications for use of Class H cement:

- Class H cement is a premium quality cement intended for use as a basic cement from surface to a depth of 8000 ft as manufactured.
- It is specified that no additions except calcium sulfate or water, or both, shall be blended with the clinker during the
 manufacture of Class H cement.
- · It's a finer grind which makes it easier to mix and gives higher base density
- It has a lower C3A %, which makes it more resistant to H2S corrosion.
- It has a higher heat resistance and higher base density. Due to higher base density, it has higher ultimate compressive strength.
- This cement can be used with accelerators and retarders at a wide range of depths and temperatures.

Class A cement is intended for use up to 6000ft when special properties are not required. Well-8 has depth of 5,930 ft which may start to impact the effectiveness of Class A cement. We plan to use the fluid loss and gas stop additives requiring special properties which class H can handle better than A. In general, considering the last plugging failure with use of class A and the advantages listed for Class H, we propose the use of premium Class H cement to plug the source entry at bottomhole and rule out any possibilities of leak because of cement class.

Thanks

Varun Mathuria

From: Mathuria, Varun

Sent: Wednesday, October 20, 2021 3:21 PM

To: McLaughlin, Jeffrey W <jeffrey.w.mclaughlin@wv.gov>; James A Martin <james.a.martin@wv.gov>

Cc: Knitowski, Gayne J <gayne.j.knitowski@wv.gov>; Brewer, Charles T <charles.t.brewer@wv.gov>; Smith, Chadwick

<CSmith@washgas.com>; Maloney, Shannon <SMaloney@washgas.com>; Fitzpatrick, Richard

<RichardFitzpatrick@washgas.com>
Subject: Class H Cement Use Request

Thanks Jeff.

WW-4A			1) Date:	10/20/2021	
Revised 6-07				s Well Numb	er
			3) API Well I	No.: 47 -	027 - 00014
D	EPARTMENT OF NOTICE 0	ENVIRONMEN	OF WEST VIRGINIA TAL PROTECTION, (IN TO PLUG AND AB	OFFICE OF ANDON A V	OIL AND GAS VELL
4) Surface Ow	ner(s) to be served:	5)	(a) Coal Operator		
(a) Name	BRIAN T HEARE		Name		
Address	21 PINEY MOUNTAIN	RD	Address		
	ROMNEY WV 26757-7	7171	_		
(b) Name			(b) Coal Owner(s)	with Declara	tion
Address			Name		
			Address		
(c) Name			Name		
Address			Address		
6) Inspector	Gayne J Knitowski		_ (c) Coal Lessee wi	th Declaratio	n
Address	P.O. Box 108 Gorman		Name		
	GAYNE.JKNITOWSKI	@WV.GOV	Address		-
Telephone	304-546-8171		_		
TO THE PE	RSONS NAME	D ABOVE: Yo	u should have received th	is Form and th	e following documents:
well	its and the plugging wor	k order; and		the parties inve	olved in the work and describes the
(2) The	plat (surveyor's map) sho	owing the well location	on on Form WW-6.		
The reason However, y	you received these docume you are not required to take a	ents is that you have rig any action at all.	hts regarding the application whi	ch are summarized	d in the instructions on the reverses side
accompany Protection, the Applic	ying documents for a permit , with respect to the well at t	to plug and abandon a v he location described or an mailed by registered	vell with the Chief of the Office on the attached Application and de- or certified mail or delivered by	f Oil and Gas, We picted on the attac	has filed this Notice and Application and st Virginia Department of Environmenta hed Form WW-6. Copies of this Notice on(s) named above (or by publication in
		W-11 C	U		
		Well Operator		11	A O A
		By:	Chadwick Smith	noto	· ·
COL	EGORY W RINKER	Its:	Manager & Designated Agent	tor H shire a	
Notary	Public Official Seal	Address	114 Hampshire Gas Drive		
	e of West Virginia n. Expires Mar 7, 2026	m-11-	Romney, WV 26757		
	Rd Romney WV 26757	Telephone	(304) 822-5664		

Oil and Gas Privacy Notice

My Commission Expires

Subscribed and sworn before me this 21

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.

day of october 2021



October 20, 2021

Mr. Brian T Heare 21 Piney Mountain Rd Romney WV 26757

Re: Hampshire Gas Well #8 Re-Plugging

Dear Mr. Brian:

As you are aware that in December 2020, Hampshire Gas performed plugging and abandonment operation of well 8 but was unsuccessful. Hampshire Gas will be reperforming the plugging and abandonment operation as per the attached plugging procedure. The procedure will utilize Class H cement instead of Class A which is more appropriate for wells at this depth to ensure successful plugging operation this time. The actual plugging work is proposed to occur in November-December of 2021.

Thank you for considering our request. Please feel free to let us know if you have any comments or questions, and we are available to discuss this matter with you at your convenience. I can be reached by phone at (304) 822-5664, or by email at csmith@washgas.com.

Sincerely,

Chad Smith

SURFACE OWNER WAIVER

Operator's Well Number

8

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT. WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have FIVE (5) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION,

ETC.

PS Heave Signature	Date <u>/0/2/-/2/</u> Name By Its		Date
		Signature	Date



Stansberry, Wade A <wade.a.stansberry@wv.gov>

Re: Message from MFD 2064

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Tue, Nov 2, 2021 at 9:06 AM

To: VMathuria@washgas.com, "Knitowski, Gayne J" <e026012@wv.gov>, Norma Wagoner <nwagoner@assessor.state.wv.us>

I have attached a copy of the newly issued well permit number "8". This will serve as your copy.

If you have any questions, then please contact us here at the Office of Oil and Gas.

Thank you,

Wade A. Stansberry

Environmental Resource Specialist 3

West Virginia Department of Environmental Protection

Office of Oil & Gas

601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 41115

(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

2 attachments



47-027-00014 - mod.pdf 1298K



IR-8 Blank.pdf 183K