



Mary B Adams/NRS/USDAFS

04/15/2008 02:59 PM

To Linda L Tracy/R9/USDAFS@FSNOTES, Clyde N

Thompson/R9/USDAFS@FSNOTES

cc barbara\_Douglas@fws.gov

bcc Mark Ford/NRS/USDAFS

Subject Drill pit?

I was up on the well pad today, and am concerned that there appears to be no mitigation/protection of the drill pit. I was under the impression that some form of mitigation, to protect wildlife (birds, bats, etc.), would be used (although I could be misinformed, or uninformed). You only need to see (and smell) the deer in the pit at the well site along 219 just south of Parsons to recognize the potential (not that we would miss a deer or two). From last week's mist net sampling we know that the bats are already coming out of the cave, although I don't think they caught any Indiana bats.

Mary Beth Adams  
USDA Forest Service  
Timber and Watershed Laboratory  
Parsons, WV 26287  
304-478-2000, X-130  
mbadams@fs.fed.us

Beth -

See enclosed  
documents following  
up on your 6/11 note  
Item 4.

*fma*

To Linda L Tracy/R9/USDAFS@FSNOTES

cc Clyde N Thompson/R9/USDAFS@FSNOTES, Nadine  
Pollock/R9/USDAFS@FSNOTES, Thomas M  
Schuler/NRS/USDAFS@FSNOTES, Mark  
Ford/NRS/USDAFS@FSNOTES, Melissa A Thomas-Van  
Gundy/NRS/USDAFS@FSNOTES, Pamela J  
Edwards/NRS/USDAFS@FSNOTES

bcc

Subject Gas well concerns

ed several things that are a concern and/or a puzzlement.

s Gap is gone, but the one at McGowan Road is still there.

Someone in a bulldozer was working on the road, so it probably should be completely closed (as opposed to half), or at least a RoadWork Ahead sign at Big Springs Gap, for safety reasons.

(2) Directly across from the stream below the pit, the road edge is collapsed and/or partially washed out. We suspect, as happened elsewhere, there was so much rain last week that the culverts couldn't handle it, and the water overflowed, ran across the road, and worked away on that opposite road edge. We've fixed a couple of other places where this happened on the Fernow, but would hope that Berry would repair that during their road work. (Incidentally, but slightly related, We do have video footage of the roads, that you asked us to take for B782, if you need something for a performance standard.)


(3) There is a red hose coming down from the well pit to the FR 701. It doesn't really go anywhere, just down the hill and more or less along the ditch - heading NE. What's this for? Has the sprinkling of the pit contents already taken place? If so, there's still a lot of water left in the pit (based on the splash when we threw a rock in).

(4) There are one to maybe two dozen trees, mostly smaller ones, immediately adjacent to the well pit on the lower west side, and a few above the well pad, where the foliage is brown, and indeed on the lower west side, there is little to no ground vegetation. At a casual glance it appears that the area was burned, but there's not really any charring to support that. (see the not very good photo below) Could it be drift of windblown drilling materials that killed these trees? A saline seep (you keep saying there isn't any salt, I know.) Tom, it would be good if sometime Rick and Donnie did an inventory of the apparently dead trees -- both for our records, and to accurately document the effects of well development



IMG\_1910.JPG

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Inspection of the B-800 well site on 5/30/08 documented an event that occurred on 5/29/08 in which Halliburton lost control of the well while attempting to remove a frac plug in the deeper part of the well bore. Halliburton had pressurized the well bore with water containing compounds to aid in the removal of the plug when the pressure forced the flow line to disconnect, ejecting well bore contents into the atmosphere as a mist that fell and deposited primarily within the well site opening. Leaf burn and wilting was observed on nearby vegetation as soon as the day after the event.

Forest staff obtained information on the contents of what was ejected from the well bore. Material Data Safety Sheets (MSDS) and rates of materials used in the well bore were obtained from Halliburton.

Forest specialists reviewed the MSDS and concentration information. Based on the compounds and concentrations, it would appear that the leaf burn that occurred was due to caustic characteristics of some of the compounds. For example, several of the compounds contain salts, and one of the compounds was tallow soap, or lye. Although none of the compounds were used in high concentrations, it is possible that under the bright sunny conditions present at the time, these concentrations were sufficient to create leaf burn on contacted vegetation.

None of the compounds are considered hazardous waste if spilled in their undiluted forms. All of the compounds are biodegradable, except the bactericide, and none are expected to accumulate in the soil.

As a result, effects are not expected to be evident beyond the present leaf crop.

/s/Linda Tracy  
6/19/08

Oil and Gas Inspection Form, USDA - Forest Service

Ranger District:	Heat-fotomac	TWN:		Range:		Sec:		Qtr/Qtr:	
Forest:	Monongahela			County:	TUCKER			State:	WV

Lease Number:	Private lease
Field:	
Well:	B-800
Operator:	BERRY ENERGY, INC.

Inspector:	Linda Tracy	Cert #:	041	Date:	5/30/06	Company Rep.	David + Daniel Berry
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Location/Phase

A. Access	B. Drill Site	C. Production Site	D. Off-Lease Activities	E. Abandonment
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Activity/Item

1. Clearing	8. Sanitation	15. Paint
2. Roads	9. Trash	16. Tank Battery/Facilities
3. Design and Location	10. Hazardous Material	17. Water Disposal
4. Surfacing	11. Signs	18. Flowlines/Pipelines
5. Gates/Cattleguards/Fencing	12. Reserve and Flare Pits	19. Utilities/Electrical
6. Erosion Control and Drainage	13. Dikes/Berms	20. Reshaping/Slopes
7. Safety	14. Spills/Leaks	21. Revegetation
		22. Off-Road Travel/Vehicle Control
		23. Conditions of Approval

Comments

What is happening:

Halliburton trying to drill out the plug at the Oriskany. Halliburton started yesterday 5/29. In the last 24 or so hours Halliburton attempted to drill out the plug (2-3 feet long with a 3/4" hole in it @ ±7800 feet deep). The downhole motor on the bottom of the tubing turns using nitrogen pumped in. The motor broke and was pulled back out and well shut in. A new motor. At one point Halliburton lost control of the well and the flow line to the pit came off forcefully. No one was hurt but well bore contents ejected into the atmosphere as a mist that deposited on the surrounding area. Herbaceous vegetation, almost all of which was within the painted well site boundary, was showing leaf burn and wilted as of today.

Tanks being hauled from site after their water contents were drained into the pit. Ponded water against the well site cut bank where the tanks were being contained (not allowed to run into the freshwater diversion ditch) until it could be pumped into the pit.

Plans are to complete plug removal, shut in well and begin treating the pit prior to land application in lower northern corner.

\* Set fences, should be cleaned out soon, but definitely prior to beginning reclamation.



File Code: 2830

Date: May 23, 2007

Mr. David B. Berry  
President  
Berry Energy Consultants and Managers, Inc.  
310 Stiles Street  
Clarksburg, WV 26302

Dear Mr. Berry:

Thank you for contacting us for our input as you develop your plan to drill gas well B800 on McGowan Mountain southwest of the Big Springs Gap.

Based on the map you provided showing the proposed B800 location, my staff examined the area in the field and consulted with the Northern Research Station science staff in order to provide you with the input presented in this letter. Though your map did not indicate a proposed access road to B800, we considered your need for one as my staff conducted the field review.

Proposed B800 is located in a silvicultural treatment demonstration area within the Fernow Experimental Forest. A skid road used to transport the timber from the demonstration harvest area exists that could provide access to the proposed gas well. Although by no means desirable, if the area impacted by the well site, access road and gas pipeline is kept to a minimum, carrying out the proposed operation could be reasonably acceptable in terms of its effects on the demonstration harvest area.

A primary concern associated with proposed B800 is that the operation would be located in karst. Surficial bedrock geology in the B800 well site area is the Greenbrier Group, which includes cavernous limestone. The proposed B800 well site and access road are located in an area containing surface water sinking into underground streams and numerous sinkholes, with nearby caves, and limestone aquifers emerging as springs. Groundwater surfaces at two major springs which are located approximately 3300 feet northeast of proposed B800. Both springs and Big Spring Cave, which also contains a stream, are located in the same contiguous bedrock group, and at a lower elevation than the proposed B800 gas well. The springs are a major water source for Big Spring Run, a tributary of Elklick Run. Both Big Spring Run and Elklick Run are high quality streams and support reproducing brook trout. The proposed well site and access road are located on the highly erosive Belmont soil type which forms from Greenbrier Group parent material.

Accordingly, unless specific mitigating measures are used in the conduct of B800 operations, there is a high probability for unacceptable pollution or deterioration of the springs and area streams from the escape of harmful or deleterious materials from the B800 operation.

Specifically, material introduced into the well bore prior to setting the surface casing, such as well casing cement and soap, could be transported to the springs, and ultimately streams, through subsurface enlarged solution fractures, traces of which are evident on the surface at the proposed well site and trend toward the springs. Likewise, left-behind drill pit contents, including oil residues, drilling mud or salt which may leak out due to punctures, tears, or eventual decay of the



liner, could be conveyed to the springs and receiving surface streams through enlarged solution fractures. In addition, sediment generated by earth disturbance associated with road, and especially with the proposed well site construction, could be transported to the springs and streams by overland flow and subsurface flow through enlarged solution fractures.

We would like to meet with you to discuss these concerns and the mitigating measures that would be needed to avoid these impacts so the operation complies with mineral reservation term 4.

Also, we will ultimately need a map showing the location of the proposed gas pipeline from this well through National Forest land. As you firm your plans for well B800, we hope you will work with us regarding the gas pipeline location.

As part of your submittal to us on the now-cancelled well B782, Berry Energy Consultants and Managers, Inc. provided the Forest Service copies of their valid oil and gas leases. As we proceed with well B800, you will need to submit updated information since the last leases we have on file show 2006 expiration dates.

We hope that this input helps you as you continue to develop your plan for gas well B800. Linda Tracy of my staff is available to answer questions and discuss this further with you. Please consider this an offer to meet with my staff in the field to discuss these concerns and options. Thank you for your time, attention, and willingness to seek our input. We look forward to working with you.

Sincerely,

*/s/ Jerri Marr (for)*  
CLYDE N. THOMPSON  
Forest Supervisor

cc: Mr. James Martin  
Chief  
WVDEP Office of Oil and Gas