

Surface Inspection Notes on the Shire Gulch 35-2, from Federal AFMSS database

Black Hills well Shire Gulch 35-2, COC22503, JESC, 12-2-08, ES as part of onsite insp to plan IR

Present: Stan Lindholm of BH, Landowner(?) Kit Goddard, Eliz Fortushniak of HRL for BH, Julia for BLM

Conditions today: Facilities clustered, but where landowner wanted them at pad center rather than max IR.

Good paint on equip, which is in compliance w/ permit.

Stormwater BMPs good and being monitored/maintained by Eliz F of HRL Compliance. Along toe of fill to SW, some maint needed.

Planned IR: Kit will do pit closure for BH since he is buying the land (from Firman - BH has proof of authorized agency from landowner) and has heavy eq onsite. He wants to leave liner in place and backfill. COGCC passed new rules to remove it last July, but BLM has not required in the past. Don't know if BLM will eventually concur w/ COGCC on liner removal but not yet, to my knowledge. Kit says part of the fill to the NE (NW?) corner is on neighbor's property.

IR may wait until next fall if landowner prefers, to avoid difficulty of removing water from pit now. Kit would like to close pit in summer 2009, then reclaim in fall 2009.

Some Russian thistle and cheat grass. If BH and landowner wait until fall 2009 to reclaim, good weed program will be needed.

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**Black Hills Shire Gulch 35-2, COC22503, 5/20/2009 JESC**

Equip: separator w/bird cone, meter house w/ remote telemetry, in good fence and graveled area. Low-profile tank in lined sheet metal containment. All OG related eq painted dark Shale green and in good condition.

Conditions: landowner has closed reserve pit, but re-excavated an area about 8 feet wide and 1-2 feet deep along the front of the fenced production area, with a trench leading to the NW corner of the pad. (his idea of SW mgmt?) This is in the same area where the pit was closed, and there is evidence of liner pieces and contaminated soils. A sawmill has also been installd on the pad, just SW of and next to the production facilities and sawed lumber is loosely piled there as well. Large logs await milling on the far western edge of the pad. To the E edge, 2 empty plastic tanks are scattered on dirt piles. The entire site, except for the graveled production area, is recently disturbed loose surface.

Black Hills is having trouble with this landowner meeting required surface standards and even leaving installed BMPs in place. They're working hard on a solution, so no orders at this time..

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Black Hills, lease 22503, well Shire Gulch 35-2, CV & JESC 08/10/09

Inspected 7-11-09, entered 8-10-09

Conditions: The pw tank, needs emptied - nearing 2 feet of free board; Oil staining around well head; Saw mill activities on west side of pad continue (closest point is aprx. 12 feet from OG facilities); Appeared pit liner was buried as it is found throughout the pad at the surface; Heavy equipment is continued to be distributed on pad; 2 new access points were added from Horse Cyn road since last visit; Fencing materials stored near well head (wire & posts); No apparent safety or spill hazards noted; Veg on pad is poor, mostly Russian thistle - no evidence of seeding.

Facilities onsite: 1- well head w/ remote meter in pig fence, 1- pw tank, 100bbl, needs emptied, 1- HT w/ bird cone, & remote meter house in pig fence. All facilities have new paint in Shale Green.

Compliance Needed: Empty tank, remove spare fencing materials and/or any unnecessary equipment from pad.

COC22503 Black Hills Shire Gulch 35-2 10/08/09 JESC

Onsite meeting with operator and land tenant to discuss ongoing conflicts with operator installed (BLM requested) Stormwater controls, and the fact that the tenant removes them after constructed. Attended by JESC, Kit Goddard - land owner/tenant, Alan Vrooman, Stan Lindholm, David Thornquist, Teig Latham- BH and Elizabeth Fortushniak- HRL.

Agreement was made that temporary SW structures will be removed and permanent ones placed, along with stabilization seeding, by October 31, 2009. These measures are to achieve the goal of site stabilization so the site can no longer be required to have high frequency SW monitoring.

Full meeting description is available in the well file, in letter format from HRL Compliance Solutions, Inc.

Black Hills Shire Gulch 35-2, COC22503, expand existing pad for (vertical? horizontal?) recomplete, JESC, 6/21/11

Pad has been expanded and new frac fluids pit constructed. Approved by Sundry.

Site Conditions: Steep loose soil piles and fill slopes in places, lacking SW BMPs (notable at E and NW). Not track walked, seeded or otherwise stabilized.

Large frac water pit under construction. Stained soil and liner pieces (HC smelly) uncovered during pit construction, tho previous pit not located here. Presumably deposited by previous landowner who closed original reserve pit, or he let someone else haul pit contents onto site. Black Hills was notified of contaminated soils by construction staff and SW inspector but did not

self-report to BLM or COGCC. Much of the bad soil was removed gradually during construction, mixing with subsoils in soils storage piles.

Julia Verbally Warned Stan Lindholm of BH, who joined her at the site:

(1) to remove and segregate all further excavated/discovered stained soil. Liner to be installed under and cover installed over. Soil testing to be done to COGCC standards. (He said he would call "Chris" at HRL and get right on it.)

(2) Stan Lindholm was also instructed to self-report to COGCC and get into compliance with State regulations.

(3) Stan was also Verbally Warned to get the site into compliance with stormwater regulations. Loose soils and steep slopes need to be stabilized and BMPs installed to prevent sediment from being transported, esp since BH wants to keep entire site active for 36 months.

Site construction foreman Marty Seely of MB Construction witnessed orders, including detailed instructions.

I asked Stan if he wanted Written Orders on paper, but he wanted a reminder email instead, so I will record this as Verbal Warning JESC01111 and send to Jessica, Stan and Alan V. by email.

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#### **Shire Gulch 35-2 Follow-up Remark dated 6-22-11:**

Per Stan's request on 6-21-2011, sent email to back up Verbal Warning JESC01111 (pasted in full below)

Stan, as per our talk on the site yesterday, here's an email reminder of the compliance work Black Hills is ordered to complete at the federal 35-2. Thanks for your cooperation!

All Work Shall be Completed by July 12, 2011.

Notify BLM by Sundry Notice when work is complete.

Immediately remove and segregate contaminated soil. Store it on a liner and cover it.

Black Hills shall self-report to COGCC and comply with State regulations.

Bring site compliance with stormwater regulations. Loose soils need to be stabilized and BMPs installed to prevent sediment from being transported (imminent). Stored soil piles are too steep and too loose to be stable. Lower slope angles, track-walk, seed or otherwise stabilize. Prevent sediment from eroding and leaving the site.

\*Inspection Notes

Black Hills Shire Gulch 35-2, COC22503, Construction for horizontal shale recomplete, JESC, 6/21/11

Pad has been expanded, w/o NEPA on expanded area. Sundry was approved by BLM.

Steep loose piles and fill slopes in places, lacking SW BMPs (notable to E and NW). Not track-walked, seeded or otherwise stabilized.

Large frac water pit under construction. Stained soil and liner pieces (smelly) uncovered during pit construction, altho previous pit not located there. Presumably deposited by previous landowner who closed original reserve pit. Black Hills was notified of contaminated soils by construction staff but did not self-report to BLM or COGCC. Much of the bad soil was removed gradually during construction, mixing with subsoils.

I Verbally Warned that remaining stained soil be removed and segregated. Liner to be installed under and cover installed over, per foreman Seely at site. Stan Lindholm of BH was informed and instructed to manage soils as previously detailed, also to self-report to COGCC and get into compliance with State regulations

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### **Shire Gulch 35-2 Follow-up Remark**

Alan Vrooman stopped by BLM today (6-28-11).

He says BH has tested contaminated soils at 35-2 and sees no need to self-report to COGCC since all samples came back under Table 910 standards. (I ordered BH on 6-21-11 in JESC01111 to self report to COGCC and get in compliance with them, as well as bring SW into compliance and stabilize loose unstable slopes.)

I told Alan to submit soil sampling results to me. I also emailed Linda Spry O'Rourke to see what she thought about COGCC's role in it. (See email below)

I will consider this Verbal Warning as a second compliance order and enter it in AFMSS as JESC01711

Paste of email to Linda:

Linda, hi. I have a compliance question to discuss with you.

I told Black Hills to contact COGCC regarding some reserve pit contents they turned up while digging a new fluids pit in supposedly virgin ground, on an existing pad, on private land (split estate). They are preparing to re-complete a federal well there and need a frac fluids pit.

The stuff they turned up was black and stinky, so I told them to segregate it on a liner and cover it, then contact you to mitigate it appropriately, which would include sampling it to your standards. I've told them twice (which counts as orders from BLM, in the category of Verbal Warning) but now they're telling me they've sampled it to COGCC standards and concluded on their own that there's no need to contact COGCC. I told them to document all their sampling to me, I thought they probably should fill out forms

with you, etc, etc. Am I right? Is this 'pit closure'? Something else? They were actually removing soil to build a new pit, but will be putting it back when the pit is closed.

They didn't notify me when they turned up the contaminated soil (which also contained pieces of old pit liner), although they were aware of it. Until I discovered it during a construction inspection, they were just burying it with the rest of the subsoil coming out of the ground.

- API is 050770940300S1

- T9S R97W, Sec 35, SWSW

- Federal well Shire Gulch 35-2, Lease COC 22503

What do you think about how to pursue this? I'll paste in my inspection notes below.

PS - just as a sidenote, the pad expansion was not constructed to BLM or CDPHE standards, and they're under orders to fix that immediately as well. Fill slopes loose/unstable and steep, insufficient SW BMPs, etc.

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