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RE: Gore Gas Unit A 15-1 release

In response to the above referenced release Samson Resources (Samson) conducted an investigation into the presence of hydrocarbons in the release. Below you will find a summary of the events and the findings of the investigation.

On February 26, 2009 a release from the wash tanks going to the reserve pit on the Gore Gas Unit A 15-1 well pad resulted in drilling fluids leaving the site and eventually ending up in a farmer's field.

Samson hired LT Environmental (LT) to conduct environmental investigation and sampling activities associated with this release. On March 13th, 2009 LT conducted an investigation in the field to determine if any impact to the soil had occurred. Samples were collected and shipped to a laboratory for analysis for multiple constituents. On April 8th, 2009 the report from LT indicated that only TPH DRO was detected above the COGCC allowable levels of 500 ppm. COGCC allowable levels prior to April were 1,000 ppm for sensitive areas and 10,000 ppm for non sensitive areas. The sample in the field showed TPH DRO was present in the concentration of 3,600 ppm.

Samson mobilized a roustabout crew to the field and removed the impacted soil. This soil was taken to the well pad and spread on plastic on the location. Subsequent sampling of the removed soil conducted on August 5th 2009 revealed that the TPH levels in the soil were 339 ppm.

LT collected confirmatory samples to demonstrate that the cleanup was successful and that TPH levels in the field were below COGCC action levels. The analytical results from this sampling demonstrated that the soil remediation efforts were successful. An additional grab sample collected from the reserve pit showed TPH-DRO levels of 958 ppm. After realizing that the sample from the pit was a grab sample Samson requested that LT mobilize to the site to collect a composite sample for better representation of TPH throughout the pit. On May 27th, 2009 LT collected a composite sample from the reserve pit. Laboratory results showed that this sample had 175 ppm TPH-DRO, well below the action level of 500 ppm.

An investigation into where the TPH came from revealed that the only additive to the drilling fluids that could have caused this issue is an additive called EZ Mud which is used to stabilize shales and provides viscosity in the well bore and is used during reentries only. This product uses a mineral oil as a carrier to help the product mix into the system more efficiently and keeps it from forming clumps in the pit and mud tanks. The mineral oil appears to be the source of the TPH. A review of the well recaps of other recent reentries in the San Juan Basin showed that the amount of EZ Mud used in the Gore Gas Unit A 15-1 (990 gallons) was significantly higher than other wells (300 gallons) due to problems encountered during drilling. Typical reentries use approximately 1/3rd less of the amount of EZ Mud used at this location. Accordingly given the composite sample from this well being below the COGCC action level it is unlikely that other reserve pits have TPH levels higher than the Gore Gas Unit A 15-1 location. Samson has discussed this issue internally and made the decision to use a dry form of the EZ Mud product in future applications which will avoid the issue of hydrocarbons in the drilling fluids.

Samson has completed remediation activities in the field and demonstrated that the levels of TPH in the reserve pit are below COGCC action levels and requests that this incident be closed. Attached are the reports and analytical results provided by LT to document the completed remediation.

If you have any questions concerning this issue please feel free to contact me at (918) 591-1370 or at srose@samson.com.



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