

PRELIMINARY

Appendix F. Hazardous Materials Management Summary

The following types of hazardous and extremely hazardous materials may be expected to be used, stored, or transported within the project area. Materials Safety Data Sheets for specific products used by SG are located in the Administrative Record for this project at the BLM UFO in Montrose, Colorado.

Table F-1. Hazardous Materials that may be Used, stored, and Transported within the Bull Mountain Unit

| Material | Use |
|---|--|
| Calcium chloride | Drilling |
| Type III cement | Casing |
| Surfactant wash | Drilling |
| Mud Clean I | Drilling |
| Cement, Premium Lite HS | Casing |
| Cement, Premium Lite Plus | Casing |
| KCl water | Drilling |
| Poz (fly ash) | Drilling |
| CSE-2 | Drilling |
| Bentonite II | Drilling |
| Kol Seal | Drilling |
| Methanol | Operations |
| 1% KCl | Operations |
| CaCl | Workover |
| Packer fluid | Operations |
| Pegasus 805 | Operations |
| Rock Drill gear oil | Operations |
| EC106A biocide - Nalco | Operations |
| 04VD008 Scale corrosion inhibitor | Operations |
| 50/50 Antifreeze | Operations |
| Diesel | Fuel for drilling rig and workover rig |
| Silica Flour | Drilling |
| Ultra Flush II | Drilling |
| NALCO Biocide ECT 35A corrosion inhibit | Operations |
| NALCO Biocide EC1071A corrosion inhibit | Operations |
| Gear oil | On rig during drilling/completion ops |
| Zetag Polymer | Drilling |
| DI-30 | Drilling |
| Fiber Plug | Drilling |
| Fiber Seal | Drilling |
| Walnut hulls, medium | Drilling |
| Walnut hulls, fine | Drilling |
| Sodium bicarbonate | Drilling |
| Soda Ash | Drilling |
| Sawdust | Drilling |
| SAPP | Drilling |
| Pronto Plug Fine | Drilling |
| NOV XAN D | Drilling |
| NOV Thin L | Drilling |
| NOV PLEX | Drilling |
| NOV PAC LV | Drilling |
| NOV Fiber Fine | Drilling |

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Table F-1. Hazardous Materials that may be Used, stored, and Transported within the Bull Mountain Unit

| Material | Use |
|--|------------|
| NOV Fiber Coarse | Drilling |
| NOV EFS #13 | Drilling |
| NOV Drill Liquid | Drilling |
| NOV Carb (M) | Drilling |
| NOV Biocide GA25-R | Drilling |
| Mica Fine | Drilling |
| Maxi-Thin | Drilling |
| Lime | Drilling |
| Lignite | Drilling |
| K+Formate | Drilling |
| Caustic soda | Drilling |
| Barite | Drilling |
| Aqua-Block | Drilling |
| LGC-36 Guar | Completion |
| 15% Hydrochloric Acid | Completion |
| HAI-81M, acid inhibitor (isopropanol, ethyl octynol, kerosene, propargyl alcohol, methanol) | Completion |
| LOSURF-300M, surfactant (ethanol, aromatic petroleum naphtha) | Completion |
| BC-140, crosslinker (borate, ethylene glycol) | Completion |
| BA-40L, buffer (sodium carbonate and potassium carbonate) | Completion |
| SandWedge, conductivity enhancer (aromatic petroleum & isopropanol) | Completion |
| GBW-30, enzyme breaker (carbohydrates, hemicellulase enzyme) | Completion |
| BE-6 Biocide (2-bromo-2-nitro-1, 3-propanediol) | Completion |
| FR-66 friction reducer (hydrotreated light petroleum distillate) | Completion |
| Ferrotrol 300L, prevents precipitation of metal oxides (citric acid) | Completion |
| XLW-32, maintains fluid viscosity as temp increases (methanol) | Completion |
| GBW-15L, allows delayed breakdown of gel polymer chains (sodium chloride) | Completion |
| Alpha 125, eliminates bacteria (glutaraldehyde) | Completion |
| AI-2, acid corrosion inhibitor (ethylene glycol monobutylether, propargyl alcohol, isopropyl alcohol, proprietary component) | Completion |
| OB-Fe, gel breaker (propylene glycol, ferrous sulfate, heptahydrate) | Completion |
| Bioclear 200, biocide (2,2-dibromo-3-nitrilopropionamide, polyethylene glycol mixture) | Completion |
| SAS-2, gelling agent (hydrotreated light distillate, mineral spirits, propylene glycol, ethoxylated alcohols) | Completion |
| FE-1A, dissolves minerals, initiate fractures in rock (acetic acid, acetic anhydride) | Completion |
| FR-46, removes oxygen from the water to protect pipe from corrosion (ammonium bisulfate) | Completion |
| CL-31 crosslinker, (potassium metaborate and potassium hydroxide) | Completion |
| Vicon NF Breaker (chlorous acid, sodium salt and sodium chloride) | Completion |
| CL-37 crosslinker (triethanolamine zirconate, propanol, and glycerine) | Completion |
| BA-40L buffering agent (potassium carbonate) | Completion |
| Gel-Sta L stabilizer (sodium thiosulfate) | Completion |
| SP Breaker (sodium persulfate) | Completion |