

Winn Exploration Company

Pit Management Plan – Florence Field, CO

6/25/2012

### **Operations**

Winn Exploration drilling techniques employed in Florence, earthen pits are utilized to discharge drilling fluid while drilling. Drilling fluids are discharged into the reserve pit prior to drilling into the oil bearing reservoir. When encountering oil, the drilling fluids will be diverted to a separation system. From the operator, fluids (including oil) and cuttings will be transferred to storage tanks. Small quantities of oil may inadvertently flow into the reserve pit while flow is being diverted to the separation system.

### **Pit Design**

Pit dimensions will differ depending on the type of well and location size. Pit dimensions specific to a site or well will be described in the Earthen Pit/Permit (Form 15). Pits will be lined with 30 mil synthetic pit liner(s), fenced with a three (3) strand wire fence or better and will be maintained to prevent impacts to wildlife including the installation of bird netting. The bird netting will be installed as soon as practical once oil flows into the pit.

### **Pit Monitoring/Inspection**

During drilling operations, on-site drilling personnel will monitor the pit fluid level on a 24-hour basis to ensure the minimum required 2 feet freeboard is maintained. Once drilling operations are completed, Winn Exploration personnel will inspect the pits on a daily basis to monitor and inspect the condition of the fence and bird netting, to ensure the minimum required 2 feet freeboard is maintained and to witness the type and quality of fluids in the pit. Records will be kept showing pit monitoring and inspection. Such records will be available for the COGCC representative review upon request.

### **Pit Skimming**

Pits will be skimmed at a minimum on a bi-weekly basis should there be sufficient quantity of oil present in the pits. Frequency may be increased, as necessary, at the discretion of the operator, or in consultation with COGCC staff. Records of the skim operations will be kept by Winn Exploration and made available to COGCC staff for review upon request.

### **Waste Management**

Pit contents will be disposed using evaporation, burial and offsite disposal to an authorized commercial landfill per COGCC, Series 900 rules. During drilling operations, any excess amount of fluids will be disposed to an authorized local commercial landfill. Oil contaminated

cuttings will be disposed to an authorized local commercial landfill. Upon closure of pit, cuttings left in pit shall meet the standards listed in Table 910. Synthetic pit liners shall be removed and disposed per COGCC, Series 900 rules to an authorized local landfill. Refer to Preliminary Pit Closure Plan below.

#### **Preliminary Pit Closure Plan**

- Representative samples will be collected, preserved, transported and analyzed in accordance with rule 910. Samples will be obtained from areas that most likely have been impacted, i.e. from the remaining cuttings left in the pit, and or soil immediately beneath the liner in areas of apparent or suspected leaks.
- The Site Investigation and Remediation Work Plan (Form 27) will be prepared and submitted to the COGCC along with test results.
- Upon COGCC approval of Form 27, oil and oil contaminated cuttings (oil waste) will be removed from the pit and disposed of at an authorized commercial landfill. All pit waste will be treated and/or disposed of per rule 907.
- The liner will be removed and the pit will be backfilled with the stored pit soil. Prior to backfilling the pit liquid will be removed to de minimis amounts. Soil and fluid left in the pit shall be tested and confirmed to meet the allowable concentration levels of Table 910. Synthetic pit liners shall be removed and disposed per COGCC, Series 900 rules to an authorized local commercial landfill. At the time the synthetic liner is removed from the pit, a representative sample will be collected below the synthetic liner. The underlying soil will be observed for indications of liner leakage. Additional samples will be collected from area of apparent or suspected leaks.