

NEPA COMPLIANCE SURVEY # 311

| Project Information | | | |
|--|---------------------|--|------------|
| Project Title: | Viscosity Reduction | Date: | 11-22-2010 |
| DOE Code: | 6730-020-51141 | Contractor Code: | 8067-778 |
| Project Lead: | Frank Ingham | | |
| <p style="text-align: center;">Project Overview</p> <ol style="list-style-type: none"> 1. Brief project description [include anything that could impact the environment] 2. Legal location 3. Duration of the project 4. Major equipment to be used | | <ol style="list-style-type: none"> 1. The purpose of the project is to test a tool that temporarily reduces the viscosity of oil which allows it to be pumped through pipelines easier. The test will require about 4 miles of line to pump the oil through after treatment (hence the need to connect the 3 loops together), a holding volume for recovery, then repeat. There will be tanks to hold the original volume, tanks to receive the volume after treatment and pumping through the line, possible transfer between tanks, transport (trucking) of the oil to the site (by the COC) and transport of the oil away when finished. After Pigging, Connect the West, North East, and South East wings of the Flow Assurance loop. Pump oil through the length of the ~ 21,000 ft, taking measurements in several (5) bellholes (need to install 2" tap, riser, valves). Collect baseline data and several test flow data sets. Oil will start in initial tanks, pump through the loop at 500 to 600 gpm, and collect in final tanks. It will be transferred to the initial tanks and repeated over 4 days. Continuous circulation over night for temperature stability. Total volume of circulated oil is approx 1000 bbls plus line volume approx 800 bbls. 2. Along Flow Loop, west, ne, and se loops. 3. Actual testing time will be about 4 days. The time to pig the loops, set the tanks and plumb them and connect the flow loop will be closer to a couple of weeks(?) 4. Backhoe, vac trucks, welder, pressure truck, winch truck | |

The table below is to be completed by the Project Lead and reviewed by the Environmental Specialist and the DOE NEPA Compliance Officer. **NOTE: If Change of Scope occurs, Project Lead must submit a new NEPA Compliance Survey and contact the Technical Assurance Department.**

| | Impacts Anticipated? | | | If YES, then complete below |
|---|--------------------------|-------------------------------------|--------------------------|---|
| | Yes | No | NA | If the anticipated impact might be unacceptable, recommend mitigation measures: |
| Water Quality | | | | |
| Does the proposed project present potential for impacts on water resources or water quality? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Does the project affect surface water quantity or quality under both normal operations and accident conditions? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Does the proposed project affect groundwater quantity or quality under both normal operations and accident conditions? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Will the project area include "Waters of the State?" | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |

NEPA COMPLIANCE SURVEY

| | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--|
| Will the project area require a Corps of Engineers permit? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
|---|--------------------------|-------------------------------------|--------------------------|--|

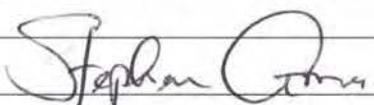
NEPA COMPLIANCE SURVEY

| | Impacts Anticipated? | | | If YES, then complete below. |
|--|--------------------------|-------------------------------------|-------------------------------------|---|
| | Yes | No | NA | If the anticipated impact might be unacceptable, recommend mitigation measures: |
| Geology & Soils | | | | |
| Does the proposed project present potential for impacts related to geology or soils? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Does the proposed project alter, excavate or otherwise disturb land area consistent with other land use and habitat area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | I believe it is consistent with other excavation activities occurring in the field. |
| Is the proposed project likely to impact local seismicity? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| If the project involved disturbance of surface soils, are erosion and storm water control measures addressed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Air Quality | | | | |
| Does the proposed action present potential for impacts on ambient air quality under both normal and accident conditions? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are potential emissions (gases and/or airborne particulates including dust) outside of the normal scope for oil field operations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Does the project present risk to human health and the environment from exposure to radiation and hazardous chemicals in emissions? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Is the project subject to New Source Performance Standards? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Is the project subject to National Emissions Standards for Hazardous Air Pollutants? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Is the project subject to emissions limitations in an Air Quality Control Region? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |

NEPA COMPLIANCE SURVEY

| | Impacts Anticipated? | | | If YES, then complete below. |
|---|-------------------------------------|-------------------------------------|--------------------------|--|
| | Yes | No | NA | If the anticipated impact might be unacceptable, recommend mitigation measures: |
| Wildlife and Habitat | | | | |
| Does the proposed action present potential for impacts on wildlife or habitat? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Does the project impact state or federally listed threatened and endangered species? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Human Health Effects | | | | |
| Does the proposed project present potential for effects on human health? e.g.: Hanta virus, radiological exposure, or chemical exposure (must provide MSDS) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Transportation | | | | |
| Does the proposed project involve transportation of radiological sources or hazardous materials (including explosives)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Waste Management and Waste Minimization | | | | |
| Are pollution prevention and waste minimization practices needed in the proposed project? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Oil will be transferred from trucks to tanks to pipeline...etc. multiple times utilizing established procedures. |
| Does project plan establish procedures in compliance with local, state and/or federal laws and guidelines affecting the generation, transportation, treatment, storage or disposal of hazardous and other wastes? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Oil will be transferred from trucks to tanks to pipeline...etc. multiple times. |

NEPA COMPLIANCE SURVEY

| | | Impacts Anticipated? | | | If YES, then complete below. | |
|---|---|--------------------------|--|-------------------------------------|---|--|
| Cultural Impact | | Yes | No | NA | If the anticipated impact might be unacceptable, recommend mitigation measures: | |
| Is there potential for impact on cultural (historic) resources? | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Community Impact | | Yes | No | NA | If the anticipated impact might be unacceptable, recommend mitigation measures: | |
| Will the proposed project introduce significantly adverse auditory, visual, or other impact? | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Will the proposed project adversely affect the community's use of public land/resources? | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| Will the proposed project adversely affect the community's access to private land? | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| NOTE: Topography Map and Wetlands Map are required to be attached. Attach applicable SOPs for Risk Assessment Level 2 & 3 and specific test procedures. | | | | | | |
| Are environmental permits required? If YES, list below: | | | | | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Section below to be reviewed by Environmental Specialist and DOE NCO. | | | | | | |
| Adequate Mitigation Measures Provided? | | | Adequate Mitigation Measures Provided? | | | |
| | Yes | No | | Yes | No | |
| Water Quality Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Transportation Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Air Quality Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Waste Management Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| *Wildlife and Habitat Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Cultural Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Geology and Soils Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Community Impact | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Human Health Impacts | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Categorical Exclusion | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Approvals | | | | | | |
| Comments and Conditions: | <p>B3.11 Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment (including, but not limited to, weapon system components), under controlled conditions that would not involve source, special nuclear, or byproduct materials.</p> <p>B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments.</p> <p>B5.2 Modifications to oil, gas, and geothermal facility pump and piping configurations, manifolds, metering systems, and other instrumentation that would not change design process flow rates or affect permitted air emissions.</p> | | | | | |
| Contractor ESS&H |  | | | | Date 11-29-10 | |
| Comments and Conditions: | Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1A), I have determined that the proposed action fits within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review. | | | | | |

NEPA COMPLIANCE SURVEY

| | | |
|-----------------------------------|---|-----------------|
| DOE NEPA Compliance Officer | CXS B3.11, B5.1, & B5.2 <i>Michael J. J. [Signature]</i> | Date 12/1/10 |
|-----------------------------------|---|-----------------|

Viscosity Reduction / Flow Loop



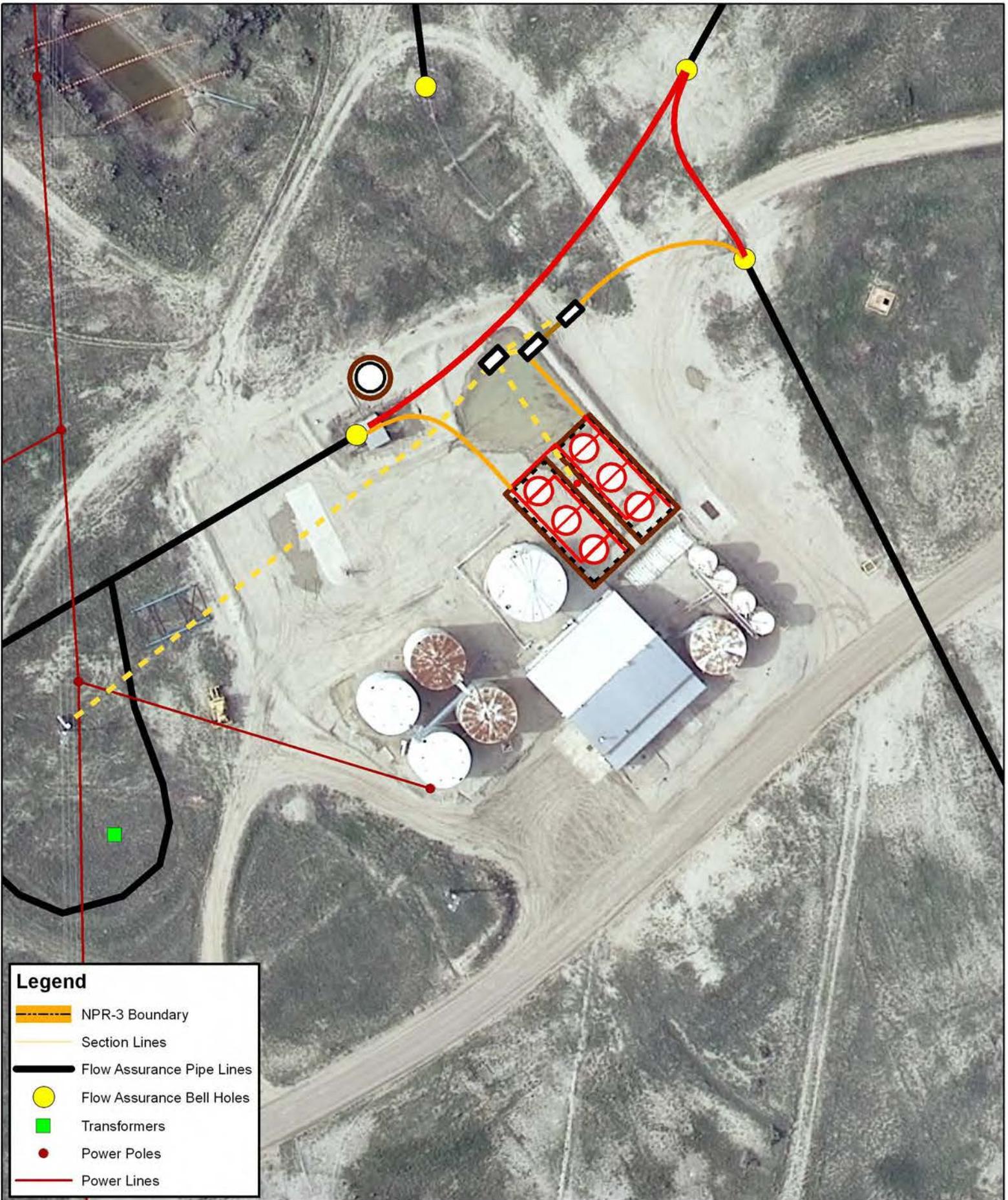
| | | | |
|--|--|---------------------------|-----------------|
| | Viscosity Reduction / Flow Loop | | |
| | Author: J Buelt | Project Manager: F Ingham | |
| | GIS-PJ-6730.020.51141-3 | Date: 11/18/2010 | Rev Date: |
| | WY State Plane / East Central Zone / NAD27 | | |
| | | | Scale = 1:7,500 |

RMOTC
 507 N Poplar, Suite 150
 Casper, WY 82601
 307-233-4800

0 500 1,000 2,000 Feet

Data represented on this map is for planning purposes only. RMOTC makes no warranties as to its accuracy, reliability or completeness. Any use of this data is strictly the responsibility of the user. This is an uncontrolled RMOTC drawing.

STWA / Viscosity Reduction Test



Legend

- NPR-3 Boundary
- - - Section Lines
- Flow Assurance Pipe Lines
- Flow Assurance Bell Holes
- Transformers
- Power Poles
- Power Lines

| | | | |
|--|--|---------------------------|-----------|
|  | STWA / Viscosity Reduction Test | | |
| | Author: J Buelt | Project Manager: M Curtis | |
| | GIS-PRJ-6730.020.51141-5 | Date: 01/31/2011 | Rev Date: |
| WY State Plane / East Central Zone / NAD27 | | Scale = 1:500 | |

0 50 100 200
 Feet

RMOTC
 907 N Poplar, Suite 150
 Casper, WY 82601
 307-233-4800

Data represented on this map is for planning purposes only. RMOTC makes no warranties as to its accuracy, reliability or completeness. Any use of this data is strictly the responsibility of the user. This is an uncontrolled RMOTC drawing.