NEPA COMPLIANCE SURVEY
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Project Information			
Project Title:	Nalco / Total Flow Loop Polymer Test	**Date:**	2/7//2013
DOE Code:	673002 - 51160	**Contractor Code:**	
Project Lead:	Grant Evenson		

Project Overview 1. Brief project description [include anything that could impact the environment]	The objective of the test at RMOTC is to acquire data about pressure drop and degradation for dilute polymer solution in a continuous long distance pipeline. Tests will be performed with a representative pipeline diameter operated in turbulent flow. "Representative" diameter means diameter large enough to allow up scaling to industrial conditions (at least 6"). The final objectives of the tests are: 1. To provide reliable and test data to be used in a foreign Partner study for EOR pipeline. 2. To provide reliable and consistent test data to build a comprehensive model of pressure drop and degradation for future projects of transport of chemical EOR solution in pipelines. This test will include the installation of one 20,000 bbl portable tanks (for the storage and temperature control of Madison water from 57-WX-3), a 40 foot control trailer, three engine skids measuring 20 feet by 8 feet (see attached documentation for the specs and WYDEQ AQD temporary permit for these engines), six 5,000 gallon tanks (for the storage and mixing of the polymer, see attached MSDS), which will all be provided by the partner (FabTech). The one 20,000 bbl tanks will be erected as near to the COC as possible, a cultural resource survey will not be needed, the tank will be located in a previously disturbed area. All partner equipment will be placed within the previously disturbed area of the COC. A 650 ft long section of temporary pipe will be erected from well 57-WX-3 to the inlet pipe of one of the 20,000 bbl tanks. The pipe will be metal irrigation pipe (sections connected using clamps). The pipe will be 6 or 8 inch diameter and will be assembled alongside the road between the two locations. No dirt work will be necessary to lay these sections of pipe. The rate the water will be used and discharged will be no more than 8,500 gallons per day.
2. Legal location	Customer Operations Center (COC), RMOTC / NPR-3
3. Duration of the project	The project will last no longer than three months.
4. Major equipment to be used	Backhoe (RMOTC), Dump Truck (RMOTC), Dozer (RMOTC), Scrapers (RMOTC), Frontend Loader (RMOTC), Electric Pump to pump the Madison water from the 57-WX-3 well (RMOTC), Electric Pump to pump used polymer to the Tensleep pit area through an existing underground line.

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
Water Quality	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project present potential for impacts on water resources or water quality?	☒	☐	☐	Letter from WYDEQ attached. The waste water from this project (a Madison water and polymer mix) will be disposed of through the Tensleep pit system and the WYPDES permit (WY0028274).

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Does the project affect surface water quantity or quality under both normal operations and accident conditions?	☒	☐	☐	Letter from WYDEQ attached. The waste water from this project (a Madison water and polymer mix) will be disposed of through the Tensleep pit system and the WYPDES permit (WY0028274).
Does the proposed project affect groundwater quantity or quality under both normal operations and accident conditions?	☐	☒	☐	
Will the project area include "Waters of the State?"	☒	☐	☐	Letter from WYDEQ attached. The waste water from this project (a Madison water and polymer mix) will be disposed of through the Tensleep pit system and the WYPDES permit (WY0028274).
Will the project area require a Corps of Engineers permit?	☐	☒	☐	

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	Impacts Anticipated?			If YES, then complete below.
Geology & Soils	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project present potential for impacts related to geology or soils?	☐	☒	☐	The equipment associated with this project will be placed inside of the previously disturbed areas of the COC.
Does the proposed project alter, excavate or otherwise disturb land area consistent with other land use and habitat area?	☐	☒	☐	
Is the proposed project likely to impact local seismicity?	☐	☒	☐	
If the project involved disturbance of surface soils, are erosion and storm water control measures addressed?	☒	☐	☐	RMOTC will implement Best Management Practices, with buffer zones, and plastic covering that will be inspected and maintained daily. During the project the SWPP and SPCC guidelines will be used to ensure that erosion and storm water are controlled.
Air Quality	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed action present potential for impacts on ambient air quality under both normal and accident conditions?	☒	☐	☐	WYDEQ has issued an air quality permit waiver for this project for the four diesel driven pumps. See attached permit for more specifics and specs for the engines. However, new pumps have been added to the project making the obtained permit obsolete. A new permit waiver will be requested once all the paperwork is submitted. The new pumps will not be started until the new waiver has been approved. 1) New diesel engines not to be started until new WYDEQ permit approved & 2) Blading of pipeline ROW not approved.
Are potential emissions (gases and/or airborne particulates including dust) outside of the normal scope for oil field operations?	☐	☒	☐	
Does the project present risk to human health and the environment from exposure to radiation and hazardous chemicals in emissions?	☐	☒	☐	
Is the project subject to New Source Performance Standards?	☐	☒	☐	

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Is the project subject to National Emissions Standards for Hazardous Air Pollutants?	☒	☐	☐	WYDEQ has issued an air quality permit waiver for this project for the four diesel driven pumps. See attached permit for more specifics and specs for the engines. However, new pumps have been added to the project making the obtained permit obsolete. A new permit waiver will be requested once all the paperwork is submitted. The new pumps will not be started until the new waiver has been approved. 1) New diesel engines not to be started until new WYDEQ permit approved & 2) Blading of pipeline ROW not approved.
Is the project subject to emissions limitations in an Air Quality Control Region?	☒	☐	☐	WYDEQ has issued an air quality permit waiver for this project for the four diesel driven pumps. See attached permit for more specifics and specs for the engines. However, new pumps have been added to the project making the obtained permit obsolete. A new permit waiver will be requested once all the paperwork is submitted. The new pumps will not be started until the new waiver has been approved. 1) New diesel engines not to be started until new WYDEQ permit approved & 2) Blading of pipeline ROW not approved.
	Impacts Anticipated?			**If YES, then complete below.**
Wildlife and Habitat	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed action present potential for impacts on wildlife or habitat?	☐	☒	☐	
Does the project impact state or federally listed threatened and endangered species?	☐	☒	☐	
Human Health Effects	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project present potential for effects on human health? **e.g.: Hanta virus, radiological exposure, or chemical exposure (must provide SDS)**	☒	☐	☐	Chemical exposure will be a risk during this project. MontBrite 1240: Sodium Bicarbonate Sodium Bisulfite Sodium Hydroxide Acrylonitrile Mitigation measures will include proper ventilation; goggles, face shield, or other appropriate eye protection; emergency eyewash station will be available (provided by the testing partner; rubber gloves, rubber apron or other approved clothing; emergency showers will be available (provided by the testing partner); dust masks and vapor respirators. SDS's are attached
Transportation	**Yes**	**No**	**NA**	**If the anticipated impact might be unacceptable, recommend mitigation measures:**
Does the proposed project involve transportation of radiological sources or hazardous materials (including explosives)?	☐	☒	☐	

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Waste Management and Waste Minimization	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Are pollution prevention and waste minimization practices needed in the proposed project?	☐	☒	☐	
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?	☒	☐	☐	Letter from WYDEQ attached. The waste water from this project (a Madison water and polymer mix) will be disposed of through the Tensleep pit system and the WYPDES permit (WY0028274).

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	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?	☐	☒	☐	A cultural resource survey will be not conducted. Previous cultural resource surveys, RMOTC-1 NPR-3 Archaeological Survey / Teapot Dome, WY and RMOTC-2 Teapot Dome Survey. This area is in a previously disturbed area and it is highly unlikely that any cultural resources will be found.
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?	☐	☒	☐	
Will the proposed project adversely affect the community's use of public land/resources?	☐	☒	☐	
Will the proposed project adversely affect the community's access to private land?	☐	☒	☐	

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 ☒**	**No ☐**
Attached letter from WYDEQ for use of WY0028274 for waste water disposal, attached WYDEQ AQD Temporary permit		

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	☒	☐	Transportation Impacts	☒	☐
Air Quality Impacts	☒	☐	Waste Management Impacts	☒	☐
Wildlife and Habitat Impacts	☒	☐	Cultural Impacts	☒	☐
Geology and Soils Impacts	☒	☐	Community Impact	☒	☐
Human Health Impacts	☒	☐	**Categorical Exclusion**	☒	☐

Approvals

Comments and Conditions:

B1.6 Tanks and equipment to control runoff and spills
Installation or modification of retention tanks or small (normally under one acre) basins and associated piping and pumps for existing operations to control runoff or spills (such as under 40 CFR part 112). Modifications include, but are not limited to, installing liners or covers. (See also B1.33 of this appendix.)

B1.13 Pathways, short access roads, and rail lines
Construction, acquisition, and relocation, consistent with applicable right-of-way conditions and approved land use or transportation improvement plans, of pedestrian walkways and trails, bicycle paths, small outdoor fitness areas, and short access roads and rail lines (such as branch and spur lines).

- *B1.18 Water supply wells*
Siting, construction, and operation of additional water supply wells (or replacement wells) within an existing well field, or modification of an existing water supply well to restore production, provided that there would be no drawdown other than in the immediate vicinity of the pumping well, and the covered actions would not have the potential to cause significant long-term decline of the water table, and would not have the potential to cause significant degradation of the aquifer from the new or replacement

well.

B1.26 Small water treatment facilities
Siting, construction, expansion, modification, replacement, operation, and decommissioning of small (total capacity less than approximately 250,000 gallons per day) wastewater and surface water treatment facilities whose liquid discharges are externally regulated, and small potable water and sewage treatment facilities.

B1.31 Installation or relocation of machinery and equipment
Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

B1.33 Stormwater runoff control
Design, construction, and operation of control practices to reduce stormwater runoff and maintain natural hydrology. Activities include, but are not limited to, those that reduce impervious surfaces (such as vegetative practices and use of porous pavements), best management practices (such as silt fences, straw wattles, and fiber rolls), and use of green infrastructure or other low impact development practices (such as cisterns and green roofs).

- *B3.6 Small-scale research and development, laboratory operations, and pilot projects*
Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

- *B3.11 Outdoor tests and experiments on materials and equipment components*
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. Covered actions include, but are not limited to, burn tests (such as tests of electric cable fire resistance or the combustion characteristics of fuels), impact tests (such as pneumatic ejector tests using earthen embankments or concrete slabs designated and routinely used for that purpose), or drop, puncture, water-immersion, or thermal tests. Covered actions would not involve source, special nuclear, or byproduct materials, except encapsulated sources manufactured to applicable standards that contain source, special nuclear, or byproduct materials may be used for nondestructive actions such as detector/sensor development and testing and first responder field training.

B5.2 Modifications to pumps and piping
Modifications to existing pump and piping configurations (including, but not limited to, manifolds, metering systems, and other instrumentation on such configurations conveying materials such as air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water). Covered modifications would not have the potential to cause significant changes to design process flow rates or permitted air emissions.

B5.4 Repair or replacement of pipelines
Repair, replacement, upgrading, rebuilding, or minor relocation of pipelines within existing rights-of-way, provided that the actions are in accordance with applicable requirements (such as Army Corps of Engineers permits under section 404 of the Clean Water Act). Pipelines may convey materials including, but not limited to, air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water.

- *B5.5 Short pipeline segments*
Construction and subsequent operation of short (generally less than 20 miles in length) pipeline segments conveying materials (such as air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water) between existing source facilities and existing receiving facilities (such as facilities for use, reuse, transportation, storage, and refining), provided that the pipeline segments are within previously disturbed or developed rights-of-way.

Contractor ESS&H		**Date**	5-1-13
Comments and			

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Conditions:		
	The actions listed in this NEPA Compliance Survey are classes of actions (categorical exclusions) that DOE has determined do not individually or cumulatively have a significant effect on the human environment. The activity fits within a class of actions that is listed in appendix A or B to 10 CFR Part 1021. 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 actions fit within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed actions are hereby categorically excluded from further NEPA review	
DOE NEPA Compliance Officer	Michael J Taylor CXs B1.18, B3.6, B3.11, & B5.5	Date 5/1/13

1) NEW DIESEL ENGINES NOT TO BE STARTED UNTIL NEW WY DEQ PERMIT IS APPROVED.

2) BLADING OF PIPELINE ROW IS NOT APPROVED.

3) SPILLS ARE TO BE PROMPTLY & PROPERLY CONTAINED & CLEANED UP.

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Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

Todd Parfitt, Director

January 30, 2013

Anne Theriault | Environmental Specialist
Navarro Research & Engineering, support services contractor for RMOTC
907 N. Poplar, Suite 150,
Casper, WY 82601

RE: RMOTC WYPDES (WY0028274) Discharge Question for Test

Anne:

This will discharge into class 3B water, eventually tributary to class 2C water. With class 3B or 2C water, we protect for aquatic life. For the chemicals you wish to discharge with Madison water, there are no aquatic life standards. As long as these chemicals are used per manufacturers' specifications and intended uses with reasonably low concentrations, this should be therefore no problem.

For acrylonitrile, there is a human health standard, but since drinking water is not affected, use of acrylonitrile is not a major concern.

The Madison formation water test results that you provided indicate compliance with permitted effluent limits and appropriate water quality standards.

With using these chemicals, please ensure compliance with the permitted effluent limits:

Effluent Characteristic	Daily Maximum
pH, standard units	6.5 – 9.0
Oil and Grease, mg/L	10
Total Recoverable Radium 226, pCi/L	60
Specific Conductance, micromhos/cm	7,500
Chloride, mg/L	2,000
Sulfate, mg/L	3,000

I hope this information is helpful. Thank you for the inquiry.

Sincerely,

Roland Peterson

Roland Peterson, P.G.
WYPDES Program Natural Resources Analyst
Water Quality Division

Herschler Building · 122 West 25th Street · Cheyenne, WY 82002 · http://deq.state.wy.us

ADMIN/OUTREACH	ABANDONED MINES	AIR QUALITY	INDUSTRIAL SITING	LAND QUALITY	SOLID & HAZ. WASTE	WATER QUALITY
(307) 777-7758	(307) 777-6145	(307) 777-7391	(307) 777-7369	(307) 777-7756	(307) 777-7752	(307) 777-7781
FAX 777-7682	FAX 777-6462	FAX 777-5616	FAX 777-5973	FAX 777-5864	FAX 777-5973	FAX 777-5973

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Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

Todd Parfitt, Director

STATE OF WYOMING
Department of Environmental Quality - Air Quality Division
Oil and Gas Production Chapter 6, Section 2(k)(viii) Waiver
March 18, 2013
wv-14473

Company Name:	United States Department of Energy
Mailing Address:	907 North Poplar Suite 150, Casper, WY 82601
Company Official:	Michael J. Taylor Title: Technical Assurance Director
Facility Name:	Naval Petroleum Reserve #3 (NPR#3)/Customer Operations Center (COC) County: Natrona
Legal Description:	¼ Section SW SE Section: 3 T: 38N R: 78W
Lat/Long:	Latitude: 43.28696° Longitude: -106.19902°
Proposed Equipment:	• two (2) temporary 760 hp Detroit R123K33 diesel fired pump engines • one (1) temporary 425 hp site rated Cummins N14-C475 diesel fired pump engine • one (1) temporary 75 hp John Deere 4045T diesel fired pump engine
Reviewer:	Brian Mark, Principal Engineer

On February 12, 2013, the Division of Air Quality received an application from the United States Department of Energy to authorize the temporary operation of two (2) 760 hp Detroit R123K33 pump engines, one (1) 425 hp site rated Cummins N14-C475 pump engine, and one (1) 75 hp John Deere 4045T pump engine at the Naval Petroleum Reserve #3 (NPR#3)/Customer Operations Center (COC). The test site is located in the SW1/4 SE1/4 of Section 3, T38N, R78W, approximately nine (9) miles south-southeast of Midwest, in Natrona County, Wyoming.

The two (2) 760 hp Detroit R123K33 pump engines are Tier 1 certified and emit 6.5 g/hp-hr of NO_x, 0.8 g/hp-hr of CO, 0.2 g/hp-hr of VOC, and 0.1 g/hp-hr of PM. The one (1) 425 hp site rated Cummins N14-C475 pump engine is Tier 1 rated and emits 6.4 g/hp-hr of NO_x, 0.8 g/hp-hr of CO, 0.2 g/hp-hr of VOC, and 0.1 g/hp-hr of PM. The one (1) 75 hp John Deere 4045T pump engine is Tier 4 Interim rated and emits 4.6 g/hp-hr of NMHC + NO_x (0.3 g/hp-hr of HC and 4.3 g/hp-hr of NO_x respectively), 1.2 g/hp-hr of CO, and 0.3 g/hp-hr of PM.

The United States Department of Energy is planning to test a dilute polymer solution to acquire data representing pipeline pressure drop and polymer degradation. As part of the testing, the United States Department of Energy requests the temporary operation of four (4) pump engines. The temporary operation is expected to last up to three (3) months.

40 CFR part 60, subpart IIII applies to stationary diesel engines and fire pumps. 40 CFR part 63, subpart ZZZZ applies to stationary engines at major sources and area sources of HAPs. The two (2) Detroit R123K33 pump engines, one (1) Cummins N14-C475 pump engine, and one (1) John Deere 4045T pump engine will only be used for up to three (3) months. Therefore, Subpart IIII and Subpart ZZZZ do not apply.

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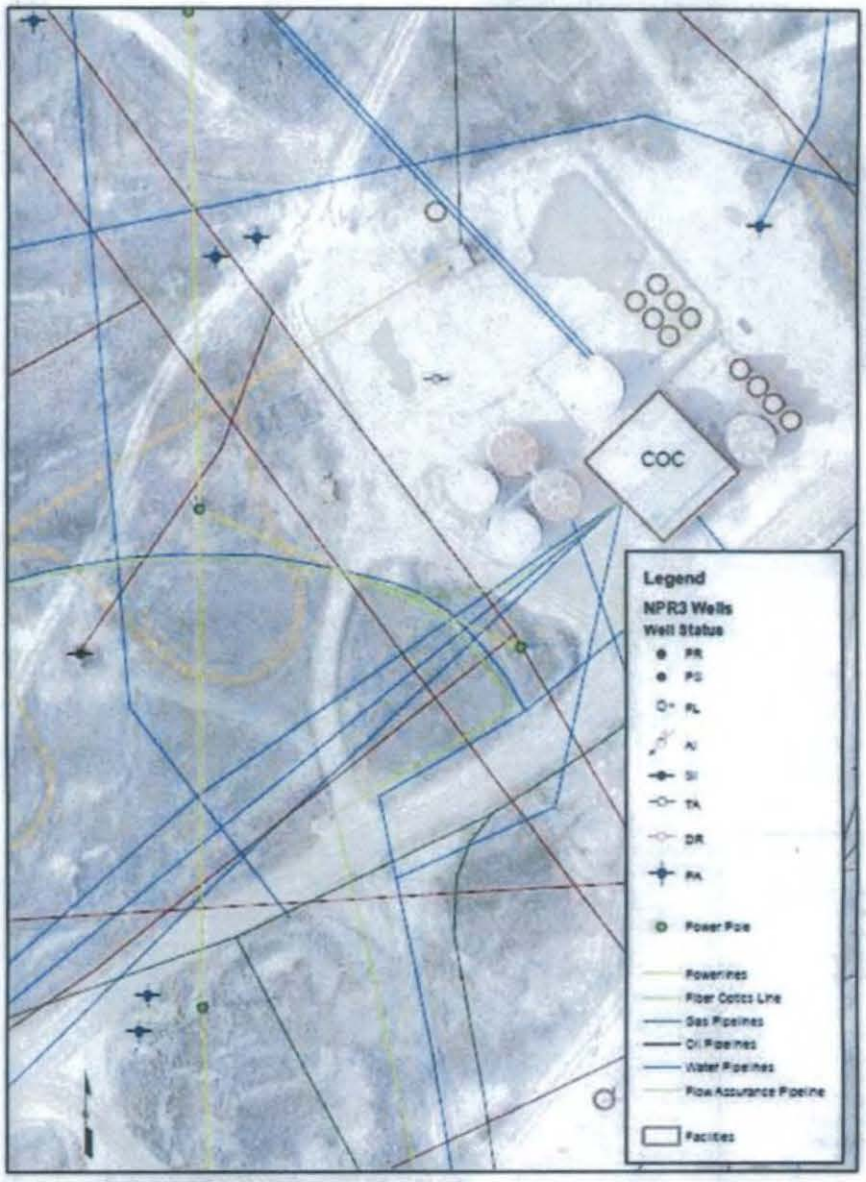
COC Area Features



COC Area Features

Author: C Thomas

Date: 4/30/2013 | Rev Date:

WY State Plane / East Central Zone / NAD27 | Scale = 1:30,000

RMOTC
807 N Poplar, Suite 160
Casper, WY 82601
307-233-4800

0 62.5 125 250 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.

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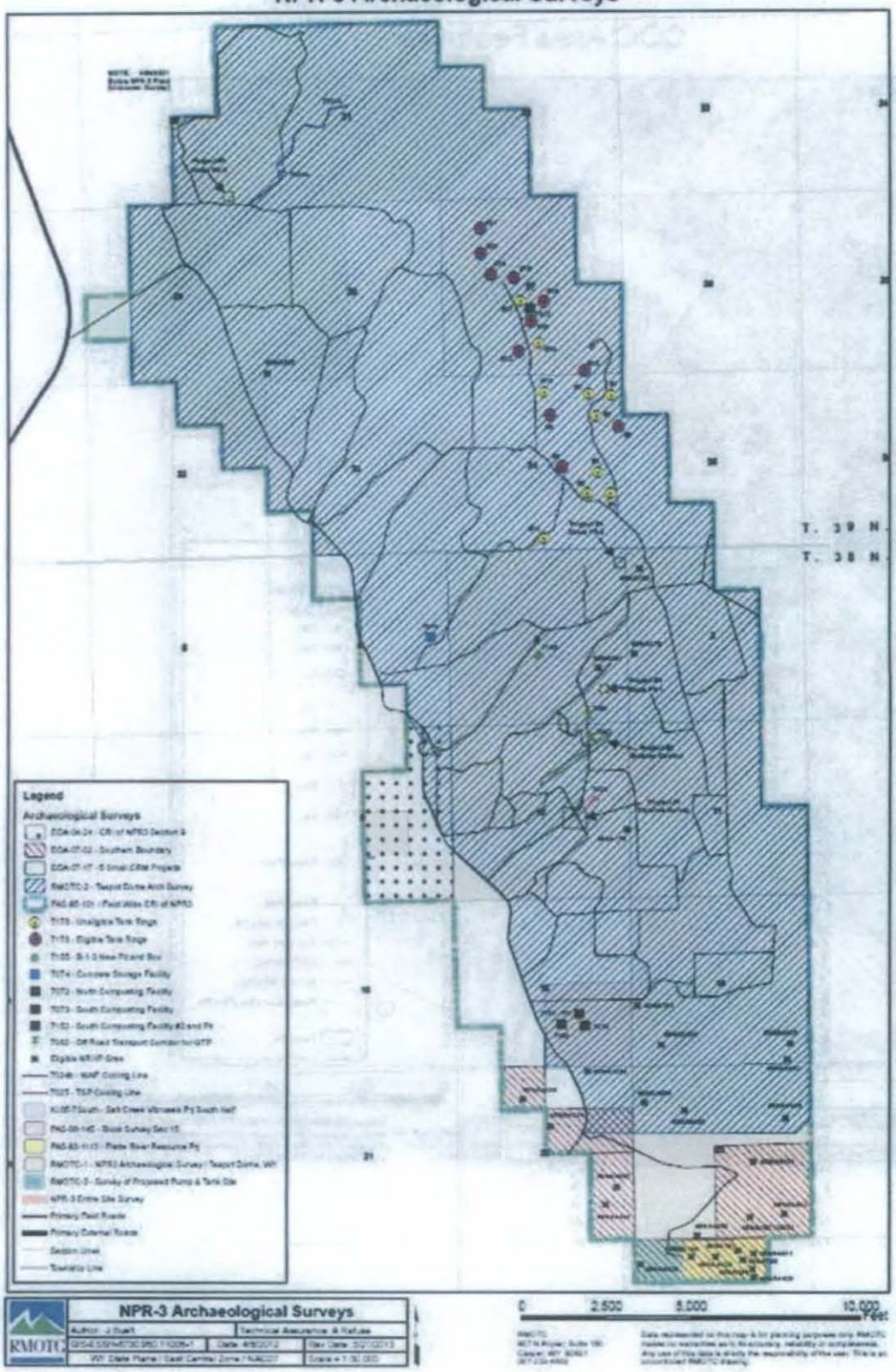
NPR-3 Archaeological Surveys



Revised 8/2/10 mjt

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