NEPA COMPLIANCE SURVEY

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Project Information			
Project Title:	Binary Power Unit Test (Recurrent Engineering LLC, Geothermal Test)	**Date:**	8-17-2010
DOE Code:	6730.020.61045	**Contractor Code:**	8067-768
Project Lead:	Lyle Johnson		

Project Overview	
1. What are the environmental impacts? 2. What is the legal location? 3. What is the duration of the project? 4. What major equipment will be used if any (work over rig, drilling rig, etc.)?	The purpose of the project is to do confirmation testing of the binary power unit at several different temperatures and rates. This test will be conducted in a location covered in the Site Wide EA. It will use infrastructure installed for GTP project consisting of a hot-water source and a cooling water source. The hot wate is from well 17-WX-21, a Madison well adjacent to the siting location. The cooling water will be pumped from Little Teapot Creek through an existing line and then returned to Teapot Creek. There should be no significant environmental impacts. The location of the unit will be south of the building at the NWF facility. There will be several short term tests (hrs) over a month or two period. A crane will be rented to off-load the equipment. A fork lift or picker will be required to assemble the unit and hook it up. A welder and electrician will also be necessary

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?	☐	☒	☐	
Does the project affect surface water quantity or quality under both normal operations and accident conditions?	☐	☒	☐	Cooling water will be removed from Little Teapot Creek and returned to Teapot Creek. The removal point is approximately 75 feet from the merge point of Little Teapot and Teapot Creeks.
Does the proposed project effect groundwater quantity or quality under both normal operations and accident conditions?	☐	☒	☐	
Will the project area include "Waters of the State?"	☐	☒	☐	
Will the project area require a Corps of Engineers permit?	☐	☒	☐	USACE will be notified of enviro design

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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?	☐	☒	☐	
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?	☐	☒	☐	
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?	☐	☒	☐	
Are potential emissions (gases and/or airborne particulates including dust) outside of the normal scope for oil field operations?	☒	☐	☐	The unit has an ammonia-water working fluid system. The system has a emergency vent system. The system will be piped to a water tank to capture any ammonia released.
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?	☐	☒	☐	
Is the project subject to National Emissions Standards for Hazardous Air Pollutants?	☐	☒	☐	
Is the project subject to emissions limitations in an Air Quality Control Region?	☐	☒	☐	

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	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 MSDS)**	☒	☐	☐	The unit has an ammonia-water working fluid system. The system has an emergency vent system. The system will be piped to a water tank to capture any ammonia released. The ammonia will be handled safely to prevent releases to the environment. Personnel will be properly trained in accidental release response and spill kits will be available onsite as a precautionary measure. MSDS sheet for the ammonia will be onsite.
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)?	☒	☐	☐	Ammonia will be transported to the site to fill the unit. Quantity should be approximately 330 gal. The ammonia will be transported per DOT requirements designed to prevent release to the environment.
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?	☐	☒	☐	The unit has an ammonia-water working fluid system. The system has an emergency vent system. The system will be piped to a water tank to capture any ammonia released. The ammonia will be safely handled to prevent releases to the environment. Personnel will be properly trained in accidental release response and spill kits will be available onsite as a precautionary measure. MSDS sheet for the ammonia will be onsite.
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?	☐	☐	☒	Ammonia will be transported to the site to fill the unit. Quantity should be approximately 330 gal. The ammonia will be transported per DOT requirements designed to prevent release to the environment.

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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?	☐	☒	☐	The project will utilize existing infrastructure and minimal ground disturbance is proposed.
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 permits required? If YES, list below:	**Yes** ☐	**No** ☒

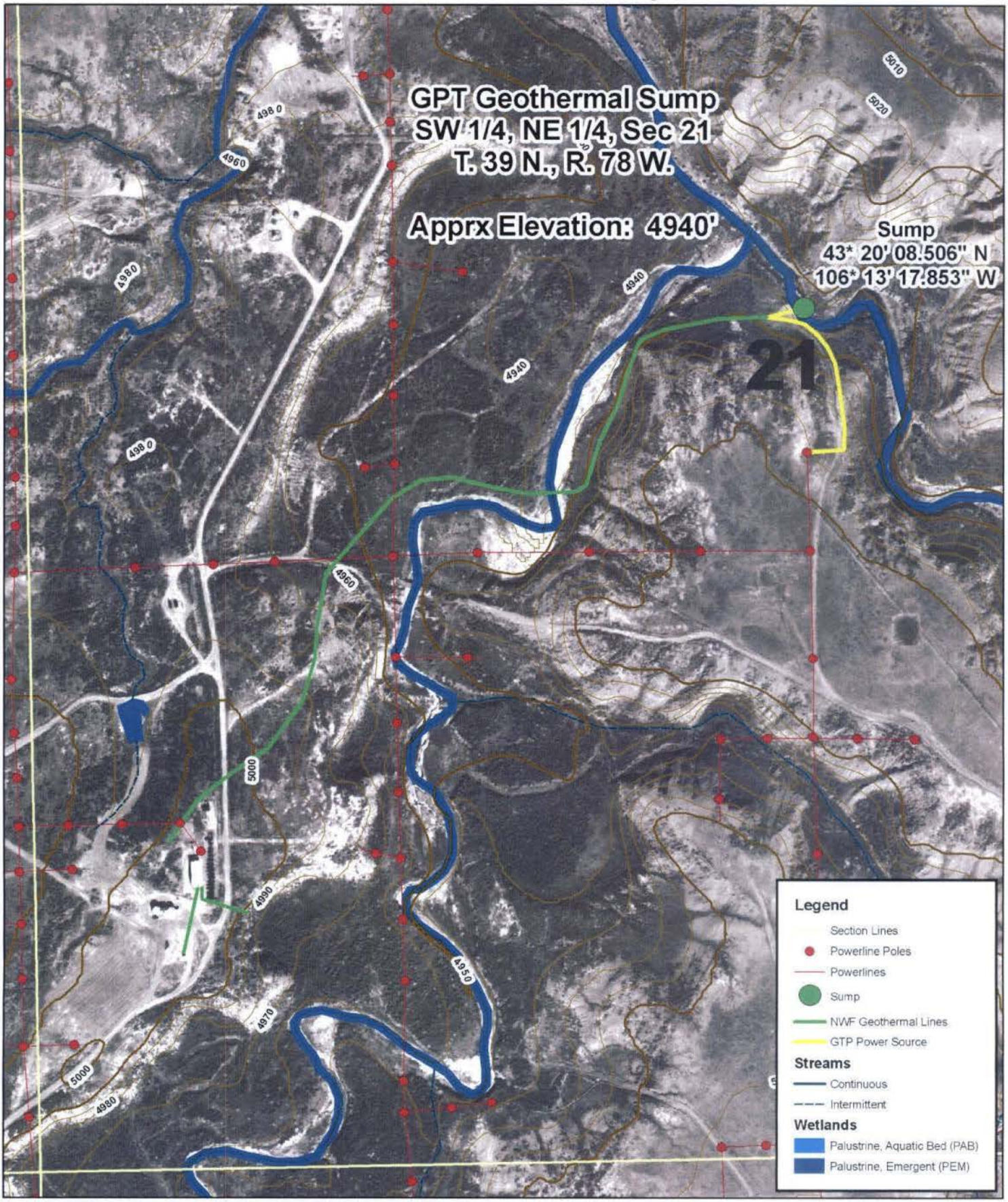
Section below to be reviewed by Environmental Specialist and DOE NCO.

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:	B5 Categorical exclusions applicable to conservation, fossil, and renewable energy activities. 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… improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial proctices, and small-scale conservation and renewable energy research and development and pilot projects DISPOSAL OF WASTE AMMONIA NEEDS TO BE APPROVED BY DOE DIRECTOR OF TECH ASSURANCE. IF OFFSITE DISPOSAL IS REQUIRED, TECH SERVICES WILL BEAR COSTS.	
Contractor ESS&H	Stephen Gomes	Date 8/18/10
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.	
DOE NEPA Compliance Officer	CX B 5.1 Michael J Taylor	Date 8/17/10

GPT Geothermal Sump



GTP Geothermal Sump		
Author: J Buelt	Project Manager: L Johnson	
GIS-Prj-6730.020.61041-1	Date: 06/30/2010	Rev Date 07/26/2010
WY State Plane / East Central Zone / NAD27		Scale = 1:5,000

Rocky Mountain Oilfield Testing

0 250 500 1,000 Feet

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