



Stantec Consulting Services Inc.  
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# **VIA ELECTRONIC SUBMITTAL**

August 23, 2021

Cory Smith, District III  
New Mexico Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
1000 Rio Brazos Road  
Aztec, NM 87410

**RE:** Work Plan for Light Non-Aqueous Phase Liquid Recovery Activities  
Johnston Federal #6A  
New Mexico Oil Conservation Division Incident Number nAUTOfAB000309

Mr. Smith:

On behalf of El Paso CGP Company, LLC (EPCGP), Stantec Consulting Services Inc. (Stantec) has prepared this Work Plan to complete enhanced light non-aqueous phase liquid (LNAPL) recovery activities utilizing mobile dual phase extraction (MDPE) methods at the above-referenced site (Site). MDPE activities are to be conducted from monitoring well MW-1, where intermittent product is present. MDPE activities were completed in MW-1 in 2018, and a significant decrease in dissolved benzene concentrations to below applicable New Mexico Water Quality Control Commission standards was documented in this well in subsequent groundwater sampling events. Two one-day MDPE events are proposed to be completed in the third calendar quarter of 2021 to remove remaining LNAPL. A site plan is attached for reference.

Stantec will retain the services of AcuVac Remediation (Acuvac) to mobilize and provide equipment and personnel to perform the MDPE activities. MDPE is a process combining soil vapor extraction (SVE) with groundwater depression to maximize mass removal of LNAPL as both liquid and vapor phase hydrocarbons. Acuvac uses a submersible pump to simultaneously remove dissolved-phase contaminated groundwater, induce a hydraulic gradient toward the extraction well, and to create the groundwater depression, exposing the capillary fringe or smear zone to SVE. Recovered liquids will be transferred to a portable storage tank to be provided by Sierra Oilfield Services (Sierra), under contract with Stantec. Recovered vapors will be used as fuel and burned in the MDPE internal combustion engine (ICE), resulting in near complete combustion of the recovered vapors. The power generated by the ICE is used to create the induced vacuum for SVE.

Acuvac will mobilize one mobile system to complete two, 8-hour MDPE events on MW-1. After completing the first MDPE event and allowing the well to stabilize for several days, Stantec will return with Acuvac to conduct the second MDPE event. Stantec will provide field staff to oversee site activities, complete health and safety monitoring, and assist with data collection. During the MDPE events, groundwater, and liquid and vapor hydrocarbon recovery rates will be measured, and groundwater depression and radius

Review of Work Plan for Light Non-Aqueous Phase Liquid (LNAPL)  
Activities: Content satisfactory  
1. Continue as stated within the submitted LNAPL work plan.  
a. Complete two one-day MDPE events from MW-1 in the third calendar quarter  
b. Perform vapor and/or air monitoring for total volatile organic compounds, oxygen, carbon dioxide, and hydrogen sulfide  
c. Collect one vapor sample during the second MDPE event at the MW-1 to evaluate mass removal rates  
d. A second vapor sample will be collected from the MDPE system stack to evaluate the combustion efficiency of the internal combustion engine and to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15  
e. Data, results, and conclusions of the MDPE event to be summarized as an attachment and included with the annual groundwater monitoring report



August 23, 2021  
Mr. Cory Smith  
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**Reference: Work Plan for Light Non-Aqueous Phase Liquid Recovery Activities**

of influence will be estimated. Acuvac will provide staff to oversee MDPE efforts, including adjusting equipment to optimize hydrocarbon recovery rates and monitor liquid recovery.

Vapor and/or air monitoring for total volatile organic compounds, oxygen, carbon dioxide, and hydrogen sulfide will be performed to evaluate the effectiveness of the MDPE event and for the health and safety of field staff. To evaluate mass removal rates, one vapor sample will be collected during the second MDPE event at the MW-1 extraction wellhead via Summa canister. A second vapor sample will be collected from the MDPE system stack to evaluate the combustion efficiency of the ICE. The vapor samples will be submitted to Eurofins-TestAmerica Laboratories, Inc., for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15.

Recovered liquids will be containerized in a portable tank, which will be removed from the Site following completion of the event. The water will be transported to Basin Disposal for treatment and disposal.

The data, results, and conclusions of the MDPE events will be summarized as an attachment to be included with the annual groundwater monitoring report for the Site. The attachment will include a narrative of the activities completed, a tabulated summary of the data collected, estimated hydrocarbon recovery rates and totals, laboratory analytical reports, waste disposal documentation, and other pertinent information.

Field activities are scheduled to occur on August 26 and 31, 2021. Please feel free to contact Joseph Wiley, Project Manager for EPCGP, at (713) 420-3475, or me if you have any questions or require additional information.

Sincerely,

**Stantec Consulting Services Inc.**

A handwritten signature in blue ink, appearing to read 'Stephen Varsa'.

Stephen Varsa, P.G.  
Senior Hydrogeologist  
Phone: (515) 251-1020  
steve.varsa@stantec.com

cc: Joseph Wiley, EPCGP  
Laverne Jaquez, BLM (Grant NMNM133844)



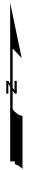
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**LEGEND:**

- APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- RIGHT OF WAY BOUNDARY
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- SOIL BORING
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

**NOTES:**  
UTILITY LOCATIONS ARE APPROXIMATE.



REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/23/2021	SLG	SLG	SRV

TITLE:  
**SITE PLAN**

PROJECT: **JOHNSTON FED #6A  
SAN JUAN RIVER BASIN  
SAN JUAN COUNTY, NEW MEXICO**



Figure No.:

**1**

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/5/2016.



**District I**

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**District III**

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**District IV**

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 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 43902

**CONDITIONS**

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID:
	7046
	Action Number: 43902
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Review of Work Plan for Light Non-Aqueous Phase Liquid (LNAPL) Activities: Content satisfactory 1. Continue as stated within the submitted LNAPL work plan. a. Complete two one-day MDPE events from MW-1 in the third calendar quarter b. Perform vapor and/or air monitoring for total volatile organic compounds, oxygen, carbon dioxide, and hydrogen sulfide c. Collect one vapor sample during the second MDPE event at the MW-1 to evaluate mass removal rates d. A second vapor sample will be collected from the MDPE system stack to evaluate the combustion efficiency of the internal combustion engine and to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Method TO-3, and Total Petroleum Hydrocarbons (TPH) using Method TO-15 e. Data, results, and conclusions of the MDPE event to be summarized as an attachment and included with the annual groundwater monitoring report	12/29/2021