



Kegan W. Boyer, P.G.
Project Manager

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February 18, 2016

Mr. Jamie Keyes
Environmental Specialist, District 1
Oil Conservation Division, EMNRD
1625 N. French Drive
Hobbs, New Mexico 88240

RECEIVED

By JKeyes at 8:52 am, Feb 18, 2016

APPROVED

By JKeyes at 8:52 am, Feb 18, 2016

Re: Initial Site Assessment Workplan
Moran 2-6 (RP 3657)

Mr. Keyes,

Chevron Environmental Management Company (CEMC) is submitting the attached workplan documenting initial site assessment activities to be performed at the former tank battery location associated with the recently plugged Moran 2-6 well location (RP 3657). This workplan was prepared for CEMC by Arcadis US, Inc. (Arcadis).

As reported in the C-141 submitted on June 1, 2014, during decommissioning activities hydrocarbon impacts in soils at concentrations above NMOCD screening criteria were identified below the former location of the tank battery. This workplan proposes additional sampling activities to assist with defining the extent of the identified hydrocarbon impacts. Following this event, additional investigation will likely be required prior to implementing any remediation, if necessary.

I anticipate that the sampling activities outlined in the workplan will be completed by Arcadis crew and subcontractor beginning on March 7, 2016.

Should you have any questions regarding the content of the report or the proposed actions, please do not hesitate to contact me by phone at 713-372-7705 or via e-mail at kegan.boyer@chevron.com.

Sincerely,

Kegan W. Boyer, P.G.
Environmental Project Manager

encl: *Work Plan for Conducting an Initial Site Assessment, Former Moran No. 2-6 Tank Battery*
cc: Priscilla Yelvington, Arcadis

Mr. Kegan W. Boyer, P.G.
Project Manager
Chevron Environmental Management Company
1400 Smith Street
Houston, Texas 77002

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2929 Briarpark Drive
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Houston
Texas 77042
Tel 713 953 4800
Fax 713 977 4620
www.arcadis.com

Subject:
Work Plan for Conducting an Initial Site Assessment
Former Moran No. 2-6 Tank Battery
West Nadine Field
Lea County, New Mexico

ENVIRONMENT

Date:
February 15, 2016

Contact:
Priscilla Yelvington

Phone:
713 953 4717

Email:
priscilla.yelvington@arcadis.com

Our ref:
B0048787.0000

ARCADIS U.S., Inc.
TX Engineering License # F-533

Dear Mr. Boyer:

On behalf of Chevron U.S.A. Inc. (CUSA) and under the direction of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this work plan to conduct an initial site assessment of a former tank battery associated with the plugged oil well Moran No. 2-6 (API 30-025-28704). The former Moran No. 2-6 Tank Battery (the site) is located about 3.1 miles northwest of the intersection of Highway-18 and Billy Walker Road (latitude 32.599290, longitude -103.181621) in the West Nadine Field (Figure 1).

The Moran No. 2-6 well was plugged on August 20, 2014 and reclamation of the site was initiated in June 2015. During removal of an aboveground storage tank in the tank battery, soils underneath the tank appeared to be impacted with crude oil. CUSA filed a Release Notification and Corrective Action Form (C-141) with the New Mexico Oil Conservation Division (NMOCD) on June 2, 2015 along with a site reclamation safe digging plan.

PROPOSED SCOPE OF WORK

Based on the soils excavated by CUSA to-date and the associated analytical results, soils in select locations at the base of the excavation exhibit concentrations of hydrocarbon and chloride that may exceed regulatory criteria. The methodology for assessing the current condition of the soils beneath the site

is provided below. This assessment will be performed in accordance with New Mexico Administrative Code 19.15.30 NMAC.

Task 1 – Initial Site Assessment

Up to a total of 14 soil samples may be collected. Based on the analytical results, soils around Locations C, D, E, F, and I will be the primary focus of this assessment (Figure 2). Grab samples will be collected using the bucket of a long reach excavator operated by IKON Environmental Solutions, LP (IKON). A subset of the soils from each bucket grab sample will be field screened for possible organic vapors using a photo-ionization detector (PID). Based on the results of the PID screening and visual observations of the soils, the excavator may dig deeper in select locations and another grab sample collected and screened with a PID prior to sample selection.

Soil samples will be collected from the same excavator bucket grab sample used for PID screening to minimize potential volatilization of organics prior to analysis. Each soil sample will be placed in clean, laboratory-supplied sample containers, placed on ice, cooled to approximately 4 degrees Celsius (°C), and transported via overnight shipping to TestAmerica Laboratories, Inc. in Houston, Texas (TestAmerica) under chain-of-custody protocol.

Any excess excavated soils caused by the sampling effort and not used for submittal to an analytical laboratory will be placed back in the excavation.

A New Mexico One Call Locate Request will be placed at a minimum of 48 hours prior to commencing field activities to help identify any public utility alignment that may be in conflict with the proposed sampling. In conjunction with the New Mexico One Call Locate Request, a private utility contractor, Ground Penetrating Radar Systems, Inc. (GPRS), will be subcontracted to aid in identification of any subsurface lines in and around the site using Ground Penetrating Radar (GPR) and radio detection. Sample locations may require field modification due to onsite utility locations and/or field conditions.

Soil Laboratory Analyses

The samples will be analyzed by TestAmerica for the following using a standard two-week turnaround time:

- Benzene, toluene, ethylbenzene and total xylenes (BTEX) by USEPA Method 8260B
- Gasoline Range Organics, Oil Range Organics, and Diesel Range Organic (GRO, ORO, and DRO) by USEPA Method 8015M
- Chloride by USEPA Method 300, and
- Percent Moisture by Standard Method (SM) 2540B

Task 2 – Reporting

Results of the initial site assessment will be compiled in a report with the final laboratory and field testing data and submitted to the NMOCD. The report will include site maps, sample locations, and photographs,

as appropriate. Should additional assessment or remediation be warranted, Arcadis will prepare a follow up work plan.

SCHEDULE

Arcadis anticipates beginning field work on March 7, 2016. It is estimated that field work will take two days to complete. Analytical results are anticipated to be received within 10 business days of submittal to the analytical laboratory upon completion of the field work. A final report will be prepared for submittal to the NMOCD.

CLOSING

We hope this work plan meets with your approval. If you have any questions or comments regarding the scope of work or schedule, please contact Priscilla Yelvington of Arcadis at 713 953 4717 or by e-mail at priscilla.yelvington@arcadis.com.

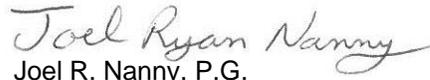
Sincerely,

Arcadis U.S., Inc.



Priscilla V. Yelvington

Project Manager



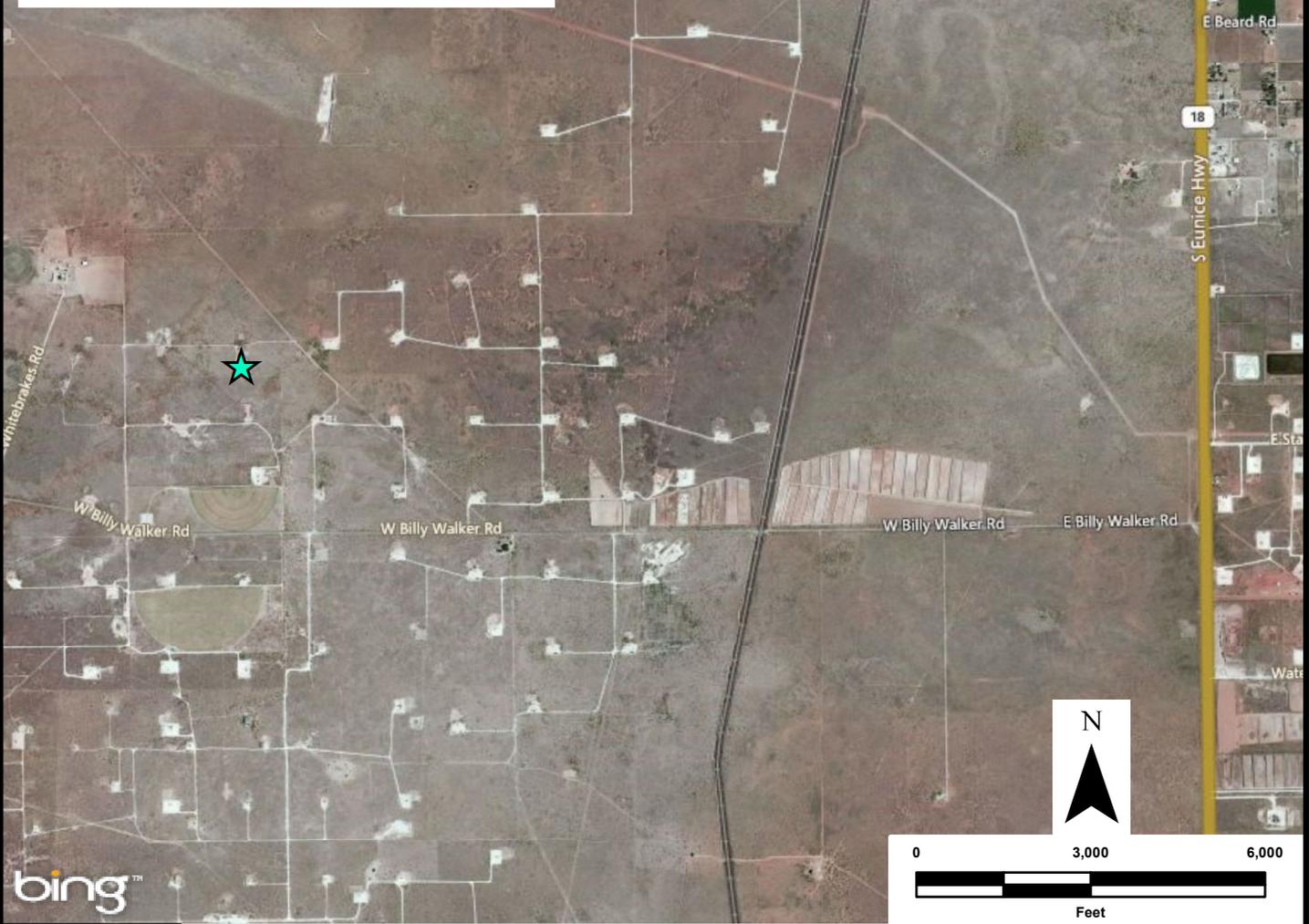
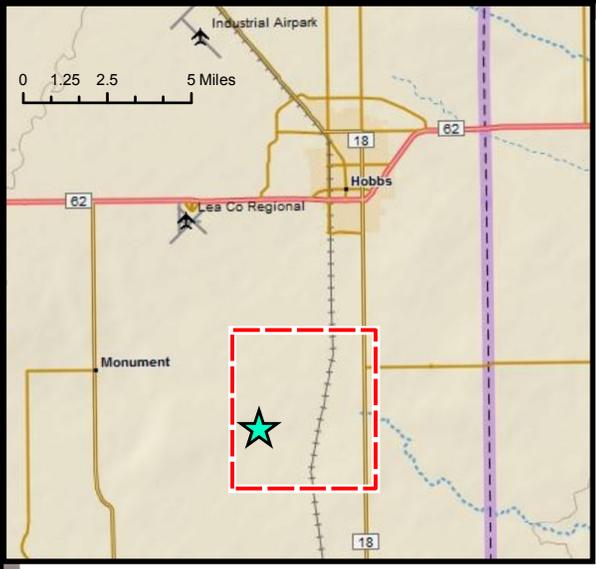
Joel R. Nanny, P.G.

Project Geologist

Enclosures:

Figures

- 1 Site Location
- 2 Sample Locations



Chevron U.S.A. Inc.
 Lea County, New Mexico
 Former Moran No. 2-6 Tank Battery

Site Location
 West Nadine Field
 February 2016

 **Moran No. 2-6**
 Lat/Long: 32.599290, -103.181621

 **ARCADIS**
 ARCADIS U.S., Inc.
 2929 BRIARPARK DR.
 SUITE 300
 HOUSTON, TEXAS
 TEL. 713.953.4800

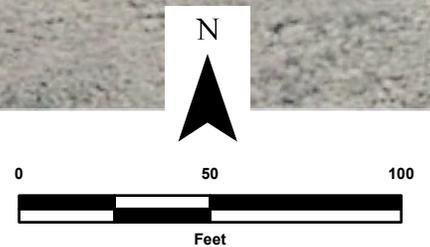
FIGURE
1



-  Approximate Sample Location
-  **Moran No. 2-6**
Lat/Long: 32.599290, -103.181621
-  Pole-Mounted Transformers

-  Fenceline
-  Plains Pipeline

-  Excavation
-  Stockpile



Chevron U.S.A. Inc.
Lea County, New Mexico
Former Moran No. 2-6 Tank Battery

Sample Locations
West Nadine Field
February 2016

Digital Data Courtesy of Google Earth
Ground Condition Depicted February 12, 2014



ARCADIS U.S., Inc.
2929 BRIARPARK DR.
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FIGURE
2