HESS CORPORATION
1501 McKinney
Houston, TX 77010

Brian Epperson
Director, EHS
Phone: (713) 496-7296
E-Mail: bepperson@hess.com

January 28, 2022

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
VIA: Electronic Submittal Only

Re: Site Update
Former State G 4 Tank Battery, 1R-4863
Sec 18, T-19S, R-37E, Lea County

Dear Mr. Billings:

On November 16, 2021, Hess submitted a Site Update and Remedial Work Plan for 1R-4863, Former State G 4 Tank Battery, located in Monument, New Mexico. The report summarized the additional monitoring wells installed in March 2021 as well as liquid phase hydrocarbon (LPH) recovery efforts. It also included a proposal from Hess to excavate soil in the areas with elevated Total Petroleum Hydrocarbons (TPH) to a depth of four feet below ground surface, line the excavation with a polyethylene liner, and backfill with clean soil. The proposed scope of work was approved by the New Mexico Oil Conservation Division (NMOCD) on November 29, 2021.

Implementation of the approved scope of work began on December 2, 2021. Prior to beginning the excavation activities, the concrete pads were removed from the monitoring wells within the excavation area. Soils were then excavated and stockpiled on site until a waste characterization analysis was received and approval for disposal was received from C and C Landfarm near Monument, New Mexico. A waste characterization sample was collected and sent to Cardinal Laboratories in Hobbs, New Mexico for TPH Gasoline Range Organics (GRO), TPH Diesel Range Organics (DRO), TPH Extended DRO, Benzene, Toluene, Ethylbenzene, and Chloride. The waste characterization sample had a TPH-DRO detection of 87.8 milligrams per kilogram (mg/kg), an Extended TPH-DRO detection of 98.2 mg/kg, and a Chloride detection of 48 mg/kg. A summary of the waste characterization sample is found in **Table 1** and the laboratory report is found in **Attachment 1**. The excavation area comprised approximately 16,000 square feet to a depth of 4 feet below ground surface (bgs). The approximately 2,300 cubic yards of excavated soils were stockpiled onsite prior to being loaded into belly dump trucks for final disposal. A total of 127 truckloads of excavated soil were transported to C and C Landfarm.

Subsequent to excavation activities, the excavation area was fully lined with a 20-mil polyethylene liner. The 20-mil polyethylene liner was installed over the monitor well riser pipes and then sealed to the steel

well shelter. Upon completing the liner installation, belly dump trucks began transporting approved backfill material to the site. The backfill material placed into the lined excavation was consisted of two feet of topsoil on top of two feet of caliche. The backfilled excavation was then leveled to the surrounding grade surface utilizing the loader. Native grass seed and fertilizer was subsequently applied. Photographs of the excavation, liner installation, and backfilling are found in **Attachment 2.** Subsequent to completion, the concrete pads were re-installed around the base of the monitor well shelters.

The solar sippers were reinstalled in wells MW-1 and MW-2 on January 20, 2022. In conjunction with LPH removal with solar sippers, Hess plans to attempt enhanced recovery via vacuum truck. Monthly vacuum events will be evaluated if this effort appears to be effective. Hess will also collect LPH samples for gas chromatography/mass spectrometry (GC/MS) analysis to determine the impact on contacted groundwater. Finally, Hess proposes to sample the monitoring wells without measurable LPH on a semiannual basis and to provide annual site status updates.

If you should have any further questions or require additional information, please feel free to contact the undersigned at 713-496-7296.

Sincerely,

Brian Epperson
Director, EHS

cc: Brad Freeman, GeoMonitoring Services

Table 1

Table 1
Summary of Soil Laboratory Results
BTEX, TPH, Chloride
Texaco NM State G 4 Battery

Sample Identification	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (ng/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6-C10) (mg/kg)	TPH-DRO (C10-C28) (mg/kg)	TPH-DRO (C28-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Standards:		10	NONE	NONE	NONE	50	NONE	NONE	NONE	2,500	10,000
WC-1	12/2/2021	<0.05	<0.05	<0.05	<0.15	<0.30	<10	87.8	98.2	186	48

NOTE:
BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes
TPH = Total Petroleum Hydrocarbons
TPH-GRO = Total Petroleum Hydrocarbons Gasoline Range Organics
TPH-DRO = Total Petroleum Hydrocarbons Diesel Range Organics
NMOCD = New Mexico Oil Conservation Division
ND = Not Detected
mg/kg - milligrams per kilogram
NONE = no NMOCD Standard for this constituent
BOLD values exceed NMOCD standards

GeoMonitoring Services

Attachment 1

Laboratory Analytical Report

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 03, 2021

BRAD FREEMAN

AXIS ENVIROMENTAL

121 INDIAN RIDGE RD

BELTON, TX 76513

RE: G STATE 4

Enclosed are the results of analyses for samples received by the laboratory on 12/02/21 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

AXIS ENVIROMENTAL
BRAD FREEMAN
121 INDIAN RIDGE RD
BELTON TX, 76513
Fax To:

Received:	12/02/2021	Sampling Date:	12/02/2021
Reported:	12/03/2021	Sampling Type:	Soil
Project Name:	G STATE 4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MONUMENT NM		

Sample ID: WC - 1 (COMP) (H213454-01)

BTEX 8021B mg/kg Analyzed By: MS/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	5.54	
Toluene*	<0.050	0.050	12/02/2021	ND	1.98	99.1	2.00	5.34	
Ethylbenzene*	<0.050	0.050	12/02/2021	ND	1.95	97.7	2.00	5.14	
Total Xylenes*	<0.150	0.150	12/02/2021	ND	5.98	99.7	6.00	4.45	
Total BTEX	<0.300	0.300	12/02/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.6 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/02/2021	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2021	ND	221	110	200	7.12	
DRO >C10-C28*	**87.8**	10.0	12/03/2021	ND	221	111	200	1.58	
EXT DRO >C28-C36	**98.2**	10.0	12/03/2021	ND					

Surrogate: 1-Chlorooctane *58.5 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *63.6 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Axis Environmental	**BILL TO** P.O. #:	
Project Manager:	Brad Freeman	Company:	Axis EM
Address:	121 Indian Ridge Rd	Attn:	Brad Freeman
City:	Belton	State: TX Zip: 76513	Address:
Phone #:		Fax #:	City:
Project #:		Project Owner:	State: Zip:
Project Name:	G State 4		Phone #: 7134176141
Project Location:	Monument, NM		Fax #:
Sampler Name:	Eris Williams		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH Extended (8015)	BTEX (8021)	Chloride (4500)
H213454-1	XC-1 (Comp)		2			X					X		12.2.21	9:14	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12.2.21	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 11:05		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	bfreeman@axis-em.com
	Time:		REMARKS:
Delivered By: (Circle One)	Observed Temp. °C 3.7	Sample Condition Cool Intact	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected Temp. °C 3.2	☐ Yes ☐ Yes ☐ No ☐ No	TO

Turnaround Time: Standard ☐ Rush ☑ Bacteria (only) Sample Condition Cool Intact Observed Temp. °C ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

Thermometer ID #113
Correction Factor -0.5°C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Attachment 2

Photo Log

1R-4863, Former State G 4 Tank Battery

Attachment 2 - Photo Log

Photo 1- Aerial view of excavation facing east

Photo 2 – Aerial view of excavation facing south

1R-4863, Former State G 4 Tank Battery

Photo 3 – Direct overhead view of excavation

Photo 4 – Aerial view of installed liner facing east

1R-4863, Former State G 4 Tank Battery

Photo 5 – Aerial view of installed liner facing west

Photo 6 – View of backfilled excavation facing west

1R-4863, Former State G 4 Tank Battery

Photo 7 – View of the backfilled excavation facing east

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
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 78627

CONDITIONS

Operator: HESS CORPORATION P.O. Box 840 Seminole, TX 79360	OGRID: 495
	Action Number: 78627
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Thank you for update report Concise. We may want to keep in mind altering the GW frequency of sampling depending on data derived from next event.	2/4/2022