



DEEP GULF ENERGY III, LLC
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August 21, 2015

FedEx Tracking No. 803457848648

Mr. Isaac Chen
U.S. Environmental Protection Agency, Region 6
Regional Oil & Gas Coordinator
1445 Ross Avenue – Mail Code-6WQ-PP
Dallas, Texas 75202-2733

Subject: GMG290000 Permit –Water Based Drilling Mud Characterization Study
Deep Gulf Energy III, LLC – GMG290573

Dear Mr. Chen:

Per the permit requirements in Part I.B.1.d – Water Based Drilling Mud Characterization Study Deep Gulf Energy III, LLC (DGE III) has conducted an individual study and has collected one sample from each lease block for which they are the designated operator and conducted drilling operations within the 3-year study time frame - one at Mississippi Canyon 521 Well #001 and one at Mississippi Canyon 563 Well #001.

The water based mud (WBM) samples were analyzed for the required metals, including: arsenic, cadmium, chromium (VI), copper, free cyanide, lead, mercury, nickel, selenium, silver, and zinc. As noted on the summary of analytical data, the WBM sample results are provided as total metals, not dissolved as requested in Part 1.B.1.d, for the reasons described below.

As discussed in detail in Appendix D of the Sampling and Analysis Plan for the Mud and Produced Water Characterization Study (MPWCS) prepared for the Offshore Operator Committee (OOC) Joint Study Group, numerous group locations had issues with WBM samples not yielding enough water for dissolved phase metals analyses. Attempts to dilute the drilling mud and then extract water raised concerns about the interpretation of the results. The use of alternate methods for separating more water from the water based mud was studied and rejected. Per an agreement at a February 15, 2014 meeting between OOC representatives and EPA Region 6, the Sampling and Analysis Plan was revised (March 24, 2014) to allow samples that do not yield adequate water to perform analysis of dissolved metals and cyanide to instead analyze for total metals, hexavalent chromium, and cyanide. Samples that do yield enough water will also be analyzed for dissolved constituents, in order of priority: (1) metals; (2) hexavalent chromium; (3) cyanide.

The samples collected at MC521 and MC563 did not yield enough water to conduct dissolved phase metals analyses. As an individual study participant, DGE III is following the same protocol approved for the joint study operators and is reporting total metals, hexavalent chromium and cyanide for that location.

The results are compared to provide minimum, maximum and average concentrations. This comparison is requested for dissolved phase concentrations, so it was provided for the total metals in a solids phase as well.

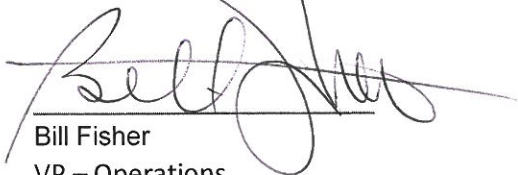
A summary of the analytical results are presented in the attached Excel table and summary page of the laboratory report. This report is being submitted via hard copy, as well as by email to chen.isaac@epa.gov. The emailed report also contains the Electronic Data Deliverable (EDD) from ALS Laboratory which is an Excel table that is not easy to follow in a printed, hard copy format. The Excel table attached herein provides a more readable summary of the EDD. The complete analytical report from the laboratory can be provided upon request.

Excel table that is not easy to follow in a printed, hard copy format. The Excel table attached herein provides a more readable summary of the EDD. The complete analytical report from the laboratory can be provided upon request.

Should you have any questions, please call me or our consultant, Ms. Marsha Lutz, of J. Connor Consulting, Inc. at 281-698-8557.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

DEEP GULF ENERGY II, LLC

A handwritten signature in black ink, appearing to read "Bill Fisher", written over a horizontal line.

Bill Fisher

VP – Operations

Attachment

REF: DT5518/04951

Water Based Mud Characterization Study - Sampling Results

Deep Gulf Energy III, LLC - GMG290573

Lease Block/Area	Lease No.	Sampling Date
MISSISSIPPI CANYOUN 521	OCS-G: 34441	7/5/2015
Parameter	Conc.	RL
*All metals analyzed for total concentrations in the	mg/kg	mg/kg
Arsenic	5.41	0.4570
Cadmium	< 0.457	0.457
Chromium, VI	< 2.00	2.00
Copper	29.0	0.457
Cyanide	< 1.95	1.95
Lead	59.8	0.457
Mercury -* Units are ug/kg	79.4	3.33
Nickel	1.34	0.457
Selenium	< 0.457	0.457
Silver	< 0.457	0.457
Zinc	42.7	0.457

Lease Block/Area	Lease No.	Sampling Date
MISSISSIPPI CANYON 563	OCS-G: 21176	3/24/2015
Parameter	Conc.	RL
*All metals analyzed for total concentrations in the	mg/kg	mg/kg
Arsenic	< 2.27	2.27
Cadmium	< 2.27	2.27
Chromium, VI	< 1.98	1.98
Copper	2.93	2.27
Cyanide	< 1.99	1.99
Lead	12.8	2.27
Mercury -* Units are ug/kg	17.1	3.34
Nickel	< 2.27	2.27
Selenium	< 2.27	2.27
Silver	< 2.27	2.27
Zinc	11.4	2.27

Lease Block/Area
Mississippi Canyon 521 and 563

Parameter	Min. Conc.	Max. Conc.	Avg. Conc.
*All metals analyzed for total concentrations in the solid phase.	mg/kg	mg/kg	mg/kg
Arsenic	2.27	5.41	3.84
Cadmium	< 0.457	< 2.27	< 1.36
Chromium, VI	< 1.98	< 2.00	< 1.99
Copper	2.93	29.0	15.97
Cyanide	< 1.95	< 1.99	< 1.97
Lead	12.8	59.8	36.30
Mercury -* Units are ug/kg	17.1	79.4	48.25
Nickel	1.34	< 2.27	1.80
Selenium	< 0.457	< 2.27	< 1.36
Silver	< 0.457	< 2.27	< 1.36
Zinc	11.4	42.7	27.05

RL/MRL - Method Reporting Limit. Also known as LOQ Limit of Quantitation (LOQ)

ND - Not Detected at the Reporting Limit

Client: Tetra Tech, Inc.
 Project: Gulf of Mexico MPWCS 212-HN-00030
 Sample ID: Deep Gulf Energy MC-521 Sludge
 Collection Date: 05-Jul-2015 05:21

ANALYTICAL REPORT
 WorkOrder:HS15070249
 Lab ID:HS15070249-01
 Matrix:Sludge

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		Method:SW6020		Prep:SW3050A / 07-Jul-2015		Analyst: JDE
Arsenic	5.41		0.457	mg/Kg	1	09-Jul-2015 18:46
Cadmium	ND		0.457	mg/Kg	1	09-Jul-2015 18:46
Copper	29.0		0.457	mg/Kg	1	09-Jul-2015 18:46
Lead	59.8		0.457	mg/Kg	1	09-Jul-2015 18:46
Nickel	1.34		0.457	mg/Kg	1	09-Jul-2015 18:46
Selenium	ND		0.457	mg/Kg	1	09-Jul-2015 18:46
Silver	ND		0.457	mg/Kg	1	09-Jul-2015 18:46
Zinc	42.7		0.457	mg/Kg	1	09-Jul-2015 18:46
HEXAVALENT CHROMIUM BY SW7196A		Method:SW7196		Prep:SW3060A / 14-Jul-2015		Analyst: KHT
Chromium, Hexavalent	ND		2.00	mg/kg	1	14-Jul-2015 16:05
CYANIDE		Method:SW9014		Prep:SW9010C / 08-Jul-2015		Analyst: KHT
Cyanide	ND		1.95	mg/Kg	1	08-Jul-2015 17:01
MERCURY BY SW7471B		Method:SW7471A		Prep:SW7471A / 14-Jul-2015		Analyst: OFO
Mercury	79.4		3.33	ug/Kg	1	14-Jul-2015 13:56

Qualifiers Page for a list of qualifiers and their explanation.



Client: Tetra Tech, Inc.
Project: Gulf of Mexico MPWCS 212-HN-00030
Work Order: HS15030974

CASE NARRATIVE

Work Order Comments

- Insufficient sample volume could be centrifuged to complete the dissolved analysis for sample DGEMC-563-WBM (HS15030974-02)
- This report was revised on April 1, 2015 to remove mention of sample DGEMC-563-WBM (HS15030974-02), since laboratory was unable to perform analysis.

Metals by Method SW7471A

Batch ID: 91818

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020

Batch ID: 91806

- Sample ID: HS15030986-02
- MS/MSD and DUPs are for an unrelated sample

WetChemistry by Method SW9014

Batch ID: 91848

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7196

Batch ID: 91847

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Tetra Tech, Inc.
 Project: Gulf of Mexico MPWCS 212-HN-00030
 Sample ID: DGE MC-563 WBM
 Collection Date: 24-Mar-2015 16:00

ANALYTICAL REPORT
 WorkOrder:HS15030974
 Lab ID:HS15030974-01
 Matrix:Sludge

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		Method:SW6020		Prep:SW3050A / 27-Mar-2015		Analyst: JCJ
Arsenic	ND		2.27	mg/Kg	5	28-Mar-2015 06:43
Cadmium	ND		2.27	mg/Kg	5	28-Mar-2015 06:43
Copper	2.93		2.27	mg/Kg	5	28-Mar-2015 06:43
Lead	12.8		2.27	mg/Kg	5	28-Mar-2015 06:43
Nickel	ND		2.27	mg/Kg	5	28-Mar-2015 06:43
Selenium	ND		2.27	mg/Kg	5	28-Mar-2015 06:43
Silver	ND		2.27	mg/Kg	5	28-Mar-2015 06:43
Zinc	11.4		2.27	mg/Kg	5	28-Mar-2015 06:43
HEXAVALENT CHROMIUM BY SW7196A		Method:SW7196		Prep:SW3060A / 28-Mar-2015		Analyst: KHT
Chromium, Hexavalent	ND		1.98	mg/kg	1	28-Mar-2015 17:25
CYANIDE		Method:SW9014		Prep:SW9010C / 28-Mar-2015		Analyst: KHT
Cyanide	ND		1.99	mg/Kg	1	28-Mar-2015 17:30
MERCURY BY SW7471B		Method:SW7471A		Prep:SW7471A / 27-Mar-2015		Analyst: OFO
Mercury	17.1		3.34	ug/Kg	1	27-Mar-2015 15:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.



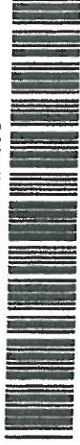
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(Fax) 281.530.5887

Chain of Custody Form

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HS15030974

Tetra Tech, Inc.
Gulf of Mexico MPWCS



Customer Information		Project Information															
Purchase Order	1097177	Project Name	Gulf of Mexico MPWCS														
Work Order		Project Number	212C-HN-00030														
Company Name	Tetra Tech-GA	Bill To Company	Tetra Tech-GA														
Send Report To	June Mire	Invoice Attn.	June Mire														
Address	1408 Pasadena Avenue	Address	1408 Pasadena Avenue														
City/State/Zip	Metairie, LA 70001	City/State/Zip	Metairie, LA 70001														
Phone	504-273-9186	Phone	504-273-9186														
Fax		Fax															
e-Mail Address	june.mire@tetratech.com	e-Mail Address	june.mire@tetratech.com														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DGE MC-563 WBM	3-24-15	1600	WBM		2	X	Y	Y								
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:		Results Due Date:											
Daniel Locke				<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour													
Relinquished by:		Date:		Received by:		Time:											
Daniel Locke		3-24-15		1630													
Relinquished by:		Date:		Received by (Laboratory):		Time:											
Daniel Locke		3/26/15		920													
Relinquished by:		Date:		Checked by (Laboratory):		Time:											
Daniel Locke		3/26/15		23903													
Logged by (Laboratory):		Date:		Cooler Temp.													
Daniel Locke		3/26/15		4.2													
Preservative Key:		1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035		QC Package: (Check Box Below)													
				<input type="checkbox"/> Level II: Standard QC													
				<input type="checkbox"/> Level III: Sid QC + Raw Data													
				<input checked="" type="checkbox"/> Level IV: SW846 CLP-Like													
				Other:													

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

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