July 2, 2015

FedEx Tracking No. 803457848501

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 – Produced Water and Water Based Drilling Mud Characterization Study
Whistler Energy II, LLC – GMG290538

Dear Mr. Chen

Per the permit requirements in Part I.B.4.c – Produced Water Characterization Study, Whistler Energy II, LLC (Whistler) has conducted an individual study and has collected one sample from each producing lease block for which they are the designated operator. Whistler has also had one drilling project within the 3-year study time frame.

The produced water and water based mud (WBM) samples were analyzed for the required metals, including: Dissolved arsenic, dissolved cadmium, dissolved chromium (VI), dissolved copper, free cyanide, dissolved lead, dissolved mercury, dissolved nickel, dissolved selenium, dissolved silver, and dissolved zinc. As noted on the summary of analytical data, the WBM sample results are total metals for the same list above.

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. As an individual study participant, Whistler is following the same protocol approved for the joint study operators.

The lease block area reported on includes: Green Canyon 18 – Platform A.

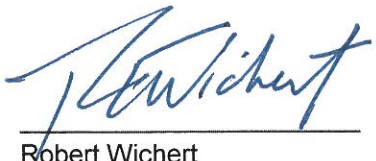
A summary of the analytical results are presented in the attached Excel worksheet and summary page of the laboratory report. This letter and electronic report are being submitted via hard copy and email to chen.isaac@epa.gov. The complete analytical report from the laboratory can be provided upon request.

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

WHISTLER ENERGY II, LLC
3200 SW FREEWAY, SUITE 2050, HOUSTON, TEXAS 77027
TEL: (713) 333-3664 FAX: (713) 333-3669

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.

WHISTLER ENERGY II, LLC



Robert Wichert
Executive V.P. & C.O.O

Attachment

REF: DT5514/23435

Produced Water Characterization Study - Sampling Results
Whistler Energy II, LLC - GMG290538

Lease Block/Area	Lease No.		Sampling Date		
Green Canyon 18 -Platform A	OSC-G: 04940		3/16/2015		
Parameter *All metals analyzed for dissolved phase concentrations.	**Min. Conc. mg/L**	**Max.Conc. mg/L**	**Avg. Conc. mg/L**	**MDL mg/L**	**MRL mg/L**
Arsenic	< 0.05	< 0.05	< 0.05	0.050	0.250
Cadmium	< 0.04	< 0.04	< 0.04	0.040	0.100
Chromium, VI	< 0.001	< 0.001	< 0.001	0.001	0.001
Copper	< 0.035	< 0.035	< 0.035	0.050	0.250
Free Cyanide	< 0.02	< 0.02	< 0.02	0.020	0.020
Lead	< 0.035	< 0.035	< 0.035	0.035	0.250
Mercury	< 0.000042	< 0.000042	< 0.000042	0.000042	0.000200
Nickel	< 0.05	< 0.05	< 0.05	0.050	0.250
Selenium	**0.0986 J**	**0.0986 J**	**0.0986 J**	0.050	0.250
Silver	< 0.04	< 0.04	< 0.04	0.040	0.250
Zinc	**0.712**	**0.712**	**0.712**	0.125	0.250

MDL - Minimum Detection Limit
MRL Method Reporting Limit. Also known as LOQ Limit of Quantitation (LOQ)
Values between the MDL and MRL are estimated (see J qualifier).
J - Analyte Detected Below Quantitation Limit

Water Based Mud Characterization Study - Sampling Results
Whistler Energy II, LLC - GMG290538

Lease Block/Area	Lease No.		Sampling Date	
Green Canyon 18 -Well #A005	OSC-G: 04940		4/8/2015	
Parameter *All metals analyzed for total concentrations.	**Min. Conc. mg/L**	**Max.Conc. mg/L**	**Avg. Conc. mg/L**	**MRL mg/L**
Arsenic	**16.0**	**16.0**	**16.0**	0.500
Cadmium	< 0.500	< 0.500	< 0.500	0.500
Chromium, VI	< 2.00	< 2.00	< 2.00	2.000
Copper	**42.3**	**42.3**	**42.3**	0.500
Free Cyanide	< 1.93	< 1.93	< 1.93	1.930
Lead	**115**	**115**	**115**	0.500
Mercury	**244**	**244**	**244**	3.400
Nickel	**4.14**	**4.14**	**4.14**	0.500
Selenium	< 0.500	< 0.500	< 0.500	0.500
Silver	< 0.500	< 0.500	< 0.500	0.500
Zinc	**57.4**	**57.4**	**57.4**	0.500

* Per an agreement made at a 2/15/14 meeting between EPA Region and OOC Joint Study participants, it was agreed that where the sample could not yield adequate water for dissolved phase metals analyses that the analyses would be conducted for total metals concentrations.

Client: Tetra Tech, Inc.
Project: Gulf of Mexico MPWCS 212C-HN-00104
Sample ID: Whistler GC-18 PW
Collection Date: 16-Mar-2015 20:00

ANALYTICAL REPORT
WorkOrder:HS15030570
Lab ID:HS15030570-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		**Method:SW6020**			Prep:SW3010A / 20-Mar-2015		Analyst: RPM
Arsenic	U		0.0500	0.250	mg/L	50	23-Mar-2015 13:41
Cadmium	U		0.0400	0.100	mg/L	50	23-Mar-2015 13:41
Copper	U		0.0500	0.250	mg/L	50	23-Mar-2015 13:41
Lead	U		0.0350	0.250	mg/L	50	23-Mar-2015 13:41
Nickel	U		0.0500	0.250	mg/L	50	23-Mar-2015 13:41
Selenium	**0.0986**	J	**0.0500**	**0.250**	**mg/L**	50	23-Mar-2015 13:41
Silver	U		0.0400	0.250	mg/L	50	23-Mar-2015 13:41
Zinc	**0.712**		**0.125**	**0.250**	**mg/L**	50	23-Mar-2015 13:41
CYANIDE - SW9014		**Method:SW9014**			Prep:SW9010C / 27-Mar-2015		Analyst: KHT
Cyanide, Dissolved	U		0.0200	0.0200	mg/L	1	27-Mar-2015 15:43
DISSOLVED MERCURY BY SW7470A		**Method:SW7470**			Prep:SW7470 / 20-Mar-2015		Analyst: OFO
Mercury	U		0.0000420	0.000200	mg/L	1	20-Mar-2015 17:31
SUBCONTRACT ANALYSIS		**Method:NA**					Analyst: SUB
Miscellaneous Analysis	See Attached		0			1	02-Apr-2015 10:58

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

ALS Laboratory Group
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

HS15030570

Tetra Tech, Inc.

Gulf of Mexico MPWCS 212C-HN-00104

ALS Project Manager: Kristin Brown

Customer Information		Project Information			
Purchase Order	1097177	Project Name	Gulf of Mexico MPWCS	A	Dissolved Metals (6020/7000) As,Cd,Cu,Pb,Ni,Se,Ag,Zn,Hg
Work Order		Project Number	212C-HN-00104	B	Dissolved Cyanide (9014)
Company Name	Tetra Tech-GA	Bill To Company	Tetra Tech-GA	C	Dissolved Hexavalent Chromium (218.6)
Send Report To	June Mire	Invoice Attn.	June Mire	D	
Address	1408 Pasadena Avenue	Address	1408 Pasadena Avenue	E	
				F	
City/State/Zip	Metarie, LA 70001	City/State/Zip	Metarie, LA 70001	G	
Phone	504-273--9186	Phone	504-273-9186	H	
Fax		Fax		I	
e-Mail Address	june.mire@tetratech.com	e-Mail Address	june.mire@tetratech.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Whistler GC-18 PW	3-16-15	8Pm	DW		3	X	X	X								
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: MARK Billingsley Mark Billingsley

Shipment Method:

Required Turnaround Time: ☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
MARK Billingsley	3-16-15	8 Pm		
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler Temp.
Ken Reed	3-17-15	1:50 PM	3-17-15 1350	0.9°
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	#1

QC Package: (Check Box Below)

- ☐ Level II: Standard QC
- ☐ Level III: Std QC + Raw Data
- X Level IV: SW846 CLP-Like
- ☐ Other: _____
- ☐ TRRP-Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

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

5486

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	R1501875
Project:	HS15030570	**Date Collected:**	3/16/15 2000
Sample Matrix:	Ocean Water	**Date Received:**	3/18/15
Sample Name:	HS15030570-01		
Lab Code:	R1501875-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	1.0	U	µg/L	1.0	50	NA	3/25/15 14:42	

CHAIN OF CUSTODY RECORD

ALS Environmental

Date 17 Mar 2015

COC ID 2436

Due date 24 MAR 15

Subcontractor

ALS
1565 Jefferson Road Building 300, Suite 360
Rochester, NY 14623

Phone 5852885380

Fax

R1501875 5
ALS Group USA, Corp.
HS15030570

Customer Information		Project Information	
PO		Project Name	HS15030570

Company Name	ALS Houston	Company Name	ALS Houston
		Inv Attn	Accounts Payable
Address	10450 Stancliff Rd, Ste 210	Address	10450 Stancliff Rd, Ste 210
	Houston, TX 77099		Houston, TX 77099
Phone	281-530-5656	Phone	281-530-5656
Email1	ana.spencer@alsglobal.com	Email2	jumoke.lawal@alsglobal.com

Lab ID	Client Samp ID	Collection Date	Matrix	Analysis Requested
HS15030570-01	Whistler GC-18 PW	16-Mar-15 08:00 pm	Water	ALS-Rochester 218.6

Comments Please analyze for the above and send report to email 1 and cc to email 2.

Relinquished by:	Date/Time:	Received by:	Date/Time:	Cooler IDs:	Report/QC Level
	3/17/15 1800		3/18/15 09:35		

Client: Tetra Tech, Inc. **CASE NARRATIVE**
Project: Gulf of Mexico MPWCS 212C-HN-00104
Work Order: HS15040284

Work Order Comments

- Laboratory could not centrifuge sufficient sample volume to perform the dissolved analysis on sample Whistler GC-18 WBM Water (HS15040284-02)

Metals by Method SW7471A

Batch ID: 92223

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

Metals by Method SW6020

Batch ID: 92183

Sample ID: **HS15040257-13**
- MS/MSD and DUPs are for an unrelated sample

Wet Chemistry by Method SW7196

Batch ID: 92310

Sample ID: **Whistler GC-18 WBM (HS15040284-01)**
- The RPD between the MS and MSD was outside of the control limit.

WetChemistry by Method SW7196

Batch ID: 92310

Sample ID: **Whistler GC-18 WBM (HS15040284-01)**
- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: **Whistler GC-18 WBM (HS15040284-01)**
- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

WetChemistry by Method SW9014

Batch ID: 92309

- 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 212C-HN-00104
Sample ID: Whistler GC-18 WBM
Collection Date: 08-Apr-2015 09:00

ANALYTICAL REPORT
WorkOrder:HS15040284
Lab ID:HS15040284-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 09-Apr-2015		Analyst: JDE
Arsenic	**16.0**		**0.500**	**mg/Kg**	1	09-Apr-2015 18:08
Cadmium	ND		0.500	mg/Kg	1	09-Apr-2015 18:08
Copper	**42.3**		**0.500**	**mg/Kg**	1	09-Apr-2015 18:08
Lead	**115**		**0.500**	**mg/Kg**	1	09-Apr-2015 18:08
Nickel	**4.14**		**0.500**	**mg/Kg**	1	09-Apr-2015 18:08
Selenium	ND		0.500	mg/Kg	1	09-Apr-2015 18:08
Silver	ND		0.500	mg/Kg	1	09-Apr-2015 18:08
Zinc	**57.4**		**0.500**	**mg/Kg**	1	09-Apr-2015 18:08
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 11-Apr-2015		Analyst: KHT
Chromium, Hexavalent	ND		2.00	mg/kg	1	14-Apr-2015 14:31
CYANIDE		**Method:SW9014**		Prep:SW9010C / 11-Apr-2015		Analyst: KHT
Cyanide	ND		1.93	mg/Kg	1	11-Apr-2015 17:02
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Apr-2015		Analyst: OFO
Mercury	**244**		**3.40**	**ug/Kg**	1	10-Apr-2015 17:02

Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

HS15040284

Tetra Tech, Inc.

Gulf of Mexico MPWCS

ALS Project Manager: Kristin Brown

Customer Information		Project Information	
Purchase Order	1097177	Project Name	Gulf of Mexico MPWCS
Work Order		Project Number	212C-HN-00104
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	Metarie, LA 70001	City/State/Zip	Metarie, 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

Parameter/Method Request for Analysis

A	Dissolved Metals (6020/7000) As,Cd,Cu,Pb,Ni,Se,Ag,Zn,Hg
B	Dissolved Cyanide (9014)
C	Dissolved Hexavalent Chromium (218.6)
D	
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Whistler GC-18 WBM	4-8-15	09:00	WBM		2	X	X	X								
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: MARCO GERNON Marco Gernon

Shipment Method:

Required Turnaround Time: ☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Marco Gernon	4-8-15	09:00	4/8/15 17:55	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

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)

	Level II: Standard QC		TRRP-Checklist
	Level III: Std QC + Raw Data		TRRP Level IV
X	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.