GW-020

Annual "reverse Osmosis" Report

DATE:
October 13, 2010

FRONTIER field services, llc
southern ute indian tribe

David J Feather
Environmental Technician

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CERTIFIED MAIL: No. 7006 0100 0004 2382 0386
RETURN RECEIPT REQUESTED

October 13, 2010

State of New Mexico
Attn: Mr. Wayne Price
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: **Annual Discharge Permit for Conoco Playa Lake**
Discharge Plan #GW-020
Frontier Field Services, LLC
Maljamar Gas Plant, Lea County

Dear Mr. Price:

Attached is the water analysis and monthly discharged water meter readings for the Frontier Field Services Maljamar Gas Plant disposal of "Reverse Osmosis" wastewater into Conoco Phillips' Playa Lake. OCD Discharge Permit #GW-020 requires metering of the discharged water to be recorded monthly and a laboratory analysis of a water sample from this stream on an annual basis.

Please contact me at one of the numbers indicated above with any questions or comments.

Sincerely,

David J. Feather

Attachments (2)

Analytical Report 391999

for

Frontier Field Services

Project Manager: Steve Maker

Playa Lake Discharge

11-OCT-10

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

11-OCT-10

Project Manager: **Steve Maker**
Frontier Field Services
1001 Conoco Road

Maljamar, NM 88264

Reference: XENCO Report No: **391999**
Playa Lake Discharge
Project Address: Maljamar, NM

Steve Maker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 391999. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 391999 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 391999

Frontier Field Services, Maljamar, NM

Playa Lake Discharge

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
R.O. Unit System	W	Sep-30-10 11:45		391999-001

Project ID:
Work Order Number: 391999

Report Date: 11-OCT-10
Date Received: 09/30/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-825904 TCLP Mercury by SW 7470A
SW7470A

Batch 825904, Mercury recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 391999-001.
The Laboratory Control Sample for Mercury is within laboratory Control Limits

Batch: LBA-826110 TCLP Metals by SW 6020A
SW6020
Batch 826110, Arsenic RPD is outside the QC limit. This is most likely due to sample non-homogeneity.
Samples affected are: 391999-001.

Batch: LBA-826210 VOAs by SW-846 8260B
SW8260B

Batch 826210, MTBE recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 391999-001.
The Laboratory Control Sample for MTBE is within laboratory Control Limits

Methylene chloride is probably laboratory contamination in 391750 , 391917 , and 391999 .

Certificate of Analysis Summary 391999

Frontier Field Services, Maljamar, NM

Project Name: Playa Lake Discharge

Project Id:

Contact: Steve Maker

Project Location: Maljamar, NM

Date Received in Lab: Thu Sep-30-10 04:00 pm

Report Date: 11-OCT-10

Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	391999-001					
	Field Id:	R.O. Unit System					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-30-10 11:45					
TCLP Mercury by SW 7470A	*Extracted:*	Oct-04-10 08:15					
	Analyzed:	Oct-04-10 11:45					
	Units/RL:	mg/L RL					
Mercury		ND 0.0003					
TCLP Metals by SW 6020A SUB: T104704215-TX	*Extracted:*	Oct-05-10 09:50					
	Analyzed:	Oct-05-10 19:04					
	Units/RL:	mg/L RL					
Antimony		ND 0.030					
Arsenic		0.013 0.010					
Barium		ND 0.025					
Beryllium		ND 0.0050					
Cadmium		ND 0.005					
Chromium		ND 0.015					
Lead		ND 0.010					
Nickel		ND 0.025					
Selenium		ND 0.015					
Silver		ND 0.010					

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 391999

Frontier Field Services, Maljamar, NM

Project Name: Playa Lake Discharge

Project Id:
Contact: Steve Maker
Project Location: Maljamar, NM

Date Received in Lab: Thu Sep-30-10 04:00 pm
Report Date: 11-OCT-10
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	391999-001					
	Field Id:	R.O. Unit System					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-30-10 11:45					
VOAs by SW-846 8260B	*Extracted:*	Oct-05-10 16:42					
	Analyzed:	Oct-05-10 18:12					
	Units/RL:	mg/L	RL				
1,1,1,2-Tetrachloroethane		ND	0.005				
1,1,1-Trichloroethane		ND	0.005				
1,1,2,2-Tetrachloroethane		ND	0.005				
1,1,2-Trichloroethane		ND	0.005				
1,1-Dichloroethane		ND	0.005				
1,1-Dichloroethene		ND	0.005				
1,1-Dichloropropene		ND	0.005				
1,2,3-Trichlorobenzene		ND	0.005				
1,2,3-Trichloropropane		ND	0.005				
1,2,4-Trichlorobenzene		ND	0.005				
1,2,4-Trimethylbenzene		ND	0.005				
1,2-Dibromo-3-Chloropropane		ND	0.005				
1,2-Dibromoethane		ND	0.005				
1,2-Dichlorobenzene		ND	0.005				
1,2-Dichloroethane		ND	0.005				
1,2-Dichloropropane		ND	0.005				
1,3,5-Trimethylbenzene		ND	0.005				
1,3-Dichlorobenzene		ND	0.005				
1,3-Dichloropropane		ND	0.005				
1,4-Dichlorobenzene		ND	0.005				
2,2-Dichloropropane		ND	0.005				
2-Chlorotoluene		ND	0.005				
4-Chlorotoluene		ND	0.005				
Benzene		ND	0.005				
Bromobenzene		ND	0.005				

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 391999

Frontier Field Services, Maljamar, NM

Project Name: Playa Lake Discharge

Project Id:
Contact: Steve Maker
Project Location: Maljamar, NM

Date Received in Lab: Thu Sep-30-10 04:00 pm
Report Date: 11-OCT-10
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	391999-001					
	Field Id:	R.O. Unit System					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-30-10 11:45					
VOAs by SW-846 8260B	*Extracted:*	Oct-05-10 16:42					
	Analyzed:	Oct-05-10 18:12					
	Units/RL:	mg/L	RL				
Bromochloromethane		ND	0.005				
Bromodichloromethane		ND	0.005				
Bromoform		0.012	0.005				
Bromomethane		ND	0.005				
Carbon Tetrachloride		ND	0.005				
Chlorobenzene		ND	0.005				
Chloroethane		ND	0.010				
Chloroform		ND	0.005				
Chloromethane		ND	0.010				
cis-1,2-Dichloroethene		ND	0.005				
cis-1,3-Dichloropropene		ND	0.005				
Dibromochloromethane		ND	0.005				
Dibromomethane		ND	0.005				
Dichlorodifluoromethane		ND	0.005				
Ethylbenzene		ND	0.005				
Hexachlorobutadiene		ND	0.005				
isopropylbenzene		ND	0.005				
m,p-Xylenes		ND	0.010				
Methylene Chloride		0.013	0.005				
MTBE		ND	0.005				
Naphthalene		ND	0.010				
n-Butylbenzene		ND	0.005				
n-Propylbenzene		ND	0.005				
o-Xylene		ND	0.005				
p-Cymene (p-Isopropyltoluene)		ND	0.005				

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 391999

Frontier Field Services, Maljamar, NM

Project Name: Playa Lake Discharge

Project Id:
Contact: Steve Maker
Project Location: Maljamar, NM

Date Received in Lab: Thu Sep-30-10 04:00 pm
Report Date: 11-OCT-10
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	391999-001					
	Field Id:	R.O. Unit System					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-30-10 11:45					
VOAs by SW-846 8260B	***Extracted:***	Oct-05-10 16:42					
	Analyzed:	Oct-05-10 18:12					
	Units/RL:	mg/L	RL				
Sec-Butylbenzene		ND	0.005				
Styrene		ND	0.005				
tert-Butylbenzene		ND	0.005				
Tetrachloroethylene		ND	0.005				
Toluene		ND	0.005				
trans-1,2-dichloroethene		ND	0.005				
trans-1,3-dichloropropene		ND	0.005				
Trichloroethene		ND	0.005				
Trichlorofluoromethane		ND	0.005				
Vinyl Chloride		ND	0.002				

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Playa Lake Discharge

Work Orders : 391999, **Project ID:**

Lab Batch #: 826210 **Sample:** 575264-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/05/10 11:02

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0483	0.0500	97	74-124	
Dibromofluoromethane	0.0485	0.0500	97	75-131	
1,2-Dichloroethane-D4	0.0515	0.0500	103	63-144	
Toluene-D8	0.0502	0.0500	100	80-117	

Lab Batch #: 826210 **Sample:** 575264-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/05/10 12:06

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0488	0.0500	98	74-124	
Dibromofluoromethane	0.0518	0.0500	104	75-131	
1,2-Dichloroethane-D4	0.0514	0.0500	103	63-144	
Toluene-D8	0.0488	0.0500	98	80-117	

Lab Batch #: 826210 **Sample:** 392103-007 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/05/10 12:49

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0501	0.0500	100	74-124	
Dibromofluoromethane	0.0499	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0490	0.0500	98	63-144	
Toluene-D8	0.0490	0.0500	98	80-117	

Lab Batch #: 826210 **Sample:** 392103-007 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/05/10 13:10

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0505	0.0500	101	74-124	
Dibromofluoromethane	0.0502	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0492	0.0500	98	63-144	
Toluene-D8	0.0494	0.0500	99	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Playa Lake Discharge

Work Orders : 391999,

Project ID:

Lab Batch #: 826210 **Sample:** 391999-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/05/10 18:12

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0484	0.0500	97	74-124	
Dibromofluoromethane	0.0509	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0505	0.0500	101	63-144	
Toluene-D8	0.0475	0.0500	95	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Playa Lake Discharge

Work Order #: 391999 **Project ID:**

Lab Batch #: 826110 **Sample:** 575156-1-BKS **Matrix:** Water

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** HAT

Reporting Units: mg/L **Batch #:** 1

TCLP Metals by SW 6020A Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Antimony	ND	0.020	0.020	100	75-125	
Arsenic	ND	0.050	0.047	94	75-125	
Barium	ND	0.050	0.046	92	75-125	
Beryllium	ND	0.0200	0.0172	86	75-125	
Cadmium	ND	0.020	0.018	90	75-125	
Chromium	ND	0.050	0.052	104	75-125	
Lead	ND	0.050	0.046	92	75-125	
Nickel	ND	0.050	0.047	94	75-125	
Selenium	ND	0.050	0.044	88	75-125	
Silver	ND	0.020	0.018	90	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Blank Spike Recovery

Project Name: Playa Lake Discharge

Work Order #: 391999 **Project ID:**

Lab Batch #: 826210 **Sample:** 575264-1-BKS **Matrix:** Water

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** CYE

Reporting Units: mg/L **Batch #:** 1

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
1,1,1,2-Tetrachloroethane	ND	0.050	0.049	98	75-125	
1,1,1-Trichloroethane	ND	0.050	0.047	94	75-125	
1,1,2,2-Tetrachloroethane	ND	0.050	0.050	100	50-130	
1,1,2-Trichloroethane	ND	0.050	0.050	100	75-127	
1,1-Dichloroethane	ND	0.050	0.051	102	60-130	
1,1-Dichloroethene	ND	0.050	0.046	92	59-172	
1,1-Dichloropropene	ND	0.050	0.040	80	75-125	
1,2,3-Trichlorobenzene	ND	0.050	0.053	106	75-137	
1,2,3-Trichloropropane	ND	0.050	0.051	102	75-125	
1,2,4-Trichlorobenzene	ND	0.050	0.052	104	75-135	
1,2,4-Trimethylbenzene	ND	0.050	0.053	106	75-125	
1,2-Dibromo-3-Chloropropane	ND	0.050	0.047	94	59-125	
1,2-Dibromoethane	ND	0.050	0.049	98	73-125	
1,2-Dichlorobenzene	ND	0.050	0.050	100	75-125	
1,2-Dichloroethane	ND	0.050	0.048	96	68-127	
1,2-Dichloropropane	ND	0.050	0.049	98	74-125	
1,3,5-Trimethylbenzene	ND	0.050	0.052	104	70-125	
1,3-Dichlorobenzene	ND	0.050	0.051	102	75-125	
1,3-Dichloropropane	ND	0.050	0.049	98	75-125	
1,4-Dichlorobenzene	ND	0.050	0.048	96	75-125	
2,2-Dichloropropane	ND	0.050	0.047	94	60-140	
2-Chlorotoluene	ND	0.050	0.050	100	73-125	
4-Chlorotoluene	ND	0.050	0.050	100	74-125	
Benzene	ND	0.050	0.048	96	66-142	
Bromobenzene	ND	0.050	0.049	98	60-130	
Bromochloromethane	ND	0.050	0.047	94	73-125	
Bromodichloromethane	ND	0.050	0.048	96	75-125	
Bromoform	ND	0.050	0.043	86	75-125	
Bromomethane	ND	0.050	0.043	86	70-130	
Carbon Tetrachloride	ND	0.050	0.047	94	62-125	
Chlorobenzene	ND	0.050	0.049	98	60-133	
Chloroethane	ND	0.050	0.041	82	70-130	
Chloroform	ND	0.050	0.048	96	74-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Blank Spike Recovery

Project Name: Playa Lake Discharge

Work Order #: 391999 **Project ID:**

Lab Batch #: 826210 **Sample:** 575264-1-BKS **Matrix:** Water

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** CYE

Reporting Units: mg/L **Batch #:** 1

VOAs by SW-846 8260B Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloromethane	ND	0.050	0.047	94	70-130	
cis-1,2-Dichloroethene	ND	0.050	0.049	98	60-130	
cis-1,3-Dichloropropene	ND	0.050	0.051	102	60-140	
Dibromochloromethane	ND	0.050	0.046	92	60-130	
Dibromomethane	ND	0.050	0.050	100	69-127	
Dichlorodifluoromethane	ND	0.050	0.057	114	70-130	
Ethylbenzene	ND	0.050	0.050	100	75-125	
Hexachlorobutadiene	ND	0.050	0.051	102	75-125	
isopropylbenzene	ND	0.050	0.051	102	75-125	
m,p-Xylenes	ND	0.100	0.101	101	75-125	
Methylene Chloride	ND	0.050	0.048	96	75-125	
MTBE	ND	0.050	0.049	98	75-125	
Naphthalene	ND	0.050	0.057	114	65-135	
n-Butylbenzene	ND	0.050	0.053	106	75-125	
n-Propylbenzene	ND	0.050	0.051	102	75-125	
o-Xylene	ND	0.050	0.052	104	75-125	
p-Cymene (p-Isopropyltoluene)	ND	0.050	0.055	110	75-125	
Sec-Butylbenzene	ND	0.050	0.053	106	75-125	
Styrene	ND	0.050	0.053	106	60-130	
tert-Butylbenzene	ND	0.050	0.054	108	75-125	
Tetrachloroethylene	ND	0.050	0.048	96	60-130	
Toluene	ND	0.050	0.047	94	59-139	
trans-1,2-dichloroethene	ND	0.050	0.046	92	60-130	
trans-1,3-dichloropropene	ND	0.050	0.049	98	66-125	
Trichloroethene	ND	0.050	0.049	98	62-137	
Trichlorofluoromethane	ND	0.050	0.050	100	67-125	
Vinyl Chloride	ND	0.050	0.049	98	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Playa Lake Discharge

Work Order #: 391999
Analyst: LATCOR
Date Prepared: 10/04/2010
Project ID:
Date Analyzed: 10/04/2010
Lab Batch ID: 825904
Sample: 575076-1-BKS
Batch #: 1
Matrix: Water
Units: mg/L

TCLP Mercury by SW 7470A	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	ND	0.0010	0.0008	80	0.001	0.0009	90	12	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Playa Lake Discharge

Work Order # : 391999 **Project ID:**

Lab Batch ID: 825904 **QC- Sample ID:** 391927-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/04/2010 **Date Prepared:** 10/04/2010 **Analyst:** LATCOR

Reporting Units: mg/L

TCLP Mercury by SW 7470A Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	ND	0.0010	0.0009	90	0.0010	0.0009	90	0	75-125	20	

Lab Batch ID: 826110 **QC- Sample ID:** 391773-001 S **Batch #:** 1 **Matrix:** Solid

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** HAT

Reporting Units: mg/L

TCLP Metals by SW 6020A Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Antimony	ND	0.100	0.097	97	0.100	0.099	99	2	75-125	25	
Arsenic	0.015	0.250	0.255	96	0.250	0.260	98	2	75-125	25	
Barium	2.24	0.250	2.51	108	0.250	2.54	120	1	75-125	25	
Beryllium	ND	0.1000	0.0965	97	0.1000	0.0955	96	1	75-125	25	
Cadmium	ND	0.100	0.089	89	0.100	0.089	89	0	75-125	25	
Chromium	ND	0.250	0.263	105	0.250	0.261	104	1	75-125	25	
Lead	ND	0.250	0.240	96	0.250	0.239	96	0	75-125	25	
Nickel	0.081	0.250	0.318	95	0.250	0.317	94	0	75-125	25	
Selenium	ND	0.250	0.230	92	0.250	0.237	95	3	75-125	25	
Silver	ND	0.100	0.087	87	0.100	0.086	86	1	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Playa Lake Discharge

Work Order # : 391999 **Project ID:**

Lab Batch ID: 826210 **QC- Sample ID:** 392103-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** CYE

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,1,1,2-Tetrachloroethane	ND	0.050	0.046	92	0.050	0.048	96	4	75-125	20	
1,1,1-Trichloroethane	ND	0.050	0.048	96	0.050	0.048	96	0	75-125	20	
1,1,2,2-Tetrachloroethane	ND	0.050	0.049	98	0.050	0.056	112	13	50-130	31	
1,1,2-Trichloroethane	ND	0.050	0.049	98	0.050	0.051	102	4	75-127	20	
1,1-Dichloroethane	ND	0.050	0.052	104	0.050	0.052	104	0	60-130	20	
1,1-Dichloroethene	ND	0.050	0.047	94	0.050	0.047	94	0	59-172	22	
1,1-Dichloropropene	ND	0.050	0.040	80	0.050	0.042	84	5	75-125	20	
1,2,3-Trichlorobenzene	ND	0.050	0.049	98	0.050	0.054	108	10	75-137	20	
1,2,3-Trichloropropane	ND	0.050	0.050	100	0.050	0.053	106	6	75-125	20	
1,2,4-Trichlorobenzene	ND	0.050	0.051	102	0.050	0.055	110	8	75-135	20	
1,2,4-Trimethylbenzene	ND	0.050	0.051	102	0.050	0.054	108	6	75-125	20	
1,2-Dibromo-3-Chloropropane	ND	0.050	0.047	94	0.050	0.049	98	4	59-125	28	
1,2-Dibromoethane	ND	0.050	0.048	96	0.050	0.050	100	4	73-125	20	
1,2-Dichlorobenzene	ND	0.050	0.049	98	0.050	0.051	102	4	75-125	20	
1,2-Dichloroethane	ND	0.050	0.048	96	0.050	0.049	98	2	68-127	20	
1,2-Dichloropropane	ND	0.050	0.049	98	0.050	0.051	102	4	74-125	20	
1,3,5-Trimethylbenzene	ND	0.050	0.051	102	0.050	0.053	106	4	70-125	20	
1,3-Dichlorobenzene	ND	0.050	0.049	98	0.050	0.052	104	6	75-125	20	
1,3-Dichloropropane	ND	0.050	0.047	94	0.050	0.050	100	6	75-125	20	
1,4-Dichlorobenzene	ND	0.050	0.047	94	0.050	0.049	98	4	75-125	20	
2,2-Dichloropropane	ND	0.050	0.046	92	0.050	0.045	90	2	60-140	20	
2-Chlorotoluene	ND	0.050	0.050	100	0.050	0.051	102	2	73-125	20	
4-Chlorotoluene	ND	0.050	0.049	98	0.050	0.051	102	4	74-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Playa Lake Discharge

Work Order # : 391999 **Project ID:**

Lab Batch ID: 826210 **QC- Sample ID:** 392103-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** CYE

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.050	0.047	94	0.050	0.048	96	2	66-142	21	
Bromobenzene	ND	0.050	0.048	96	0.050	0.050	100	4	60-130	20	
Bromochloromethane	ND	0.050	0.049	98	0.050	0.050	100	2	73-125	20	
Bromodichloromethane	ND	0.050	0.047	94	0.050	0.048	96	2	75-125	20	
Bromoform	ND	0.050	0.041	82	0.050	0.043	86	5	75-125	20	
Bromomethane	ND	0.050	0.044	88	0.050	0.039	78	12	70-130	20	
Carbon Tetrachloride	ND	0.050	0.046	92	0.050	0.046	92	0	62-125	20	
Chlorobenzene	ND	0.050	0.048	96	0.050	0.049	98	2	60-133	21	
Chloroethane	ND	0.050	0.053	106	0.050	0.058	116	9	70-130	20	
Chloroform	ND	0.050	0.049	98	0.050	0.050	100	2	74-125	20	
Chloromethane	ND	0.050	0.048	96	0.050	0.046	92	4	70-130	20	
cis-1,2-Dichloroethene	ND	0.050	0.050	100	0.050	0.051	102	2	60-130	20	
cis-1,3-Dichloropropene	ND	0.050	0.048	96	0.050	0.051	102	6	60-140	20	
Dibromochloromethane	ND	0.050	0.043	86	0.050	0.046	92	7	60-130	20	
Dibromomethane	ND	0.050	0.050	100	0.050	0.052	104	4	69-127	23	
Dichlorodifluoromethane	ND	0.050	0.059	118	0.050	0.057	114	3	70-130	23	
Ethylbenzene	ND	0.050	0.050	100	0.050	0.051	102	2	75-125	20	
Hexachlorobutadiene	ND	0.050	0.046	92	0.050	0.050	100	8	75-125	20	
isopropylbenzene	ND	0.050	0.052	104	0.050	0.051	102	2	75-125	20	
m,p-Xylenes	ND	0.100	0.099	99	0.100	0.101	101	2	75-125	20	
Methylene Chloride	0.010	0.050	0.056	92	0.050	0.056	92	0	75-125	35	
MTBE	0.021	0.050	0.099	156	0.050	0.102	162	3	75-125	20	X
Naphthalene	ND	0.050	0.058	116	0.050	0.064	128	10	65-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Playa Lake Discharge

Work Order # : 391999 **Project ID:**

Lab Batch ID: 826210 **QC- Sample ID:** 392103-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** CYE

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
n-Butylbenzene	ND	0.050	0.053	106	0.050	0.055	110	4	75-125	20	
n-Propylbenzene	ND	0.050	0.052	104	0.050	0.053	106	2	75-125	20	
o-Xylene	ND	0.050	0.052	104	0.050	0.054	108	4	75-125	20	
p-Cymene (p-Isopropyltoluene)	ND	0.050	0.053	106	0.050	0.056	112	6	75-125	20	
Sec-Butylbenzene	ND	0.050	0.052	104	0.050	0.054	108	4	75-125	20	
Styrene	ND	0.050	0.053	106	0.050	0.054	108	2	60-130	51	
tert-Butylbenzene	ND	0.050	0.052	104	0.050	0.055	110	6	75-125	20	
Tetrachloroethylene	ND	0.050	0.047	94	0.050	0.048	96	2	60-130	20	
Toluene	ND	0.050	0.045	90	0.050	0.047	94	4	59-139	21	
trans-1,2-dichloroethene	ND	0.050	0.047	94	0.050	0.047	94	0	60-130	20	
trans-1,3-dichloropropene	ND	0.050	0.046	92	0.050	0.048	96	4	66-125	20	
Trichloroethene	ND	0.050	0.047	94	0.050	0.048	96	2	62-137	24	
Trichlorofluoromethane	ND	0.050	0.052	104	0.050	0.049	98	6	67-125	20	
Vinyl Chloride	ND	0.050	0.050	100	0.050	0.048	96	4	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Playa Lake Discharge

Work Order #: 391999

Lab Batch #: 826110 **Project ID:**

Date Analyzed: 10/05/2010 **Date Prepared:** 10/05/2010 **Analyst:** HAT

QC- Sample ID: 391773-001 D **Batch #:** 1 **Matrix:** Solid

Reporting Units: mg/L

TCLP Metals by SW 6020A	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Antimony	ND	ND	NC	20	
Arsenic	0.015	0.012	22	20	F
Barium	2.24	2.29	2	20	
Beryllium	ND	ND	NC	20	
Cadmium	ND	ND	NC	20	
Chromium	ND	ND	NC	20	
Lead	ND	ND	NC	20	
Nickel	0.081	0.085	5	20	
Selenium	ND	ND	NC	20	
Silver	ND	ND	NC	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Steve MAKER
Company Name: Frontier Field Services
Company Address: 1001 Conoco Road
City/State/Zip: MAljAMAR, NM.
Telephone No: ____ Fax No: ____
Sampler Signature: Bill Ruhmann
e-mail: ____

Project Name: Playa Lake Discharge
Project #: ____
Project Loc: Maljamar, NM
PO #: ____
Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 391999

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water GW = Groundwater WW=Non-Potable SL=Sludge S=Soil/Solid Specify Other	Analyze For: TCLP: / TOTAL: TPH: 418.1	8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Scheduling) 24, 48, 72 hrs	Standard TAT
	R.O. Unit System			9-30-10	11:45		4	X		3				1		GW							X	X						X

Special Instructions:

Laboratory Comments:

Sample Containers Intact?	(Y)	N				
VOCs Free of Headspace?	(Y)	N				
Labels on container(s)	(Y)	N				
Custody seals on container(s)	Y	(N)				
Custody seals on cooler(s)	(Y)	N				
Sample Hand Delivered	(Y)	N				
by Sampler/Client Rep. ?						
by Courier?	UPS	DHL	FedEx	Lone Star		

Temperature Upon Receipt: 2.6 °C

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by: Bill Ruhmann	Date 9-30-10	Time 16:00	Received by ELOT: Andrea Elam	Date 9-30-10	Time 16:00

XENCO Laboratories	XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa	Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Frontier Field Services

Date/Time: 9 30 10 16:00

Lab ID # : 391999

Initials: AE

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	(Yes)	No	N/A	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	7.0 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Frontier Field Services, LLC
Southern Ute Indian Tribe

Maljamar Gas Plant

Monthly R.O. Discharge to Playa Lake

Date	Meter Reading	Gallons per Month	Barrels per Month	Cumulative BBL	Monthly Average BBL
	1,675,630				
January 1, 2008	1,692,520	16,890	402	402	402
February 1, 2008	1,706,260	13,740	327	729	365
March 1, 2008	1,717,150	10,890	259	989	330
April 1, 2008	1,728,120	10,970	261	1,250	312
May 1, 2008	1,738,570	10,450	249	1,499	300
June 1, 2008	1,749,340	10,770	256	1,755	253
July 1, 2008	1,757,990	8,650	206	1,961	231
August 1, 2008	1,767,130	9,140	218	2,179	227
September 1, 2008	1,775,220	8,090	193	2,371	218
October 1, 2008	1,783,210	7,990	190	2,561	213
November 1, 2008	1,792,890	9,680	230	2,792	216
December 1, 2008	1,802,190	9,300	221	3,013	216
January 1, 2009	1,811,620	9,430	225	3,238	217
February 1, 2009	1,820,000	8,380	200	3,437	215
March 1, 2009	1,828,090	8,090	193	3,630	213
April 1, 2009	1,836,620	8,530	203	3,833	212
May 1, 2009	1,843,990	7,370	175	4,009	209
June 1, 2009	1,851,580	7,590	181	4,189	207
July 1, 2009	1,858,420	6,840	163	4,352	172
August 1, 2009	1,865,690	7,270	173	4,525	172
September 1, 2009	1,873,070	7,380	176	4,701	173
October 1, 2008	1,879,520	6,450	154	4,855	169
November 1, 2009	1,886,990	7,470	178	5,032	171
December 1, 2009	1,895,650	8,660	206	5,239	176
January 1, 2010	1,903,990	8,340	199	5,437	179
February 1, 2010	1,914,384	10,394	247	5,685	186
March 1, 2010	1,921,680	7,296	174	5,858	185
April 1, 2010	1,929,840	8,160	194	6,053	186
May 1, 2010	1,940,500	10,660	254	6,306	191
June 1, 2010	1,948,150	7,650	182	6,489	191
July 1, 2010	1,955,840	7,690	183	6,672	183
August 1, 2010	1,968,006	12,166	290	6,961	218
September 1, 2010	1,980,240	12,234	291	7,253	237
October 1, 2010	1,990,010	9,770	233	7,485	236
November 1, 2010		-1,990,010	-47,381	-39,896	-7,700
December 1, 2010		0	0	-39,896	-157,971