



ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Case Narrative for:
SHAW ENVIRONMENTAL & INFRASTRUCTURE

Certificate of Analysis Number:

L0021298

<u>Report To:</u> SHAW ENVIRONMENTAL & INFRASTRUCTURE LISA PULTZ 4171 ESSEN LANE BATON ROUGE LA 70809- ph: (225) 932-2500 fax: (225) 987-7300	<u>Project Name:</u> 147497- INDUSTRIAL WATER WELL S <u>Site:</u> LDNR/BAYOU CORNE <u>Site Address:</u> <u>PO Number:</u> 812666 <u>State:</u> Louisiana <u>State Cert. No.:</u> 02048 <u>Date Reported:</u> 10/19/2012
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Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data for those samples spiked by the laboratory and may be applicable to other samples of similar matrix from the site. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process. If insufficient sample is supplied for MS/MSD, a Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) are reported with the analytical batch and serve as the batch quality control (QC).

Results are reported on a Wet Weight Basis unless otherwise noted in the sample unit field as -dry.

This report may contain data results from tests performed in the field by non-laboratory personnel. Such data will be indicated within the report using the method code, FIELD, and analyst initials of FT indicating results obtained by a field technician.

The collection of samples using encores, terracores or other field collection devices may result in inconsistent initial sample weights for the parent sample and MS/MSD samples.

The MS/MSD recovery and precision data are calculated based on detected spike concentrations that are adjusted for initial sample weights. As a result of the variability between initial sample weights, the calculated RPD may have increased bias.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

Accutest Gulf Coast is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Cristina Thibeaux
Project Manager

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10/19/2012

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011



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SHAW ENVIRONMENTAL & INFRASTRUCTURE

Certificate of Analysis Number:

L0021298

Report To: SHAW ENVIRONMENTAL & INFRASTRUCTURE
LISA PULTZ
4171 ESSEN LANE

BATON ROUGE
LA

70809-

ph: (225) 932-2500

fax: (225) 987-7300

Fax To:

Project Name: 147497- INDUSTRIAL WATER WELL S

Site: LDNR/BAYOU CORNE

Site Address:

PO Number: 812666

State: Louisiana

State Cert. No.: 02048

Date Reported: 10/19/2012

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
007-098-100912	L0021298-01	Water	10/09/2012 10:10	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-131-100912	L0021298-02	Water	10/09/2012 10:30	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-089-100912	L0021298-03	Water	10/09/2012 11:20	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-073-100912	L0021298-04	Water	10/09/2012 12:10	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-072-100912	L0021298-05	Water	10/09/2012 12:25	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-081-100912	L0021298-06	Water	10/09/2012 12:55	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-081-100912MS	L0021298-06MS	Water	10/09/2012 12:55	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-081-100912MSD	L0021298-06MSD	Water	10/09/2012 12:55	10/17/2012 4:30:00 PM		<input type="checkbox"/>
007-080-100912	L0021298-07	Water	10/09/2012 13:30	10/17/2012 4:30:00 PM		<input type="checkbox"/>
DUP-100912	L0021298-08	Water	10/09/2012 0:00	10/17/2012 4:30:00 PM		<input type="checkbox"/>

Cristina Thibeaux
Project Manager

10/19/2012

Date

Ron Benjamin
Laboratory Director

Rebecca Haryett
Quality Assurance Officer



ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
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Client Sample ID: 007-098-100912 Collected: 10/09/2012 10:10 Lab Sample ID: L0021298-01

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	2770		250	50	10/18/12 22:00	JMR	4762560

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
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(337) 237-4775

Client Sample ID: 007-131-100912 Collected: 10/09/2012 10:30 Lab Sample ID: L0021298-02

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	2690		250	50	10/18/12 22:00	JMR	4762561

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: 007-089-100912

Collected: 10/09/2012 11:20

Lab Sample ID: L0021298-03

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	1190		250	50	10/18/12 22:00	JMR	4762562

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
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(337) 237-4775

Client Sample ID: 007-073-100912

Collected: 10/09/2012 12:10

Lab Sample ID: L0021298-04

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	1900		250	50	10/18/12 22:00	JMR	4762563

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: 007-072-100912

Collected: 10/09/2012 12:25

Lab Sample ID: L0021298-05

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	2220		250	50	10/18/12 22:00	JMR	4762564

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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ACCUTEST GULF COAST
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SCOTT, LA 70583
(337) 237-4775

Client Sample ID: 007-081-100912

Collected: 10/09/2012 12:55

Lab Sample ID: L0021298-06

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	2850		250	50	10/18/12 22:00	JMR	4762565

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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500 AMBASSADOR CAFFERY PARKWAY
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Client Sample ID: 007-080-100912

Collected: 10/09/2012 13:30

Lab Sample ID: L0021298-07

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	2060		250	50	10/18/12 22:00	JMR	4762566

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DUP-100912 Collected: 10/09/2012 0:00 Lab Sample ID: L0021298-08

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CHLORIDE BY SM4500				MCL	M4500-CL C	Units: mg/L	
Chloride	2690		250	50	10/18/12 22:00	JMR	4762567

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/18/2012 22:00		1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Quality Control Documentation

Quality Control Report
SHAW ENVIRONMENTAL & INFRASTRUCTURE
147497- INDUSTRIAL WATER WELL SAMPLING
Analysis: Chloride by SM4500
Method: M4500-CL C

WorkOrder: L0021298
Lab Batch ID: R296933

Method Blank

 RunID: WET_121018J-4762547 Units: mg/L
 Analysis Date: 10/18/2012 22:00 Analyst: JMR
 Preparation Date: 10/18/2012 22:00 Prep By: Method

Analyte	Result	Rep Limit
Chloride	ND	5.0

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0021298-01B	007-098-100912
L0021298-02B	007-131-100912
L0021298-03B	007-089-100912
L0021298-04B	007-073-100912
L0021298-05B	007-072-100912
L0021298-06B	007-081-100912
L0021298-07B	007-080-100912
L0021298-08B	DUP-100912

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

 RunID: WET_121018J-4762548 Units: mg/L
 Analysis Date: 10/18/2012 22:00 Analyst: JMR
 Preparation Date: 10/18/2012 22:00 Prep By: Method

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Chloride	150.0	140.8	93.89	150.0	140.8	93.89	0.0	10	90	110

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

 Sample Spiked: L0021122-01
 RunID: WET_121018J-4762554 Units: mg/L
 Analysis Date: 10/18/2012 22:00 Analyst: JMR
 Preparation Date: 10/18/2012 22:00 Prep By: Method

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chloride	3165	150	15670	N/C	150	16140	N/C	N/C	20	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte Detected In The Associated Method Blank
 J - Estimated Value Between MDL And PQL
 E - Estimated Value exceeds calibration curve
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
 TNTC - Too numerous to count

MI - Matrix Interference
 D - Recovery Unreportable due to Dilution
 * - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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*Sample Receipt Checklist
And
Chain of Custody*



ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Sample Receipt Checklist

Workorder:	L0021298	Received By:	GAS
Date and Time Received:	10/17/2012 4:30:00 PM	Carrier name:	Accutest-Delivery
Temperature:	4.5°C	Chilled by:	Water Ice

- | | | | |
|--|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 3. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 5. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 9. Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 10. All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 11. Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Water - VOA vials have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | VOA Vials Not Present <input checked="" type="checkbox"/> |
| 13. Water - Preservation checked upon receipt (except VOA*)? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

*VOA Preservation Checked After Sample Analysis

Accutest Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance
Issues:

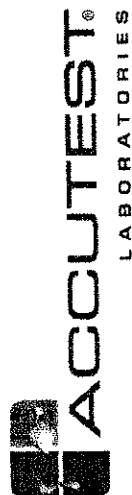
Client Instructions:

revised CUB 4500 L0021298

CHAIN OF CUSTODY

LSR-F005.00

PAGE 1 OF 1



Accutest Gulf Coast
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL: 337-237-4775 FAX: 337-237-7838
www.acctest.com

Accutest Tracking #
Accutest Job #
Accutest Code #

Requested Analyses

Matrix Codes

Client / Reporting Information

Company Name: Shaw E+I

Street Address: 4171 Essen Ln. City: Bayou Canoe State: LA Zip: 70809

City: Bayou Canoe State: LA Zip: 70809

Project Contact: Lisa Pultz Project #

Phone # 225-987-7335 Fax #

Project Manager: Lisa Pultz Attention:

Field ID / Point of Collection

Accutest Sample #	Date	Time	Sampled By	Matrix	# of Bottles	Number of preserved bottles
007-0056-100912	10/9/12	1010	KEA	GV	4	4
007-131-100912		1030				
007-089-100912		1120				
007-073-100912		1210				
007-072-100912		1225				
007-081-100912		1255				
007-081-100912-MS		1255				
007-081-100912-MSD		1255				
007-080-100912		1330				
DUP-100912						
FB-100912	10/9/12	1530	KEA	GV	3	3

Collection

Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of Bottles	Number of preserved bottles
007-0056-100912	10/9/12	1010	KEA	GV	4	4
007-131-100912		1030				
007-089-100912		1120				
007-073-100912		1210				
007-072-100912		1225				
007-081-100912		1255				
007-081-100912-MS		1255				
007-081-100912-MSD		1255				
007-080-100912		1330				
DUP-100912						
FB-100912	10/9/12	1530	KEA	GV	3	3

Turnaround Time (Business days)

Standard ☐ 5 Day RUSH ☒ 3 Day RUSH ☐ 2 Day RUSH ☒ 1 Day EMERGENCY

Emergency & Rush T/A data available via Lablink

Approved By (Accutest PM) / Date:

Commercial "A" (Level 1) ☐ TRP ☐ EDD Format ☐ Other ☐

Commercial "B" (Level 2) ☐ FULT1 (Level 3-4) ☐ REDT1 (Level 3-4) ☐

Commercial "C" ☐

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

* TAT Subject to change

WSS-13 (13)

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date/Time:	Received by:	Date/Time:	Relinquished by:	Date/Time:	Received by:	Date/Time:
1	10/10/12	1130	REGILL	2	10/15/12	REGILL	10/15/12
3				4			
5							

On Site ☐ In Lab ☐ Preserved where applicable ☐ Not In Lab ☐