The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

Hydro-Environmental Technology, Inc.

8060.00 (RL) Indigo-Desoto Parish, LA

SGS Job Number: LA48504

Sampling Date: 10/08/18

Report to:

Hydro-Environmental Technology
P.O. BOX 60295
Lafayette, LA 70596
labdata@hetinc.us

ATTN: Stewart L Stover, Jr.

Total number of pages in report: **66**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Ron Benjamin
Lab Director

Client Service contact: Ralph Frye 337-237-4775

Certifications: LDEQ(2048), LDHH(LA150012), AR(14-045-04), AZ(AZ0805), FL(E87657), IL(200082), KY(#31), NC(487), SC(73004001), NJ(LA007), TX(T104704186-15-7), WV(257)

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SGS North America Inc.

Sample Summary

Hydro-Environmental Technology, Inc.

8060.00 (RL) Indigo-Desoto Parish, LA

Job No: LA48504

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
LA48504-1A	10/08/18	11:00	KC/WP	10/09/18	AQ	Water	MASON RELIEF WELL
LA48504-1F	10/08/18	11:00	KC/WP	10/09/18	AQ	Water Filtered	MASON RELIEF WELL
LA48504-2A	10/08/18	14:00	KC/WP	10/09/18	AQ	Water	HANSON RELIEF WELL
LA48504-2F	10/08/18	14:00	KC/WP	10/09/18	AQ	Water Filtered	HANSON RELIEF WELL
LA48504-3A	10/08/18	06:50	KC/WP	10/09/18	AQ	Trip Blank Water	TRIP BLANK
LA48504-4A	10/08/18	10:10	KC/WP	10/09/18	AQ	Field Blank Water	FIELD BLANK

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F0043976.D	1	10/11/18 18:08	IK	10/11/18 08:00	OP12493	EF1602
Run #2 [a]	F0044002.D	1	10/12/18 16:18	IK	10/11/18 08:00	OP12493	EF1603

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2	980 ml	1.0 ml

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0051	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0051	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0051	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.020	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	mg/l	
87-86-5	Pentachlorophenol	ND	0.0010	mg/l	
108-95-2	Phenol	ND	0.0051	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0051	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0051	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0051	mg/l	
83-32-9	Acenaphthene	ND	0.00020	mg/l	
208-96-8	Acenaphthylene	ND	0.00020	mg/l	
62-53-3	Aniline	ND	0.0051	mg/l	
120-12-7	Anthracene	ND	0.00020	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00020	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00020	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00020	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00020	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.010	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0051	mg/l	
106-47-8	4-Chloroaniline	ND	0.0051	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0051	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0051	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0051	mg/l	
218-01-9	Chrysene	ND	0.00020	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00020	mg/l	
132-64-9	Dibenzofuran	ND	0.0051	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0051	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0051	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0051	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0051	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0051	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0051	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0051	mg/l	
206-44-0	Fluoranthene	ND	0.00020	mg/l	
86-73-7	Fluorene	ND	0.00020	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0010	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00051	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00020	mg/l	
78-59-1	Isophorone	ND	0.0051	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.00020	mg/l	
91-20-3	Naphthalene	ND	0.00020	mg/l	
88-74-4	2-Nitroaniline	ND	0.0051	mg/l	
99-09-2	3-Nitroaniline	ND	0.0051	mg/l	
100-01-6	4-Nitroaniline	ND	0.0051	mg/l	
98-95-3	Nitrobenzene	ND	0.0010	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0051	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0051	mg/l	
85-01-8	Phenanthrene	ND	0.00020	mg/l	
129-00-0	Pyrene	ND	0.00020	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0051	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%	39%	23-85%
4165-62-2	Phenol-d5	28%	28%	10-69%
118-79-6	2,4,6-Tribromophenol	63%	65%	48-138%
4165-60-0	Nitrobenzene-d5	68%	68%	51-128%
321-60-8	2-Fluorobiphenyl	57%	57%	55-122%
1718-51-0	Terphenyl-d14	28% [b]	28% [b]	43-138%

(a) Confirmation run.
(b) Outside control limits biased low. Confirmed by reanalysis. Insufficient sample volume for reextraction.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LE336978.D	1	10/10/18 00:54	SV	n/a	n/a	GLE1601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	0.182	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	103% [a]		70-130%
615-59-8	2,5-Dibromotoluene	93% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LK113383A.D	1	10/12/18 23:11	DF	10/11/18 16:00	OP12506	GLK731
Run #2							

	Initial Volume	Final Volume
Run #1	34.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.000020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	95%		55-149%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0005353.D	1	10/12/18 03:37	JT	10/10/18 14:00	OP12481	GLB1635
Run #2	Y0005353.D	1	10/12/18 03:38	JT	10/10/18 14:00	OP12481	GLB1636

	Initial Volume	Final Volume
Run #1	53.1 ml	4.0 ml
Run #2	53.1 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C16-C35 (Unadj.)	ND [a]	0.14	mg/l	
	Aromatics > C10-C12 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C12-C16 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C16-C21 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C21-C35 (Unadj.)	ND	0.14	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane		77%	40-140%
84-15-1	o-Terphenyl	65%		40-140%
321-60-8	2-Fluorobiphenyl	61%		40-140%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
		Percent Solids:	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	229	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	0.0513	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	4.31	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Cadmium	0.0058	0.0050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	57.6	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	0.357	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Iron	206	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Lead	0.245	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Magnesium	69.6	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	2.91	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	0.00051	0.00020	mg/l	1	10/10/18	10/10/18	SA	SW846 7470A [2]	SW846 7470A [4]
Potassium	35.6	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	0.0530	0.050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Sodium	387	1.0	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Strontium	3.15	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	1.06	0.050	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA13629
(2) Instrument QC Batch: MA13632
(3) Instrument QC Batch: MA13636
(4) Prep QC Batch: MP12962
(5) Prep QC Batch: MP12971

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
		Percent Solids:	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	634	5.0	mg/l	1	10/13/18 12:40	ATX	SM18 2320B
Alkalinity, Carbonate [a]	16.0	5.0	mg/l	1	10/13/18 12:40	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	650	5.0	mg/l	1	10/13/18 12:40	ATX	SM 2320B-2011
Bromide [a]	0.71	0.50	mg/l	1	10/15/18 20:03	ATX	SW846 9056A
Chloride [a]	82.0	5.0	mg/l	10	10/15/18 19:46	ATX	SW846 9056A
Silica, Dissolved [a]	11.1	0.70	mg/l	10	10/18/18	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	1480	200	mg/l	1	10/12/18	ATX	SM 2540C-2011
Specific Conductivity [b]	1600	1.0	umhos/cm	1	10/12/18 17:35	ATX	EPA 120.1
Sulfate [a]	4.2	0.50	mg/l	1	10/15/18 20:03	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	MASON RELIEF WELL		
Lab Sample ID:	LA48504-1F	**Date Sampled:**	10/08/18
Matrix:	AQ - Water Filtered	**Date Received:**	10/09/18
		Percent Solids:	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	127	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	0.0271	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	2.15	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	32.1	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	0.187	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Iron	104	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Lead	0.116	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Magnesium	36.5	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	1.46	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	0.00031	0.00020	mg/l	1	10/10/18	10/10/18	SA	SW846 7470A [2]	SW846 7470A [4]
Potassium	21.3	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Sodium	390	1.0	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Strontium	1.87	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	0.496	0.050	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA13629
(2) Instrument QC Batch: MA13632
(3) Instrument QC Batch: MA13636
(4) Prep QC Batch: MP12962
(5) Prep QC Batch: MP12971

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F0043977.D	1	10/11/18 18:30	IK	10/11/18 08:00	OP12493	EF1602
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0050	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0050	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0050	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.020	mg/l	
100-02-7	4-Nitrophenol	ND	0.025	mg/l	
87-86-5	Pentachlorophenol	ND	0.00099	mg/l	
108-95-2	Phenol	ND	0.0050	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0050	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0050	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0050	mg/l	
83-32-9	Acenaphthene	ND	0.00020	mg/l	
208-96-8	Acenaphthylene	ND	0.00020	mg/l	
62-53-3	Aniline	ND	0.0050	mg/l	
120-12-7	Anthracene	ND	0.00020	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00020	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00020	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00020	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00020	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0099	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0050	mg/l	
106-47-8	4-Chloroaniline	ND	0.0050	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0050	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0050	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0050	mg/l	
218-01-9	Chrysene	ND	0.00020	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00020	mg/l	
132-64-9	Dibenzofuran	ND	0.0050	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0099	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0050	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0050	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0050	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0050	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0050	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0050	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0050	mg/l	
206-44-0	Fluoranthene	ND	0.00020	mg/l	
86-73-7	Fluorene	ND	0.00020	mg/l	
118-74-1	Hexachlorobenzene	ND	0.00099	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00050	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0099	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00020	mg/l	
78-59-1	Isophorone	ND	0.0050	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.00020	mg/l	
91-20-3	Naphthalene	ND	0.00020	mg/l	
88-74-4	2-Nitroaniline	ND	0.0050	mg/l	
99-09-2	3-Nitroaniline	ND	0.0050	mg/l	
100-01-6	4-Nitroaniline	ND	0.0050	mg/l	
98-95-3	Nitrobenzene	ND	0.00099	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0050	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0050	mg/l	
85-01-8	Phenanthrene	ND	0.00020	mg/l	
129-00-0	Pyrene	ND	0.00020	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.00099	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		23-85%
4165-62-2	Phenol-d5	32%		10-69%
118-79-6	2,4,6-Tribromophenol	95%		48-138%
4165-60-0	Nitrobenzene-d5	82%		51-128%
321-60-8	2-Fluorobiphenyl	88%		55-122%
1718-51-0	Terphenyl-d14	79%		43-138%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LE336980.D	1	10/10/18 02:03	SV	n/a	n/a	GLE1601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	109% [a]		70-130%
615-59-8	2,5-Dibromotoluene	96% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LK113384A.D	1	10/12/18 23:28	DF	10/11/18 16:00	OP12506	GLK731
Run #2							

	Initial Volume	Final Volume
Run #1	35.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.000020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	93%		55-149%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0005354.D	1	10/12/18 04:00	JT	10/10/18 14:00	OP12481	GLB1635
Run #2	Y0005354.D	1	10/12/18 04:01	JT	10/10/18 14:00	OP12481	GLB1636

	Initial Volume	Final Volume
Run #1	56.1 ml	4.0 ml
Run #2	56.1 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND [a]	0.13	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND [a]	0.13	mg/l	
	Aliphatics > C16-C35 (Unadj.)	ND [a]	0.13	mg/l	
	Aromatics > C10-C12 (Unadj.)	ND	0.13	mg/l	
	Aromatics > C12-C16 (Unadj.)	ND	0.13	mg/l	
	Aromatics > C16-C21 (Unadj.)	ND	0.13	mg/l	
	Aromatics > C21-C35 (Unadj.)	ND	0.13	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane		86%	40-140%
84-15-1	o-Terphenyl	85%		40-140%
321-60-8	2-Fluorobiphenyl	79%		40-140%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
		Percent Solids:	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	49.2	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	0.0211	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	9.73	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	21.3	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	0.0914	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Iron	66.0	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Lead	0.0432	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Magnesium	19.2	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	1.42	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	10/10/18	10/10/18	SA	SW846 7470A [2]	SW846 7470A [4]
Potassium	9.92	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Sodium	326	1.0	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Strontium	0.693	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	0.214	0.050	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA13629
(2) Instrument QC Batch: MA13632
(3) Instrument QC Batch: MA13636
(4) Prep QC Batch: MP12962
(5) Prep QC Batch: MP12971

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2A	**Date Sampled:**	10/08/18
Matrix:	AQ - Water	**Date Received:**	10/09/18
		Percent Solids:	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	540	5.0	mg/l	1	10/13/18 12:40	ATX	SM18 2320B
Alkalinity, Carbonate [a]	15.0	5.0	mg/l	1	10/13/18 12:40	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	555	5.0	mg/l	1	10/13/18 12:40	ATX	SM 2320B-2011
Bromide [a]	0.65	0.50	mg/l	1	10/15/18 20:37	ATX	SW846 9056A
Chloride [a]	59.6	2.5	mg/l	5	10/15/18 20:20	ATX	SW846 9056A
Silica, Dissolved [a]	14.1	0.70	mg/l	10	10/18/18	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	816	40	mg/l	1	10/12/18	ATX	SM 2540C-2011
Specific Conductivity [b]	1310	1.0	umhos/cm	1	10/12/18 17:35	ATX	EPA 120.1
Sulfate [a]	2.9	0.50	mg/l	1	10/15/18 20:37	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	HANSON RELIEF WELL		
Lab Sample ID:	LA48504-2F	**Date Sampled:**	10/08/18
Matrix:	AQ - Water Filtered	**Date Received:**	10/09/18
		Percent Solids:	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	36.0	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	0.0157	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	6.67	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	16.1	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	0.0678	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Iron	47.5	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Lead	0.0304	0.010	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Magnesium	13.6	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	1.02	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	10/10/18	10/10/18	SA	SW846 7470A [2]	SW846 7470A [4]
Potassium	8.11	1.0	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Sodium	330	1.0	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]
Strontium	0.561	0.020	mg/l	10	10/10/18	10/10/18	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	0.149	0.050	mg/l	10	10/10/18	10/11/18	RT	SW846 6020A [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA13629
(2) Instrument QC Batch: MA13632
(3) Instrument QC Batch: MA13636
(4) Prep QC Batch: MP12962
(5) Prep QC Batch: MP12971

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	LA48504-3A	**Date Sampled:**	10/08/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	10/09/18
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LE336977.D	1	10/10/18 00:20	SV	n/a	n/a	GLE1601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	104% [a]		70-130%
615-59-8	2,5-Dibromotoluene	93% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	LA48504-4A	**Date Sampled:**	10/08/18
Matrix:	AQ - Field Blank Water	**Date Received:**	10/09/18
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 (RL) Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LE336976.D	1	10/09/18 23:46	SV	n/a	n/a	GLE1601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	106% [a]		70-130%
615-59-8	2,5-Dibromotoluene	93% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

LA 48504

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
P.O. Box 60295
Lafayette, LA 70596-0295
Phone (337) 261-1963 FAX (337) 261-1953

SAMPLE CHAIN-OF-CUSTODY RECORD

Project Name:	Indigo	*Laboratory:*	SGS Lafayette
Project Number:	8060.00	*Collected By:*	KC/WP
Project Location:	DeSoto Parish, Louisiana	*Company:*	Hydro-Environmental Technology, Inc.
		Date:	10/8/2018

	Sample I.D.	Type	Date/Time Sampled		Containers	Analysis Requested/Method	Comments	
1	Mason Relief Well	AQ	10/8/2018	11:00	(8) 40mL Glass HCl (3) 60mL Amber Glass HCl (1) L Amber Glass (1) 500mL Plastic (2) 250mL Plastic HNO3	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C Field filtered: Dissolved metals	15
2	Hanson Relief Well	AQ	10/8/2018	14:00	(8) 40mL Glass HCl (3) 60mL Amber Glass HCl (1) L Amber Glass (1) 500mL Plastic (2) 250mL Plastic HNO4	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C Field filtered: Dissolved metals	15
3	Trip Blank	AQ	10/8/2018	6:50	(6) 40mL Glass HCl	VOC 8260, VPH	4°C	6
4	Field Blank	AQ	10/8/2018	10:10	(4) 40mL Glass HCl	VOC 8260, VPH	4°C	4
	VW(RRM69) 1101 (BPS13)							

1A1
OL
3W2
3W2F

*Metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, strontium, zinc
*Cations: aluminum, calcium, iron, magnesium, manganese, potassium, sodium
*Anions: bromide, sulfate, carbonate alkalinity, bicarbonate alkalinity

Temp: 4.6 dv 4L/1 NO/CS

Relinquished By: Ken J. Cage Date/Time: 10/09/18 0900	Relinquished By: REC: Walter Navarro Date/Time: 10-9-18 0900
Relinquished By: Date/Time:	Relinquished By: Date/Time:
Analysis Due: Verbal:	Written:

Page 1 of 1

LA48504: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: LA48504 **Client:** HYDRO ENVIRONMENTAL **Project:** INDIGO

Date / Time Received: 10/9/2018 9:00:00 AM **Delivery Method:** Client **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (4.6/4.6);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☑	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	DV441;		
3. Cooler media:	Ice (direct contact)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

LA48504: Chain of Custody
Page 2 of 2

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12493-MB	F0043967.D	1	10/11/18	IK	10/11/18	OP12493	EF1602

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA48504-1A, LA48504-2A

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
100-02-7	4-Nitrophenol	ND	25	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	ug/l	
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
62-53-3	Aniline	ND	5.0	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
92-52-4	1,1'-Biphenyl	ND	10	ug/l	
85-68-7	Butyl Benzyl Phthalate	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	5.0	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	ug/l	
206-44-0	Fluoranthene	ND	0.20	ug/l	

Method Blank Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12493-MB	F0043967.D	1	10/11/18	IK	10/11/18	OP12493	EF1602

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA48504-1A, LA48504-2A

CAS No.	Compound	Result	RL	Units	Q
86-73-7	Fluorene	ND	0.20	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	ND	0.20	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	45%	23-85%
4165-62-2	Phenol-d5	33%	10-69%
118-79-6	2,4,6-Tribromophenol	90%	48-138%
4165-60-0	Nitrobenzene-d5	80%	51-128%
321-60-8	2-Fluorobiphenyl	83%	55-122%
1718-51-0	Terphenyl-d14	79%	43-138%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12493-BS	F0043968.D	1	10/11/18	IK	10/11/18	OP12493	EF1602
OP12493-BSD	F0043969.D	1	10/11/18	IK	10/11/18	OP12493	EF1602

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA48504-1A, LA48504-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	37.7	75	37.6	75	0	63-104/19
120-83-2	2,4-Dichlorophenol	50	43.2	86	45.3	91	5	68-112/19
105-67-9	2,4-Dimethylphenol	50	39.4	79	41.5	83	5	64-110/20
51-28-5	2,4-Dinitrophenol	50	45.2	90	51.4	103	13	51-121/30
100-02-7	4-Nitrophenol	50	18.1	36	21.6	43	18	20-68/23
87-86-5	Pentachlorophenol	50	42.9	86	48.0	96	11	52-120/29
108-95-2	Phenol	50	21.2	42	22.7	45	7	18-67/20
58-90-2	2,3,4,6-Tetrachlorophenol	50	50.2	100	55.2	110	9	67-121/21
95-95-4	2,4,5-Trichlorophenol	50	50.0	100	52.9	106	6	67-119/21
88-06-2	2,4,6-Trichlorophenol	50	50.5	101	54.4	109	7	67-120/21
83-32-9	Acenaphthene	50	44.3	89	47.5	95	7	67-114/28
208-96-8	Acenaphthylene	50	49.2	98	53.2	106	8	67-119/26
62-53-3	Aniline	50	29.3	59	28.8	58	2	40-114/40
120-12-7	Anthracene	50	41.9	84	46.3	93	10	68-121/24
56-55-3	Benzo(a)anthracene	50	40.8	82	44.9	90	10	69-113/20
50-32-8	Benzo(a)pyrene	50	44.5	89	48.8	98	9	71-124/22
205-99-2	Benzo(b)fluoranthene	50	42.3	85	46.5	93	9	72-120/22
207-08-9	Benzo(k)fluoranthene	50	39.1	78	43.7	87	11	71-124/21
92-52-4	1,1'-Biphenyl	50	47.6	95	50.7	101	6	65-122/29
85-68-7	Butyl Benzyl Phthalate	50	44.8	90	48.9	98	9	73-123/21
106-47-8	4-Chloroaniline	50	38.7	77	41.7	83	7	58-113/51
111-44-4	bis(2-Chloroethyl)ether	50	40.1	80	40.3	81	0	50-118/28
108-60-1	2,2'-Oxybis(1-chloropropane)	50	40.6	81	40.6	81	0	43-138/21
91-58-7	2-Chloronaphthalene	50	46.0	92	48.2	96	5	64-114/30
218-01-9	Chrysene	50	43.2	86	46.5	93	7	70-115/20
53-70-3	Dibenzo(a,h)anthracene	50	43.7	87	48.0	96	9	70-124/21
132-64-9	Dibenzofuran	50	46.2	92	50.7	101	9	67-117/27
91-94-1	3,3'-Dichlorobenzidine	50	44.9	90	48.8	98	8	69-122/38
84-66-2	Diethyl Phthalate	50	45.5	91	49.9	100	9	71-123/21
131-11-3	Dimethyl Phthalate	50	46.6	93	50.5	101	8	69-119/20
117-84-0	Di-n-octyl Phthalate	50	41.4	83	46.5	93	12	66-121/22
99-65-0	1,3-Dinitrobenzene	50	46.4	93	51.4	103	10	71-122/21
121-14-2	2,4-Dinitrotoluene	50	47.6	95	52.0	104	9	73-122/21
606-20-2	2,6-Dinitrotoluene	50	50.6	101	55.0	110	8	72-121/21
117-81-7	bis(2-Ethylhexyl)phthalate	50	39.3	79	43.4	87	10	68-126/21
206-44-0	Fluoranthene	50	40.4	81	45.2	90	11	73-120/21

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12493-BS	F0043968.D	1	10/11/18	IK	10/11/18	OP12493	EF1602
OP12493-BSD	F0043969.D	1	10/11/18	IK	10/11/18	OP12493	EF1602

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA48504-1A, LA48504-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
86-73-7	Fluorene	50	46.4	93	50.3	101	8	69-118/25
118-74-1	Hexachlorobenzene	50	43.0	86	47.0	94	9	67-117/23
87-68-3	Hexachlorobutadiene	50	38.6	77	39.6	79	3	42-120/35
77-47-4	Hexachlorocyclopentadiene	50	41.1	82	42.3	85	3	35-123/48
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.6	87	47.6	95	9	70-123/21
78-59-1	Isophorone	50	41.9	84	44.2	88	5	70-119/19
91-57-6	2-Methylnaphthalene	50	38.9	78	40.8	82	5	65-113/27
91-20-3	Naphthalene	50	42.2	84	43.9	88	4	63-114/23
88-74-4	2-Nitroaniline	50	50.1	100	54.2	108	8	68-125/21
99-09-2	3-Nitroaniline	50	47.3	95	51.4	103	8	69-117/23
100-01-6	4-Nitroaniline	50	45.7	91	50.0	100	9	67-122/19
98-95-3	Nitrobenzene	50	41.7	83	42.7	85	2	69-116/21
621-64-7	N-Nitroso-di-n-propylamine	50	39.9	80	41.5	83	4	67-120/20
86-30-6	N-Nitrosodiphenylamine	50	40.0	80	43.7	87	9	67-119/25
85-01-8	Phenanthrene	50	41.0	82	45.0	90	9	70-117/23
129-00-0	Pyrene	50	42.4	85	46.9	94	10	70-119/21
95-94-3	1,2,4,5-Tetrachlorobenzene	50	49.5	99	51.1	102	3	55-117/35
120-82-1	1,2,4-Trichlorobenzene	50	40.8	82	41.7	83	2	56-111/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	48%	48%	23-85%
4165-62-2	Phenol-d5	35%	37%	10-69%
118-79-6	2,4,6-Tribromophenol	89%	98%	48-138%
4165-60-0	Nitrobenzene-d5	84%	86%	51-128%
321-60-8	2-Fluorobiphenyl	88%	91%	55-122%
1718-51-0	Terphenyl-d14	75%	81%	43-138%

* = Outside of Control Limits.

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLE1601-MB1	LE336967.D	1	10/09/18	SV	n/a	n/a	GLE1601

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

LA48504-1A, LA48504-2A, LA48504-3A, LA48504-4A

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	30	ug/l	
	Aliphatics > C8-C10 (Unadj.)	ND	50	ug/l	
	Aromatics > C8-C10 (Unadj.)	ND	50	ug/l	

CAS No.	Surrogate Recoveries		Limits
615-59-8	2,5-Dibromotoluene	96% [a]	70-130%
615-59-8	2,5-Dibromotoluene	85% [b]	70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

Method Blank Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12506-MB	LK113380A.D	1	10/12/18	DF	10/11/18	OP12506	GLK731

The QC reported here applies to the following samples: **Method:** SW846 8011

LA48504-1A, LA48504-2A

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.020	ug/l	

CAS No.	Surrogate Recoveries		Limits
348-51-6	1-Chloro-2-fluorobenzene	101%	55-149%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLE1601-BS1	LE336965.D	1	10/09/18	SV	n/a	n/a	GLE1601
GLE1601-BSD1	LE336966.D	1	10/09/18	SV	n/a	n/a	GLE1601

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

LA48504-1A, LA48504-2A, LA48504-3A, LA48504-4A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	Aliphatics C6-C8 (Unadj.)	150	163	109	166	111	2	70-130/30
	Aliphatics > C8-C10 (Unadj.)	250	270	108	271	108	0	70-130/30
	Aromatics > C8-C10 (Unadj.)	250	255	102	256	102	0	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
615-59-8	2,5-Dibromotoluene	97% [a]	101% [a]	70-130%
615-59-8	2,5-Dibromotoluene	89% [b]	92% [b]	70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12506-BS	LK113399.D	1	10/13/18	DF	10/11/18	OP12506	GLK731
OP12506-BSD	LK113382.D	1	10/12/18	DF	10/11/18	OP12506	GLK731

The QC reported here applies to the following samples: **Method:** SW846 8011

LA48504-1A, LA48504-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	0.251	0.34	135	0.29	115	16	60-148/18

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
348-51-6	1-Chloro-2-fluorobenzene	115%	103%	55-149%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA48481-10MS	LE336981.D	5	10/10/18	SV	n/a	n/a	GLE1601
LA48481-10MSD	LE336982.D	5	10/10/18	SV	n/a	n/a	GLE1601
LA48481-10	LE336968.D	1	10/09/18	SV	n/a	n/a	GLE1601

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

LA48504-1A, LA48504-2A, LA48504-3A, LA48504-4A

CAS No.	Compound	LA48481-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	Aliphatics C6-C8 (Unadj.)	ND		750	855	114	750	831	111	3	70-130/50
	Aliphatics > C8-C10 (Unadj.)	15.7		1250	1390	110	1250	1360	108	2	70-130/50
	Aromatics > C8-C10 (Unadj.)	13.0		1250	1370	109	1250	1350	107	1	70-130/50

CAS No.	Surrogate Recoveries	MS	MSD	LA48481-10	Limits
615-59-8	2,5-Dibromotoluene	110% [a]	110% [a]	96% [a]	70-130%
615-59-8	2,5-Dibromotoluene	102% [b]	102% [b]	84% [b]	70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

* = Outside of Control Limits.

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12481-MB	X0005342.D	1	10/11/18	JT	10/10/18	OP12481	GLB1635

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA48504-1A, LA48504-2A

CAS No.	Compound	Result	RL	Units	Q
	Aromatics > C10-C12 (Unadj.)	ND	140	ug/l	
	Aromatics > C12-C16 (Unadj.)	ND	140	ug/l	
	Aromatics > C16-C21 (Unadj.)	130	140	ug/l	J
	Aromatics > C21-C35 (Unadj.)	ND	140	ug/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	80%	40-140%
321-60-8	2-Fluorobiphenyl	76%	40-140%

Method Blank Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12481-MB	Y0005342.D	1	10/11/18	JT	10/10/18	OP12481	GLB1636

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA48504-1A, LA48504-2A

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND	140	ug/l	
	Aliphatics > C12-C16 (Unadj.)	ND	140	ug/l	
	Aliphatics > C16-C35 (Unadj.)	ND	140	ug/l	

CAS No.	Surrogate Recoveries		Limits
3386-33-2	1-Chlorooctadecane	83%	40-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12481-BS	X0005343.D	1	10/11/18	JT	10/10/18	OP12481	GLB1635
OP12481-BSD	X0005344.D	1	10/12/18	JT	10/10/18	OP12481	GLB1635

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA48504-1A, LA48504-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	Aromatics > C10-C12 (Unadj.)	470	357	76	348	74	3	40-140/30
	Aromatics > C12-C16 (Unadj.)	1410	1090	77	1060	75	3	40-140/30
	Aromatics > C16-C21 (Unadj.)	2350	2010	86	1970	84	2	40-140/30
	Aromatics > C21-C35 (Unadj.)	3760	3410	91	3310	88	3	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	81%	80%	40-140%
321-60-8	2-Fluorobiphenyl	74%	73%	40-140%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA48504
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12481-BS	Y0005343.D	1	10/11/18	JT	10/10/18	OP12481	GLB1636
OP12481-BSD	Y0005344.D	1	10/12/18	JT	10/10/18	OP12481	GLB1636

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA48504-1A, LA48504-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	Aliphatics > C10-C12 (Unadj.)	470	278	59	268	57	4	40-140/30
	Aliphatics > C12-C16 (Unadj.)	940	564	60	556	59	1	40-140/30
	Aliphatics > C16-C35 (Unadj.)	4230	2560	61	2720	64	6	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
3386-33-2	1-Chlorooctadecane	67%	72%	40-140%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12962 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.06	.081	-0.0014	<0.20

Associated samples MP12962: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12962
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/10/18

Metal	LA48481-8F Original	MS	Spikelot HGSPIKE1	% Rec	QC Limits
Mercury	3.9	8.6	5	94.0	75-125

Associated samples MP12962: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12962 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	LA48481-8F Original	MSD	Spikelot HGSPIKE1	% Rec	MSD RPD	QC Limit
Mercury	3.9	8.6	5	94.0	0.0	20

Associated samples MP12962: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12962
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/10/18

Metal	BSP Result	Spikelot HGSPIKE1	% Rec	QC Limits
Mercury	4.9	5	98.0	80-120

Associated samples MP12962: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12962 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	LA48481-8F Original	SDL 1:5	%DIF	QC Limits
Mercury	3.86	4.08	5.9	0-

Associated samples MP12962: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 10/10/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	6.9	9.3	-2.1	<100
Antimony	1.0	.043	.34		
Arsenic	1.0	.062	.26	0.23	<1.0
Barium	1.0	.033	.46	0.14	<1.0
Beryllium	1.0	.0077	.28		
Boron	20	1.3	2.9		
Cadmium	0.50	.011	.12	0.11	<0.50
Calcium	100	5.7	20	7.6	<100
Cerium	1.0	.0041	.16		
Chromium	1.0	.11	.15	-0.19	<1.0
Cobalt	1.0	.012	.14		
Copper	1.0	.91	.74		
Iron	100	48	16	0.99	<100
Lanthanum	1.0	.0038	.41		
Lithium	2.0	.1	.61		
Lead	1.0	.0081	.13	-0.096	<1.0
Magnesium	100	1.6	11	13.8	<100
Manganese	2.0	.48	.53	-0.074	<2.0
Molybdenum	1.0	.048	.89		
Nickel	1.0	.037	.2		
Potassium	100	3.4	7.6	-8.5	<100
Selenium	5.0	.38	3.1	0.16	<5.0
Silver	1.0	.0047	.13	-0.053	<1.0
Silicon	500	6.6	130		
Sodium	100	24	9.9	35.7	<100
Strontium	2.0	.12	.27	0.14	<2.0
Thallium	1.0	.021	.86		
Tin	2.0	.034	.19		
Titanium	1.0	.15	.77		
Uranium	1.0	.0048	.17		
Vanadium	1.0	.027	.1		
Zinc	5.0	1.5	1.1	-0.32	<5.0

Associated samples MP12971: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	RL	IDL	MDL	MB raw	final

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 10/10/18

Metal	LA48504-1F Original	MS	Spikelot MPICPMS6	% Rec	QC Limits
Aluminum	127000	141000	5100	274.5(a)	75-125
Antimony	anr				
Arsenic	27.1	135	100	107.9	75-125
Barium	2150	2500	100	350.0(a)	75-125
Beryllium	anr				
Boron					
Cadmium	3.4	117	100	113.6	75-125
Calcium	32100	41100	5000	180.0(a)	75-125
Cerium					
Chromium	187	276	100	89.0	75-125
Cobalt					
Copper					
Iron	104000	114000	5000	200.0(a)	75-125
Lanthanum					
Lithium					
Lead	116	250	100	134.0N(b	75-125
Magnesium	36500	43400	5000	138.0(a)	75-125
Manganese	1460	1630	100	170.0(a)	75-125
Molybdenum					
Nickel	anr				
Potassium	21300	28300	5000	140.0(a)	75-125
Selenium	27.9	551	500	104.6	75-125
Silver	0.26	103	100	102.7	75-125
Silicon					
Sodium	390000	365000	5000	-500.0(a	75-125
Strontium	1870	2080	100	210.0(a)	75-125
Thallium	anr				
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	496	561	100	65.0 (a)	75-125

Associated samples MP12971: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

	LA48504-1F	Spikelot	QC
Metal	Original MS	MPICPMS6 % Rec	Limits

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference or sample non-homogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	LA48504-1F Original	MSD	Spikelot MPICPMS6	% Rec	MSD RPD	QC Limit
Aluminum	127000	98800	5100	-552.9(a	35.2 (b)	20
Antimony	anr					
Arsenic	27.1	105	100	77.9	25.0 (b)	20
Barium	2150	1830	100	-320.0(a	30.9 (b)	20
Beryllium	anr					
Boron						
Cadmium	3.4	91.4	100	88.0	24.6 (b)	20
Calcium	32100	30400	5000	-34.0(a)	29.9 (b)	20
Cerium						
Chromium	187	229	100	42.0N(c)	18.6	20
Cobalt						
Copper						
Iron	104000	85400	5000	-372.0(a	28.7 (b)	20
Lanthanum						
Lithium						
Lead	116	184	100	68.0N(c)	30.4 (b)	20
Magnesium	36500	32800	5000	-74.0(a)	27.8 (b)	20
Manganese	1460	1240	100	-220.0(a	27.2 (b)	20
Molybdenum						
Nickel	anr					
Potassium	21300	21500	5000	4.0 (a)	27.3 (b)	20
Selenium	27.9	438	500	82.0	22.9 (b)	20
Silver	0.26	89.3	100	89.0	14.2	20
Silicon						
Sodium	390000	310000	5000	-1600.0a	16.3	20
Strontium	1870	1580	100	-290.0(a	27.3 (b)	20
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	496	471	100	-25.0(a)	17.4	20

Associated samples MP12971: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

	LA48504-1F	Spikelot	MSD	QC
Metal	Original MSD	MPICPMS6 % Rec	RPD	Limit

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Outside control limits due to matrix interference.
(c) Spike recovery indicates possible matrix interference or sample non-homogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 10/10/18

Metal	BSP Result	Spikelot MPICPMS6	% Rec	QC Limits
Aluminum	4880	5100	95.7	80-120
Antimony	anr			
Arsenic	84.6	100	84.6	80-120
Barium	95.0	100	95.0	80-120
Beryllium	anr			
Boron				
Cadmium	89.2	100	89.2	80-120
Calcium	4940	5000	98.8	80-120
Cerium				
Chromium	106	100	106.0	80-120
Cobalt				
Copper				
Iron	4670	5000	93.4	80-120
Lanthanum				
Lithium				
Lead	91.6	100	91.6	80-120
Magnesium	4540	5000	90.8	80-120
Manganese	93.3	100	93.3	80-120
Molybdenum				
Nickel	anr			
Potassium	4880	5000	97.6	80-120
Selenium	406	500	81.2	80-120
Silver	101	100	101.0	80-120
Silicon				
Sodium	4500	5000	90.0	80-120
Strontium	93.1	100	93.1	80-120
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	95.4	100	95.4	80-120

Associated samples MP12971: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	BSP Result	Spikelot MPICPMS6 % Rec	QC Limits

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

Metal	LA48504-1F Original	SDL 10:50%DIF		QC Limits
Aluminum	127000	84200	33.7*(a)	0-10
Antimony	anr			
Arsenic	27.1	32.3	19.3 (b)	0-10
Barium	2150	1390	35.4*(a)	0-10
Beryllium	anr			
Boron				
Cadmium	3.39	7.29	114.7(b)	0-10
Calcium	32100	21900	31.9*(a)	0-10
Cerium				
Chromium	187	132	29.3*(a)	0-10
Cobalt				
Copper				
Iron	104000	80100	23.3*(a)	0-10
Lanthanum				
Lithium				
Lead	116	73.7	36.6*(a)	0-10
Magnesium	36500	27900	23.5*(a)	0-10
Manganese	1460	1100	24.7*(a)	0-10
Molybdenum				
Nickel	anr			
Potassium	21300	14300	32.8*(a)	0-10
Selenium	27.9	26.9	3.5	0-10
Silver	0.258	0.00	100.0(b)	0-10
Silicon				
Sodium	390000	293000	25.0*(a)	0-10
Strontium	1870	1410	24.5*(a)	0-10
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	496	350	29.4 (b)	0-10

Associated samples MP12971: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/10/18

	LA48504-1F	QC
Metal	Original SDL 10:50%DIF	Limits

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: LA48504
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 (RL) Indigo-Desoto Parish, LA

QC Batch ID: MP12971
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 10/10/18

Metal	Sample ml	Final ml	LA48504-1F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	0.2	10	27.05	.541	89.51	0.1	10	100	89.0	75-125
Barium	0.2	10	2154	43.08	134.7	0.1	10	100	91.6	75-125
Beryllium										
Boron										
Cadmium	0.2	10	3.393	.06786	88.6	0.1	10	100	88.5	75-125
Calcium	0.2	10	32140	642.8	5735	0.025	2000	5000	101.8	75-125
Cerium										
Chromium	0.2	10	186.5	3.73	103.7	0.1	10	100	100.0	75-125
Cobalt										
Copper										
Iron	0.2	10	104400	2088	6287	0.025	2000	5000	84.0	75-125
Lanthanum										
Lithium										
Lead	0.2	10	116.3	2.326	98.96	0.1	10	100	96.6	75-125
Magnesium	0.2	10	36460	729.2	5162	0.025	2000	5000	88.7	75-125
Manganese	0.2	10	1456	29.12	113.1	0.1	10	100	84.0	75-125
Molybdenum										
Nickel										
Potassium	0.2	10	21310	426.2	5484	0.025	2000	5000	101.2	75-125
Selenium	0.2	10	27.92	.5584	440.2	0.1	50	500	87.9	75-125
Silicon										
Strontium	0.2	10	1868	37.36	119.6	0.1	10	100	82.2	75-125
Thallium										
Tin										
Titanium										
Uranium										
Vanadium										

Associated samples MP12971: LA48504-1A, LA48504-1F, LA48504-2A, LA48504-2F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Misc. Forms

Custody Documents and Other Forms

(SGS Houston, TX)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

Cooler 1

TX

SGS

500 Ambassador Caffery Parkway, Scott, LA 70583
Phone: 800-304-5227 Fax: 337-237-7838

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: LA48504

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)
Company Name: SGS North America Inc.	Project Name: 8060.00 Indigo-Desoto Parish, LA	
Street Address: 500 Ambassador Caffery Parkway	Street:	Billing Information (if different from Report to)
City: Scott State: LA Zip: 70583	City: State:	Company Name:
Project Contact: ralph.frye@sgs.com E-mail:	Project #:	Street Address:
Phone #: 800-304-5227 Fax #:	Client Purchase Order #:	City: State: Zip:
Sampler(s) Name(s): KC/WP Phone:	Project Manager:	Attention:

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	Na/OH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	BROIC9056,CHLIC9056,BROM,SIL,SO4IC9056,TDS,XCARBICALK	2-500mLpp	LAB USE ONLY
1A	MASON RELIEF WELL		10/8/18	11:00:00 AM	KC/WP	AQ										X		
2A	HANSON RELIEF WELL		10/8/18	2:00:00 PM	KC/WP	AQ										X		

CAGGING VERIFIED BY:

Turnaround Time (Business days) | Data Deliverable Information | Comments / Special Instructions

Approved By (SGS PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 10/19/2018

Emergency & Rush T/A data available VIA Lablink

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other
- [X] COMMB

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

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

1 Relinquished by Sampler:	Date Time: 10/9/18	Received By: 1	2 Relinquished By:	Date Time: 1200 10.9.18	Received By: 2
3 Relinquished by Sampler:	Date Time:	Received By: 3 10/9/18	4 Relinquished By: 10/9/18	Date Time: 2320	Received By: 4 2320 10-9-18
5 Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable: On Ice: Cooler Temp: 2.1

8.1

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LA48504: Chain of Custody
Page 1 of 3
SGS Houston, TX

SGS Sample Receipt Summary

Job Number: LA48504 **Client:** SGS **Project:** 8060.00 INDIGO

Date / Time Received: **Delivery Method:** **Airbill #'s:**

No. Coolers: 1 **Therm ID:** IR-3; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (2.1/2.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		

Quality Control Preservation	Y	or	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐		☐	☑	☐	☐
2. Trip Blank listed on COC:	☐		☐	☑		
3. Samples preserved properly:	☑		☐			
4. VOCs headspace free:	☐		☐	☑		

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

8.1

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LA48504: Chain of Custody
Page 2 of 3

Sample Receipt Log

Job #: LA48504 **Date / Time Received:** 10/9/2018 11:20:00 PM **Initials:** DS

Client: SGS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	LA48504-1	500ml	1	M3C	N/P	Note #2 - Preservative check not applicable.	IR-3	2.1	0	2.1
1	LA48504-2	500ml	1	M3C	N/P	Note #2 - Preservative check not applicable.	IR-3	2.1	0	2.1

General Chemistry

QC Data Summaries

(SGS Houston, TX)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA48504
Account: ALLA - SGS Scott, LA
Project: HETILAL: 8060.00 Indigo-Desoto Parish, LA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate	GN93497	5.0	2.0	mg/l				
Alkalinity, Carbonate	GN93498	5.0	0.0	mg/l				
Alkalinity, Total as CaCO3	GN93496	5.0	0.0	mg/l	100	102	102.0	90-100%
Bromide	GP49962/GN93540	0.50	0.0	mg/l	10	9.41	94.1	90-110%
Chloride	GP49962/GN93540	0.50	0.0	mg/l	10	9.44	94.4	90-110%
Silica, Dissolved	GN93601	0.070	0.0	mg/l	1.07	1.0	93.5	80-120%
Solids, Total Dissolved	GN93468	10	0.0	mg/l	500	484	96.8	88-110%
Specific Conductivity	GN93486	1.0	<1.0	umhos/cm				
Sulfate	GP49962/GN93540	0.50	0.0	mg/l	10	10.5	105.0	90-110%

Associated Samples:
Batch GN93468: LA48504-1A, LA48504-2A
Batch GN93486: LA48504-1A, LA48504-2A
Batch GN93496: LA48504-1A, LA48504-2A
Batch GN93497: LA48504-1A, LA48504-2A
Batch GN93498: LA48504-1A, LA48504-2A
Batch GN93601: LA48504-1A, LA48504-2A
Batch GP49962: LA48504-1A, LA48504-2A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA48504
Account: ALLA - SGS Scott, LA
Project: HETILAL: 8060.00 Indigo-Desoto Parish, LA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN93496	TD28634-1	mg/l	116	116	0.0	0-10%
Bromide	GP49962/GN93540	LA48618-1	mg/l	0.0	0.0	0.0	0-19%
Chloride	GP49962/GN93540	LA48618-1	mg/l	15.1	15.2	0.7	0-13%
Silica, Dissolved	GN93601	TD28302-1	mg/l	17.4	17.7	1.7	0-20%
Solids, Total Dissolved	GN93468	LA48555-1	mg/l	438	429	2.1	0-5%
Specific Conductivity	GN93486	LA48504-1A	umhos/cm	1600	1600	0.0	0-10%
Sulfate	GP49962/GN93540	LA48618-1	mg/l	13.0	13.6	4.5	0-20%

Associated Samples:
Batch GN93468: LA48504-1A, LA48504-2A
Batch GN93486: LA48504-1A, LA48504-2A
Batch GN93496: LA48504-1A, LA48504-2A
Batch GN93601: LA48504-1A, LA48504-2A
Batch GP49962: LA48504-1A, LA48504-2A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA48504
Account: ALLA - SGS Scott, LA
Project: HETILAL: 8060.00 Indigo-Desoto Parish, LA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN93496	TD28634-1	mg/l	116	25	138	88.0	75-117%
Bromide	GP49962/GN93540	LA48618-1	mg/l	0.0	10	8.5	85.0	80-120%
Chloride	GP49962/GN93540	LA48618-1	mg/l	15.1	10	25.2	101.0	80-120%
Silica, Dissolved	GN93601	TD28302-1	mg/l	17.4	5.35	21.5	76.6	75-125%
Sulfate	GP49962/GN93540	LA48618-1	mg/l	13.0	10	22.7	97.0	80-120%

Associated Samples:
Batch GN93496: LA48504-1A, LA48504-2A
Batch GN93601: LA48504-1A, LA48504-2A
Batch GP49962: LA48504-1A, LA48504-2A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits