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February 28, 2020

Eric Matzner
Golder Associates Inc.
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Work Order: **HS20020756**

Laboratory Results for: **Houston TX-Wood Preserving Works**

Dear Eric,

ALS Environmental received 1 sample(s) on Feb 18, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
Work Order: HS20020756

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20020756-01	WW-1620-IDW20200114-20200218	Water		18-Feb-2020 09:45	18-Feb-2020 17:40	<input type="checkbox"/>

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
Work Order: HS20020756

CASE NARRATIVE

GC Semivolatiles by Method TX1005

Batch ID: 150837

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

GCMS Volatiles by Method SW8260

Batch ID: R356689

Sample ID: CCV

- Chloroethane and Bromoform are exceeded %D limits on CCV. Samples are ND for these analytes.

Sample ID: HS20020683-02MS

- MS and MSD are for an unrelated sample

Sample ID: VLCSW-200220

- Chloroethane is exceeded %recovery limit Samples are for ND for this analyte.
-

Metals by Method SW7470

Batch ID: 150990

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

Metals by Method SW6020

Batch ID: 150863

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

WetChemistry by Method SW9040C

Batch ID: R356857

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

WetChemistry by Method SW1010

Batch ID: R357040

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

WetChemistry by Method SM4500 S2-F

Batch ID: R356835

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

WetChemistry by Method SW9014

Batch ID: 150938

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works
 Sample ID: WW-1620-IDW20200114-20200218
 Collection Date: 18-Feb-2020 09:45

ANALYTICAL REPORT
 WorkOrder:HS20020756
 Lab ID:HS20020756-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP			
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
1,1,2,2-Tetrachloroethane	< 0.00050		0.00050	0.0010	mg/L	1	20-Feb-2020 17:04
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
1,2-Dichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	20-Feb-2020 17:04
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
1,2-Dichloropropane	< 0.00050		0.00050	0.0010	mg/L	1	20-Feb-2020 17:04
1,3-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	20-Feb-2020 17:04
1,4-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	20-Feb-2020 17:04
2-Butanone	0.0016	J	0.00050	0.0020	mg/L	1	20-Feb-2020 17:04
2-Hexanone	< 0.0010		0.0010	0.0020	mg/L	1	20-Feb-2020 17:04
4-Methyl-2-pentanone	< 0.00070		0.00070	0.0020	mg/L	1	20-Feb-2020 17:04
Acetone	0.047		0.0020	0.0020	mg/L	1	20-Feb-2020 17:04
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Bromochloromethane	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Bromodichloromethane	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Bromoform	< 0.00040		0.00040	0.0010	mg/L	1	20-Feb-2020 17:04
Bromomethane	< 0.00040		0.00040	0.0010	mg/L	1	20-Feb-2020 17:04
Carbon disulfide	< 0.00060		0.00060	0.0020	mg/L	1	20-Feb-2020 17:04
Carbon tetrachloride	< 0.00050		0.00050	0.0010	mg/L	1	20-Feb-2020 17:04
Chlorobenzene	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
Chloroethane	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
Chloroform	0.0026		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Chloromethane	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
cis-1,3-Dichloropropene	< 0.00010		0.00010	0.0010	mg/L	1	20-Feb-2020 17:04
Dibromochloromethane	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	20-Feb-2020 17:04
Methylene chloride	< 0.0010		0.0010	0.0020	mg/L	1	20-Feb-2020 17:04
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
Styrene	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
trans-1,3-Dichloropropene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Vinyl acetate	< 0.00050		0.00050	0.0010	mg/L	1	20-Feb-2020 17:04

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works
 Sample ID: WW-1620-IDW20200114-20200218
 Collection Date: 18-Feb-2020 09:45

ANALYTICAL REPORT

WorkOrder:HS20020756
 Lab ID:HS20020756-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260					Analyst: AKP
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	20-Feb-2020 17:04
1,2-Dichloroethene, Total	< 0.00020		0.00020	0.0010	mg/L	1	20-Feb-2020 17:04
Surr: 1,2-Dichloroethane-d4	97.0			70-126	%REC	1	20-Feb-2020 17:04
Surr: 4-Bromofluorobenzene	102			81-113	%REC	1	20-Feb-2020 17:04
Surr: Dibromofluoromethane	100			77-123	%REC	1	20-Feb-2020 17:04
Surr: Toluene-d8	108			82-127	%REC	1	20-Feb-2020 17:04

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works
 Sample ID: WW-1620-IDW20200114-20200218
 Collection Date: 18-Feb-2020 09:45

ANALYTICAL REPORT
 WorkOrder:HS20020756
 Lab ID:HS20020756-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		Method:SW8270			Prep:SW3510 / 19-Feb-2020		Analyst: GEY
1,2,4-Trichlorobenzene	< 0.000030		0.000030	0.00020	mg/L	1	21-Feb-2020 21:04
2,4,5-Trichlorophenol	< 0.000057		0.000057	0.00020	mg/L	1	21-Feb-2020 21:04
2,4,6-Trichlorophenol	< 0.000048		0.000048	0.00020	mg/L	1	21-Feb-2020 21:04
2,4-Dichlorophenol	< 0.000043		0.000043	0.00020	mg/L	1	21-Feb-2020 21:04
2,4-Dimethylphenol	< 0.000040		0.000040	0.00020	mg/L	1	21-Feb-2020 21:04
2,4-Dinitrophenol	< 0.00010		0.00010	0.0010	mg/L	1	21-Feb-2020 21:04
2,4-Dinitrotoluene	< 0.000058		0.000058	0.00020	mg/L	1	21-Feb-2020 21:04
2,6-Dinitrotoluene	< 0.000042		0.000042	0.00020	mg/L	1	21-Feb-2020 21:04
2-Chloronaphthalene	< 0.000021		0.000021	0.00020	mg/L	1	21-Feb-2020 21:04
2-Chlorophenol	< 0.000036		0.000036	0.00020	mg/L	1	21-Feb-2020 21:04
2-Methylnaphthalene	0.0083		0.000019	0.00010	mg/L	1	21-Feb-2020 21:04
2-Methylphenol	< 0.000045		0.000045	0.00020	mg/L	1	21-Feb-2020 21:04
2-Nitroaniline	< 0.000041		0.000041	0.00020	mg/L	1	21-Feb-2020 21:04
2-Nitrophenol	< 0.000034		0.000034	0.00020	mg/L	1	21-Feb-2020 21:04
3&4-Methylphenol	< 0.000036		0.000036	0.00020	mg/L	1	21-Feb-2020 21:04
3,3'-Dichlorobenzidine	< 0.000044		0.000044	0.00020	mg/L	1	21-Feb-2020 21:04
3-Nitroaniline	< 0.000049		0.000049	0.00020	mg/L	1	21-Feb-2020 21:04
4,6-Dinitro-2-methylphenol	< 0.000020		0.000020	0.00020	mg/L	1	21-Feb-2020 21:04
4-Bromophenyl phenyl ether	< 0.000051		0.000051	0.00020	mg/L	1	21-Feb-2020 21:04
4-Chloro-3-methylphenol	< 0.000032		0.000032	0.00020	mg/L	1	21-Feb-2020 21:04
4-Chloroaniline	< 0.000039		0.000039	0.00020	mg/L	1	21-Feb-2020 21:04
4-Chlorophenyl phenyl ether	< 0.000044		0.000044	0.00020	mg/L	1	21-Feb-2020 21:04
4-Nitroaniline	< 0.000035		0.000035	0.00020	mg/L	1	21-Feb-2020 21:04
4-Nitrophenol	< 0.000047		0.000047	0.0010	mg/L	1	21-Feb-2020 21:04
Acenaphthene	0.0082		0.000027	0.00010	mg/L	1	21-Feb-2020 21:04
Acenaphthylene	0.00016		0.000015	0.00010	mg/L	1	21-Feb-2020 21:04
Anthracene	0.0011		0.000014	0.00010	mg/L	1	21-Feb-2020 21:04
Benz(a)anthracene	< 0.000050		0.000050	0.00010	mg/L	1	21-Feb-2020 21:04
Benzidine	< 0.00010		0.00010	0.00020	mg/L	1	21-Feb-2020 21:04
Benzo(a)pyrene	< 0.000020		0.000020	0.00010	mg/L	1	21-Feb-2020 21:04
Benzo(b)fluoranthene	< 0.000023		0.000023	0.00010	mg/L	1	21-Feb-2020 21:04
Benzo(g,h,i)perylene	< 0.000014		0.000014	0.00010	mg/L	1	21-Feb-2020 21:04
Benzo(k)fluoranthene	< 0.000019		0.000019	0.00010	mg/L	1	21-Feb-2020 21:04
Benzyl alcohol	< 0.000054		0.000054	0.00020	mg/L	1	21-Feb-2020 21:04
Bis(2-chloroethoxy)methane	< 0.000030		0.000030	0.00020	mg/L	1	21-Feb-2020 21:04
Bis(2-chloroethyl)ether	< 0.000026		0.000026	0.00020	mg/L	1	21-Feb-2020 21:04
Bis(2-chloroisopropyl)ether	< 0.000070		0.000070	0.00020	mg/L	1	21-Feb-2020 21:04
Bis(2-ethylhexyl)phthalate	0.000098	J	0.000037	0.00020	mg/L	1	21-Feb-2020 21:04
Butyl benzyl phthalate	< 0.000019		0.000019	0.00020	mg/L	1	21-Feb-2020 21:04

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works
 Sample ID: WW-1620-IDW20200114-20200218
 Collection Date: 18-Feb-2020 09:45

ANALYTICAL REPORT

WorkOrder:HS20020756
 Lab ID:HS20020756-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		Method:SW8270		Prep:SW3510 / 19-Feb-2020		Analyst: GEY	
Carbazole	0.0031		0.000025	0.00020	mg/L	1	21-Feb-2020 21:04
Chrysene	0.000031	J	0.000021	0.00010	mg/L	1	21-Feb-2020 21:04
Di-n-butyl phthalate	< 0.000020		0.000020	0.00020	mg/L	1	21-Feb-2020 21:04
Di-n-octyl phthalate	< 0.000020		0.000020	0.00020	mg/L	1	21-Feb-2020 21:04
Dibenz(a,h)anthracene	< 0.000024		0.000024	0.00010	mg/L	1	21-Feb-2020 21:04
Dibenzofuran	0.0064		0.000020	0.00010	mg/L	1	21-Feb-2020 21:04
Diethyl phthalate	< 0.000030		0.000030	0.00020	mg/L	1	21-Feb-2020 21:04
Dimethyl phthalate	< 0.000041		0.000041	0.00020	mg/L	1	21-Feb-2020 21:04
Fluoranthene	0.00039		0.000010	0.00010	mg/L	1	21-Feb-2020 21:04
Fluorene	0.0088		0.000030	0.00010	mg/L	1	21-Feb-2020 21:04
Hexachlorobenzene	< 0.000044		0.000044	0.00020	mg/L	1	21-Feb-2020 21:04
Hexachlorobutadiene	< 0.000030		0.000030	0.00020	mg/L	1	21-Feb-2020 21:04
Hexachlorocyclopentadiene	< 0.000030		0.000030	0.00020	mg/L	1	21-Feb-2020 21:04
Hexachloroethane	< 0.000059		0.000059	0.00020	mg/L	1	21-Feb-2020 21:04
Indeno(1,2,3-cd)pyrene	< 0.000022		0.000022	0.00010	mg/L	1	21-Feb-2020 21:04
Isophorone	< 0.000025		0.000025	0.00020	mg/L	1	21-Feb-2020 21:04
N-Nitrosodi-n-propylamine	< 0.000032		0.000032	0.00020	mg/L	1	21-Feb-2020 21:04
N-Nitrosodimethylamine	< 0.00010		0.00010	0.00020	mg/L	1	21-Feb-2020 21:04
N-Nitrosodiphenylamine	< 0.000025		0.000025	0.00020	mg/L	1	21-Feb-2020 21:04
Naphthalene	0.069		0.000020	0.0010	mg/L	10	21-Feb-2020 13:53
Nitrobenzene	< 0.000024		0.000024	0.00020	mg/L	1	21-Feb-2020 21:04
Pentachlorophenol	< 0.000079		0.000079	0.00020	mg/L	1	21-Feb-2020 21:04
Phenanthrene	0.0079		0.000021	0.00010	mg/L	1	21-Feb-2020 21:04
Phenol	< 0.000035		0.000035	0.00020	mg/L	1	21-Feb-2020 21:04
Pyrene	0.00022		0.000019	0.00010	mg/L	1	21-Feb-2020 21:04
Pyridine	< 0.000030		0.000030	0.0010	mg/L	1	21-Feb-2020 21:04
Surr: 2,4,6-Tribromophenol	0	JS		34-129	%REC	1	21-Feb-2020 21:04
Surr: 2,4,6-Tribromophenol	0	JS		34-129	%REC	10	21-Feb-2020 13:53
Surr: 2-Fluorobiphenyl	65.6			40-125	%REC	10	21-Feb-2020 13:53
Surr: 2-Fluorobiphenyl	57.4			40-125	%REC	1	21-Feb-2020 21:04
Surr: 2-Fluorophenol	0	JS		20-120	%REC	1	21-Feb-2020 21:04
Surr: 2-Fluorophenol	21.7	J		20-120	%REC	10	21-Feb-2020 13:53
Surr: 4-Terphenyl-d14	89.0			40-135	%REC	10	21-Feb-2020 13:53
Surr: 4-Terphenyl-d14	75.2			40-135	%REC	1	21-Feb-2020 21:04
Surr: Nitrobenzene-d5	49.5			41-120	%REC	1	21-Feb-2020 21:04
Surr: Nitrobenzene-d5	62.8			41-120	%REC	10	21-Feb-2020 13:53
Surr: Phenol-d6	71.7			20-120	%REC	10	21-Feb-2020 13:53
Surr: Phenol-d6	21.2			20-120	%REC	1	21-Feb-2020 21:04

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works
 Sample ID: WW-1620-IDW20200114-20200218
 Collection Date: 18-Feb-2020 09:45

ANALYTICAL REPORT
 WorkOrder:HS20020756
 Lab ID:HS20020756-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 20-Feb-2020		Analyst: PVL	
nC6 to nC12	0.36	J	0.19	0.48	mg/L	1	22-Feb-2020 13:01
>nC12 to nC28	1.5		0.19	0.48	mg/L	1	22-Feb-2020 13:01
>nC28 to nC35	< 0.19		0.19	0.48	mg/L	1	22-Feb-2020 13:01
Total Petroleum Hydrocarbon	1.86		0.19	0.48	mg/L	1	22-Feb-2020 13:01
Surr: 2-Fluorobiphenyl	100			70-130	%REC	1	22-Feb-2020 13:01
Surr: Trifluoromethyl benzene	105			70-130	%REC	1	22-Feb-2020 13:01
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-Feb-2020		Analyst: JHD	
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	24-Feb-2020 18:15
Arsenic	0.000938	J	0.000400	0.00200	mg/L	1	24-Feb-2020 18:15
Barium	0.0828		0.00190	0.00400	mg/L	1	24-Feb-2020 18:15
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	24-Feb-2020 18:15
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	24-Feb-2020 18:15
Chromium	0.592		0.000400	0.00400	mg/L	1	24-Feb-2020 18:15
Lead	< 0.000600		0.000600	0.00200	mg/L	1	24-Feb-2020 18:15
Nickel	0.00226		0.000600	0.00200	mg/L	1	24-Feb-2020 18:15
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	24-Feb-2020 18:15
Silver	< 0.000200		0.000200	0.00200	mg/L	1	24-Feb-2020 18:15
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 25-Feb-2020		Analyst: FO	
Mercury	0.000179	J	0.0000300	0.000200	mg/L	1	25-Feb-2020 14:33
SULFIDE BY SM4500 S2-F		Method:SM4500 S2-F				Analyst: RG	
Sulfide	< 1.00		1.00	1.00	mg/L	1	24-Feb-2020 11:45
FLASH POINT BY PENSKEY-MARTENS SW1010A		Method:SW1010				Analyst: TH	
Ignitability	> 212		70.0	70.0	°F	1	26-Feb-2020 13:00
CYANIDE - SW9014		Method:SW9014		Prep:SW9010C / 24-Feb-2020		Analyst: MZD	
Cyanide	< 0.00200		0.00200	0.00500	mg/L	1	24-Feb-2020 14:04
PH BY SW9040C		Method:SW9040C				Analyst: MWG	
pH	12.6	H	0.100	0.100	pH Units	1	24-Feb-2020 15:27
Temp Deg C @pH	20.6	H	0	0	DEG C	1	24-Feb-2020 15:27

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

Weight / Prep Log

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

Batch ID: 150755 **Start Date:** 19 Feb 2020 07:00 **End Date:** 19 Feb 2020 14:00
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_LOW

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20020756-01	1	1000 (mL)	1 (mL)	0.001

Batch ID: 150837 **Start Date:** 20 Feb 2020 13:00 **End Date:** 20 Feb 2020 15:00
Method: TX 1005 PREP **Prep Code:** TX 1005_W PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20020756-01	1	31.21 (g)	3 (mL)	0.09612

Batch ID: 150863 **Start Date:** 21 Feb 2020 09:00 **End Date:** 21 Feb 2020 13:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20020756-01		10 (mL)	10 (mL)	1

Batch ID: 150938 **Start Date:** 24 Feb 2020 10:30 **End Date:** 24 Feb 2020 11:30
Method: CYANIDE PREP - SW9010C **Prep Code:** CN_TW_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20020756-01		50 (mL)	50 (mL)	1

Batch ID: 150990 **Start Date:** 25 Feb 2020 10:30 **End Date:** 25 Feb 2020 12:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20020756-01		10 (mL)	10 (mL)	1

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 150755 (0)		Test Name : LOW-LEVEL SEMIVOLATILES BY 8270D			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45		19 Feb 2020 07:00	21 Feb 2020 21:04	1
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45		19 Feb 2020 07:00	21 Feb 2020 13:53	10
Batch ID: 150837 (0)		Test Name : LOW-LEVEL TEXAS TPH BY TX1005			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45		20 Feb 2020 13:00	22 Feb 2020 13:01	1
Batch ID: 150863 (0)		Test Name : ICP-MS METALS BY SW6020A			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45		21 Feb 2020 13:00	24 Feb 2020 18:15	1
Batch ID: 150938 (0)		Test Name : CYANIDE - SW9014			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45		24 Feb 2020 10:30	24 Feb 2020 14:04	1
Batch ID: 150990 (0)		Test Name : MERCURY BY SW7470A			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45		25 Feb 2020 10:30	25 Feb 2020 14:33	1
Batch ID: R356689 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45			20 Feb 2020 17:04	1
Batch ID: R356835 (0)		Test Name : SULFIDE BY SM4500 S2-F			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45			24 Feb 2020 11:45	1
Batch ID: R356857 (0)		Test Name : PH BY SW9040C			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45			24 Feb 2020 15:27	1
Batch ID: R357040 (0)		Test Name : FLASH POINT BY PENSKY-MARTENS SW1010A			Matrix: Water	
HS20020756-01	WW-1620-IDW20200114-20200218	18 Feb 2020 09:45			26 Feb 2020 13:00	1

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150837 (0)		Instrument: FID-13		Method: LOW-LEVEL TEXAS TPH BY TX1005						
MBLK	Sample ID: MBLK-150837	Units: mg/L			Analysis Date: 22-Feb-2020 03:23					
Client ID:	Run ID: FID-13_356841	SeqNo: 5484129		PrepDate: 20-Feb-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

nC6 to nC12	< 0.20	0.50								
>nC12 to nC28	< 0.20	0.50								
>nC28 to nC35	< 0.20	0.50								
Total Petroleum Hydrocarbon	< 0.20	0.50								
Surr: 2-Fluorobiphenyl	2.388	0	2.5	0	95.5	70 - 130				
Surr: Trifluoromethyl benzene	2.47	0	2.5	0	98.8	70 - 130				

LCS	Sample ID: LCS-150837	Units: mg/L			Analysis Date: 22-Feb-2020 03:51					
Client ID:	Run ID: FID-13_356841	SeqNo: 5484130		PrepDate: 20-Feb-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	26.32	0.50	25	0	105	75 - 125				
>nC12 to nC28	29.3	0.50	25	0	117	75 - 125				
Surr: 2-Fluorobiphenyl	2.828	0	2.5	0	113	70 - 130				
Surr: Trifluoromethyl benzene	2.704	0	2.5	0	108	70 - 130				

LCSD	Sample ID: LCSD-150837	Units: mg/L			Analysis Date: 22-Feb-2020 04:20					
Client ID:	Run ID: FID-13_356841	SeqNo: 5484131		PrepDate: 20-Feb-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	25.15	0.50	25	0	101	75 - 125	26.32	4.57	20	
>nC12 to nC28	27.22	0.50	25	0	109	75 - 125	29.3	7.37	20	
Surr: 2-Fluorobiphenyl	2.603	0	2.5	0	104	70 - 130	2.828	8.29	20	
Surr: Trifluoromethyl benzene	2.559	0	2.5	0	102	70 - 130	2.704	5.49	20	

MS	Sample ID: HS20020654-06MS	Units: mg/L			Analysis Date: 22-Feb-2020 05:18					
Client ID:	Run ID: FID-13_356841	SeqNo: 5484133		PrepDate: 20-Feb-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	22.29	0.49	24.59	0	90.6	75 - 125				
>nC12 to nC28	27.26	0.49	24.59	0	111	75 - 125				
Surr: 2-Fluorobiphenyl	2.601	0	2.459	0	106	70 - 130				
Surr: Trifluoromethyl benzene	2.459	0	2.459	0	100	70 - 130				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150837 (0)		Instrument: FID-13		Method: LOW-LEVEL TEXAS TPH BY TX1005					
MSD	Sample ID: HS20020654-06MSD	Units: mg/L			Analysis Date: 22-Feb-2020 05:47				
Client ID:	Run ID: FID-13_356841	SeqNo: 5484134		PrepDate: 20-Feb-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

nC6 to nC12	21.7	0.49	24.26	0	89.4	75 - 125	22.29	2.67	20
>nC12 to nC28	26.12	0.49	24.26	0	108	75 - 125	27.26	4.28	20
Surr: 2-Fluorobiphenyl	2.609	0	2.426	0	108	70 - 130	2.601	0.309	20
Surr: Trifluoromethyl benzene	2.483	0	2.426	0	102	70 - 130	2.459	0.96	20

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150863 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

MBLK		Sample ID: MBLK-150863		Units: mg/L		Analysis Date: 24-Feb-2020 15:27			
Client ID:		Run ID: ICPMS05_356831		SeqNo: 5484910		PrepDate: 21-Feb-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Antimony	< 0.000400	0.00200							
Arsenic	< 0.000400	0.00200							
Barium	< 0.00190	0.00400							
Beryllium	< 0.000200	0.00200							
Cadmium	< 0.000200	0.00200							
Chromium	< 0.000400	0.00400							
Lead	< 0.000600	0.00200							
Nickel	< 0.000600	0.00200							
Selenium	< 0.00110	0.00200							
Silver	< 0.000200	0.00200							

LCS		Sample ID: LCS-150863		Units: mg/L		Analysis Date: 24-Feb-2020 15:29			
Client ID:		Run ID: ICPMS05_356831		SeqNo: 5484911		PrepDate: 21-Feb-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Antimony	0.04916	0.00200	0.05	0	98.3	80 - 120			
Arsenic	0.0501	0.00200	0.05	0	100	80 - 120			
Barium	0.04849	0.00400	0.05	0	97.0	80 - 120			
Beryllium	0.04539	0.00200	0.05	0	90.8	80 - 120			
Cadmium	0.04883	0.00200	0.05	0	97.7	80 - 120			
Chromium	0.04966	0.00400	0.05	0	99.3	80 - 120			
Lead	0.04643	0.00200	0.05	0	92.9	80 - 120			
Nickel	0.0509	0.00200	0.05	0	102	80 - 120			
Selenium	0.04858	0.00200	0.05	0	97.2	80 - 120			
Silver	0.04786	0.00200	0.05	0	95.7	80 - 120			

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150863 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

MS		Sample ID: HS20020718-01MS			Units: mg/L		Analysis Date: 24-Feb-2020 17:40			
Client ID:		Run ID: ICPMS05_356831			SeqNo: 5484924		PrepDate: 21-Feb-2020		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05414	0.0100	0.05	0.005247	97.8	80 - 120				
Arsenic	0.0605	0.0100	0.05	0.007084	107	80 - 120				
Barium	0.1038	0.0200	0.05	0.05069	106	80 - 120				
Beryllium	0.04769	0.0100	0.05	0.000244	94.9	80 - 120				
Cadmium	0.04885	0.0100	0.05	0.000181	97.3	80 - 120				
Chromium	0.05138	0.0200	0.05	0.001243	100	80 - 120				
Lead	0.04933	0.0100	0.05	0.000397	97.9	80 - 120				
Nickel	0.05694	0.0100	0.05	0.006253	101	80 - 120				
Selenium	0.05609	0.0100	0.05	0.003197	106	80 - 120				
Silver	0.04676	0.0100	0.05	0.000168	93.2	80 - 120				

MSD		Sample ID: HS20020718-01MSD			Units: mg/L		Analysis Date: 24-Feb-2020 17:43			
Client ID:		Run ID: ICPMS05_356831			SeqNo: 5484925		PrepDate: 21-Feb-2020		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05388	0.0100	0.05	0.005247	97.3	80 - 120	0.05414	0.487	20	
Arsenic	0.0609	0.0100	0.05	0.007084	108	80 - 120	0.0605	0.651	20	
Barium	0.1063	0.0200	0.05	0.05069	111	80 - 120	0.1038	2.4	20	
Beryllium	0.04842	0.0100	0.05	0.000244	96.4	80 - 120	0.04769	1.52	20	
Cadmium	0.05271	0.0100	0.05	0.000181	105	80 - 120	0.04885	7.61	20	
Chromium	0.05352	0.0200	0.05	0.001243	105	80 - 120	0.05138	4.07	20	
Lead	0.05352	0.0100	0.05	0.000397	106	80 - 120	0.04933	8.14	20	
Nickel	0.05842	0.0100	0.05	0.006253	104	80 - 120	0.05694	2.57	20	
Selenium	0.05431	0.0100	0.05	0.003197	102	80 - 120	0.05609	3.24	20	
Silver	0.04756	0.0100	0.05	0.000168	94.8	80 - 120	0.04676	1.7	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150863 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

PDS		Sample ID: HS20020718-01PDS			Units: mg/L		Analysis Date: 24-Feb-2020 17:45			
Client ID:		Run ID: ICPMS05_356831			SeqNo: 5484926		PrepDate: 21-Feb-2020		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.4733	0.0100	0.5	0.005247	93.6	75 - 125				
Arsenic	0.5533	0.0100	0.5	0.007084	109	75 - 125				
Barium	0.5679	0.0200	0.5	0.05069	103	75 - 125				
Beryllium	0.4629	0.0100	0.5	0	92.6	75 - 125				
Cadmium	0.503	0.0100	0.5	0	101	75 - 125				
Chromium	0.523	0.0200	0.5	0	105	75 - 125				
Lead	0.5159	0.0100	0.5	0	103	75 - 125				
Nickel	0.5255	0.0100	0.5	0.006253	104	75 - 125				
Selenium	0.5418	0.0100	0.5	0	108	75 - 125				
Silver	0.4574	0.0100	0.5	0	91.5	75 - 125				

SD		Sample ID: HS20020718-01SD			Units: mg/L		Analysis Date: 24-Feb-2020 17:38			
Client ID:		Run ID: ICPMS05_356831			SeqNo: 5484923		PrepDate: 21-Feb-2020		DF: 25	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	RPD Limit	Qual
Antimony	0.0161	0.0500					0.005247	0	10	J
Arsenic	< 0.0100	0.0500					0.007084	0	10	
Barium	0.05149	0.100					0.05069	0	10	J
Beryllium	< 0.00500	0.0500					0.000244	0	10	
Cadmium	< 0.00500	0.0500					0.000181	0	10	
Chromium	< 0.0100	0.100					0.001243	0	10	
Lead	< 0.0150	0.0500					0.000397	0	10	
Nickel	< 0.0150	0.0500					0.006253	0	10	
Selenium	< 0.0275	0.0500					0.003197	0	10	
Silver	< 0.00500	0.0500					0.000168	0	10	

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150990 (0)	Instrument: HG03	Method: MERCURY BY SW7470A
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MBLK	Sample ID: MBLK-150990	Units: mg/L	Analysis Date: 25-Feb-2020 14:11							
Client ID:	Run ID: HG03_356943	SeqNo: 5486234	PrepDate: 25-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury < 0.0000300 0.000200

LCS	Sample ID: LCS-150990	Units: mg/L	Analysis Date: 25-Feb-2020 14:13							
Client ID:	Run ID: HG03_356943	SeqNo: 5486235	PrepDate: 25-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00525 0.000200 0.005 0 105 80 - 120

MS	Sample ID: HS20020813-05MS	Units: mg/L	Analysis Date: 25-Feb-2020 14:16							
Client ID:	Run ID: HG03_356943	SeqNo: 5486237	PrepDate: 25-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00522 0.000200 0.005 0.000061 103 75 - 125

MSD	Sample ID: HS20020813-05MSD	Units: mg/L	Analysis Date: 25-Feb-2020 14:18							
Client ID:	Run ID: HG03_356943	SeqNo: 5486238	PrepDate: 25-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.0052 0.000200 0.005 0.000061 103 75 - 125 0.00522 0.384 20

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
MBLK	Sample ID: MBLK-150755	Units: ug/L			Analysis Date: 20-Feb-2020 18:40					
Client ID:	Run ID: SV-7_356688	SeqNo: 5481281	PrepDate: 19-Feb-2020	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	< 0.030	0.20								
2,4,5-Trichlorophenol	< 0.057	0.20								
2,4,6-Trichlorophenol	< 0.048	0.20								
2,4-Dichlorophenol	< 0.043	0.20								
2,4-Dimethylphenol	< 0.040	0.20								
2,4-Dinitrophenol	< 0.10	1.0								
2,4-Dinitrotoluene	< 0.058	0.20								
2,6-Dinitrotoluene	< 0.042	0.20								
2-Chloronaphthalene	< 0.021	0.20								
2-Chlorophenol	< 0.036	0.20								
2-Methylnaphthalene	< 0.019	0.10								
2-Methylphenol	< 0.045	0.20								
2-Nitroaniline	< 0.041	0.20								
2-Nitrophenol	< 0.034	0.20								
3&4-Methylphenol	< 0.036	0.20								
3,3'-Dichlorobenzidine	< 0.044	0.20								
3-Nitroaniline	< 0.049	0.20								
4,6-Dinitro-2-methylphenol	< 0.020	0.20								
4-Bromophenyl phenyl ether	< 0.051	0.20								
4-Chloro-3-methylphenol	< 0.032	0.20								
4-Chloroaniline	< 0.039	0.20								
4-Chlorophenyl phenyl ether	< 0.044	0.20								
4-Nitroaniline	< 0.035	0.20								
4-Nitrophenol	< 0.047	1.0								
Acenaphthene	< 0.027	0.10								
Acenaphthylene	< 0.015	0.10								
Anthracene	< 0.014	0.10								
Benz(a)anthracene	< 0.050	0.10								
Benzidine	< 0.10	0.20								
Benzo(a)pyrene	< 0.020	0.10								
Benzo(b)fluoranthene	< 0.023	0.10								
Benzo(g,h,i)perylene	< 0.014	0.10								
Benzo(k)fluoranthene	< 0.019	0.10								
Benzyl alcohol	< 0.054	0.20								

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
MBLK	Sample ID: MBLK-150755	Units: ug/L			Analysis Date: 20-Feb-2020 18:40					
Client ID:	Run ID: SV-7_356688	SeqNo: 5481281	PrepDate: 19-Feb-2020	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bis(2-chloroethoxy)methane	< 0.030	0.20								
Bis(2-chloroethyl)ether	< 0.026	0.20								
Bis(2-chloroisopropyl)ether	< 0.070	0.20								
Bis(2-ethylhexyl)phthalate	< 0.037	0.20								
Butyl benzyl phthalate	< 0.019	0.20								
Carbazole	< 0.025	0.20								
Chrysene	< 0.021	0.10								
Dibenz(a,h)anthracene	< 0.024	0.10								
Dibenzofuran	< 0.020	0.10								
Diethyl phthalate	< 0.030	0.20								
Dimethyl phthalate	< 0.041	0.20								
Di-n-butyl phthalate	< 0.020	0.20								
Di-n-octyl phthalate	< 0.020	0.20								
Fluoranthene	< 0.010	0.10								
Fluorene	< 0.030	0.10								
Hexachlorobenzene	< 0.044	0.20								
Hexachlorobutadiene	< 0.030	0.20								
Hexachlorocyclopentadiene	< 0.030	0.20								
Hexachloroethane	< 0.059	0.20								
Indeno(1,2,3-cd)pyrene	< 0.022	0.10								
Isophorone	< 0.025	0.20								
Naphthalene	< 0.020	0.10								
Nitrobenzene	< 0.024	0.20								
N-Nitrosodimethylamine	< 0.10	0.20								
N-Nitrosodi-n-propylamine	< 0.032	0.20								
N-Nitrosodiphenylamine	< 0.025	0.20								
Pentachlorophenol	< 0.079	0.20								
Phenanthrene	< 0.021	0.10								
Phenol	< 0.035	0.20								
Pyrene	< 0.019	0.10								
Pyridine	< 0.030	1.0								
Surr: 2,4,6-Tribromophenol	5.691	0.20	5	0	114	34 - 129				
Surr: 2-Fluorobiphenyl	4.061	0.20	5	0	81.2	40 - 125				
Surr: 2-Fluorophenol	3.706	0.20	5	0	74.1	20 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
MBLK	Sample ID: MBLK-150755	Units: ug/L			Analysis Date: 20-Feb-2020 18:40					
Client ID:	Run ID: SV-7_356688	SeqNo: 5481281		PrepDate: 19-Feb-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
<i>Surr: 4-Terphenyl-d14</i>	6.389	0.20	5	0	128	40 - 135				
<i>Surr: Nitrobenzene-d5</i>	3.877	0.20	5	0	77.5	41 - 120				
<i>Surr: Phenol-d6</i>	4.07	0.20	5	0	81.4	20 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCS	Sample ID: LCS-150755	Units: ug/L			Analysis Date: 20-Feb-2020 19:00					
Client ID:	Run ID: SV-7_356688	SeqNo: 5481282	PrepDate: 19-Feb-2020	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	4.149	0.20	5	0	83.0	45 - 120				
2,4,5-Trichlorophenol	4.856	0.20	5	0	97.1	46 - 120				
2,4,6-Trichlorophenol	4.743	0.20	5	0	94.9	42 - 120				
2,4-Dichlorophenol	4.332	0.20	5	0	86.6	49 - 120				
2,4-Dimethylphenol	4.19	0.20	5	0	83.8	35 - 120				
2,4-Dinitrophenol	4.097	1.0	5	0	81.9	15 - 120				
2,4-Dinitrotoluene	4.675	0.20	5	0	93.5	50 - 122				
2,6-Dinitrotoluene	4.608	0.20	5	0	92.2	50 - 120				
2-Chloronaphthalene	4.354	0.20	5	0	87.1	50 - 120				
2-Chlorophenol	3.954	0.20	5	0	79.1	40 - 120				
2-Methylnaphthalene	4.148	0.10	5	0	83.0	50 - 120				
2-Methylphenol	4.348	0.20	5	0	87.0	45 - 120				
2-Nitroaniline	6.022	0.20	5	0	120	28 - 139				
2-Nitrophenol	3.846	0.20	5	0	76.9	40 - 120				
3&4-Methylphenol	4.447	0.20	5	0	88.9	35 - 120				
3,3'-Dichlorobenzidine	5.274	0.20	5	0	105	15 - 120				
3-Nitroaniline	5.73	0.20	5	0	115	30 - 120				
4,6-Dinitro-2-methylphenol	4.759	0.20	5	0	95.2	25 - 121				
4-Bromophenyl phenyl ether	4.553	0.20	5	0	91.1	45 - 120				
4-Chloro-3-methylphenol	4.731	0.20	5	0	94.6	47 - 120				
4-Chloroaniline	3.793	0.20	5	0	75.9	20 - 120				
4-Chlorophenyl phenyl ether	4.805	0.20	5	0	96.1	50 - 120				
4-Nitroaniline	5.933	0.20	5	0	119	30 - 133				
4-Nitrophenol	4.816	1.0	5	0	96.3	30 - 130				
Acenaphthene	4.405	0.10	5	0	88.1	45 - 120				
Acenaphthylene	4.331	0.10	5	0	86.6	47 - 120				
Anthracene	4.666	0.10	5	0	93.3	45 - 120				
Benz(a)anthracene	5.05	0.10	5	0	101	40 - 120				
Benzidine	0.7825	0.20	5	0	15.6	10 - 120				
Benzo(a)pyrene	4.984	0.10	5	0	99.7	45 - 120				
Benzo(b)fluoranthene	5.625	0.10	5	0	113	50 - 120				
Benzo(g,h,i)perylene	4.984	0.10	5	0	99.7	42 - 127				
Benzo(k)fluoranthene	4.893	0.10	5	0	97.9	45 - 127				
Benzyl alcohol	4.505	0.20	5	0	90.1	35 - 122				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCS	Sample ID: LCS-150755	Units: ug/L			Analysis Date: 20-Feb-2020 19:00					
Client ID:	Run ID: SV-7_356688	SeqNo: 5481282	PrepDate: 19-Feb-2020	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bis(2-chloroethoxy)methane	4.279	0.20	5	0	85.6	45 - 120				
Bis(2-chloroethyl)ether	4.212	0.20	5	0	84.2	37 - 121				
Bis(2-chloroisopropyl)ether	4.349	0.20	5	0	87.0	40 - 120				
Bis(2-ethylhexyl)phthalate	5.009	0.20	5	0	100	40 - 139				
Butyl benzyl phthalate	4.875	0.20	5	0	97.5	47 - 123				
Carbazole	6.244	0.20	5	0	125	42 - 128				
Chrysene	4.773	0.10	5	0	95.5	43 - 120				
Dibenz(a,h)anthracene	5.364	0.10	5	0	107	45 - 125				
Dibenzofuran	4.496	0.10	5	0	89.9	50 - 120				
Diethyl phthalate	4.733	0.20	5	0	94.7	41 - 120				
Dimethyl phthalate	4.615	0.20	5	0	92.3	40 - 122				
Di-n-butyl phthalate	5.004	0.20	5	0	100	45 - 123				
Di-n-octyl phthalate	5.261	0.20	5	0	105	45 - 129				
Fluoranthene	4.88	0.10	5	0	97.6	45 - 125				
Fluorene	4.637	0.10	5	0	92.7	49 - 120				
Hexachlorobenzene	4.395	0.20	5	0	87.9	48 - 120				
Hexachlorobutadiene	4.145	0.20	5	0	82.9	40 - 120				
Hexachlorocyclopentadiene	3.946	0.20	5	0	78.9	34 - 136				
Hexachloroethane	4.061	0.20	5	0	81.2	40 - 120				
Indeno(1,2,3-cd)pyrene	4.76	0.10	5	0	95.2	41 - 128				
Isophorone	4.533	0.20	5	0	90.7	40 - 121				
Naphthalene	4.077	0.10	5	0	81.5	45 - 120				
Nitrobenzene	4.326	0.20	5	0	86.5	44 - 120				
N-Nitrosodimethylamine	4.221	0.20	5	0	84.4	30 - 121				
N-Nitrosodi-n-propylamine	4.548	0.20	5	0	91.0	40 - 120				
N-Nitrosodiphenylamine	4.512	0.20	5	0	90.2	40 - 125				
Pentachlorophenol	4.557	0.20	5	0	91.1	19 - 121				
Phenanthrene	4.536	0.10	5	0	90.7	45 - 121				
Phenol	4.359	0.20	5	0	87.2	20 - 124				
Pyrene	4.882	0.10	5	0	97.6	40 - 130				
Pyridine	3.786	1.0	5	0	75.7	15 - 120				
Surr: 2,4,6-Tribromophenol	4.083	0.20	5	0	81.7	34 - 129				
Surr: 2-Fluorobiphenyl	4.35	0.20	5	0	87.0	40 - 125				
Surr: 2-Fluorophenol	3.472	0.20	5	0	69.4	20 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCS	Sample ID: LCS-150755	Units: ug/L			Analysis Date: 20-Feb-2020 19:00					
Client ID:	Run ID: SV-7_356688	SeqNo: 5481282		PrepDate: 19-Feb-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
<i>Surr: 4-Terphenyl-d14</i>	5.053	0.20	5	0	101	40 - 135				
<i>Surr: Nitrobenzene-d5</i>	4.24	0.20	5	0	84.8	41 - 120				
<i>Surr: Phenol-d6</i>	4.045	0.20	5	0	80.9	20 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCSD		Sample ID: LCSD-150755		Units: ug/L		Analysis Date: 20-Feb-2020 19:19				
Client ID:		Run ID: SV-7_356688		SeqNo: 5481283		PrepDate: 19-Feb-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	3.99	0.20	5	0	79.8	45 - 120	4.149	3.92	20	
2,4,5-Trichlorophenol	4.03	0.20	5	0	80.6	46 - 120	4.856	18.6	20	
2,4,6-Trichlorophenol	4.103	0.20	5	0	82.1	42 - 120	4.743	14.5	20	
2,4-Dichlorophenol	3.964	0.20	5	0	79.3	49 - 120	4.332	8.88	20	
2,4-Dimethylphenol	3.852	0.20	5	0	77.0	35 - 120	4.19	8.41	20	
2,4-Dinitrophenol	3.715	1.0	5	0	74.3	15 - 120	4.097	9.78	50	
2,4-Dinitrotoluene	4.174	0.20	5	0	83.5	50 - 122	4.675	11.3	20	
2,6-Dinitrotoluene	4.088	0.20	5	0	81.8	50 - 120	4.608	12	20	
2-Chloronaphthalene	4.366	0.20	5	0	87.3	50 - 120	4.354	0.273	20	
2-Chlorophenol	3.725	0.20	5	0	74.5	40 - 120	3.954	5.97	20	
2-Methylnaphthalene	3.871	0.10	5	0	77.4	50 - 120	4.148	6.9	20	
2-Methylphenol	3.962	0.20	5	0	79.2	45 - 120	4.348	9.3	20	
2-Nitroaniline	5.442	0.20	5	0	109	28 - 139	6.022	10.1	20	
2-Nitrophenol	3.62	0.20	5	0	72.4	40 - 120	3.846	6.06	20	
3&4-Methylphenol	3.979	0.20	5	0	79.6	35 - 120	4.447	11.1	20	
3,3'-Dichlorobenzidine	5.885	0.20	5	0	118	15 - 120	5.274	11	20	
3-Nitroaniline	5.318	0.20	5	0	106	30 - 120	5.73	7.44	20	
4,6-Dinitro-2-methylphenol	4.515	0.20	5	0	90.3	25 - 121	4.759	5.27	30	
4-Bromophenyl phenyl ether	4.225	0.20	5	0	84.5	45 - 120	4.553	7.48	20	
4-Chloro-3-methylphenol	4.276	0.20	5	0	85.5	47 - 120	4.731	10.1	20	
4-Chloroaniline	3.741	0.20	5	0	74.8	20 - 120	3.793	1.38	20	
4-Chlorophenyl phenyl ether	4.296	0.20	5	0	85.9	50 - 120	4.805	11.2	20	
4-Nitroaniline	5.334	0.20	5	0	107	30 - 133	5.933	10.6	20	
4-Nitrophenol	4.244	1.0	5	0	84.9	30 - 130	4.816	12.6	20	
Acenaphthene	3.914	0.10	5	0	78.3	45 - 120	4.405	11.8	20	
Acenaphthylene	3.906	0.10	5	0	78.1	47 - 120	4.331	10.3	20	
Anthracene	4.306	0.10	5	0	86.1	45 - 120	4.666	8.03	20	
Benz(a)anthracene	4.629	0.10	5	0	92.6	40 - 120	5.05	8.71	20	
Benzidine	0.6537	0.20	5	0	13.1	10 - 120	0.7825	17.9	30	
Benzo(a)pyrene	4.363	0.10	5	0	87.3	45 - 120	4.984	13.3	20	
Benzo(b)fluoranthene	5.255	0.10	5	0	105	50 - 120	5.625	6.8	20	
Benzo(g,h,i)perylene	4.435	0.10	5	0	88.7	42 - 127	4.984	11.7	20	
Benzo(k)fluoranthene	4.357	0.10	5	0	87.1	45 - 127	4.893	11.6	20	
Benzyl alcohol	4.129	0.20	5	0	82.6	35 - 122	4.505	8.7	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCSD		Sample ID: LCSD-150755		Units: ug/L		Analysis Date: 20-Feb-2020 19:19				
Client ID:		Run ID: SV-7_356688		SeqNo: 5481283		PrepDate: 19-Feb-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bis(2-chloroethoxy)methane	4.065	0.20	5	0	81.3	45 - 120	4.279	5.12	20	
Bis(2-chloroethyl)ether	4.018	0.20	5	0	80.4	37 - 121	4.212	4.72	20	
Bis(2-chloroisopropyl)ether	4.129	0.20	5	0	82.6	40 - 120	4.349	5.19	20	
Bis(2-ethylhexyl)phthalate	4.579	0.20	5	0	91.6	40 - 139	5.009	8.97	20	
Butyl benzyl phthalate	4.477	0.20	5	0	89.5	47 - 123	4.875	8.51	20	
Carbazole	6.192	0.20	5	0	124	42 - 128	6.244	0.843	20	
Chrysene	4.38	0.10	5	0	87.6	43 - 120	4.773	8.58	20	
Dibenz(a,h)anthracene	4.712	0.10	5	0	94.2	45 - 125	5.364	12.9	20	
Dibenzofuran	4.018	0.10	5	0	80.4	50 - 120	4.496	11.2	20	
Diethyl phthalate	4.3	0.20	5	0	86.0	41 - 120	4.733	9.57	20	
Dimethyl phthalate	4.101	0.20	5	0	82.0	40 - 122	4.615	11.8	20	
Di-n-butyl phthalate	4.534	0.20	5	0	90.7	45 - 123	5.004	9.86	20	
Di-n-octyl phthalate	4.614	0.20	5	0	92.3	45 - 129	5.261	13.1	20	
Fluoranthene	4.428	0.10	5	0	88.6	45 - 125	4.88	9.71	20	
Fluorene	4.151	0.10	5	0	83.0	49 - 120	4.637	11.1	20	
Hexachlorobenzene	3.979	0.20	5	0	79.6	48 - 120	4.395	9.95	20	
Hexachlorobutadiene	3.993	0.20	5	0	79.9	40 - 120	4.145	3.74	20	
Hexachlorocyclopentadiene	3.734	0.20	5	0	74.7	34 - 136	3.946	5.52	20	
Hexachloroethane	3.881	0.20	5	0	77.6	40 - 120	4.061	4.53	20	
Indeno(1,2,3-cd)pyrene	4.724	0.10	5	0	94.5	41 - 128	4.76	0.744	20	
Isophorone	4.222	0.20	5	0	84.4	40 - 121	4.533	7.1	20	
Naphthalene	3.834	0.10	5	0	76.7	45 - 120	4.077	6.16	20	
Nitrobenzene	4.227	0.20	5	0	84.5	44 - 120	4.326	2.31	20	
N-Nitrosodimethylamine	4.058	0.20	5	0	81.2	30 - 121	4.221	3.94	20	
N-Nitrosodi-n-propylamine	4.23	0.20	5	0	84.6	40 - 120	4.548	7.24	20	
N-Nitrosodiphenylamine	4.104	0.20	5	0	82.1	40 - 125	4.512	9.47	20	
Pentachlorophenol	4.221	0.20	5	0	84.4	19 - 121	4.557	7.64	20	
Phenanthrene	4.174	0.10	5	0	83.5	45 - 121	4.536	8.31	20	
Phenol	4.073	0.20	5	0	81.5	20 - 124	4.359	6.81	20	
Pyrene	4.477	0.10	5	0	89.5	40 - 130	4.882	8.66	20	
Pyridine	3.48	1.0	5	0	69.6	15 - 120	3.786	8.42	20	
Surr: 2,4,6-Tribromophenol	3.614	0.20	5	0	72.3	34 - 129	4.083	12.2	20	
Surr: 2-Fluorobiphenyl	4.007	0.20	5	0	80.1	40 - 125	4.35	8.22	20	
Surr: 2-Fluorophenol	3.39	0.20	5	0	67.8	20 - 120	3.472	2.38	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150755 (0) **Instrument:** SV-7 **Method:** LOW-LEVEL SEMIVOLATILES BY 8270D

LCSD	Sample ID: LCSD-150755				Units: ug/L	Analysis Date: 20-Feb-2020 19:19				
Client ID:		Run ID: SV-7_356688			SeqNo: 5481283	PrepDate: 19-Feb-2020	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
<i>Surr: 4-Terphenyl-d14</i>	4.692	0.20	5	0	93.8	40 - 135	5.053	7.41	20	
<i>Surr: Nitrobenzene-d5</i>	4.137	0.20	5	0	82.7	41 - 120	4.24	2.46	20	
<i>Surr: Phenol-d6</i>	3.759	0.20	5	0	75.2	20 - 120	4.045	7.33	20	

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
MBLK	Sample ID: VBLKW-200220	Units: ug/L			Analysis Date: 20-Feb-2020 12:02					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481289	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	< 0.20	1.0								
1,1,2,2-Tetrachloroethane	< 0.50	1.0								
1,1,2-Trichloroethane	< 0.30	1.0								
1,1-Dichloroethane	< 0.20	1.0								
1,1-Dichloroethene	< 0.20	1.0								
1,2-Dichlorobenzene	< 0.50	1.0								
1,2-Dichloroethane	< 0.20	1.0								
1,2-Dichloropropane	< 0.50	1.0								
1,3-Dichlorobenzene	< 0.40	1.0								
1,4-Dichlorobenzene	< 0.40	1.0								
2-Butanone	< 0.50	2.0								
2-Hexanone	< 1.0	2.0								
4-Methyl-2-pentanone	< 0.70	2.0								
Acetone	< 2.0	2.0								
Benzene	< 0.20	1.0								
Bromochloromethane	< 0.20	1.0								
Bromodichloromethane	< 0.20	1.0								
Bromoform	< 0.40	1.0								
Bromomethane	< 0.40	1.0								
Carbon disulfide	< 0.60	2.0								
Carbon tetrachloride	< 0.50	1.0								
Chlorobenzene	< 0.30	1.0								
Chloroethane	< 0.30	1.0								
Chloroform	< 0.20	1.0								
Chloromethane	< 0.20	1.0								
cis-1,2-Dichloroethene	< 0.20	1.0								
cis-1,3-Dichloropropene	< 0.10	1.0								
Dibromochloromethane	< 0.30	1.0								
Ethylbenzene	< 0.30	1.0								
m,p-Xylene	< 0.50	2.0								
Methylene chloride	< 1.0	2.0								
o-Xylene	< 0.30	1.0								
Styrene	< 0.30	1.0								
Tetrachloroethene	< 0.30	1.0								

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
MBLK	Sample ID: VBLKW-200220	Units: ug/L			Analysis Date: 20-Feb-2020 12:02					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481289		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	< 0.20	1.0								
trans-1,2-Dichloroethene	< 0.20	1.0								
trans-1,3-Dichloropropene	< 0.20	1.0								
Trichloroethene	< 0.20	1.0								
Vinyl acetate	< 0.50	1.0								
Vinyl chloride	< 0.20	1.0								
Xylenes, Total	< 0.30	1.0								
1,2-Dichloroethene, Total	< 0.20	1.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	49.7	1.0	50	0	99.4	70 - 123				
<i>Surr: 4-Bromofluorobenzene</i>	50.61	1.0	50	0	101	82 - 115				
<i>Surr: Dibromofluoromethane</i>	50.33	1.0	50	0	101	73 - 126				
<i>Surr: Toluene-d8</i>	50.26	1.0	50	0	101	81 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
LCS	Sample ID: VLCSW-200220	Units: ug/L			Analysis Date: 20-Feb-2020 11:16					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481288	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.27	1.0	20	0	101	70 - 130				
1,1,2,2-Tetrachloroethane	22.53	1.0	20	0	113	70 - 120				
1,1,2-Trichloroethane	20.55	1.0	20	0	103	77 - 113				
1,1-Dichloroethane	23.36	1.0	20	0	117	71 - 122				
1,1-Dichloroethene	20.99	1.0	20	0	105	70 - 130				
1,2-Dichlorobenzene	19.63	1.0	20	0	98.2	77 - 113				
1,2-Dichloroethane	18.23	1.0	20	0	91.1	70 - 124				
1,2-Dichloropropane	22.65	1.0	20	0	113	72 - 119				
1,3-Dichlorobenzene	20.96	1.0	20	0	105	78 - 118				
1,4-Dichlorobenzene	18.17	1.0	20	0	90.9	79 - 113				
2-Butanone	49.14	2.0	40	0	123	70 - 130				
2-Hexanone	46.96	2.0	40	0	117	70 - 130				
4-Methyl-2-pentanone	48.22	2.0	40	0	121	70 - 130				
Acetone	43.81	2.0	40	0	110	70 - 130				
Benzene	20.43	1.0	20	0	102	74 - 120				
Bromochloromethane	19.89	1.0	20	0	99.4	76 - 124				
Bromodichloromethane	19.82	1.0	20	0	99.1	74 - 122				
Bromoform	20.13	1.0	20	0	101	73 - 128				
Bromomethane	21.55	1.0	20	0	108	70 - 130				
Carbon disulfide	41.25	2.0	40	0	103	70 - 130				
Carbon tetrachloride	18.74	1.0	20	0	93.7	71 - 125				
Chlorobenzene	18.65	1.0	20	0	93.2	76 - 113				
Chloroethane	29.29	1.0	20	0	146	70 - 130				S
Chloroform	20.21	1.0	20	0	101	71 - 121				
Chloromethane	21.98	1.0	20	0	110	70 - 129				
cis-1,2-Dichloroethene	21.31	1.0	20	0	107	75 - 122				
cis-1,3-Dichloropropene	22.04	1.0	20	0	110	73 - 127				
Dibromochloromethane	20.04	1.0	20	0	100	77 - 122				
Ethylbenzene	19.77	1.0	20	0	98.8	77 - 117				
m,p-Xylene	39.55	2.0	40	0	98.9	77 - 122				
Methylene chloride	21.98	2.0	20	0	110	70 - 127				
o-Xylene	20.21	1.0	20	0	101	75 - 119				
Styrene	20.11	1.0	20	0	101	72 - 126				
Tetrachloroethene	19.04	1.0	20	0	95.2	76 - 119				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0) **Instrument:** VOA2 **Method:** LOW LEVEL VOLATILES BY SW8260C

LCS		Sample ID: VLCSW-200220		Units: ug/L		Analysis Date: 20-Feb-2020 11:16				
Client ID:		Run ID: VOA2_356689		SeqNo: 5481288		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	22.26	1.0	20	0	111	77 - 118				
trans-1,2-Dichloroethene	20.69	1.0	20	0	103	72 - 127				
trans-1,3-Dichloropropene	21.77	1.0	20	0	109	77 - 119				
Trichloroethene	19.44	1.0	20	0	97.2	77 - 121				
Vinyl acetate	44.79	1.0	40	0	112	70 - 130				
Vinyl chloride	25.93	1.0	20	0	130	70 - 130				
Xylenes, Total	59.75	1.0	60	0	99.6	75 - 122				
1,2-Dichloroethene, Total	42	1.0	40	0	105	72 - 127				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.58</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>70 - 130</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.71</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>82 - 115</i>				
<i>Surr: Dibromofluoromethane</i>	<i>49.46</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>73 - 126</i>				
<i>Surr: Toluene-d8</i>	<i>50.83</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>81 - 120</i>				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
MS	Sample ID: HS20020683-02MS	Units: ug/L			Analysis Date: 20-Feb-2020 14:46					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481296	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.44	1.0	20	0	97.2	70 - 130				
1,1,2,2-Tetrachloroethane	19.93	1.0	20	0	99.7	70 - 123				
1,1,2-Trichloroethane	16.6	1.0	20	0	83.0	70 - 117				
1,1-Dichloroethane	18.37	1.0	20	0	91.8	70 - 127				
1,1-Dichloroethene	23.11	1.0	20	0	116	70 - 130				
1,2-Dichlorobenzene	17.75	1.0	20	0	88.7	70 - 115				
1,2-Dichloroethane	17.27	1.0	20	0	86.4	70 - 127				
1,2-Dichloropropane	17.84	1.0	20	0	89.2	70 - 122				
1,3-Dichlorobenzene	19.77	1.0	20	0	98.8	70 - 119				
1,4-Dichlorobenzene	17.21	1.0	20	0	86.0	70 - 114				
2-Butanone	26.24	2.0	40	0	65.6	70 - 130				S
2-Hexanone	26.22	2.0	40	0	65.5	70 - 130				S
4-Methyl-2-pentanone	24.1	2.0	40	0	60.3	70 - 130				S
Acetone	28.77	2.0	40	0	71.9	70 - 130				
Benzene	19.04	1.0	20	1.93	85.6	70 - 127				
Bromochloromethane	19.68	1.0	20	0	98.4	70 - 127				
Bromodichloromethane	17.72	1.0	20	0	88.6	70 - 124				
Bromoform	15.17	1.0	20	0	75.8	70 - 129				
Bromomethane	18.42	1.0	20	0	92.1	70 - 130				
Carbon disulfide	42.12	2.0	40	0	105	70 - 130				
Carbon tetrachloride	19.5	1.0	20	0	97.5	70 - 130				
Chlorobenzene	17.48	1.0	20	0	87.4	70 - 114				
Chloroethane	20.94	1.0	20	0	105	70 - 130				
Chloroform	19.08	1.0	20	0	95.4	70 - 125				
Chloromethane	18.87	1.0	20	0	94.3	70 - 130				
cis-1,2-Dichloroethene	23.52	1.0	20	0	118	70 - 128				
cis-1,3-Dichloropropene	18.03	1.0	20	0	90.2	70 - 125				
Dibromochloromethane	18.76	1.0	20	0	93.8	70 - 124				
Ethylbenzene	19.85	1.0	20	1.572	91.4	70 - 124				
m,p-Xylene	37.89	2.0	40	1.177	91.8	70 - 130				
Methylene chloride	18	2.0	20	0	90.0	70 - 128				
o-Xylene	18.83	1.0	20	0.6292	91.0	70 - 124				
Styrene	18.22	1.0	20	0	91.1	70 - 130				
Tetrachloroethene	18.66	1.0	20	0	93.3	70 - 130				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
MS	Sample ID: HS20020683-02MS	Units: ug/L			Analysis Date: 20-Feb-2020 14:46					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481296		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	20.91	1.0	20	1.234	98.4	70 - 123				
trans-1,2-Dichloroethene	19.96	1.0	20	1.495	92.3	70 - 130				
trans-1,3-Dichloropropene	18.45	1.0	20	0	92.2	70 - 121				
Trichloroethene	19.08	1.0	20	0	95.4	70 - 129				
Vinyl acetate	25.41	1.0	40	0	63.5	70 - 130				S
Vinyl chloride	21.01	1.0	20	0	105	70 - 130				
Xylenes, Total	56.72	1.0	60	1.806	91.5	70 - 130				
1,2-Dichloroethene, Total	43.48	1.0	40	1.495	105	70 - 130				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.85</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70 - 126</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.22</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>94.4</i>	<i>81 - 113</i>				
<i>Surr: Dibromofluoromethane</i>	<i>49.64</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>99.3</i>	<i>77 - 123</i>				
<i>Surr: Toluene-d8</i>	<i>45.66</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>91.3</i>	<i>82 - 127</i>				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
MSD	Sample ID: HS20020683-02MSD	Units: ug/L			Analysis Date: 20-Feb-2020 15:08					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481297	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.21	1.0	20	0	96.1	70 - 130	19.44	1.16	20	
1,1,2,2-Tetrachloroethane	20.95	1.0	20	0	105	70 - 123	19.93	4.99	20	
1,1,2-Trichloroethane	19.05	1.0	20	0	95.3	70 - 117	16.6	13.8	20	
1,1-Dichloroethane	20.72	1.0	20	0	104	70 - 127	18.37	12	20	
1,1-Dichloroethene	21.76	1.0	20	0	109	70 - 130	23.11	6.03	20	
1,2-Dichlorobenzene	17.36	1.0	20	0	86.8	70 - 115	17.75	2.17	20	
1,2-Dichloroethane	16.61	1.0	20	0	83.0	70 - 127	17.27	3.93	20	
1,2-Dichloropropane	19.85	1.0	20	0	99.3	70 - 122	17.84	10.7	20	
1,3-Dichlorobenzene	18.5	1.0	20	0	92.5	70 - 119	19.77	6.6	20	
1,4-Dichlorobenzene	16.53	1.0	20	0	82.6	70 - 114	17.21	4.04	20	
2-Butanone	28.03	2.0	40	0	70.1	70 - 130	26.24	6.59	20	
2-Hexanone	28.74	2.0	40	0	71.8	70 - 130	26.22	9.17	20	
4-Methyl-2-pentanone	29.91	2.0	40	0	74.8	70 - 130	24.1	21.5	20	R
Acetone	29.3	2.0	40	0	73.3	70 - 130	28.77	1.82	20	
Benzene	20.66	1.0	20	1.93	93.6	70 - 127	19.04	8.12	20	
Bromochloromethane	18.05	1.0	20	0	90.3	70 - 127	19.68	8.62	20	
Bromodichloromethane	18.24	1.0	20	0	91.2	70 - 124	17.72	2.87	20	
Bromoform	18.49	1.0	20	0	92.5	70 - 129	15.17	19.7	20	
Bromomethane	14.8	1.0	20	0	74.0	70 - 130	18.42	21.8	20	R
Carbon disulfide	45.79	2.0	40	0	114	70 - 130	42.12	8.36	20	
Carbon tetrachloride	18.13	1.0	20	0	90.7	70 - 130	19.5	7.27	20	
Chlorobenzene	17.1	1.0	20	0	85.5	70 - 114	17.48	2.18	20	
Chloroethane	19.41	1.0	20	0	97.0	70 - 130	20.94	7.61	20	
Chloroform	18.28	1.0	20	0	91.4	70 - 125	19.08	4.29	20	
Chloromethane	18.21	1.0	20	0	91.1	70 - 130	18.87	3.53	20	
cis-1,2-Dichloroethene	21.08	1.0	20	0	105	70 - 128	23.52	10.9	20	
cis-1,3-Dichloropropene	19.72	1.0	20	0	98.6	70 - 125	18.03	8.95	20	
Dibromochloromethane	18.39	1.0	20	0	91.9	70 - 124	18.76	1.99	20	
Ethylbenzene	19.74	1.0	20	1.572	90.9	70 - 124	19.85	0.536	20	
m,p-Xylene	37.6	2.0	40	1.177	91.1	70 - 130	37.89	0.765	20	
Methylene chloride	20.55	2.0	20	0	103	70 - 128	18	13.2	20	
o-Xylene	18.97	1.0	20	0.6292	91.7	70 - 124	18.83	0.719	20	
Styrene	18.38	1.0	20	0	91.9	70 - 130	18.22	0.869	20	
Tetrachloroethene	18.09	1.0	20	0	90.4	70 - 130	18.66	3.11	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356689 (0)		Instrument: VOA2		Method: LOW LEVEL VOLATILES BY SW8260C						
MSD	Sample ID: HS20020683-02MSD	Units: ug/L			Analysis Date: 20-Feb-2020 15:08					
Client ID:	Run ID: VOA2_356689	SeqNo: 5481297	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Toluene	23.4	1.0	20	1.234	111	70 - 123	20.91	11.3	20	
trans-1,2-Dichloroethene	21.16	1.0	20	1.495	98.3	70 - 130	19.96	5.85	20	
trans-1,3-Dichloropropene	19.16	1.0	20	0	95.8	70 - 121	18.45	3.76	20	
Trichloroethene	18.43	1.0	20	0	92.2	70 - 129	19.08	3.48	20	
Vinyl acetate	26.7	1.0	40	0	66.8	70 - 130	25.41	4.96	20 S	
Vinyl chloride	20.97	1.0	20	0	105	70 - 130	21.01	0.21	20	
Xylenes, Total	56.57	1.0	60	1.806	91.3	70 - 130	56.72	0.27	20	
1,2-Dichloroethene, Total	42.24	1.0	40	1.495	102	70 - 130	43.48	2.88	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.26</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>70 - 126</i>	<i>51.85</i>	<i>1.15</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.32</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>81 - 113</i>	<i>47.22</i>	<i>12.1</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.81</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>77 - 123</i>	<i>49.64</i>	<i>0.347</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.92</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>82 - 127</i>	<i>45.66</i>	<i>10.9</i>	<i>20</i>	

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: 150938 (0)	Instrument: UV-2450	Method: CYANIDE - SW9014
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MBLK	Sample ID: MBLK-150938	Units: mg/L	Analysis Date: 24-Feb-2020 14:04							
Client ID:	Run ID: UV-2450_356840	SeqNo: 5484660	PrepDate: 24-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Cyanide < 0.00200 0.00500

LCS	Sample ID: LCS-150938	Units: mg/L	Analysis Date: 24-Feb-2020 14:04							
Client ID:	Run ID: UV-2450_356840	SeqNo: 5484659	PrepDate: 24-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Cyanide 0.199 0.00500 0.2 0 99.5 80 - 120

MS	Sample ID: HS20020784-04MS	Units: mg/L	Analysis Date: 24-Feb-2020 14:04							
Client ID:	Run ID: UV-2450_356840	SeqNo: 5484657	PrepDate: 24-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Cyanide 0.196 0.00500 0.2 0 98.0 80 - 120

MSD	Sample ID: HS20020784-04MSD	Units: mg/L	Analysis Date: 24-Feb-2020 14:04							
Client ID:	Run ID: UV-2450_356840	SeqNo: 5484658	PrepDate: 24-Feb-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Cyanide 0.196 0.00500 0.2 0 98.0 80 - 120 0.196 0 20

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356835 (0)	Instrument: WetChem_HS	Method: SULFIDE BY SM4500 S2-F
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MBLK	Sample ID: MBLK-R356835	Units: mg/L	Analysis Date: 24-Feb-2020 11:45							
Client ID:	Run ID: WetChem_HS_356835	SeqNo: 5484052	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide < 1.00 1.00

LCS	Sample ID: LCS-R356835	Units: mg/L	Analysis Date: 24-Feb-2020 11:45							
Client ID:	Run ID: WetChem_HS_356835	SeqNo: 5484051	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide 23.8 1.00 25 0 95.2 85 - 115

LCSD	Sample ID: LCSD-R356835	Units: mg/L	Analysis Date: 24-Feb-2020 11:45							
Client ID:	Run ID: WetChem_HS_356835	SeqNo: 5484050	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide 24 1.00 25 0 96.0 85 - 115 23.8 0.837 20

MS	Sample ID: HS20020784-04MS	Units: mg/L	Analysis Date: 24-Feb-2020 11:45							
Client ID:	Run ID: WetChem_HS_356835	SeqNo: 5484104	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide 24 1.00 25 1.2 91.2 80 - 120

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R356857 (0)		Instrument: WetChem_HS		Method: PH BY SW9040C					
DUP	Sample ID: HS20020775-01DUP	Units: pH Units			Analysis Date: 24-Feb-2020 15:27				
Client ID:	Run ID: WetChem_HS_356857	SeqNo: 5484483		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

pH	8.41	0.100					8.4	0.119	10
Temp Deg C @pH	21.6	0					21.7	0.462	10

The following samples were analyzed in this batch: HS20020756-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

QC BATCH REPORT

Batch ID: R357040 (0) **Instrument:** WetChem_HS **Method:** FLASH POINT BY PENSKY-MARTENS SW1010A

LCS Sample ID: **LCS-R357040** Units: °F Analysis Date: **26-Feb-2020 13:00**
 Client ID: Run ID: **WetChem_HS_357040** SeqNo: **5488190** PrepDate: DF: 1
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Ignitability 81.04 70.0 81 0 100 95 - 105

DUP Sample ID: **HS20020965-01DUP** Units: °F Analysis Date: **26-Feb-2020 13:00**
 Client ID: Run ID: **WetChem_HS_357040** SeqNo: **5488191** PrepDate: DF: 1
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Ignitability > 212 70.0 0 0 20

The following samples were analyzed in this batch:

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works
WorkOrder: HS20020756

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	19-028-0	27-Mar-2020
California	2919, 2019-2020	30-Apr-2020
Dept of Defense	ANAB L2231 V009	22-Dec-2021
Florida	E87611-28	30-Jun-2020
Illinois	2000322019-2	09-May-2020
Kansas	E-10352 2019-2020	31-Jul-2020
Kentucky	123043, 2019-2020	30-Apr-2020
Louisiana	03087, 2019-2020	30-Jun-2020
Maryland	343, 2019-2020	30-Jun-2020
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2019-2020	30-Apr-2020
Oklahoma	2019-067	31-Aug-2020
Texas	T104704231-19-25	30-Apr-2020

Sample Receipt Checklist

Client Name: PBW
Work Order: HS20020756

Date/Time Received: 18-Feb-2020 17:40
Received by: DDG

Checklist completed by: Asad Chaudhry
eSignature
Date: 19-Feb-2020

Reviewed by:
eSignature
Date

Matrices: Water

Carrier name: ALS Courier

- Shipping container/cooler in good condition? Yes [checked] No [] Not Present []
Custody seals intact on shipping container/cooler? Yes [checked] No [] Not Present []
Custody seals intact on sample bottles? Yes [] No [] Not Present [checked]
VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes [] No [] Not Present [checked]
Chain of custody present? Yes [checked] No []
Chain of custody signed when relinquished and received? Yes [checked] No []
Samplers name present on COC? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [checked] No []
Samples in proper container/bottle? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []
All samples received within holding time? Yes [checked] No []
Container/Temp Blank temperature in compliance? Yes [checked] No []

1 Page(s)
COC IDs:215366

Temperature(s)/Thermometer(s): 1.2c U/C IR 25
Cooler(s)/Kit(s): 42965
Date/Time sample(s) sent to storage: 02/18/2020 19:00
Water - VOA vials have zero headspace? Yes [checked] No [] No VOA vials submitted []
Water - pH acceptable upon receipt? Yes [checked] No [] N/A []
pH adjusted? Yes [] No [checked] N/A []
pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

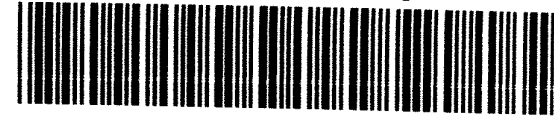
COC ID: 215366

HS20020756

Golder Associates Inc.
Houston TX-Wood Preserving Works

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ALS Project Manager:

Customer Information		Project Information	
Purchase Order	UPRR/Kevin Peterburs	Project Name	Houston TX-Wood Preserving Works
Work Order		Project Number	1620-11-Rev1 SR 92688 (IDW)
Company Name	Golder Associates Inc.	Bill To Company	Union Pacific Railroad- A/P
Send Report To	Eric Matzner	Invoice Attn	Accounts Payable
Address	2201 Double Creek Drive Suite 4004	Address	1400 Douglas Street Stop 0750
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha NE 681790750
Phone	(512) 671-3434	Phone	
Fax	(512) 671-3446	Fax	
e-Mail Address	Eric_Matzner@golder.com	e-Mail Address	

- A 8260_LL_W (5632528 Volatile Organics (IDWW))
- B 8270_LOW_W (5632532 Semivolatile Organics (IDWW))
- C TX1005_W_Low (5643233 TPH TX1005)
- D ICP_TW (5652643 5652646 RCRA 8+3 Metals (IDWW))
- E CN_TW_9014 (5652638 Cyanide - RCI (IDWW))
- F SULFD_4500S F (5652638 Sulfide - RCI (IDWW))
- G pH_W_9040C (5632436 pH - RCI (IDWW))
- H IGN_W (5652637 Ignitability - RCI (IDWW))
- I
- J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WV-1620			Water	1,2,4,7,8	12	X	X		X	X	X					
2	WW-1620-IDW20200114-20200219	2-18-20	0945	water	1	1	X	X	X	X	X	X					
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: *Anthony Reid*

Shipment Method: _____

Required Turnaround Time: (Check Box) STD 10 Wk Days 5 Wk Days 2 Wk Days 24 Hour

Results Due Date: _____

Relinquished by: *[Signature]* Date: 2-18-20 Time: 1656

Received by: *[Signature]*

Relinquished by: *[Signature]* Date: 2-18-20 Time: 1740

Received by (Laboratory): *[Signature]*

Logged by (Laboratory): _____ Date: _____ Time: _____

Checked by (Laboratory): _____

Notes: UPRR HWPW 1620-11

Cooler ID: 42965 Cooler Temp: 1.2

QC Package: (Check One Box Below)

Level II Std QC TRRP Check/Std

Level III Std QC/Raw Date TRRP Level IV

Level IV SW646/CLP

Other: _____

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

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Suite 210 7099 ,656 ,5887	CUSTODY SEAL		Seal Broken By: <i>NA</i>
	Date: <i>2-18-20</i>	Time: <i>1:20</i>	Date: <i>2.18.20</i>
	Name: <i>Anthony Reed</i>	Company: <i>Stalder</i>	


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