



01-Nov-2023

Dave Poague
GSI Engineering
539 N Santa Fe
Salina, KS 67401

Re: **GSI (Flotation System)**

Work Order: **23102270**

Dear Dave,

ALS Environmental received 2 samples on 25-Oct-2023 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 18.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Gary Byar

Gary Byar
Project Manager

Report of Laboratory Analysis

Certificate No: KS: E-10411

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: GSI Engineering
Project: GSI (Flotation System)
Work Order: 23102270

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
23102270-01	Cast System Influent	Groundwater		10/24/2023 11:45	10/25/2023 09:30	<input type="checkbox"/>
23102270-02	Cast System Effluent	Groundwater		10/24/2023 13:05	10/25/2023 09:30	<input type="checkbox"/>

ALS Group, USA

Date: 01-Nov-23

Client: GSI Engineering
Project: GSI (Flotation System)
Sample ID: Cast System Influent
Collection Date: 10/24/2023 11:45 AM

Work Order: 23102270
Lab ID: 23102270-01
Matrix: GROUNDWATER

Analyses	CAS	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PFAS BY EPA 537 MODIFIED				Method: E537 MOD		Prep: E537 Mod / 10/27/23		Analyst: MNM
Fluorotelomer Sulphonic Acid 4:;757124-72-4 4:2)		U		0.82	4.4	ng/L	1	10/28/2023 01:55
Fluorotelomer Sulphonic Acid 6:;27619-97-2 6:2)		U		1.7	4.4	ng/L	1	10/28/2023 01:55
Fluorotelomer Sulphonic Acid 8:;39108-34-4 8:2)		U		0.99	4.4	ng/L	1	10/28/2023 01:55
Fluorotelomer Sulphonic Acid 10;120226-60-0 10:2)		U		2.1	4.4	ng/L	1	10/28/2023 01:55
Perfluorobutanesulfonic Acid ;375-73-5		480		3.1	44	ng/L	10	10/30/2023 11:35
Perfluorobutanoic Acid (PFBA) ;375-22-4		25		2.3	4.4	ng/L	1	10/28/2023 01:55
Perfluorodecanesulfonic Acid (P ;335-77-3		U		1.2	4.4	ng/L	1	10/28/2023 01:55
Perfluorodecanoic Acid (PFDA) ;335-76-2		2.5	J	1.1	4.4	ng/L	1	10/28/2023 01:55
Perfluorododecanesulfonic Acid ;79780-39-5 (PFDoS)		U		0.55	4.4	ng/L	1	10/28/2023 01:55
Perfluorododecanoic Acid (PF ;307-55-1		0.65	J	0.61	4.4	ng/L	1	10/28/2023 01:55
Perfluoroheptanesulfonic Acid (F ;375-92-8		U		0.50	4.4	ng/L	1	10/28/2023 01:55
Perfluoroheptanoic Acid (PFH) ;375-85-9		6.6		1.5	4.4	ng/L	1	10/28/2023 01:55
Perfluorohexadecanoic Acid (PF ;67905-19-5		U		1.6	4.4	ng/L	1	10/28/2023 01:55
Perfluorohexanesulfonic Acid ;355-46-4 (PFHxS)		26		0.79	4.4	ng/L	1	10/28/2023 01:55
Perfluorohexanoic Acid (PFHx) ;307-24-4		8.0		1.1	4.4	ng/L	1	10/28/2023 01:55
Perfluorononanesulfonic Acid (P ;68259-12-1		U		0.43	4.4	ng/L	1	10/28/2023 01:55
Perfluorononanoic Acid (PFNA) ;375-95-1		690		7.6	44	ng/L	10	10/30/2023 11:35
Perfluorooctadecanoic Acid (PF ;16517-11-6		U		0.57	4.4	ng/L	1	10/28/2023 01:55
Perfluorooctanesulfonamide (PF ;754-91-6		U		0.62	4.4	ng/L	1	10/28/2023 01:55
Perfluorooctanesulfonic Acid ;1763-23-1		19		0.78	1.8	ng/L	1	10/28/2023 01:55
Perfluorooctanoic Acid (PFOA) ;335-67-1		47		0.55	1.8	ng/L	1	10/28/2023 01:55
Perfluoropentanesulfonic Acid ;2706-91-4 (PFPeS)		1.1	J	0.49	4.4	ng/L	1	10/28/2023 01:55
Perfluoropentanoic Acid (PFP) ;2706-90-3		6.2		1.1	4.4	ng/L	1	10/28/2023 01:55
Perfluorotetradecanoic Acid (PF ;376-06-7		U		2.3	4.4	ng/L	1	10/28/2023 01:55
Perfluorotridecanoic Acid (PFTri ;72629-94-8		U		1.7	4.4	ng/L	1	10/28/2023 01:55
Perfluoroundecanoic Acid (PF ;2058-94-8		3.8	J	0.85	4.4	ng/L	1	10/28/2023 01:55
N-ethylperfluoro-1-octanesulfon ;4151-50-2		U		1.0	4.4	ng/L	1	10/28/2023 01:55
N- ;2991-50-6		U		1.4	4.4	ng/L	1	10/28/2023 01:55
Ethylperfluorooctanesulfonamidoacetic Acid								
N- ;1691-99-2		U		0.92	4.4	ng/L	1	10/28/2023 01:55
Ethylperfluorooctanesulfonamidoethano l								
N-methylperfluoro-1-octanesulfo ;31506-32-8		U		0.70	4.4	ng/L	1	10/28/2023 01:55

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-23

Client: GSI Engineering
Project: GSI (Flotation System)
Sample ID: Cast System Influent
Collection Date: 10/24/2023 11:45 AM

Work Order: 23102270
Lab ID: 23102270-01
Matrix: GROUNDWATER

Analyses	CAS	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Methylperfluorooctanesulfonamidoacetic Acid	2355-31-9	U		0.56	4.4	ng/L	1	10/28/2023 01:55
N-Methylperfluorooctanesulfonamidoethanol	24448-09-7	U		1.3	4.4	ng/L	1	10/28/2023 01:55
Hexafluoropropylene oxide dimethyl ether (HFPO-DA)	13252-13-6	U		1.0	4.4	ng/L	1	10/28/2023 01:55
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	919005-14-4	U		0.49	4.4	ng/L	1	10/28/2023 01:55
11CI-Pf3OUdS	763051-92-9	U		0.41	4.4	ng/L	1	10/28/2023 01:55
9CI-PF3ONS	756426-58-1	U		0.39	4.4	ng/L	1	10/28/2023 01:55
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	133201-07-7	U		0.78	4.4	ng/L	1	10/28/2023 01:55
Perfluorobutylsulfonamide (PFBS)	30334-69-1	50		1.7	4.4	ng/L	1	10/28/2023 01:55
Perfluorohexanesulfonamide (PFHxSA)	41997-13-1	1.9	J	0.77	4.4	ng/L	1	10/28/2023 01:55
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	812-70-4	U		0.95	4.4	ng/L	1	10/28/2023 01:55
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	356-02-5	U		2.6	4.4	ng/L	1	10/28/2023 01:55
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	914637-49-3	U		1.2	4.4	ng/L	1	10/28/2023 01:55
Surr: 13C2-FtS 4:2	PAMN-1492	104			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-FtS 6:2	M2-6-2FTS	106			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-FtS 8:2	M2-8-2FTS	97.0			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-PFDA	STL00996	57.9			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-PFDoA	STL00998	43.4	S		50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-PFHxA	STL00993	81.0			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-PFHxDA	Perfluorohexadecanoic acid (13C2-PFHxDA)	76.6			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-PFTeA	13C2-PFTeA	56.9			50-150	%REC	1	10/28/2023 01:55
Surr: 13C2-PFUnA	STL00997	48.6	S		50-150	%REC	1	10/28/2023 01:55
Surr: 13C3-HFPO-DA	STL02255	86.3			50-150	%REC	1	10/28/2023 01:55
Surr: 13C3-PFBS	STL02337	87.9			50-150	%REC	1	10/28/2023 01:55
Surr: 13C4-PFBA	STL00992	72.0			50-150	%REC	1	10/28/2023 01:55
Surr: 13C4-PFHpA	STL01892	88.8			50-150	%REC	1	10/28/2023 01:55
Surr: 13C4-PFOA	STL00990	83.6			50-150	%REC	1	10/28/2023 01:55
Surr: 13C4-PFOS	PAMN-1458	78.1			50-150	%REC	1	10/28/2023 01:55
Surr: 13C5-PFNA	STL00995	70.5			50-150	%REC	1	10/28/2023 01:55
Surr: 13C5-PFPeA	STL01893	88.2			50-150	%REC	1	10/28/2023 01:55
Surr: 13C8-FOSA	STL01056	75.2			50-150	%REC	1	10/28/2023 01:55
Surr: 18O2-PFHxS	STL00994	80.5			50-150	%REC	1	10/28/2023 01:55

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-23

Client: GSI Engineering
Project: GSI (Flotation System)
Sample ID: Cast System Influent
Collection Date: 10/24/2023 11:45 AM

Work Order: 23102270
Lab ID: 23102270-01
Matrix: GROUNDWATER

Analyses	CAS	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: d5-N-EtFOSA	STL02117	60.8			50-150	%REC	1	10/28/2023 01:55
Surr: d5-N-EtFOSAA	d5-N-EtFOSAA	69.4			50-150	%REC	1	10/28/2023 01:55
Surr: d9-N-EtFOSE	d9-N-EtFOSE	71.2			50-150	%REC	1	10/28/2023 01:55
Surr: d3-N-MeFOSA	d3-N-MeFOSA	62.2			50-150	%REC	1	10/28/2023 01:55
Surr: d3-N-MeFOSAA	PAMN-1460	67.8			50-150	%REC	1	10/28/2023 01:55
Surr: d7-N-MeFOSE	d7-N-MeFOSE	72.7			50-150	%REC	1	10/28/2023 01:55

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-23

Client: GSI Engineering
Project: GSI (Flotation System)
Sample ID: Cast System Effluent
Collection Date: 10/24/2023 01:05 PM

Work Order: 23102270
Lab ID: 23102270-02
Matrix: GROUNDWATER

Analyses	CAS	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PFAS BY EPA 537 MODIFIED				Method: E537 MOD		Prep: E537 Mod / 10/27/23		Analyst: MNM
Fluorotelomer Sulphonic Acid 4:2	757124-72-4	U		0.84	4.5	ng/L	1	10/28/2023 02:09
Fluorotelomer Sulphonic Acid 6:2	27619-97-2	U		1.7	4.5	ng/L	1	10/28/2023 02:09
Fluorotelomer Sulphonic Acid 8:2	39108-34-4	U		1.0	4.5	ng/L	1	10/28/2023 02:09
Fluorotelomer Sulphonic Acid 10:2	120226-60-0	U		2.1	4.5	ng/L	1	10/28/2023 02:09
Perfluorobutanesulfonic Acid (PF375-73-5		U		0.32	4.5	ng/L	1	10/28/2023 02:09
Perfluorobutanoic Acid (PFBA) 375-22-4		U		2.3	4.5	ng/L	1	10/28/2023 02:09
Perfluorodecanesulfonic Acid (P 335-77-3		U		1.2	4.5	ng/L	1	10/28/2023 02:09
Perfluorodecanoic Acid (PFDA) 335-76-2		U		1.1	4.5	ng/L	1	10/28/2023 02:09
Perfluorododecanesulfonic Acid 79780-39-5 (PFDoS)		U		0.56	4.5	ng/L	1	10/28/2023 02:09
Perfluorododecanoic Acid (PFDc)307-55-1		U		0.62	4.5	ng/L	1	10/28/2023 02:09
Perfluoroheptanesulfonic Acid (F375-92-8		U		0.51	4.5	ng/L	1	10/28/2023 02:09
Perfluoroheptanoic Acid (PFHpA)375-85-9		U		1.6	4.5	ng/L	1	10/28/2023 02:09
Perfluorohexadecanoic Acid (PF67905-19-5		U		1.6	4.5	ng/L	1	10/28/2023 02:09
Perfluorohexanesulfonic Acid (P 355-46-4		U		0.81	4.5	ng/L	1	10/28/2023 02:09
Perfluorohexanoic Acid (PFHxA)307-24-4		U		1.1	4.5	ng/L	1	10/28/2023 02:09
Perfluorononanesulfonic Acid (P 68259-12-1		U		0.45	4.5	ng/L	1	10/28/2023 02:09
Perfluorononanoic Acid (PFNA) 375-95-1		U		0.78	4.5	ng/L	1	10/28/2023 02:09
Perfluorooctadecanoic Acid (PF(16517-11-6		U		0.58	4.5	ng/L	1	10/28/2023 02:09
Perfluorooctanesulfonamide (PF 754-91-6		U		0.64	4.5	ng/L	1	10/28/2023 02:09
Perfluorooctanesulfonic Acid (PF1763-23-1		U		0.80	1.8	ng/L	1	10/28/2023 02:09
Perfluorooctanoic Acid (PFOA) 335-67-1		U		0.57	1.8	ng/L	1	10/28/2023 02:09
Perfluoropentanesulfonic Acid (F2706-91-4		U		0.50	4.5	ng/L	1	10/28/2023 02:09
Perfluoropentanoic Acid (PFPeA)2706-90-3		U		1.2	4.5	ng/L	1	10/28/2023 02:09
Perfluorotetradecanoic Acid (PF 376-06-7		U		2.4	4.5	ng/L	1	10/28/2023 02:09
Perfluorotridecanoic Acid (PFTri)72629-94-8		U		1.7	4.5	ng/L	1	10/28/2023 02:09
Perfluoroundecanoic Acid (PFU)2058-94-8		U		0.88	4.5	ng/L	1	10/28/2023 02:09
N-ethylperfluoro-1-octanesulfonate 4151-50-2		U		1.0	4.5	ng/L	1	10/28/2023 02:09
N-Ethylperfluorooctanesulfonamidoacetic Acid	2991-50-6	U		1.4	4.5	ng/L	1	10/28/2023 02:09
N-Ethylperfluorooctanesulfonamidoethanoic Acid	1691-99-2	U		0.94	4.5	ng/L	1	10/28/2023 02:09
N-methylperfluoro-1-octanesulfonate 31506-32-8		U		0.71	4.5	ng/L	1	10/28/2023 02:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-23

Client: GSI Engineering
Project: GSI (Flotation System)
Sample ID: Cast System Effluent
Collection Date: 10/24/2023 01:05 PM

Work Order: 23102270
Lab ID: 23102270-02
Matrix: GROUNDWATER

Analyses	CAS	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Methylperfluorooctanesulfonamidoacetic Acid	2355-31-9	U		0.58	4.5	ng/L	1	10/28/2023 02:09
N-Methylperfluorooctanesulfonamidoethanol	24448-09-7	U		1.4	4.5	ng/L	1	10/28/2023 02:09
Hexafluoropropylene oxide dimer (HFPO-DA)	13252-13-6	U		1.1	4.5	ng/L	1	10/28/2023 02:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	919005-14-4	U		0.51	4.5	ng/L	1	10/28/2023 02:09
11Cl-Pf3OUdS	763051-92-9	U		0.42	4.5	ng/L	1	10/28/2023 02:09
9Cl-PF3ONS	756426-58-1	U		0.40	4.5	ng/L	1	10/28/2023 02:09
Perfluoro-4-ethylcyclohexanesulfonic acid (PFecHS)	133201-07-7	U		0.80	4.5	ng/L	1	10/28/2023 02:09
Perfluorobutylsulfonamide (PFB)	30334-69-1	U		1.8	4.5	ng/L	1	10/28/2023 02:09
Perfluorohexanesulfonamide (PFHxS)	41997-13-1	U		0.79	4.5	ng/L	1	10/28/2023 02:09
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	812-70-4	U		0.97	4.5	ng/L	1	10/28/2023 02:09
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	356-02-5	U		2.7	4.5	ng/L	1	10/28/2023 02:09
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	914637-49-3	U		1.3	4.5	ng/L	1	10/28/2023 02:09
Surr: 13C2-FtS 4:2	PAMN-1492	109			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-FtS 6:2	M2-6-2FtS	111			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-FtS 8:2	M2-8-2FtS	92.5			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-PFDA	STL00996	73.6			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-PFDoA	STL00998	73.0			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-PFHxA	STL00993	83.3			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-PFHxDA	Perfluorohexadecanoic acid (13C2-PFHxDA)	88.0			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-PFTeA	13C2-PFTeA	80.6			50-150	%REC	1	10/28/2023 02:09
Surr: 13C2-PFUnA	STL00997	74.9			50-150	%REC	1	10/28/2023 02:09
Surr: 13C3-HFPO-DA	STL02255	94.9			50-150	%REC	1	10/28/2023 02:09
Surr: 13C3-PFBS	STL02337	97.4			50-150	%REC	1	10/28/2023 02:09
Surr: 13C4-PFBA	STL00992	76.2			50-150	%REC	1	10/28/2023 02:09
Surr: 13C4-PFHpA	STL01892	99.5			50-150	%REC	1	10/28/2023 02:09
Surr: 13C4-PFOA	STL00990	83.3			50-150	%REC	1	10/28/2023 02:09
Surr: 13C4-PFOS	PAMN-1458	74.3			50-150	%REC	1	10/28/2023 02:09
Surr: 13C5-PFNA	STL00995	80.8			50-150	%REC	1	10/28/2023 02:09
Surr: 13C5-PFPeA	STL01893	97.2			50-150	%REC	1	10/28/2023 02:09
Surr: 13C8-FOSA	STL01056	82.3			50-150	%REC	1	10/28/2023 02:09
Surr: 18O2-PFHxS	STL00994	78.1			50-150	%REC	1	10/28/2023 02:09
Surr: d5-N-EtFOSA	STL02117	71.4			50-150	%REC	1	10/28/2023 02:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-23

Client: GSI Engineering
Project: GSI (Flotation System)
Sample ID: Cast System Effluent
Collection Date: 10/24/2023 01:05 PM

Work Order: 23102270
Lab ID: 23102270-02
Matrix: GROUNDWATER

Analyses	CAS	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: d5-N-EtFOSAA	d5-N-EtFOSAA	84.7			50-150	%REC	1	10/28/2023 02:09
Surr: d9-N-EtFOSE	d9-N-EtFOSE	81.5			50-150	%REC	1	10/28/2023 02:09
Surr: d3-N-MeFOSA	d3-N-MeFOSA	71.9			50-150	%REC	1	10/28/2023 02:09
Surr: d3-N-MeFOSAA	PAMN-1460	78.4			50-150	%REC	1	10/28/2023 02:09
Surr: d7-N-MeFOSE	d7-N-MeFOSE	83.6			50-150	%REC	1	10/28/2023 02:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: GSI Engineering
Project: GSI (Flotation System)
Work Order: 23102270

Case Narrative

Batch 228120, Method E537 Mod, Sample Cast System Influent (23102270-01A): The extracted internal standard response was outside recovery criteria with low bias; sample results may exhibit bias. 13C-PFUnDA_IS, 13C-PFDoA_IS

Batch 228120, Method E537 Mod, Sample Cast System Influent (23102270-01A): One or more surrogate recoveries were below the lower control limits. The sample results may be biased low. 13C2-PFDoA, 13C2-PFUnA

Batch 228120, Method E537 Mod, Sample Cast System Influent (23102270-01A): Additional acid required to reach pH of 3 due to sample matrix.

Batch 228120, Method E537 Mod, Sample Cast System Effluent (23102270-02A): Additional acid required to reach pH of 3 due to sample matrix.

Client: GSI Engineering
Work Order: 23102270
Project: GSI (Flotation System)

QC BATCH REPORT

Batch ID: **228120** Instrument ID **LCMS1** Method: **E537 Mod**

MBLK		Sample ID: MBLK-228120-228120			Units: ng/L		Analysis Date: 10/27/2023 09:20 PM			
Client ID:		Run ID: LCMS1_231027A			SeqNo: 10144852		Prep Date: 10/27/2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluorotelomer Sulphonic Acid 4:2 (FtS	U	5.0								
Fluorotelomer Sulphonic Acid 6:2 (FtS	U	5.0								
Fluorotelomer Sulphonic Acid 8:2 (FtS	U	5.0								
Fluorotelomer Sulphonic Acid 10:2 (FtS	U	5.0								
Perfluorobutanesulfonic Acid (PFBS)	U	5.0								
Perfluorobutanoic Acid (PFBA)	U	5.0								
Perfluorodecanesulfonic Acid (PFDS)	U	5.0								
Perfluorodecanoic Acid (PFDA)	U	5.0								
Perfluorododecanesulfonic Acid (PFDC	U	5.0								
Perfluorododecanoic Acid (PFDoA)	U	5.0								
Perfluoroheptanesulfonic Acid (PFHpS	U	5.0								
Perfluoroheptanoic Acid (PFHpA)	U	5.0								
Perfluorohexadecanoic Acid (PFHxDA	U	5.0								
Perfluorohexanesulfonic Acid (PFHxS)	U	5.0								
Perfluorohexanoic Acid (PFHxA)	U	5.0								
Perfluorononanesulfonic Acid (PFNS)	U	5.0								
Perfluorononanoic Acid (PFNA)	U	5.0								
Perfluorooctadecanoic Acid (PFODA)	U	5.0								
Perfluorooctanesulfonamide (PFOSA)	U	5.0								
Perfluorooctanesulfonic Acid (PFOS)	U	2.0								
Perfluorooctanoic Acid (PFOA)	U	2.0								
Perfluoropentanesulfonic Acid (PFPeS	U	5.0								
Perfluoropentanoic Acid (PFPeA)	U	5.0								
Perfluorotetradecanoic Acid (PFTeA)	U	5.0								
Perfluorotridecanoic Acid (PFTriA)	U	5.0								
Perfluoroundecanoic Acid (PFUnA)	U	5.0								
N-ethylperfluoro-1-octanesulfonamide	U	5.0								
N-Ethylperfluorooctanesulfonamidoace	U	5.0								
N-Ethylperfluorooctanesulfonamidoeth	U	5.0								
N-methylperfluoro-1-octanesulfonamid	U	5.0								
N-Methylperfluorooctanesulfonamidoa	U	5.0								
N-Methylperfluorooctanesulfonamidoe	U	5.0								
Hexafluoropropylene oxide dimer acid	U	5.0								
4,8-Dioxa-3H-perfluorononanoic Acid (	U	5.0								
11Cl-Pf3OUdS	U	5.0								
9Cl-PF3ONS	U	5.0								
Perfluoro-4-ethylcyclohexanesulfonic A	U	5.0								
Perfluorobutylsulfonamide (PFBSA)	U	5.0								
Perfluorohexanesulfonamide (PFHxSA	U	5.0								
2H,2H,3H,3H-Perfluorodecanoic acid (	U	5.0								
2H,2H,3H,3H-Perfluorohexanoic acid (	U	5.0								

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

Client: GSI Engineering
Work Order: 23102270
Project: GSI (Flotation System)

QC BATCH REPORT

Batch ID: 228120	Instrument ID LCMS1	Method: E537 Mod						
2H,2H,3H,3H-Perfluorooctanoic acid (f	U	5.0						
<i>Surr: 13C2-FtS 4:2</i>	121.8	0	149.4	0	81.5	50-150	0	
<i>Surr: 13C2-FtS 6:2</i>	130.7	0	152	0	86	50-150	0	
<i>Surr: 13C2-FtS 8:2</i>	121.8	0	153.3	0	79.5	50-150	0	
<i>Surr: 13C2-PFDA</i>	127.8	0	160	0	79.9	50-150	0	
<i>Surr: 13C2-PFDoA</i>	114.2	0	160	0	71.4	50-150	0	
<i>Surr: 13C2-PFHxA</i>	123.4	0	160	0	77.1	50-150	0	
<i>Surr: 13C2-PFHxDA</i>	128.4	0	160	0	80.2	50-150	0	
<i>Surr: 13C2-PFTeA</i>	114.5	0	160	0	71.5	50-150	0	
<i>Surr: 13C2-PFUnA</i>	113.5	0	160	0	71	50-150	0	
<i>Surr: 13C3-HFPO-DA</i>	129.1	0	160	0	80.7	50-150	0	
<i>Surr: 13C3-PFBS</i>	125.3	0	148.8	0	84.2	50-150	0	
<i>Surr: 13C4-PFBA</i>	121.5	0	160	0	76	50-150	0	
<i>Surr: 13C4-PFHpA</i>	132.5	0	160	0	82.8	50-150	0	
<i>Surr: 13C4-PFOA</i>	128.3	0	160	0	80.2	50-150	0	
<i>Surr: 13C4-PFOS</i>	111.5	0	152.8	0	73	50-150	0	
<i>Surr: 13C5-PFNA</i>	124.6	0	160	0	77.9	50-150	0	
<i>Surr: 13C5-PFPeA</i>	131.8	0	160	0	82.4	50-150	0	
<i>Surr: 13C8-FOSA</i>	110.5	0	160	0	69	50-150	0	
<i>Surr: 18O2-PFHxS</i>	123.9	0	151.2	0	81.9	50-150	0	
<i>Surr: d5-N-EtFOSA</i>	85.78	0	160	0	53.6	50-150	0	
<i>Surr: d5-N-EtFOSAA</i>	115.4	0	160	0	72.1	50-150	0	
<i>Surr: d9-N-EtFOSE</i>	111.1	0	160	0	69.4	50-150	0	
<i>Surr: d3-N-MeFOSA</i>	90.12	0	160	0	56.3	50-150	0	
<i>Surr: d3-N-MeFOSAA</i>	109.5	0	160	0	68.4	50-150	0	
<i>Surr: d7-N-MeFOSE</i>	113.1	0	160	0	70.7	50-150	0	

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

Client: GSI Engineering
 Work Order: 23102270
 Project: GSI (Flotation System)

QC BATCH REPORT

Batch ID: **228120** Instrument ID **LCMS1** Method: **E537 Mod**

LCS		Sample ID: LCS-228120-228120			Units: ng/L		Analysis Date: 10/27/2023 09:34 PM			
Client ID:		Run ID: LCMS1_231027A			SeqNo: 10144853		Prep Date: 10/27/2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluorotelomer Sulphonic Acid 4:2 (FtS	27.32	5.0	29.9	0	91.4	67-143	0			
Fluorotelomer Sulphonic Acid 6:2 (FtS	31.81	5.0	30.3	0	105	66-151	0			
Fluorotelomer Sulphonic Acid 8:2 (FtS	31.83	5.0	30.7	0	104	71-148	0			
Fluorotelomer Sulphonic Acid 10:2 (FtS	32.66	5.0	30.8	0	106	54-178	0			
Perfluorobutanesulfonic Acid (PFBS)	26.44	5.0	28.3	0	93.4	69-131	0			
Perfluorobutanoic Acid (PFBA)	37.74	5.0	32	0	118	73-139	0			
Perfluorodecanesulfonic Acid (PFDS)	30.61	5.0	30.8	0	99.4	64-128	0			
Perfluorodecanoic Acid (PFDA)	34.53	5.0	32	0	108	77-135	0			
Perfluorododecanesulfonic Acid (PFDC	27.79	5.0	31	0	89.6	59-122	0			
Perfluorododecanoic Acid (PFDoA)	33.42	5.0	32	0	104	77-137	0			
Perfluoroheptanesulfonic Acid (PFHpS	33.63	5.0	30.5	0	110	70-137	0			
Perfluoroheptanoic Acid (PFHpA)	27.62	5.0	32	0	86.3	72-130	0			
Perfluorohexadecanoic Acid (PFHxDA	26.21	5.0	32	0	81.9	64-142	0			
Perfluorohexanesulfonic Acid (PFHxS)	30.86	5.0	29.1	0	106	68-131	0			
Perfluorohexanoic Acid (PFHxA)	34.4	5.0	32	0	108	72-129	0			
Perfluoronanesulfonic Acid (PFNS)	31.51	5.0	30.7	0	103	70-132	0			
Perfluoronanoic Acid (PFNA)	30.41	5.0	32	0	95	79-131	0			
Perfluorooctadecanoic Acid (PFODA)	27.77	5.0	32	0	86.8	71-144	0			
Perfluorooctanesulfonamide (PFOSA)	29.31	5.0	32	0	91.6	66-140	0			
Perfluorooctanesulfonic Acid (PFOS)	30.15	2.0	29.7	0	102	72-133	0			
Perfluorooctanoic Acid (PFOA)	33.41	2.0	32	0	104	71-133	0			
Perfluoropentanesulfonic Acid (PFPeS	33.91	5.0	30	0	113	73-137	0			
Perfluoropentanoic Acid (PFPeA)	29.51	5.0	32	0	92.2	72-129	0			
Perfluorotetradecanoic Acid (PFTeA)	29.12	5.0	32	0	91	62-139	0			
Perfluorotridecanoic Acid (PFTriA)	29.98	5.0	32	0	93.7	63-147	0			
Perfluoroundecanoic Acid (PFUnA)	32.67	5.0	32	0	102	80-135	0			
N-ethylperfluoro-1-octanesulfonamide	26.52	5.0	32	0	82.9	61-131	0			
N-Ethylperfluorooctanesulfonamidoace	29.65	5.0	32	0	92.6	67-140	0			
N-Ethylperfluorooctanesulfonamidoeth	29.51	5.0	32	0	92.2	69-135	0			
N-methylperfluoro-1-octanesulfonamid	25.88	5.0	32	0	80.9	55-133	0			
N-Methylperfluorooctanesulfonamidoa	30.53	5.0	32	0	95.4	75-133	0			
N-Methylperfluorooctanesulfonamidoe	27.95	5.0	32	0	87.3	71-135	0			
Hexafluoropropylene oxide dimer acid	29.86	5.0	32	0	93.3	70-139	0			
4,8-Dioxa-3H-perfluorononanoic Acid (	31.64	5.0	30.1	0	105	74-135	0			
11Cl-Pf3OUdS	33.4	5.0	30.1	0	111	61-128	0			
9Cl-PF3ONS	31.87	5.0	29.8	0	107	69-133	0			
Perfluoro-4-ethylcyclohexanesulfonic A	31.91	5.0	28.8	0	111	79-131	0			
Perfluorobutylsulfonamide (PFBSA)	35.71	5.0	32	0	112	68-164	0			
Perfluorohexanesulfonamide (PFHxSA	33.49	5.0	32	0	105	74-135	0			
2H,2H,3H,3H-Perfluorodecanoic acid (	26.44	5.0	32	0	82.6	56-105	0			
2H,2H,3H,3H-Perfluorohexanoic acid (	26.69	5.0	32	0	83.4	71-138	0			
2H,2H,3H,3H-Perfluorooctanoic acid (f	32.92	5.0	32	0	103	64-134	0			

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

Client: GSI Engineering
Work Order: 23102270
Project: GSI (Flotation System)

QC BATCH REPORT

Batch ID: 228120	Instrument ID LCMS1	Method: E537 Mod					
<i>Surr: 13C2-FtS 4:2</i>	134.3	0	149.4	0	89.9	50-150	0
<i>Surr: 13C2-FtS 6:2</i>	141.9	0	152	0	93.4	50-150	0
<i>Surr: 13C2-FtS 8:2</i>	126.9	0	153.3	0	82.8	50-150	0
<i>Surr: 13C2-PFDA</i>	122.4	0	160	0	76.5	50-150	0
<i>Surr: 13C2-PFDoA</i>	114.5	0	160	0	71.6	50-150	0
<i>Surr: 13C2-PFHxA</i>	127.2	0	160	0	79.5	50-150	0
<i>Surr: 13C2-PFHxDA</i>	131.8	0	160	0	82.4	50-150	0
<i>Surr: 13C2-PFTeA</i>	133	0	160	0	83.1	50-150	0
<i>Surr: 13C2-PFUnA</i>	120.9	0	160	0	75.6	50-150	0
<i>Surr: 13C3-HFPO-DA</i>	141.5	0	160	0	88.4	50-150	0
<i>Surr: 13C3-PFBS</i>	132.9	0	148.8	0	89.3	50-150	0
<i>Surr: 13C4-PFBA</i>	123.5	0	160	0	77.2	50-150	0
<i>Surr: 13C4-PFHpA</i>	143.2	0	160	0	89.5	50-150	0
<i>Surr: 13C4-PFOA</i>	124.1	0	160	0	77.6	50-150	0
<i>Surr: 13C4-PFOS</i>	118.9	0	152.8	0	77.8	50-150	0
<i>Surr: 13C5-PFNA</i>	130	0	160	0	81.3	50-150	0
<i>Surr: 13C5-PFPeA</i>	142	0	160	0	88.7	50-150	0
<i>Surr: 13C8-FOSA</i>	122.2	0	160	0	76.4	50-150	0
<i>Surr: 18O2-PFHxS</i>	114.2	0	151.2	0	75.6	50-150	0
<i>Surr: d5-N-EtFOSA</i>	104.9	0	160	0	65.6	50-150	0
<i>Surr: d5-N-EtFOSAA</i>	128.3	0	160	0	80.2	50-150	0
<i>Surr: d9-N-EtFOSE</i>	125.3	0	160	0	78.3	50-150	0
<i>Surr: d3-N-MeFOSA</i>	104.8	0	160	0	65.5	50-150	0
<i>Surr: d3-N-MeFOSAA</i>	125.3	0	160	0	78.3	50-150	0
<i>Surr: d7-N-MeFOSE</i>	124.8	0	160	0	78	50-150	0

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

Client: GSI Engineering
 Work Order: 23102270
 Project: GSI (Flotation System)

QC BATCH REPORT

Batch ID: **228120** Instrument ID **LCMS1** Method: **E537 Mod**

LCSD		Sample ID: LCSD-228120-228120				Units: ng/L		Analysis Date: 10/27/2023 09:48 PM		
Client ID:		Run ID: LCMS1_231027A		SeqNo: 10144854		Prep Date: 10/27/2023		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluorotelomer Sulphonic Acid 4:2 (FtS	28.68	5.0	29.9	0	95.9	67-143	27.32	4.86	30	
Fluorotelomer Sulphonic Acid 6:2 (FtS	30.56	5.0	30.3	0	101	66-151	31.81	3.99	30	
Fluorotelomer Sulphonic Acid 8:2 (FtS	28.51	5.0	30.7	0	92.9	71-148	31.83	11	30	
Fluorotelomer Sulphonic Acid 10:2 (FtS	34.07	5.0	30.8	0	111	54-178	32.66	4.24	30	
Perfluorobutanesulfonic Acid (PFBS)	26.28	5.0	28.3	0	92.8	69-131	26.44	0.619	30	
Perfluorobutanoic Acid (PFBA)	36.64	5.0	32	0	114	73-139	37.74	2.95	30	
Perfluorodecanesulfonic Acid (PFDS)	29.98	5.0	30.8	0	97.3	64-128	30.61	2.09	30	
Perfluorodecanoic Acid (PFDA)	37.81	5.0	32	0	118	77-135	34.53	9.06	30	
Perfluorododecanesulfonic Acid (PFDC	29.12	5.0	31	0	93.9	59-122	27.79	4.69	30	
Perfluorododecanoic Acid (PFDoA)	34.21	5.0	32	0	107	77-137	33.42	2.32	30	
Perfluoroheptanesulfonic Acid (PFHpS	32.13	5.0	30.5	0	105	70-137	33.63	4.54	30	
Perfluoroheptanoic Acid (PFHpA)	29.65	5.0	32	0	92.7	72-130	27.62	7.11	30	
Perfluorohexadecanoic Acid (PFHxDA	26.93	5.0	32	0	84.2	64-142	26.21	2.71	30	
Perfluorohexanesulfonic Acid (PFHxS)	29.79	5.0	29.1	0	102	68-131	30.86	3.52	30	
Perfluorohexanoic Acid (PFHxA)	34.86	5.0	32	0	109	72-129	34.4	1.34	30	
Perfluoronanesulfonic Acid (PFNS)	32.52	5.0	30.7	0	106	70-132	31.51	3.17	30	
Perfluoronanoic Acid (PFNA)	31.6	5.0	32	0	98.7	79-131	30.41	3.84	30	
Perfluorooctadecanoic Acid (PFODA)	27.36	5.0	32	0	85.5	71-144	27.77	1.5	30	
Perfluorooctanesulfonamide (PFOSA)	30.03	5.0	32	0	93.8	66-140	29.31	2.45	30	
Perfluorooctanesulfonic Acid (PFOS)	29.53	2.0	29.7	0	99.4	72-133	30.15	2.09	30	
Perfluorooctanoic Acid (PFOA)	31.72	2.0	32	0	99.1	71-133	33.41	5.19	30	
Perfluoropentanesulfonic Acid (PFPeS	33.62	5.0	30	0	112	73-137	33.91	0.872	30	
Perfluoropentanoic Acid (PFPeA)	30.27	5.0	32	0	94.6	72-129	29.51	2.52	30	
Perfluorotetradecanoic Acid (PFTeA)	29.44	5.0	32	0	92	62-139	29.12	1.11	30	
Perfluorotridecanoic Acid (PFTriA)	31.34	5.0	32	0	98	63-147	29.98	4.45	30	
Perfluoroundecanoic Acid (PFUnA)	32.89	5.0	32	0	103	80-135	32.67	0.664	30	
N-ethylperfluoro-1-octanesulfonamide	29.19	5.0	32	0	91.2	61-131	26.52	9.58	30	
N-Ethylperfluorooctanesulfonamidoace	30.54	5.0	32	0	95.4	67-140	29.65	2.96	30	
N-Ethylperfluorooctanesulfonamidoeth	30.56	5.0	32	0	95.5	69-135	29.51	3.48	30	
N-methylperfluoro-1-octanesulfonamid	25.17	5.0	32	0	78.7	55-133	25.88	2.76	30	
N-Methylperfluorooctanesulfonamidoa	29.58	5.0	32	0	92.4	75-133	30.53	3.17	30	
N-Methylperfluorooctanesulfonamidoe	27.56	5.0	32	0	86.1	71-135	27.95	1.41	30	
Hexafluoropropylene oxide dimer acid	29.21	5.0	32	0	91.3	70-139	29.86	2.21	30	
4,8-Dioxa-3H-perfluorononanoic Acid (	31.52	5.0	30.1	0	105	74-135	31.64	0.385	30	
11Cl-Pf3OUdS	33.16	5.0	30.1	0	110	61-128	33.4	0.75	30	
9Cl-PF3ONS	31.16	5.0	29.8	0	105	69-133	31.87	2.23	30	
Perfluoro-4-ethylcyclohexanesulfonic A	29.21	5.0	28.8	0	101	79-131	31.91	8.82	30	
Perfluorobutylsulfonamide (PFBSA)	34.65	5.0	32	0	108	68-164	35.71	3.01	30	
Perfluorohexanesulfonamide (PFHxSA	32.6	5.0	32	0	102	74-135	33.49	2.69	30	
2H,2H,3H,3H-Perfluorodecanoic acid (	26.32	5.0	32	0	82.2	56-105	26.44	0.473	30	
2H,2H,3H,3H-Perfluorohexanoic acid (	33.77	5.0	32	0	106	71-138	26.69	23.4	30	
2H,2H,3H,3H-Perfluorooctanoic acid (f	33.49	5.0	32	0	105	64-134	32.92	1.72	30	

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

Client: GSI Engineering
 Work Order: 23102270
 Project: GSI (Flotation System)

QC BATCH REPORT

Batch ID: 228120	Instrument ID LCMS1	Method: E537 Mod								
Surr: 13C2-FtS 4:2	145.1	0	149.4	0	97.1	50-150	134.3	7.73	30	
Surr: 13C2-FtS 6:2	149.6	0	152	0	98.4	50-150	141.9	5.28	30	
Surr: 13C2-FtS 8:2	141.2	0	153.3	0	92.1	50-150	126.9	10.7	30	
Surr: 13C2-PFDA	126.5	0	160	0	79.1	50-150	122.4	3.32	30	
Surr: 13C2-PFDoA	118.1	0	160	0	73.8	50-150	114.5	3.06	30	
Surr: 13C2-PFHxA	131.1	0	160	0	82	50-150	127.2	3.05	30	
Surr: 13C2-PFHxDA	152.7	0	160	0	95.4	50-150	131.8	14.7	30	
Surr: 13C2-PFTeA	133.1	0	160	0	83.2	50-150	133	0.12	30	
Surr: 13C2-PFUnA	130.3	0	160	0	81.5	50-150	120.9	7.5	30	
Surr: 13C3-HFPO-DA	155.3	0	160	0	97.1	50-150	141.5	9.31	30	
Surr: 13C3-PFBS	139.8	0	148.8	0	93.9	50-150	132.9	5.08	30	
Surr: 13C4-PFBA	135.2	0	160	0	84.5	50-150	123.5	9.07	30	
Surr: 13C4-PFHpA	153.9	0	160	0	96.2	50-150	143.2	7.21	30	
Surr: 13C4-PFOA	136.7	0	160	0	85.5	50-150	124.1	9.67	30	
Surr: 13C4-PFOS	126.5	0	152.8	0	82.8	50-150	118.9	6.2	30	
Surr: 13C5-PFNA	135.2	0	160	0	84.5	50-150	130	3.91	30	
Surr: 13C5-PFPeA	149.4	0	160	0	93.4	50-150	142	5.06	30	
Surr: 13C8-FOSA	129.7	0	160	0	81.1	50-150	122.2	5.93	30	
Surr: 18O2-PFHxS	122	0	151.2	0	80.7	50-150	114.2	6.55	30	
Surr: d5-N-EtFOSA	98.03	0	160	0	61.3	50-150	104.9	6.8	30	
Surr: d5-N-EtFOSAA	129.8	0	160	0	81.1	50-150	128.3	1.11	30	
Surr: d9-N-EtFOSE	132.5	0	160	0	82.8	50-150	125.3	5.56	30	
Surr: d3-N-MeFOSA	107.7	0	160	0	67.3	50-150	104.8	2.71	30	
Surr: d3-N-MeFOSAA	137.3	0	160	0	85.8	50-150	125.3	9.16	30	
Surr: d7-N-MeFOSE	136	0	160	0	85	50-150	124.8	8.58	30	

The following samples were analyzed in this batch: | 23102270-01A 23102270-02A

Client: GSI Engineering
Project: GSI (Flotration System)
WorkOrder: 23102270

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
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
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCS D	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
ng/L	Nanograms per Liter

Sample Receipt Checklist

Client Name: **GSI ENGINEERING - SALINA**

Date/Time Received: **25-Oct-23 09:30**

Work Order: **23102270**

Received by: **JD**

Checklist completed by **Jason Delinger** 25-Oct-23
eSignature | Date

Reviewed by: **Tim Gates** 25-Oct-23
eSignature | Date

Matrices: **Water**

Carrier name: **FedEx**

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Yes No

Sample(s) received on ice? Yes No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



Chain of Custody Form

Page _____ of _____

ALS Environmental
 3352 128th Avenue
 Holland, Michigan 49424
 (Tel) 616.399.6070
 (Fax) 616.399.6185

Customer Information		Project Information				Parameter/Method Request for Analysis										
Purchase Order		Project Name	Flotation System			A	PFOA/PFOS MOD- 537M									
Quote #		Project Number				B										
Company Name	GSI Engineering	Bill To Company	GSI Engineering			C										
Send Report To	GSI Engineering	Invoice Attn.				D	VOC 8260B									
Address	2775 Arnold St. STE A	Address				E	TPH LOW									
							F	TPH MEDIUM								
City/State/Zip	Salina, Kansas 67401	City/State/Zip				G	TPH HIGH									
Phone		Phone				H	Flashpoint									
Fax		Fax				I										
e-Mail Address	dpoague@gsinetwork.com				J											
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J
	Cast System Influent	102423	1145	GW		1	X									
	Cast System Effluent	102423	1305	GW		2	X									
Sampler(s): Please Print & Sign		Shipment Method:		Turnaround Time: (Business Days)				Other				Results Due Date:				
Dave Poague		Fed Ex		<input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 3 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> 1 BD												
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:	0.4 Deg C									
[Signature]	102423	1600	[Signature]	102513	0830											
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	Cooler Temp °C	pH Verified	QC Package: (Check Box Below)								
[Signature]			[Signature]			0.4°C		<input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV: SW846 Methods/CLP like <input type="checkbox"/> Other: _____								
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Date:	Time:											
[Signature]	102513	1150	[Signature]													

