

**EVERETT STEEL RI/FS
GROUNDWATER
LABORATORY ANALYTICAL REPORTS**



July 19, 2018

Ms. Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

Dear Ms. Knox,

On July 10th, 6 samples were received by our laboratory and assigned our laboratory project number EV18070041. The project was identified as your Everett Steel . The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 7/19/2018

ALS JOB#: EV18070041

ALS SAMPLE#: EV18070041-01

CLIENT CONTACT: Janet Knox

DATE RECEIVED: 07/10/2018

CLIENT PROJECT: Everett Steel

COLLECTION DATE: 7/9/2018 1:00:00 PM

CLIENT SAMPLE ID F31-GW-070918

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/11/2018	JMK
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/15/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/15/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	07/10/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	07/10/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	07/10/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	7/19/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18070041
	Seattle, WA 98102	ALS SAMPLE#:	EV18070041-01
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/9/2018 1:00:00 PM
CLIENT SAMPLE ID	F31-GW-070918	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	07/10/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	07/10/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Total Dissolved Solids	SM2540C	380	5.0	1	MG/L	07/16/2018	JMJ
Chloride	EPA-300.0	17	0.92	10	MG/L	07/17/2018	JMJ
Sulfate	EPA-300.0	66	2.6	10	MG/L	07/17/2018	JMJ
Mercury	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Arsenic	EPA-200.8	1.6	1.0	1	UG/L	07/12/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium	EPA-200.8	4.8	2.0	1	UG/L	07/12/2018	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS JOB#:	EV18070041
		ALS SAMPLE#:	EV18070041-01
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/9/2018 1:00:00 PM
CLIENT SAMPLE ID	F31-GW-070918	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Copper	EPA-200.8	7.3	2.0	1	UG/L	07/12/2018	RAL
Iron	EPA-200.8	2200	50	1	UG/L	07/12/2018	RAL
Lead	EPA-200.8	2.2	1.0	1	UG/L	07/12/2018	RAL
Nickel	EPA-200.8	8.3	2.0	1	UG/L	07/12/2018	RAL
Zinc	EPA-200.8	17	2.5	1	UG/L	07/12/2018	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium (Dissolved)	EPA-200.8	2.4	2.0	1	UG/L	07/12/2018	RAL
Copper (Dissolved)	EPA-200.8	3.5	2.0	1	UG/L	07/12/2018	RAL
Iron (Dissolved)	EPA-200.8	U	50	1	UG/L	07/12/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Nickel (Dissolved)	EPA-200.8	3.3	2.0	1	UG/L	07/12/2018	RAL
Zinc (Dissolved)	EPA-200.8	11	2.5	1	UG/L	07/12/2018	RAL
Alkalinity as CaCO ₃ , Total	SM2320B	260	0	1	MG/L	07/16/2018	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.3	07/11/2018	JMK
C25	NWTPH-DX	89.3	07/15/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	103	07/10/2018	DLC
Toluene-d8	EPA-8260	100	07/10/2018	DLC
4-Bromofluorobenzene	EPA-8260	106	07/10/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	7/19/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18070041
	Seattle, WA 98102	ALS SAMPLE#:	EV18070041-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/9/2018 1:00:00 PM
CLIENT SAMPLE ID	51-GW-070918	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/11/2018	JMK
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/15/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/15/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	07/10/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	07/10/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	07/10/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS JOB#:	EV18070041
		ALS SAMPLE#:	EV18070041-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/9/2018 1:00:00 PM
CLIENT SAMPLE ID	51-GW-070918	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	07/10/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	07/10/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Mercury	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Arsenic	EPA-200.8	1.8	1.0	1	UG/L	07/12/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium	EPA-200.8	6.5	2.0	1	UG/L	07/12/2018	RAL
Copper	EPA-200.8	9.6	2.0	1	UG/L	07/12/2018	RAL
Iron	EPA-200.8	3400	50	1	UG/L	07/12/2018	RAL
Lead	EPA-200.8	2.7	1.0	1	UG/L	07/12/2018	RAL
Nickel	EPA-200.8	11	2.0	1	UG/L	07/12/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS JOB#: EV18070041
ALS SAMPLE#: EV18070041-03
CLIENT CONTACT: Janet Knox
DATE RECEIVED: 07/10/2018
CLIENT PROJECT: Everett Steel
COLLECTION DATE: 7/9/2018 1:00:00 PM
CLIENT SAMPLE ID: 51-GW-070918
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Zinc	EPA-200.8	20	2.5	1	UG/L	07/12/2018	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Copper (Dissolved)	EPA-200.8	3.6	2.0	1	UG/L	07/12/2018	RAL
Iron (Dissolved)	EPA-200.8	U	50	1	UG/L	07/12/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Nickel (Dissolved)	EPA-200.8	3.3	2.0	1	UG/L	07/12/2018	RAL
Zinc (Dissolved)	EPA-200.8	11	2.5	1	UG/L	07/12/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.5	07/11/2018	JMK
C25	NWTPH-DX	85.5	07/15/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	108	07/10/2018	DLC
Toluene-d8	EPA-8260	99.7	07/10/2018	DLC
4-Bromofluorobenzene	EPA-8260	103	07/10/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS JOB#: EV18070041
ALS SAMPLE#: EV18070041-04
CLIENT CONTACT: Janet Knox
DATE RECEIVED: 07/10/2018
CLIENT PROJECT: Everett Steel
COLLECTION DATE: 7/9/2018 2:35:00 PM
CLIENT SAMPLE ID: F29-GW-070918
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/11/2018	JMK
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/15/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/15/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	07/10/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	07/10/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	07/10/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroform	EPA-8260	2.2	2.0	1	UG/L	07/10/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	7/19/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18070041
	Seattle, WA 98102	ALS SAMPLE#:	EV18070041-04
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/9/2018 2:35:00 PM
CLIENT SAMPLE ID	F29-GW-070918	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	07/10/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	07/10/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Total Dissolved Solids	SM2540C	290	5.0	1	MG/L	07/16/2018	JMJ
Chloride	EPA-300.0	8.8	0.92	10	MG/L	07/17/2018	JMJ
Sulfate	EPA-300.0	48	2.6	10	MG/L	07/17/2018	JMJ
Mercury	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Arsenic	EPA-200.8	5.6	1.0	1	UG/L	07/12/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium	EPA-200.8	8.4	2.0	1	UG/L	07/12/2018	RAL
Copper	EPA-200.8	11	2.0	1	UG/L	07/12/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS JOB#: EV18070041
ALS SAMPLE#: EV18070041-04
CLIENT CONTACT: Janet Knox
DATE RECEIVED: 07/10/2018
CLIENT PROJECT: Everett Steel
COLLECTION DATE: 7/9/2018 2:35:00 PM
CLIENT SAMPLE ID: F29-GW-070918
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	5000	50	1	UG/L	07/12/2018	RAL
Lead	EPA-200.8	4.0	1.0	1	UG/L	07/12/2018	RAL
Nickel	EPA-200.8	13	2.0	1	UG/L	07/12/2018	RAL
Zinc	EPA-200.8	21	2.5	1	UG/L	07/12/2018	RAL
Arsenic (Dissolved)	EPA-200.8	4.9	1.0	1	UG/L	07/12/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Copper (Dissolved)	EPA-200.8	2.3	2.0	1	UG/L	07/12/2018	RAL
Iron (Dissolved)	EPA-200.8	1500	50	1	UG/L	07/12/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Nickel (Dissolved)	EPA-200.8	4.0	2.0	1	UG/L	07/12/2018	RAL
Zinc (Dissolved)	EPA-200.8	11	2.5	1	UG/L	07/12/2018	RAL
Alkalinity as CaCO3, Total	SM2320B	220	0	1	MG/L	07/16/2018	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	92.3	07/11/2018	JMK
C25	NWTPH-DX	86.0	07/15/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	110	07/10/2018	DLC
Toluene-d8	EPA-8260	99.2	07/10/2018	DLC
4-Bromofluorobenzene	EPA-8260	104	07/10/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	7/19/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18070041
	Seattle, WA 98102	ALS SAMPLE#:	EV18070041-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/10/2018 10:45:00 AM
CLIENT SAMPLE ID	D31-GW-071018	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/11/2018	JMK
TPH-Diesel Range	NWTPH-DX	140	130	1	UG/L	07/15/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/15/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	07/10/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	07/10/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	07/10/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS JOB#:	EV18070041
		ALS SAMPLE#:	EV18070041-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/10/2018 10:45:00 AM
CLIENT SAMPLE ID	D31-GW-071018	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	07/10/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	07/10/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	07/10/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	07/10/2018	DLC
Total Dissolved Solids	SM2540C	450	5.0	1	MG/L	07/16/2018	JMJ
Chloride	EPA-300.0	10	0.92	10	MG/L	07/17/2018	JMJ
Sulfate	EPA-300.0	98	2.6	10	MG/L	07/17/2018	JMJ
Mercury	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Arsenic	EPA-200.8	2.1	1.0	1	UG/L	07/12/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Copper	EPA-200.8	3.4	2.0	1	UG/L	07/12/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS JOB#: EV18070041
ALS SAMPLE#: EV18070041-05
CLIENT CONTACT: Janet Knox
DATE RECEIVED: 07/10/2018
CLIENT PROJECT: Everett Steel
COLLECTION DATE: 7/10/2018 10:45:00 AM
CLIENT SAMPLE ID: D31-GW-071018
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	1000	50	1	UG/L	07/12/2018	RAL
Lead	EPA-200.8	2.7	1.0	1	UG/L	07/12/2018	RAL
Nickel	EPA-200.8	12	2.0	1	UG/L	07/12/2018	RAL
Zinc	EPA-200.8	21	2.5	1	UG/L	07/12/2018	RAL
Arsenic (Dissolved)	EPA-200.8	1.8	1.0	1	UG/L	07/12/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Iron (Dissolved)	EPA-200.8	690	50	1	UG/L	07/12/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Nickel (Dissolved)	EPA-200.8	12	2.0	1	UG/L	07/12/2018	RAL
Zinc (Dissolved)	EPA-200.8	33	2.5	1	UG/L	07/12/2018	RAL
Alkalinity as CaCO3, Total	SM2320B	330	0	1	MG/L	07/16/2018	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	95.3	07/11/2018	JMK
C25	NWTPH-DX	86.2	07/15/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	109	07/10/2018	DLC
Toluene-d8	EPA-8260	99.9	07/10/2018	DLC
4-Bromofluorobenzene	EPA-8260	106	07/10/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	7/19/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18070041
	Seattle, WA 98102	ALS SAMPLE#:	EV18070041-06
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	07/10/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	7/10/2018 11:30:00 AM
CLIENT SAMPLE ID	52-GW-071018	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/15/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/15/2018	EBS
Mercury	EPA-245.1	U	0.20	1	UG/L	07/12/2018	RAL
Arsenic	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	07/12/2018	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Copper	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Iron	EPA-200.8	U	50	1	UG/L	07/12/2018	RAL
Lead	EPA-200.8	1.5	1.0	1	UG/L	07/12/2018	RAL
Nickel	EPA-200.8	U	2.0	1	UG/L	07/12/2018	RAL
Zinc	EPA-200.8	5.9	2.5	1	UG/L	07/12/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	82.9	07/15/2018	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS SDG#: EV18070041
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY BLANK RESULTS

MBG-071018W2 - Batch 130348 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	07/10/2018	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071218W - Batch 130389 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	07/12/2018	EBS
TPH-Oil Range	NWTPH-DX	U	UG/L	250	07/12/2018	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071018W - Batch 130342 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Chloromethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Vinyl Chloride	EPA-8260	U	UG/L	0.20	07/10/2018	DLC
Bromomethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Chloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Carbon Tetrachloride	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Trichlorofluoromethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Carbon Disulfide	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Acetone	EPA-8260	U	UG/L	25	07/10/2018	DLC
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Methylene Chloride	EPA-8260	U	UG/L	5.0	07/10/2018	DLC
Acrylonitrile	EPA-8260	U	UG/L	10	07/10/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,1-Dichloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
2-Butanone	EPA-8260	U	UG/L	10	07/10/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
2,2-Dichloropropane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Bromochloromethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Chloroform	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,1-Dichloropropene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2-Dichloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Benzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Trichloroethene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS SDG#:	EV18070041
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY BLANK RESULTS

MB-071018W - Batch 130342 - Water by EPA-8260

1,2-Dichloropropane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Dibromomethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Bromodichloromethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/L	10	07/10/2018	DLC
Toluene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
2-Hexanone	EPA-8260	U	UG/L	10	07/10/2018	DLC
1,3-Dichloropropane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Tetrachloroethylene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Dibromochloromethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2-Dibromoethane	EPA-8260	U	UG/L	0.010	07/10/2018	DLC
Chlorobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Ethylbenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
m,p-Xylene	EPA-8260	U	UG/L	4.0	07/10/2018	DLC
Styrene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
o-Xylene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Bromoform	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Isopropylbenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Bromobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
N-Propyl Benzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
2-Chlorotoluene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
4-Chlorotoluene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
T-Butyl Benzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
S-Butyl Benzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
P-Isopropyltoluene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
N-Butylbenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/L	10	07/10/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Hexachlorobutadiene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
Naphthalene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/L	2.0	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY BLANK RESULTS

MB-071018W - Batch 130342 - Water by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R320068 - Batch R320068 - Water by SM2540C

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Total Dissolved Solids	SM2540C	U	MG/L	5.0	07/16/2018	JMJ

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R320069 - Batch R320069 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chloride	EPA-300.0	U	MG/L	0.092	07/17/2018	JMJ
Sulfate	EPA-300.0	U	MG/L	0.26	07/17/2018	JMJ

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R319727 - Batch R319727 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-245.1	U	UG/L	0.20	07/12/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R319810 - Batch R319810 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved)	EPA-245.1	U	UG/L	0.20	07/12/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071118W - Batch 130307 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-200.8	U	UG/L	1.0	07/12/2018	RAL
Cadmium	EPA-200.8	U	UG/L	1.0	07/12/2018	RAL
Chromium	EPA-200.8	U	UG/L	2.0	07/12/2018	RAL
Copper	EPA-200.8	U	UG/L	2.0	07/12/2018	RAL
Iron	EPA-200.8	U	UG/L	50	07/12/2018	RAL
Lead	EPA-200.8	U	UG/L	1.0	07/12/2018	RAL
Nickel	EPA-200.8	U	UG/L	2.0	07/12/2018	RAL
Zinc	EPA-200.8	U	UG/L	2.5	07/12/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS SDG#: EV18070041
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY BLANK RESULTS

MB-071118W - Batch 130308 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	07/12/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	UG/L	1.0	07/12/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	UG/L	2.0	07/12/2018	RAL
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	07/12/2018	RAL
Iron (Dissolved)	EPA-200.8	U	UG/L	50	07/12/2018	RAL
Lead (Dissolved)	EPA-200.8	U	UG/L	1.0	07/12/2018	RAL
Nickel (Dissolved)	EPA-200.8	U	UG/L	2.0	07/12/2018	RAL
Zinc (Dissolved)	EPA-200.8	U	UG/L	2.5	07/12/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R320071 - Batch R320071 - Water by SM2320B

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Alkalinity as CaCO3, Total	SM2320B	U	MG/L	9.0	07/16/2018	CAS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS SDG#:	EV18070041
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 130348 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	86.8			66.5	122.7	07/10/2018	JMK
TPH-Volatile Range - BSD	NWTPH-GX	92.8	7		66.5	122.7	07/10/2018	JMK

ALS Test Batch ID: 130389 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	95.4			67	125.2	07/13/2018	EBS
TPH-Diesel Range - BSD	NWTPH-DX	97.4	2		67	125.2	07/13/2018	EBS

ALS Test Batch ID: 130342 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Dichlorodifluoromethane - BS	EPA-8260	85.4			50	150	07/10/2018	DLC
Dichlorodifluoromethane - BSD	EPA-8260	73.8	15		50	150	07/10/2018	DLC
Chloromethane - BS	EPA-8260	103			50	150	07/10/2018	DLC
Chloromethane - BSD	EPA-8260	93.2	10		50	150	07/10/2018	DLC
Vinyl Chloride - BS	EPA-8260	87.5			50	150	07/10/2018	DLC
Vinyl Chloride - BSD	EPA-8260	78.0	12		50	150	07/10/2018	DLC
Bromomethane - BS	EPA-8260	146			50	150	07/10/2018	DLC
Bromomethane - BSD	EPA-8260	133	10		50	150	07/10/2018	DLC
Chloroethane - BS	EPA-8260	86.3			50	150	07/10/2018	DLC
Chloroethane - BSD	EPA-8260	77.2	11		50	150	07/10/2018	DLC
Carbon Tetrachloride - BS	EPA-8260	93.7			50	150	07/10/2018	DLC
Carbon Tetrachloride - BSD	EPA-8260	83.4	12		50	150	07/10/2018	DLC
Trichlorofluoromethane - BS	EPA-8260	90.9			50	150	07/10/2018	DLC
Trichlorofluoromethane - BSD	EPA-8260	79.2	14		50	150	07/10/2018	DLC
Carbon Disulfide - BS	EPA-8260	85.5			50	150	07/10/2018	DLC
Carbon Disulfide - BSD	EPA-8260	76.5	11		50	150	07/10/2018	DLC
Acetone - BS	EPA-8260	104			50	150	07/10/2018	DLC
Acetone - BSD	EPA-8260	86.3	19		50	150	07/10/2018	DLC
1,1-Dichloroethene - BS	EPA-8260	84.1			72.5	136	07/10/2018	DLC
1,1-Dichloroethene - BSD	EPA-8260	74.7	12		72.5	136	07/10/2018	DLC
Methylene Chloride - BS	EPA-8260	62.2			50	150	07/10/2018	DLC
Methylene Chloride - BSD	EPA-8260	54.8	13		50	150	07/10/2018	DLC
Acrylonitrile - BS	EPA-8260	96.2			50	150	07/10/2018	DLC
Acrylonitrile - BSD	EPA-8260	85.2	12		50	150	07/10/2018	DLC
Methyl T-Butyl Ether - BS	EPA-8260	90.6			50	150	07/10/2018	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	84.3	7		50	150	07/10/2018	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	91.0			50	150	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS SDG#:	EV18070041
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Trans-1,2-Dichloroethene - BSD	EPA-8260	81.9	10		50	150	07/10/2018	DLC
1,1-Dichloroethane - BS	EPA-8260	93.1			50	150	07/10/2018	DLC
1,1-Dichloroethane - BSD	EPA-8260	84.4	10		50	150	07/10/2018	DLC
2-Butanone - BS	EPA-8260	104			50	150	07/10/2018	DLC
2-Butanone - BSD	EPA-8260	90.8	13		50	150	07/10/2018	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	87.5			50	150	07/10/2018	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	79.6	9		50	150	07/10/2018	DLC
2,2-Dichloropropane - BS	EPA-8260	124			50	150	07/10/2018	DLC
2,2-Dichloropropane - BSD	EPA-8260	109	13		50	150	07/10/2018	DLC
Bromochloromethane - BS	EPA-8260	104			50	150	07/10/2018	DLC
Bromochloromethane - BSD	EPA-8260	95.6	9		50	150	07/10/2018	DLC
Chloroform - BS	EPA-8260	93.4			50	150	07/10/2018	DLC
Chloroform - BSD	EPA-8260	85.2	9		50	150	07/10/2018	DLC
1,1,1-Trichloroethane - BS	EPA-8260	89.2			50	150	07/10/2018	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	80.4	10		50	150	07/10/2018	DLC
1,1-Dichloropropene - BS	EPA-8260	90.6			50	150	07/10/2018	DLC
1,1-Dichloropropene - BSD	EPA-8260	80.4	12		50	150	07/10/2018	DLC
1,2-Dichloroethane - BS	EPA-8260	102			50	150	07/10/2018	DLC
1,2-Dichloroethane - BSD	EPA-8260	95.0	8		50	150	07/10/2018	DLC
Benzene - BS	EPA-8260	101			74.7	143	07/10/2018	DLC
Benzene - BSD	EPA-8260	92.5	9		74.7	143	07/10/2018	DLC
Trichloroethene - BS	EPA-8260	84.4			74.4	141	07/10/2018	DLC
Trichloroethene - BSD	EPA-8260	76.8	9		74.4	141	07/10/2018	DLC
1,2-Dichloropropane - BS	EPA-8260	90.7			50	150	07/10/2018	DLC
1,2-Dichloropropane - BSD	EPA-8260	83.5	8		50	150	07/10/2018	DLC
Dibromomethane - BS	EPA-8260	91.3			50	150	07/10/2018	DLC
Dibromomethane - BSD	EPA-8260	85.4	7		50	150	07/10/2018	DLC
Bromodichloromethane - BS	EPA-8260	91.0			50	150	07/10/2018	DLC
Bromodichloromethane - BSD	EPA-8260	84.0	8		50	150	07/10/2018	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	88.6			50	150	07/10/2018	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	82.7	7		50	150	07/10/2018	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	95.9			50	150	07/10/2018	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	90.0	6		50	150	07/10/2018	DLC
Toluene - BS	EPA-8260	87.7			71.7	139	07/10/2018	DLC
Toluene - BSD	EPA-8260	80.2	9		71.7	139	07/10/2018	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	91.9			50	150	07/10/2018	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	85.1	8		50	150	07/10/2018	DLC
1,1,2-Trichloroethane - BS	EPA-8260	85.8			50	150	07/10/2018	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	80.6	6		50	150	07/10/2018	DLC
2-Hexanone - BS	EPA-8260	108			50	150	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

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DATE: 7/19/2018
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WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
2-Hexanone - BSD	EPA-8260	98.0	9		50	150	07/10/2018	DLC
1,3-Dichloropropane - BS	EPA-8260	83.7			50	150	07/10/2018	DLC
1,3-Dichloropropane - BSD	EPA-8260	78.8	6		50	150	07/10/2018	DLC
Tetrachloroethylene - BS	EPA-8260	82.1			50	150	07/10/2018	DLC
Tetrachloroethylene - BSD	EPA-8260	74.8	9		50	150	07/10/2018	DLC
Dibromochloromethane - BS	EPA-8260	85.3			50	150	07/10/2018	DLC
Dibromochloromethane - BSD	EPA-8260	80.2	6		50	150	07/10/2018	DLC
1,2-Dibromoethane - BS	EPA-8260	83.1			50	150	07/10/2018	DLC
1,2-Dibromoethane - BSD	EPA-8260	78.1	6		50	150	07/10/2018	DLC
Chlorobenzene - BS	EPA-8260	84.1			73	131	07/10/2018	DLC
Chlorobenzene - BSD	EPA-8260	77.8	8		73	131	07/10/2018	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	88.7			50	150	07/10/2018	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	82.0	8		50	150	07/10/2018	DLC
Ethylbenzene - BS	EPA-8260	85.9			50	150	07/10/2018	DLC
Ethylbenzene - BSD	EPA-8260	78.4	9		50	150	07/10/2018	DLC
m,p-Xylene - BS	EPA-8260	85.8			50	150	07/10/2018	DLC
m,p-Xylene - BSD	EPA-8260	78.9	8		50	150	07/10/2018	DLC
Styrene - BS	EPA-8260	87.6			50	150	07/10/2018	DLC
Styrene - BSD	EPA-8260	81.1	8		50	150	07/10/2018	DLC
o-Xylene - BS	EPA-8260	87.0			50	150	07/10/2018	DLC
o-Xylene - BSD	EPA-8260	79.8	9		50	150	07/10/2018	DLC
Bromoform - BS	EPA-8260	84.2			50	150	07/10/2018	DLC
Bromoform - BSD	EPA-8260	79.5	6		50	150	07/10/2018	DLC
Isopropylbenzene - BS	EPA-8260	88.4			50	150	07/10/2018	DLC
Isopropylbenzene - BSD	EPA-8260	80.7	9		50	150	07/10/2018	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	90.2			50	150	07/10/2018	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	83.3	8		50	150	07/10/2018	DLC
1,2,3-Trichloropropane - BS	EPA-8260	103			50	150	07/10/2018	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	94.3	9		50	150	07/10/2018	DLC
Bromobenzene - BS	EPA-8260	90.5			50	150	07/10/2018	DLC
Bromobenzene - BSD	EPA-8260	83.2	8		50	150	07/10/2018	DLC
N-Propyl Benzene - BS	EPA-8260	94.9			50	150	07/10/2018	DLC
N-Propyl Benzene - BSD	EPA-8260	84.7	11		50	150	07/10/2018	DLC
2-Chlorotoluene - BS	EPA-8260	92.6			50	150	07/10/2018	DLC
2-Chlorotoluene - BSD	EPA-8260	83.2	11		50	150	07/10/2018	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	89.3			50	150	07/10/2018	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	80.5	10		50	150	07/10/2018	DLC
4-Chlorotoluene - BS	EPA-8260	92.9			50	150	07/10/2018	DLC
4-Chlorotoluene - BSD	EPA-8260	84.0	10		50	150	07/10/2018	DLC
T-Butyl Benzene - BS	EPA-8260	91.1			50	150	07/10/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS SDG#:	EV18070041
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
T-Butyl Benzene - BSD	EPA-8260	80.7	12		50	150	07/10/2018	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	86.8			50	150	07/10/2018	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	78.4	10		50	150	07/10/2018	DLC
S-Butyl Benzene - BS	EPA-8260	96.1			50	150	07/10/2018	DLC
S-Butyl Benzene - BSD	EPA-8260	85.8	11		50	150	07/10/2018	DLC
P-Isopropyltoluene - BS	EPA-8260	95.4			50	150	07/10/2018	DLC
P-Isopropyltoluene - BSD	EPA-8260	85.2	11		50	150	07/10/2018	DLC
1,3-Dichlorobenzene - BS	EPA-8260	91.6			50	150	07/10/2018	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	83.4	9		50	150	07/10/2018	DLC
1,4-Dichlorobenzene - BS	EPA-8260	91.3			50	150	07/10/2018	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	82.9	10		50	150	07/10/2018	DLC
N-Butylbenzene - BS	EPA-8260	100			50	150	07/10/2018	DLC
N-Butylbenzene - BSD	EPA-8260	89.1	12		50	150	07/10/2018	DLC
1,2-Dichlorobenzene - BS	EPA-8260	91.3			50	150	07/10/2018	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	82.8	10		50	150	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	90.4			50	150	07/10/2018	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	83.6	8		50	150	07/10/2018	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	91.9			50	150	07/10/2018	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	83.2	10		50	150	07/10/2018	DLC
Hexachlorobutadiene - BS	EPA-8260	96.4			50	150	07/10/2018	DLC
Hexachlorobutadiene - BSD	EPA-8260	85.4	12		50	150	07/10/2018	DLC
Naphthalene - BS	EPA-8260	85.6			50	150	07/10/2018	DLC
Naphthalene - BSD	EPA-8260	79.6	7		50	150	07/10/2018	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	91.9			50	150	07/10/2018	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	83.2	10		50	150	07/10/2018	DLC

ALS Test Batch ID: R320068 - Water by SM2540C

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Total Dissolved Solids - BS	SM2540C	102			85	115	07/16/2018	JMJ

ALS Test Batch ID: R320069 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Chloride - BS	EPA-300.0	93.5			80	120	07/17/2018	JMJ
Chloride - BSD	EPA-300.0	91.0	3		80	120	07/17/2018	JMJ
Sulfate - BS	EPA-300.0	102			80	120	07/17/2018	JMJ
Sulfate - BSD	EPA-300.0	99.5	2		80	120	07/17/2018	JMJ



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS SDG#: EV18070041
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R319727 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-245.1	99.2			80.6	118	07/12/2018	RAL
Mercury - BSD	EPA-245.1	99.2	0		80.6	118	07/12/2018	RAL

ALS Test Batch ID: R319810 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury (Dissolved) - BS	EPA-245.1	99.2			80.6	118	07/12/2018	RAL
Mercury (Dissolved) - BSD	EPA-245.1	99.2	0		80.6	118	07/12/2018	RAL

ALS Test Batch ID: 130307 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-200.8	101			89.1	110	07/12/2018	RAL
Arsenic - BSD	EPA-200.8	101	0		89.1	110	07/12/2018	RAL
Cadmium - BS	EPA-200.8	102			89.4	109	07/12/2018	RAL
Cadmium - BSD	EPA-200.8	103	0		89.4	109	07/12/2018	RAL
Chromium - BS	EPA-200.8	98.3			88.3	110.2	07/12/2018	RAL
Chromium - BSD	EPA-200.8	98.9	1		88.3	110.2	07/12/2018	RAL
Copper - BS	EPA-200.8	102			85.4	109	07/12/2018	RAL
Copper - BSD	EPA-200.8	102	1		85.4	109	07/12/2018	RAL
Iron - BS	EPA-200.8	103			80	120	07/12/2018	RAL
Iron - BSD	EPA-200.8	103	0		80	120	07/12/2018	RAL
Lead - BS	EPA-200.8	97.8			87.5	107	07/12/2018	RAL
Lead - BSD	EPA-200.8	97.7	0		87.5	107	07/12/2018	RAL
Nickel - BS	EPA-200.8	102			85.4	109	07/12/2018	RAL
Nickel - BSD	EPA-200.8	102	0		85.4	109	07/12/2018	RAL
Zinc - BS	EPA-200.8	103			88.2	111	07/12/2018	RAL
Zinc - BSD	EPA-200.8	103	0		88.2	111	07/12/2018	RAL

ALS Test Batch ID: 130308 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic (Dissolved) - BS	EPA-200.8	101			89.1	110	07/12/2018	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	101	0		89.1	110	07/12/2018	RAL
Cadmium (Dissolved) - BS	EPA-200.8	102			89.4	109	07/12/2018	RAL
Cadmium (Dissolved) - BSD	EPA-200.8	103	0		89.4	109	07/12/2018	RAL
Chromium (Dissolved) - BS	EPA-200.8	98.3			86.2	107	07/12/2018	RAL
Chromium (Dissolved) - BSD	EPA-200.8	98.9	1		86.2	107	07/12/2018	RAL
Copper (Dissolved) - BS	EPA-200.8	102			85.4	109	07/12/2018	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	7/19/2018
	2377 Eastlake Ave E.	ALS SDG#:	EV18070041
	Seattle, WA 98102	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Copper (Dissolved) - BSD	EPA-200.8	102	1		85.4	109	07/12/2018	RAL
Iron (Dissolved) - BS	EPA-200.8	103			80	120	07/12/2018	RAL
Iron (Dissolved) - BSD	EPA-200.8	103	0		80	120	07/12/2018	RAL
Lead (Dissolved) - BS	EPA-200.8	97.8			87.5	107	07/12/2018	RAL
Lead (Dissolved) - BSD	EPA-200.8	97.7	0		87.5	107	07/12/2018	RAL
Nickel (Dissolved) - BS	EPA-200.8	102			85.4	109	07/12/2018	RAL
Nickel (Dissolved) - BSD	EPA-200.8	102	0		85.4	109	07/12/2018	RAL
Zinc (Dissolved) - BS	EPA-200.8	103			88.2	111	07/12/2018	RAL
Zinc (Dissolved) - BSD	EPA-200.8	103	0		88.2	111	07/12/2018	RAL

ALS Test Batch ID: R320071 - Water by SM2320B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Alkalinity as CaCO ₃ , Total - BS	SM2320B	101			90	110	07/16/2018	CAS



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	7/19/2018
		ALS SDG#:	EV18070041
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

MATRIX SPIKE RESULTS

ALS Test Batch ID: 130307 - Water
Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
						RESULT		MIN	MAX		
Arsenic - MS	EPA-200.8	104			100	1.6	106	89.1	110	07/12/2018	RAL
Arsenic - MSD	EPA-200.8	103	1		100	1.6	105	89.1	110	07/12/2018	RAL
Cadmium - MS	EPA-200.8	103			100	0.037	103	89.4	109	07/12/2018	RAL
Cadmium - MSD	EPA-200.8	102	1		100	0.037	102	89.4	109	07/12/2018	RAL
Chromium - MS	EPA-200.8	103			100	4.8	108	88.3	110.2	07/12/2018	RAL
Chromium - MSD	EPA-200.8	101	2		100	4.8	105	88.3	110.2	07/12/2018	RAL
Copper - MS	EPA-200.8	101			100	7.3	108	85.4	109	07/12/2018	RAL
Copper - MSD	EPA-200.8	97.8	3		100	7.3	105	85.4	109	07/12/2018	RAL
Iron - MS	EPA-200.8	106			10000	2200	12800	80	120	07/12/2018	RAL
Iron - MSD	EPA-200.8	107	0		10000	2200	12800	80	120	07/12/2018	RAL
Lead - MS	EPA-200.8	101			100	2.2	103	87.5	107	07/12/2018	RAL
Lead - MSD	EPA-200.8	99.4	1		100	2.2	102	87.5	107	07/12/2018	RAL
Nickel - MS	EPA-200.8	100			100	8.3	109	85.4	109	07/12/2018	RAL
Nickel - MSD	EPA-200.8	99.6	1		100	8.3	108	85.4	109	07/12/2018	RAL
Zinc - MS	EPA-200.8	103			100	17	119	88.2	111	07/12/2018	RAL
Zinc - MSD	EPA-200.8	101	1		100	17	118	88.2	111	07/12/2018	RAL

ALS Test Batch ID: 130308 - Water
Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
						RESULT		MIN	MAX		
Arsenic (Dissolved) - MS	EPA-200.8	103			100	0.84	104	89.1	110	07/12/2018	RAL
Arsenic (Dissolved) - MSD	EPA-200.8	103	0		100	0.84	103	89.1	110	07/12/2018	RAL
Cadmium (Dissolved) - MS	EPA-200.8	103			100	0.028	103	89.4	109	07/12/2018	RAL
Cadmium (Dissolved) - MSD	EPA-200.8	103	0		100	0.028	103	89.4	109	07/12/2018	RAL
Chromium (Dissolved) - MS	EPA-200.8	96.7			100	2.4	99.1	86.2	107	07/12/2018	RAL
Chromium (Dissolved) - MSD	EPA-200.8	96.1	1		100	2.4	98.5	86.2	107	07/12/2018	RAL
Copper (Dissolved) - MS	EPA-200.8	97.2			100	3.5	101	85.4	109	07/12/2018	RAL
Copper (Dissolved) - MSD	EPA-200.8	96.5	1		100	3.5	100	85.4	109	07/12/2018	RAL
Iron (Dissolved) - MS	EPA-200.8	103			10000	33	10300	80	120	07/12/2018	RAL
Iron (Dissolved) - MSD	EPA-200.8	101	1		10000	33	10200	80	120	07/12/2018	RAL
Lead (Dissolved) - MS	EPA-200.8	98.4			100	0.23	98.6	87.5	107	07/12/2018	RAL
Lead (Dissolved) - MSD	EPA-200.8	100	2		100	0.23	101	87.5	107	07/12/2018	RAL
Nickel (Dissolved) - MS	EPA-200.8	101			100	3.3	104	85.4	109	07/12/2018	RAL
Nickel (Dissolved) - MSD	EPA-200.8	99.1	1		100	3.3	102	85.4	109	07/12/2018	RAL
Zinc (Dissolved) - MS	EPA-200.8	101			100	11	113	88.2	111	07/12/2018	RAL
Zinc (Dissolved) - MSD	EPA-200.8	101	1		100	11	112	88.2	111	07/12/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS SDG#: EV18070041
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

MATRIX SPIKE RESULTS

ALS Test Batch ID: 130389 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
TPH-Diesel Range - MS	NWTPH-DX	98.7			1400	130	1510	67	125.2	07/15/2018	EBS
TPH-Diesel Range - MSD	NWTPH-DX	92.7	2		1520	130	1540	67	125.2	07/15/2018	EBS

ALS Test Batch ID: R319727 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Mercury - MS	EPA-245.1	76.4		SQ2	2.50	0	1.91	80.6	118	07/12/2018	RAL
Mercury - MSD	EPA-245.1	100	27		2.50	0	2.50	80.6	118	07/12/2018	RAL

SQ2 - Spike outside of control limits due to matrix effect.

ALS Test Batch ID: R319810 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Mercury (Dissolved) - MS	EPA-245.1	98.0			2.50	0	2.45	80.6	118	07/12/2018	RAL
Mercury (Dissolved) - MSD	EPA-245.1	106	8		2.50	0	2.66	80.6	118	07/12/2018	RAL

ALS Test Batch ID: R320069 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Chloride 10X Dilution - MS	EPA-300.0	78.5		SQ2	20.0	17	32.5	80	120	07/17/2018	JMJ
Sulfate 10X Dilution - MS	EPA-300.0	89.0			20.0	66	83.3	80	120	07/17/2018	JMJ

SQ2 - Spike outside of control limits due to matrix effect.



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 7/19/2018
ALS SDG#: EV18070041
WDOE ACCREDITATION: C601
CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

SAMPLE DUPLICATE RESULTS

ALS Test Batch ID: R320068 - Water

Parent Sample: F31-GW-070918

ANALYTE	METHOD	PARENT SAMPLE RESULT	RESULT	RPD	UNITS	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Dissolved Solids	SM2540C	380	380	0	MG/L		07/16/2018	JMJ

U - Analyte analyzed for but not detected at level above reporting limit.

CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 7/19/2018
ALS SDG#: EV18070041
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

POST DIGESTION SPIKE RESULTS
ALS Test Batch ID: 130307 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
							MIN	MAX		
Arsenic - PDS	EPA-200.8	101		100	1.6	102	89.1	110	07/12/2018	RAL
Cadmium - PDS	EPA-200.8	99.6		100	0	99.6	89.4	109	07/12/2018	RAL
Chromium - PDS	EPA-200.8	96.4		100	4.8	101	88.3	110.2	07/12/2018	RAL
Copper - PDS	EPA-200.8	94.3		100	7.3	102	85.4	109	07/12/2018	RAL
Iron - PDS	EPA-200.8	99.5		10000	2200	12100	80	120	07/12/2018	RAL
Lead - PDS	EPA-200.8	98.5		100	2.2	101	87.5	107	07/12/2018	RAL
Nickel - PDS	EPA-200.8	96.8		100	8.3	105	85.4	109	07/12/2018	RAL
Zinc - PDS	EPA-200.8	97.6		100	17	114	88.2	111	07/12/2018	RAL

ALS Test Batch ID: 130308 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
							MIN	MAX		
Arsenic (Dissolved) - PDS	EPA-200.8	101		100	0.84	102	89.1	110	07/12/2018	RAL
Cadmium (Dissolved) - PDS	EPA-200.8	102		100	0.028	102	89.4	109	07/12/2018	RAL
Chromium (Dissolved) - PDS	EPA-200.8	97.5		100	2.4	99.9	86.2	107	07/12/2018	RAL
Copper (Dissolved) - PDS	EPA-200.8	96.1		100	3.5	99.6	85.4	109	07/12/2018	RAL
Iron (Dissolved) - PDS	EPA-200.8	101		10000	33	10200	80	120	07/12/2018	RAL
Lead (Dissolved) - PDS	EPA-200.8	99.9		100	0.23	100	87.5	107	07/12/2018	RAL
Nickel (Dissolved) - PDS	EPA-200.8	98.6		100	3.3	102	85.4	109	07/12/2018	RAL
Zinc (Dissolved) - PDS	EPA-200.8	99.3		100	11	110	88.2	111	07/12/2018	RAL

ALS Test Batch ID: R319727 - Water

Parent Sample: F31-GW-070918

SPIKED COMPOUND	METHOD	%REC	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
							MIN	MAX		
Mercury - PDS	EPA-245.1	100		2.50	0	2.50	80.6	118	07/12/2018	RAL

ALS Test Batch ID: R319810 - Water

Parent Sample: F31-GW-070918

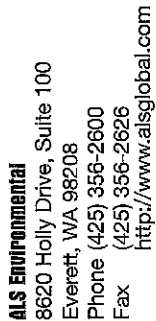
SPIKED COMPOUND	METHOD	%REC	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
							MIN	MAX		
Mercury (Dissolved) - PDS	EPA-245.1	97.6		2.50	0	2.44	80.6	118	07/12/2018	RAL

CERTIFICATE OF ANALYSIS

APPROVED BY



Laboratory Director



ALS Job# (Laboratory Use Only)

EV18070041

Date 7/10/18 Page 1 Of 1

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

TURNAROUND REQUESTED in Business Days*
OTHER: Organic, Metals & Inorganic Analysis

1. Relinquished By: J. [Signature] 7/10/18 1235

Received By: [Signature] Als 7/10/18 1235

2. Relinquished By: _____

*Turnaround request less than standard may incur Rush Charges



November 15, 2018

Ms. Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

Dear Ms. Knox,

On September 28th, 5 samples were received by our laboratory and assigned our laboratory project number EV18090180. The project was identified as your Everett Steel . The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 11/15/2018
ALS JOB#: EV18090180
ALS SAMPLE#: EV18090180-01

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel
CLIENT SAMPLE ID: F31-GW-092718

DATE RECEIVED: 09/28/2018
COLLECTION DATE: 9/27/2018 3:26:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/29/2018	DLC
TPH-Diesel Range	NWTPH-DX	450	130	1	UG/L	10/04/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	10/04/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	09/28/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	09/28/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	09/28/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS JOB#:	EV18090180
		ALS SAMPLE#:	EV18090180-01
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 3:26:00 PM
CLIENT SAMPLE ID	F31-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	09/28/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	09/28/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Total Dissolved Solids	SM2540C	410	5.0	1	MG/L	10/01/2018	SMH
Chloride	EPA-300.0	14	0.92	10	MG/L	10/01/2018	SMH
Sulfate	EPA-300.0	58	2.6	10	MG/L	10/01/2018	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Arsenic	EPA-200.8	1.1	1.0	1	UG/L	10/09/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium	EPA-200.8	2.6	2.0	1	UG/L	10/09/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 11/15/2018
ALS JOB#: EV18090180
ALS SAMPLE#: EV18090180-01
CLIENT CONTACT: Janet Knox
DATE RECEIVED: 09/28/2018
CLIENT PROJECT: Everett Steel
COLLECTION DATE: 9/27/2018 3:26:00 PM
CLIENT SAMPLE ID: F31-GW-092718
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Copper	EPA-200.8	9.4	2.0	1	UG/L	10/09/2018	RAL
Iron	EPA-200.8	860	50	1	UG/L	10/09/2018	RAL
Lead	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel	EPA-200.8	5.0	2.0	1	UG/L	10/09/2018	RAL
Zinc	EPA-200.8	69	2.5	1	UG/L	10/09/2018	RAL
Arsenic (Dissolved)	EPA-200.8	1.0	1.0	1	UG/L	10/09/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Copper (Dissolved)	EPA-200.8	6.4	2.0	1	UG/L	10/09/2018	RAL
Iron (Dissolved)	EPA-200.8	160	50	1	UG/L	10/09/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel (Dissolved)	EPA-200.8	3.9	2.0	1	UG/L	10/09/2018	RAL
Zinc (Dissolved)	EPA-200.8	49	2.5	1	UG/L	10/09/2018	RAL
Alkalinity	SM2320B	250	15	1	MG/L	10/08/2018	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.5	09/29/2018	DLC
C25	NWTPH-DX	104	10/04/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	102	09/28/2018	DLC
Toluene-d8	EPA-8260	101	09/28/2018	DLC
4-Bromofluorobenzene	EPA-8260	100	09/28/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	11/15/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18090180
	Seattle, WA 98102	ALS SAMPLE#:	EV18090180-02
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 3:30:00 PM
CLIENT SAMPLE ID	F29-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/29/2018	DLC
TPH-Diesel Range	NWTPH-DX	140	130	1	UG/L	10/04/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	10/04/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	09/28/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	09/28/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	09/28/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS JOB#:	EV18090180
		ALS SAMPLE#:	EV18090180-02
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 3:30:00 PM
CLIENT SAMPLE ID	F29-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	09/28/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	09/28/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Total Dissolved Solids	SM2540C	380	5.0	1	MG/L	10/01/2018	SMH
Chloride	EPA-300.0	9.2	0.92	10	MG/L	10/01/2018	SMH
Sulfate	EPA-300.0	43	2.6	10	MG/L	10/01/2018	SMH
Mercury	EPA-245.1	0.48	0.20	1	UG/L	10/08/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Arsenic	EPA-200.8	17	1.0	1	UG/L	10/09/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium	EPA-200.8	140	2.0	1	UG/L	10/09/2018	RAL
Copper	EPA-200.8	180	2.0	1	UG/L	10/09/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 11/15/2018
ALS JOB#: EV18090180
ALS SAMPLE#: EV18090180-02
CLIENT CONTACT: Janet Knox
DATE RECEIVED: 09/28/2018
CLIENT PROJECT: Everett Steel
COLLECTION DATE: 9/27/2018 3:30:00 PM
CLIENT SAMPLE ID: F29-GW-092718
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	73000	50	1	UG/L	10/09/2018	RAL
Lead	EPA-200.8	47	1.0	1	UG/L	10/09/2018	RAL
Nickel	EPA-200.8	160	2.0	1	UG/L	10/09/2018	RAL
Zinc	EPA-200.8	250	2.5	1	UG/L	10/09/2018	RAL
Arsenic (Dissolved)	EPA-200.8	2.3	1.0	1	UG/L	10/09/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Copper (Dissolved)	EPA-200.8	3.2	2.0	1	UG/L	10/09/2018	RAL
Iron (Dissolved)	EPA-200.8	U	50	1	UG/L	10/09/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel (Dissolved)	EPA-200.8	4.8	2.0	1	UG/L	10/09/2018	RAL
Zinc (Dissolved)	EPA-200.8	24	2.5	1	UG/L	10/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	97.0	09/29/2018	DLC
C25	NWTPH-DX	103	10/04/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	102	09/28/2018	DLC
Toluene-d8	EPA-8260	101	09/28/2018	DLC
4-Bromofluorobenzene	EPA-8260	101	09/28/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	11/15/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18090180
	Seattle, WA 98102	ALS SAMPLE#:	EV18090180-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 12:35:00 PM
CLIENT SAMPLE ID	D31-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/29/2018	DLC
TPH-Diesel Range	NWTPH-DX	160	130	1	UG/L	10/04/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	10/04/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	09/28/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	09/28/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	09/28/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS JOB#:	EV18090180
		ALS SAMPLE#:	EV18090180-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 12:35:00 PM
CLIENT SAMPLE ID	D31-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	09/28/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	09/28/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Total Dissolved Solids	SM2540C	440	5.0	1	MG/L	10/01/2018	SMH
Chloride	EPA-300.0	9.5	0.92	10	MG/L	10/01/2018	SMH
Sulfate	EPA-300.0	110	2.6	10	MG/L	10/01/2018	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Arsenic	EPA-200.8	9.3	1.0	1	UG/L	10/09/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Copper	EPA-200.8	14	2.0	1	UG/L	10/09/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	11/15/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18090180
	Seattle, WA 98102	ALS SAMPLE#:	EV18090180-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 12:35:00 PM
CLIENT SAMPLE ID	D31-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	2100	50	1	UG/L	10/09/2018	RAL
Lead	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel	EPA-200.8	7.5	2.0	1	UG/L	10/09/2018	RAL
Zinc	EPA-200.8	180	2.5	1	UG/L	10/09/2018	RAL
Arsenic (Dissolved)	EPA-200.8	12	1.0	1	UG/L	10/09/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Iron (Dissolved)	EPA-200.8	2600	50	1	UG/L	10/09/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel (Dissolved)	EPA-200.8	5.3	2.0	1	UG/L	10/09/2018	RAL
Zinc (Dissolved)	EPA-200.8	28	2.5	1	UG/L	10/09/2018	RAL
Alkalinity	SM2320B	330	15	1	MG/L	10/08/2018	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	93.7	09/29/2018	DLC
C25	NWTPH-DX	106	10/04/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	103	09/28/2018	DLC
Toluene-d8	EPA-8260	101	09/28/2018	DLC
4-Bromofluorobenzene	EPA-8260	99.9	09/28/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS JOB#:	EV18090180
		ALS SAMPLE#:	EV18090180-04
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 5:15:00 PM
CLIENT SAMPLE ID	52-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	10/04/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	10/04/2018	EBS
Mercury	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Arsenic	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Copper	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Iron	EPA-200.8	280	50	1	UG/L	10/09/2018	RAL
Lead	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Zinc	EPA-200.8	4.1	2.5	1	UG/L	10/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	98.4	10/04/2018	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	11/15/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18090180
	Seattle, WA 98102	ALS SAMPLE#:	EV18090180-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 11:40:00 AM
CLIENT SAMPLE ID	E33-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/29/2018	DLC
TPH-Diesel Range	NWTPH-DX	260	130	1	UG/L	10/04/2018	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	10/04/2018	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	09/28/2018	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Acetone	EPA-8260	U	25	1	UG/L	09/28/2018	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	09/28/2018	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS JOB#:	EV18090180
		ALS SAMPLE#:	EV18090180-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 11:40:00 AM
CLIENT SAMPLE ID	E33-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	09/28/2018	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	09/28/2018	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	09/28/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	09/28/2018	DLC
Total Dissolved Solids	SM2540C	360	5.0	1	MG/L	10/01/2018	SMH
Chloride	EPA-300.0	6.1	0.92	10	MG/L	10/01/2018	SMH
Sulfate	EPA-300.0	86	2.6	10	MG/L	10/01/2018	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	10/08/2018	RAL
Arsenic	EPA-200.8	1.9	1.0	1	UG/L	10/09/2018	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium	EPA-200.8	10	2.0	1	UG/L	10/09/2018	RAL
Copper	EPA-200.8	28	2.0	1	UG/L	10/09/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	11/15/2018
	2377 Eastlake Ave E.	ALS JOB#:	EV18090180
	Seattle, WA 98102	ALS SAMPLE#:	EV18090180-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	09/28/2018
CLIENT PROJECT:	Everett Steel	COLLECTION DATE:	9/27/2018 11:40:00 AM
CLIENT SAMPLE ID	E33-GW-092718	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	4800	50	1	UG/L	10/09/2018	RAL
Lead	EPA-200.8	1.6	1.0	1	UG/L	10/09/2018	RAL
Nickel	EPA-200.8	38	2.0	1	UG/L	10/09/2018	RAL
Zinc	EPA-200.8	130	2.5	1	UG/L	10/09/2018	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	10/09/2018	RAL
Copper (Dissolved)	EPA-200.8	6.5	2.0	1	UG/L	10/09/2018	RAL
Iron (Dissolved)	EPA-200.8	250	50	1	UG/L	10/09/2018	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	10/09/2018	RAL
Nickel (Dissolved)	EPA-200.8	25	2.0	1	UG/L	10/09/2018	RAL
Zinc (Dissolved)	EPA-200.8	77	2.5	1	UG/L	10/09/2018	RAL
Alkalinity	SM2320B	260	15	1	MG/L	10/08/2018	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	94.1	09/29/2018	DLC
C25	NWTPH-DX	97.8	10/04/2018	EBS
1,2-Dichloroethane-d4	EPA-8260	103	09/28/2018	DLC
Toluene-d8	EPA-8260	100	09/28/2018	DLC
4-Bromofluorobenzene	EPA-8260	99.8	09/28/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY BLANK RESULTS

MBG-092818W - Batch 133062 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	09/29/2018	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100218W2 - Batch 133083 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	10/02/2018	EBS
TPH-Oil Range	NWTPH-DX	U	UG/L	250	10/02/2018	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092818W - Batch 133200 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Chloromethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Vinyl Chloride	EPA-8260	U	UG/L	0.20	09/28/2018	DLC
Bromomethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Chloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Carbon Tetrachloride	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Trichlorofluoromethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Carbon Disulfide	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Acetone	EPA-8260	U	UG/L	25	09/28/2018	DLC
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Methylene Chloride	EPA-8260	U	UG/L	5.0	09/28/2018	DLC
Acrylonitrile	EPA-8260	U	UG/L	10	09/28/2018	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,1-Dichloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
2-Butanone	EPA-8260	U	UG/L	10	09/28/2018	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
2,2-Dichloropropane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Bromochloromethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Chloroform	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,1-Dichloropropene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2-Dichloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Benzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Trichloroethene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS SDG#:	EV18090180
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY BLANK RESULTS

MB-092818W - Batch 133200 - Water by EPA-8260

1,2-Dichloropropane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Dibromomethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Bromodichloromethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/L	10	09/28/2018	DLC
Toluene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
2-Hexanone	EPA-8260	U	UG/L	10	09/28/2018	DLC
1,3-Dichloropropane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Tetrachloroethylene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Dibromochloromethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2-Dibromoethane	EPA-8260	U	UG/L	0.010	09/28/2018	DLC
Chlorobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Ethylbenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
m,p-Xylene	EPA-8260	U	UG/L	4.0	09/28/2018	DLC
Styrene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
o-Xylene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Bromoform	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Isopropylbenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Bromobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
N-Propyl Benzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
2-Chlorotoluene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
4-Chlorotoluene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
T-Butyl Benzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
S-Butyl Benzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
P-Isopropyltoluene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
N-Butylbenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/L	10	09/28/2018	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Hexachlorobutadiene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
Naphthalene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/L	2.0	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY BLANK RESULTS

MB-092818W - Batch 133200 - Water by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R324559 - Batch R324559 - Water by SM2540C

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Total Dissolved Solids	SM2540C	U	MG/L	5.0	10/01/2018	SMH

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-324940 - Batch R324940 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chloride	EPA-300.0	U	MG/L	0.092	10/01/2018	SMH
Sulfate	EPA-300.0	U	MG/L	0.26	10/01/2018	SMH

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-325076 - Batch R325076 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-245.1	U	UG/L	0.20	10/08/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R325296 - Batch R325296 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved)	EPA-245.1	U	UG/L	0.20	10/08/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100818W - Batch 133299 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-200.8	U	UG/L	1.0	10/09/2018	RAL
Cadmium	EPA-200.8	U	UG/L	1.0	10/09/2018	RAL
Chromium	EPA-200.8	U	UG/L	2.0	10/09/2018	RAL
Copper	EPA-200.8	U	UG/L	2.0	10/09/2018	RAL
Iron	EPA-200.8	U	UG/L	50	10/09/2018	RAL
Lead	EPA-200.8	U	UG/L	1.0	10/09/2018	RAL
Nickel	EPA-200.8	U	UG/L	2.0	10/09/2018	RAL
Zinc	EPA-200.8	U	UG/L	2.5	10/09/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
CLIENT CONTACT:	Janet Knox	ALS SDG#:	EV18090180
CLIENT PROJECT:	Everett Steel	WDOE ACCREDITATION:	C601

LABORATORY BLANK RESULTS
MB-100818W - Batch 133342 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	10/09/2018	RAL
Cadmium (Dissolved)	EPA-200.8	U	UG/L	1.0	10/09/2018	RAL
Chromium (Dissolved)	EPA-200.8	U	UG/L	2.0	10/09/2018	RAL
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	10/09/2018	RAL
Iron (Dissolved)	EPA-200.8	U	UG/L	50	10/09/2018	RAL
Lead (Dissolved)	EPA-200.8	U	UG/L	1.0	10/09/2018	RAL
Nickel (Dissolved)	EPA-200.8	U	UG/L	2.0	10/09/2018	RAL
Zinc (Dissolved)	EPA-200.8	U	UG/L	2.5	10/09/2018	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-325441 - Batch R325441 - Water by SM2320B

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Alkalinity	SM2320B	U	MG/L	15	10/08/2018	CAS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS SDG#:	EV18090180
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 133062 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	81.0			66.5	122.7	09/29/2018	DLC
TPH-Volatile Range - BSD	NWTPH-GX	88.6	9		66.5	122.7	09/29/2018	DLC

ALS Test Batch ID: 133083 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	88.6			67	125.2	10/02/2018	EBS
TPH-Diesel Range - BSD	NWTPH-DX	93.8	6		67	125.2	10/02/2018	EBS

ALS Test Batch ID: 133200 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Dichlorodifluoromethane - BS	EPA-8260	123			50	150	09/28/2018	DLC
Dichlorodifluoromethane - BSD	EPA-8260	114	8		50	150	09/28/2018	DLC
Chloromethane - BS	EPA-8260	112			50	150	09/28/2018	DLC
Chloromethane - BSD	EPA-8260	105	7		50	150	09/28/2018	DLC
Vinyl Chloride - BS	EPA-8260	127			50	150	09/28/2018	DLC
Vinyl Chloride - BSD	EPA-8260	118	8		50	150	09/28/2018	DLC
Bromomethane - BS	EPA-8260	108			50	150	09/28/2018	DLC
Bromomethane - BSD	EPA-8260	102	6		50	150	09/28/2018	DLC
Chloroethane - BS	EPA-8260	116			50	150	09/28/2018	DLC
Chloroethane - BSD	EPA-8260	107	8		50	150	09/28/2018	DLC
Carbon Tetrachloride - BS	EPA-8260	109			50	150	09/28/2018	DLC
Carbon Tetrachloride - BSD	EPA-8260	101	8		50	150	09/28/2018	DLC
Trichlorofluoromethane - BS	EPA-8260	121			50	150	09/28/2018	DLC
Trichlorofluoromethane - BSD	EPA-8260	115	6		50	150	09/28/2018	DLC
Carbon Disulfide - BS	EPA-8260	117			50	150	09/28/2018	DLC
Carbon Disulfide - BSD	EPA-8260	109	6		50	150	09/28/2018	DLC
Acetone - BS	EPA-8260	110			50	150	09/28/2018	DLC
Acetone - BSD	EPA-8260	106	4		50	150	09/28/2018	DLC
1,1-Dichloroethene - BS	EPA-8260	116			72.5	136	09/28/2018	DLC
1,1-Dichloroethene - BSD	EPA-8260	108	7		72.5	136	09/28/2018	DLC
Methylene Chloride - BS	EPA-8260	84.9			50	150	09/28/2018	DLC
Methylene Chloride - BSD	EPA-8260	78.9	7		50	150	09/28/2018	DLC
Acrylonitrile - BS	EPA-8260	121			50	150	09/28/2018	DLC
Acrylonitrile - BSD	EPA-8260	113	7		50	150	09/28/2018	DLC
Methyl T-Butyl Ether - BS	EPA-8260	107			50	150	09/28/2018	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	101	6		50	150	09/28/2018	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	116			50	150	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Trans-1,2-Dichloroethene - BSD	EPA-8260	108	7		50	150	09/28/2018	DLC
1,1-Dichloroethane - BS	EPA-8260	114			50	150	09/28/2018	DLC
1,1-Dichloroethane - BSD	EPA-8260	106	6		50	150	09/28/2018	DLC
2-Butanone - BS	EPA-8260	131			50	150	09/28/2018	DLC
2-Butanone - BSD	EPA-8260	125	5		50	150	09/28/2018	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	112			50	150	09/28/2018	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	105	7		50	150	09/28/2018	DLC
2,2-Dichloropropane - BS	EPA-8260	131			50	150	09/28/2018	DLC
2,2-Dichloropropane - BSD	EPA-8260	120	9		50	150	09/28/2018	DLC
Bromochloromethane - BS	EPA-8260	111			50	150	09/28/2018	DLC
Bromochloromethane - BSD	EPA-8260	65.1	52		50	150	09/28/2018	DLC
Chloroform - BS	EPA-8260	111			50	150	09/28/2018	DLC
Chloroform - BSD	EPA-8260	104	7		50	150	09/28/2018	DLC
1,1,1-Trichloroethane - BS	EPA-8260	116			50	150	09/28/2018	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	109	7		50	150	09/28/2018	DLC
1,1-Dichloropropene - BS	EPA-8260	116			50	150	09/28/2018	DLC
1,1-Dichloropropene - BSD	EPA-8260	109	7		50	150	09/28/2018	DLC
1,2-Dichloroethane - BS	EPA-8260	95.5			50	150	09/28/2018	DLC
1,2-Dichloroethane - BSD	EPA-8260	90.8	5		50	150	09/28/2018	DLC
Benzene - BS	EPA-8260	99.7			74.7	143	09/28/2018	DLC
Benzene - BSD	EPA-8260	94.2	6		74.7	143	09/28/2018	DLC
Trichloroethene - BS	EPA-8260	104			74.4	141	09/28/2018	DLC
Trichloroethene - BSD	EPA-8260	98.1	6		74.4	141	09/28/2018	DLC
1,2-Dichloropropane - BS	EPA-8260	105			50	150	09/28/2018	DLC
1,2-Dichloropropane - BSD	EPA-8260	99.2	5		50	150	09/28/2018	DLC
Dibromomethane - BS	EPA-8260	100			50	150	09/28/2018	DLC
Dibromomethane - BSD	EPA-8260	95.5	5		50	150	09/28/2018	DLC
Bromodichloromethane - BS	EPA-8260	104			50	150	09/28/2018	DLC
Bromodichloromethane - BSD	EPA-8260	99.3	5		50	150	09/28/2018	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	107			50	150	09/28/2018	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	101	6		50	150	09/28/2018	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	104			50	150	09/28/2018	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	98.4	5		50	150	09/28/2018	DLC
Toluene - BS	EPA-8260	107			71.7	139	09/28/2018	DLC
Toluene - BSD	EPA-8260	101	6		71.7	139	09/28/2018	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	104			50	150	09/28/2018	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	98.8	5		50	150	09/28/2018	DLC
1,1,2-Trichloroethane - BS	EPA-8260	104			50	150	09/28/2018	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	98.4	6		50	150	09/28/2018	DLC
2-Hexanone - BS	EPA-8260	122			50	150	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
2-Hexanone - BSD	EPA-8260	116	5		50	150	09/28/2018	DLC
1,3-Dichloropropane - BS	EPA-8260	103			50	150	09/28/2018	DLC
1,3-Dichloropropane - BSD	EPA-8260	97.5	6		50	150	09/28/2018	DLC
Tetrachloroethylene - BS	EPA-8260	97.5			50	150	09/28/2018	DLC
Tetrachloroethylene - BSD	EPA-8260	100	3		50	150	09/28/2018	DLC
Dibromochloromethane - BS	EPA-8260	110			50	150	09/28/2018	DLC
Dibromochloromethane - BSD	EPA-8260	104	6		50	150	09/28/2018	DLC
1,2-Dibromoethane - BS	EPA-8260	106			50	150	09/28/2018	DLC
1,2-Dibromoethane - BSD	EPA-8260	100	6		50	150	09/28/2018	DLC
Chlorobenzene - BS	EPA-8260	110			73	131	09/28/2018	DLC
Chlorobenzene - BSD	EPA-8260	104	6		73	131	09/28/2018	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	111			50	150	09/28/2018	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	104	6		50	150	09/28/2018	DLC
Ethylbenzene - BS	EPA-8260	112			50	150	09/28/2018	DLC
Ethylbenzene - BSD	EPA-8260	105	6		50	150	09/28/2018	DLC
m,p-Xylene - BS	EPA-8260	113			50	150	09/28/2018	DLC
m,p-Xylene - BSD	EPA-8260	106	6		50	150	09/28/2018	DLC
Styrene - BS	EPA-8260	112			50	150	09/28/2018	DLC
Styrene - BSD	EPA-8260	105	7		50	150	09/28/2018	DLC
o-Xylene - BS	EPA-8260	111			50	150	09/28/2018	DLC
o-Xylene - BSD	EPA-8260	105	6		50	150	09/28/2018	DLC
Bromoform - BS	EPA-8260	108			50	150	09/28/2018	DLC
Bromoform - BSD	EPA-8260	101	6		50	150	09/28/2018	DLC
Isopropylbenzene - BS	EPA-8260	114			50	150	09/28/2018	DLC
Isopropylbenzene - BSD	EPA-8260	107	6		50	150	09/28/2018	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	103			50	150	09/28/2018	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	94.7	8		50	150	09/28/2018	DLC
1,2,3-Trichloropropane - BS	EPA-8260	102			50	150	09/28/2018	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	94.0	8		50	150	09/28/2018	DLC
Bromobenzene - BS	EPA-8260	110			50	150	09/28/2018	DLC
Bromobenzene - BSD	EPA-8260	102	7		50	150	09/28/2018	DLC
N-Propyl Benzene - BS	EPA-8260	111			50	150	09/28/2018	DLC
N-Propyl Benzene - BSD	EPA-8260	102	9		50	150	09/28/2018	DLC
2-Chlorotoluene - BS	EPA-8260	109			50	150	09/28/2018	DLC
2-Chlorotoluene - BSD	EPA-8260	101	8		50	150	09/28/2018	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	111			50	150	09/28/2018	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	102	9		50	150	09/28/2018	DLC
4-Chlorotoluene - BS	EPA-8260	107			50	150	09/28/2018	DLC
4-Chlorotoluene - BSD	EPA-8260	99.2	8		50	150	09/28/2018	DLC
T-Butyl Benzene - BS	EPA-8260	109			50	150	09/28/2018	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	11/15/2018
		ALS SDG#:	EV18090180
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
T-Butyl Benzene - BSD	EPA-8260	99.7	9		50	150	09/28/2018	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	110			50	150	09/28/2018	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	102	8		50	150	09/28/2018	DLC
S-Butyl Benzene - BS	EPA-8260	114			50	150	09/28/2018	DLC
S-Butyl Benzene - BSD	EPA-8260	105	8		50	150	09/28/2018	DLC
P-Isopropyltoluene - BS	EPA-8260	114			50	150	09/28/2018	DLC
P-Isopropyltoluene - BSD	EPA-8260	105	8		50	150	09/28/2018	DLC
1,3-Dichlorobenzene - BS	EPA-8260	111			50	150	09/28/2018	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	103	8		50	150	09/28/2018	DLC
1,4-Dichlorobenzene - BS	EPA-8260	109			50	150	09/28/2018	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	101	8		50	150	09/28/2018	DLC
N-Butylbenzene - BS	EPA-8260	112			50	150	09/28/2018	DLC
N-Butylbenzene - BSD	EPA-8260	102	9		50	150	09/28/2018	DLC
1,2-Dichlorobenzene - BS	EPA-8260	109			50	150	09/28/2018	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	101	8		50	150	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	100			50	150	09/28/2018	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	92.7	8		50	150	09/28/2018	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	109			50	150	09/28/2018	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	102	7		50	150	09/28/2018	DLC
Hexachlorobutadiene - BS	EPA-8260	121			50	150	09/28/2018	DLC
Hexachlorobutadiene - BSD	EPA-8260	112	8		50	150	09/28/2018	DLC
Naphthalene - BS	EPA-8260	104			50	150	09/28/2018	DLC
Naphthalene - BSD	EPA-8260	97.3	7		50	150	09/28/2018	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	109			50	150	09/28/2018	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	102	7		50	150	09/28/2018	DLC

ALS Test Batch ID: R324559 - Water by SM2540C

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Total Dissolved Solids - BS	SM2540C	104			85	115	10/01/2018	SMH

ALS Test Batch ID: R324940 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Chloride - BS	EPA-300.0	90.0			80	120	10/01/2018	SMH
Chloride - BSD	EPA-300.0	90.5	1		80	120	10/01/2018	SMH
Sulfate - BS	EPA-300.0	86.0			80	120	10/01/2018	SMH
Sulfate - BSD	EPA-300.0	92.5	7		80	120	10/01/2018	SMH



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R325076 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-245.1	115			80.6	118	10/08/2018	RAL
Mercury - BSD	EPA-245.1	116	1		80.6	118	10/08/2018	RAL

ALS Test Batch ID: R325296 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury (Dissolved) - BS	EPA-245.1	115			80.6	118	10/08/2018	RAL
Mercury (Dissolved) - BSD	EPA-245.1	116	1		80.6	118	10/08/2018	RAL

ALS Test Batch ID: 133299 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-200.8	99.4			89.1	110	10/09/2018	RAL
Arsenic - BSD	EPA-200.8	101	2		89.1	110	10/09/2018	RAL
Cadmium - BS	EPA-200.8	101			89.4	110	10/09/2018	RAL
Cadmium - BSD	EPA-200.8	102	1		89.4	110	10/09/2018	RAL
Chromium - BS	EPA-200.8	98.7			88.3	110.2	10/09/2018	RAL
Chromium - BSD	EPA-200.8	101	3		88.3	110.2	10/09/2018	RAL
Copper - BS	EPA-200.8	101			85.4	109	10/09/2018	RAL
Copper - BSD	EPA-200.8	104	3		85.4	109	10/09/2018	RAL
Iron - BS	EPA-200.8	98.8			80	120	10/09/2018	RAL
Iron - BSD	EPA-200.8	102	3		80	120	10/09/2018	RAL
Lead - BS	EPA-200.8	101			87.5	107	10/09/2018	RAL
Lead - BSD	EPA-200.8	99.6	2		87.5	107	10/09/2018	RAL
Nickel - BS	EPA-200.8	99.5			85.4	109	10/09/2018	RAL
Nickel - BSD	EPA-200.8	102	3		85.4	109	10/09/2018	RAL
Zinc - BS	EPA-200.8	101			88.2	111	10/09/2018	RAL
Zinc - BSD	EPA-200.8	104	3		88.2	111	10/09/2018	RAL

ALS Test Batch ID: 133342 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic (Dissolved) - BS	EPA-200.8	99.4			89.1	110	10/09/2018	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	101	2		89.1	110	10/09/2018	RAL
Cadmium (Dissolved) - BS	EPA-200.8	101			89.4	110	10/09/2018	RAL
Cadmium (Dissolved) - BSD	EPA-200.8	102	1		89.4	110	10/09/2018	RAL
Chromium (Dissolved) - BS	EPA-200.8	98.7			86.2	107	10/09/2018	RAL
Chromium (Dissolved) - BSD	EPA-200.8	101	3		88.3	110.2	10/09/2018	RAL
Copper (Dissolved) - BS	EPA-200.8	101			85.4	109	10/09/2018	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	11/15/2018
	2377 Eastlake Ave E.	ALS SDG#:	EV18090180
	Seattle, WA 98102	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Copper (Dissolved) - BSD	EPA-200.8	104	3		85.4	109	10/09/2018	RAL
Iron (Dissolved) - BS	EPA-200.8	98.8			80	120	10/09/2018	RAL
Iron (Dissolved) - BSD	EPA-200.8	102	3		80	120	10/09/2018	RAL
Lead (Dissolved) - BS	EPA-200.8	101			87.5	107	10/09/2018	RAL
Lead (Dissolved) - BSD	EPA-200.8	99.6	2		87.5	107	10/09/2018	RAL
Nickel (Dissolved) - BS	EPA-200.8	99.5			85.4	109	10/09/2018	RAL
Nickel (Dissolved) - BSD	EPA-200.8	102	3		85.4	109	10/09/2018	RAL
Zinc (Dissolved) - BS	EPA-200.8	101			88.2	111	10/09/2018	RAL
Zinc (Dissolved) - BSD	EPA-200.8	104	3		88.2	111	10/09/2018	RAL

ALS Test Batch ID: R325441 - Water by SM2320B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Alkalinity - BS	SM2320B	100			90	110	10/08/2018	CAS



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

MATRIX SPIKE RESULTS

ALS Test Batch ID: 133083 - Water

Parent Sample: F31-GW-092718

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
TPH-Diesel Range - MS	NWTPH-DX	58.5		SQ2	971	450	1020	67	125.2	10/04/2018	EBS

SQ2 - Spike outside of control limits due to matrix effect.

ALS Test Batch ID: 133299 - Water

Parent Sample: F31-GW-092718

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Arsenic - MS	EPA-200.8	105			125	1.1	132	89.1	110	10/09/2018	RAL
Arsenic - MSD	EPA-200.8	102	2		125	1.1	129	89.1	110	10/09/2018	RAL
Cadmium - MS	EPA-200.8	104			125	0.052	130	89.4	110	10/09/2018	RAL
Cadmium - MSD	EPA-200.8	103	1		125	0.052	128	89.4	110	10/09/2018	RAL
Chromium - MS	EPA-200.8	102			125	2.6	130	88.3	110.2	10/09/2018	RAL
Chromium - MSD	EPA-200.8	100	2		125	2.6	128	88.3	110.2	10/09/2018	RAL
Copper - MS	EPA-200.8	101			125	9.4	136	85.4	109	10/09/2018	RAL
Copper - MSD	EPA-200.8	99.6	1		125	9.4	134	85.4	109	10/09/2018	RAL
Iron - MS	EPA-200.8	103			12500	860	13700	80	120	10/09/2018	RAL
Iron - MSD	EPA-200.8	101	1		12500	860	13500	80	120	10/09/2018	RAL
Lead - MS	EPA-200.8	102			125	0.36	128	87.5	107	10/09/2018	RAL
Lead - MSD	EPA-200.8	102	0		125	0.36	128	87.5	107	10/09/2018	RAL
Nickel - MS	EPA-200.8	101			125	5.0	131	85.4	109	10/09/2018	RAL
Nickel - MSD	EPA-200.8	99.3	1		125	5.0	129	85.4	109	10/09/2018	RAL
Zinc - MS	EPA-200.8	101			125	69	196	88.2	111	10/09/2018	RAL
Zinc - MSD	EPA-200.8	100	1		125	69	194	88.2	111	10/09/2018	RAL

ALS Test Batch ID: 133342 - Water

Parent Sample: F31-GW-092718

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Arsenic (Dissolved) - MS	EPA-200.8	106			125	1.0	134	89.1	110	10/10/2018	RAL
Arsenic (Dissolved) - MSD	EPA-200.8	105	1		125	1.0	133	89.1	110	10/09/2018	RAL
Cadmium (Dissolved) - MS	EPA-200.8	109			125	0	136	89.4	110	10/10/2018	RAL
Cadmium (Dissolved) - MSD	EPA-200.8	106	2		125	0	133	89.4	110	10/09/2018	RAL
Chromium (Dissolved) - MS	EPA-200.8	107			125	0.70	134	88.3	110.2	10/10/2018	RAL
Chromium (Dissolved) - MSD	EPA-200.8	103	3		125	0.70	130	86.2	107	10/09/2018	RAL
Copper (Dissolved) - MS	EPA-200.8	106			125	6.4	139	85.4	109	10/10/2018	RAL
Copper (Dissolved) - MSD	EPA-200.8	102	4		125	6.4	134	85.4	109	10/09/2018	RAL
Iron (Dissolved) - MS	EPA-200.8	107			12500	160	13500	80	120	10/10/2018	RAL

CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
 2377 Eastlake Ave E.
 Seattle, WA 98102
DATE: 11/15/2018
ALS SDG#: EV18090180
WDOE ACCREDITATION: C601
CLIENT CONTACT: Janet Knox
CLIENT PROJECT: Everett Steel

MATRIX SPIKE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
						RESULT		MIN	MAX		
Iron (Dissolved) - MSD	EPA-200.8	104	3		12500	160	13100	80	120	10/09/2018	RAL
Lead (Dissolved) - MS	EPA-200.8	105			125	0	131	87.5	107	10/10/2018	RAL
Lead (Dissolved) - MSD	EPA-200.8	101	4		125	0	126	87.5	107	10/09/2018	RAL
Nickel (Dissolved) - MS	EPA-200.8	106			125	3.9	136	85.4	109	10/10/2018	RAL
Nickel (Dissolved) - MSD	EPA-200.8	101	4		125	3.9	131	85.4	109	10/09/2018	RAL
Zinc (Dissolved) - MS	EPA-200.8	105			125	49	180	88.2	111	10/10/2018	RAL
Zinc (Dissolved) - MSD	EPA-200.8	100	3		125	49	174	88.2	111	10/09/2018	RAL

ALS Test Batch ID: R324559 - Water
Parent Sample: F31-GW-092718

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
						RESULT		MIN	MAX		
Total Dissolved Solids 2X Dilution - MS	SM2540C	96.2			292	410	692	85	115	10/01/2018	SMH
Total Dissolved Solids 2X Dilution - MSD	SM2540C	99.7	1		292	410	702	85	115	10/01/2018	SMH

ALS Test Batch ID: R325296 - Water
Parent Sample: F31-GW-092718

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
						RESULT		MIN	MAX		
Mercury (Dissolved) - MS	EPA-245.1	107			2.50	0	2.67	80.6	118	10/08/2018	RAL
Mercury (Dissolved) - MSD	EPA-245.1	124	15	SQ2	2.50	0	3.10	80.6	118	10/08/2018	RAL

SQ2 - Spike outside of control limits due to matrix effect.

APPROVED BY



Laboratory Director



January 25, 2019

Ms. Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

Dear Ms. Knox,

On January 11th, 6 samples were received by our laboratory and assigned our laboratory project number EV19010081. The project was identified as your JK1701.04 Everett Steel . The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS JOB#:	EV19010081
	Seattle, WA 98102	ALS SAMPLE#:	EV19010081-01
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 10:15:00 AM
CLIENT SAMPLE ID	E33-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	01/16/2019	KLS
TPH-Diesel Range	NWTPH-DX	1100	130	1	UG/L	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/17/2019	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	01/14/2019	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Acetone	EPA-8260	U	25	1	UG/L	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-01
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 10:15:00 AM
CLIENT SAMPLE ID	E33-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	01/14/2019	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Total Dissolved Solids	SM2540C	370	5.0	1	MG/L	01/16/2019	SMH
Chloride	EPA-300.0	7.3	0.092	1	MG/L	01/16/2019	SMH
Sulfate	EPA-300.0	110	2.6	10	MG/L	01/16/2019	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Arsenic	EPA-200.8	3.8	1.0	1	UG/L	01/17/2019	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium	EPA-200.8	21	2.0	1	UG/L	01/17/2019	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-01
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 10:15:00 AM
CLIENT SAMPLE ID	E33-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Copper	EPA-200.8	220	2.0	1	UG/L	01/17/2019	RAL
Iron	EPA-200.8	10000	50	1	UG/L	01/17/2019	RAL
Lead	EPA-200.8	4.4	1.0	1	UG/L	01/17/2019	RAL
Nickel	EPA-200.8	49	2.0	1	UG/L	01/17/2019	RAL
Zinc	EPA-200.8	340	2.5	1	UG/L	01/17/2019	RAL
Arsenic (Dissolved)	EPA-200.8	2.3	1.0	1	UG/L	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	7.5	2.0	1	UG/L	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	17	2.0	1	UG/L	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	3500	50	1	UG/L	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	1.1	1.0	1	UG/L	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	29	2.0	1	UG/L	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	170	2.5	1	UG/L	01/17/2019	RAL
Alkalinity	SM2320B	200	15	1	MG/L	01/18/2019	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	96.5	01/16/2019	KLS
C25	NWTPH-DX	81.2	01/17/2019	EBS
1,2-Dichloroethane-d4	EPA-8260	91.4	01/14/2019	DLC
Toluene-d8	EPA-8260	120 GS4	01/14/2019	DLC
4-Bromofluorobenzene	EPA-8260	109	01/14/2019	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-02
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 12:00:00 PM
CLIENT SAMPLE ID	F31-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	01/15/2019	KLS
TPH-Diesel Range	NWTPH-DX	690	130	1	UG/L	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/17/2019	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	01/14/2019	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Acetone	EPA-8260	U	25	1	UG/L	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-02
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 12:00:00 PM
CLIENT SAMPLE ID	F31-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	01/14/2019	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Total Dissolved Solids	SM2540C	390	5.0	1	MG/L	01/16/2019	SMH
Chloride	EPA-300.0	20	0.92	10	MG/L	01/16/2019	SMH
Sulfate	EPA-300.0	81	2.6	10	MG/L	01/16/2019	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Arsenic	EPA-200.8	1.2	1.0	1	UG/L	01/17/2019	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper	EPA-200.8	4.0	2.0	1	UG/L	01/17/2019	RAL



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS JOB#:	EV19010081
	Seattle, WA 98102	ALS SAMPLE#:	EV19010081-02
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 12:00:00 PM
CLIENT SAMPLE ID	F31-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	320	50	1	UG/L	01/17/2019	RAL
Lead	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel	EPA-200.8	3.3	2.0	1	UG/L	01/17/2019	RAL
Zinc	EPA-200.8	11	2.5	1	UG/L	01/17/2019	RAL
Arsenic (Dissolved)	EPA-200.8	1.0	1.0	1	UG/L	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	2.5	2.0	1	UG/L	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	84	50	1	UG/L	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	3.4	2.0	1	UG/L	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	12	2.5	1	UG/L	01/17/2019	RAL
Alkalinity	SM2320B	270	15	1	MG/L	01/18/2019	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	93.2	01/15/2019	KLS
C25	NWTPH-DX	86.2	01/17/2019	EBS
1,2-Dichloroethane-d4	EPA-8260	92.8	01/14/2019	DLC
Toluene-d8	EPA-8260	103	01/14/2019	DLC
4-Bromofluorobenzene	EPA-8260	116	01/14/2019	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS JOB#:	EV19010081
	Seattle, WA 98102	ALS SAMPLE#:	EV19010081-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 12:15:00 PM
CLIENT SAMPLE ID	51-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	01/15/2019	KLS
TPH-Diesel Range	NWTPH-DX	620	130	1	UG/L	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/17/2019	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	01/14/2019	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Acetone	EPA-8260	U	25	1	UG/L	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 12:15:00 PM
CLIENT SAMPLE ID	51-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	01/14/2019	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Mercury	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Arsenic	EPA-200.8	1.0	1.0	1	UG/L	01/17/2019	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper	EPA-200.8	4.6	2.0	1	UG/L	01/17/2019	RAL
Iron	EPA-200.8	200	50	1	UG/L	01/17/2019	RAL
Lead	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel	EPA-200.8	3.1	2.0	1	UG/L	01/17/2019	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-03
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 12:15:00 PM
CLIENT SAMPLE ID	51-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Zinc	EPA-200.8	12	2.5	1	UG/L	01/17/2019	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	2.5	2.0	1	UG/L	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	67	50	1	UG/L	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	3.0	2.0	1	UG/L	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	8.6	2.5	1	UG/L	01/17/2019	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	93.0	01/15/2019	KLS
C25	NWTPH-DX	88.3	01/17/2019	EBS
1,2-Dichloroethane-d4	EPA-8260	92.0	01/14/2019	DLC
Toluene-d8	EPA-8260	104	01/14/2019	DLC
4-Bromofluorobenzene	EPA-8260	118	01/14/2019	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-04
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 2:30:00 PM
CLIENT SAMPLE ID	F29-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	01/15/2019	KLS
TPH-Diesel Range	NWTPH-DX	710	130	1	UG/L	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/17/2019	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	01/14/2019	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Acetone	EPA-8260	U	25	1	UG/L	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-04
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 2:30:00 PM
CLIENT SAMPLE ID	F29-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	01/14/2019	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Total Dissolved Solids	SM2540C	350	5.0	1	MG/L	01/16/2019	SMH
Chloride	EPA-300.0	11	0.92	10	MG/L	01/16/2019	SMH
Sulfate	EPA-300.0	44	2.6	10	MG/L	01/16/2019	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Arsenic	EPA-200.8	2.3	1.0	1	UG/L	01/17/2019	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium	EPA-200.8	5.3	2.0	1	UG/L	01/17/2019	RAL
Copper	EPA-200.8	8.0	2.0	1	UG/L	01/17/2019	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS JOB#:	EV19010081
	Seattle, WA 98102	ALS SAMPLE#:	EV19010081-04
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 2:30:00 PM
CLIENT SAMPLE ID	F29-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	2500	50	1	UG/L	01/17/2019	RAL
Lead	EPA-200.8	1.4	1.0	1	UG/L	01/17/2019	RAL
Nickel	EPA-200.8	7.3	2.0	1	UG/L	01/17/2019	RAL
Zinc	EPA-200.8	21	2.5	1	UG/L	01/17/2019	RAL
Arsenic (Dissolved)	EPA-200.8	1.8	1.0	1	UG/L	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	310	50	1	UG/L	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	2.7	2.0	1	UG/L	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	14	2.5	1	UG/L	01/17/2019	RAL
Alkalinity	SM2320B	280	15	1	MG/L	01/18/2019	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	95.9	01/15/2019	KLS
C25	NWTPH-DX	88.4	01/17/2019	EBS
1,2-Dichloroethane-d4	EPA-8260	88.4	01/14/2019	DLC
Toluene-d8	EPA-8260	100	01/14/2019	DLC
4-Bromofluorobenzene	EPA-8260	128 GS4	01/14/2019	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS JOB#:	EV19010081
	Seattle, WA 98102	ALS SAMPLE#:	EV19010081-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 4:30:00 PM
CLIENT SAMPLE ID	D31-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	01/16/2019	KLS
TPH-Diesel Range	NWTPH-DX	770	130	1	UG/L	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/17/2019	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	01/14/2019	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Acetone	EPA-8260	U	25	1	UG/L	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 4:30:00 PM
CLIENT SAMPLE ID	D31-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	01/14/2019	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Total Dissolved Solids	SM2540C	430	5.0	1	MG/L	01/16/2019	SMH
Chloride	EPA-300.0	8.8	0.092	1	MG/L	01/18/2019	SMH
Sulfate	EPA-300.0	100	2.6	10	MG/L	01/16/2019	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Arsenic	EPA-200.8	8.5	1.0	1	UG/L	01/17/2019	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper	EPA-200.8	53	2.0	1	UG/L	01/17/2019	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-05
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 4:30:00 PM
CLIENT SAMPLE ID	D31-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	1300	50	1	UG/L	01/17/2019	RAL
Lead	EPA-200.8	8.4	1.0	1	UG/L	01/17/2019	RAL
Nickel	EPA-200.8	12	2.0	1	UG/L	01/17/2019	RAL
Zinc	EPA-200.8	76	2.5	1	UG/L	01/17/2019	RAL
Arsenic (Dissolved)	EPA-200.8	9.3	1.0	1	UG/L	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	1500	50	1	UG/L	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	9.7	2.0	1	UG/L	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	15	2.5	1	UG/L	01/17/2019	RAL
Alkalinity	SM2320B	310	15	1	MG/L	01/18/2019	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	93.2	01/16/2019	KLS
C25	NWTPH-DX	89.1	01/17/2019	EBS
1,2-Dichloroethane-d4	EPA-8260	95.8	01/14/2019	DLC
Toluene-d8	EPA-8260	103	01/14/2019	DLC
4-Bromofluorobenzene	EPA-8260	128 GS4	01/14/2019	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-06
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 5:10:00 PM
CLIENT SAMPLE ID	52-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	01/16/2019	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/17/2019	EBS
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	01/14/2019	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Acetone	EPA-8260	U	25	1	UG/L	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS JOB#:	EV19010081
		ALS SAMPLE#:	EV19010081-06
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 5:10:00 PM
CLIENT SAMPLE ID	52-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	01/14/2019	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	01/14/2019	DLC
Total Dissolved Solids	SM2540C	7.0	5.0	1	MG/L	01/16/2019	SMH
Chloride	EPA-300.0	0.28	0.092	1	MG/L	01/18/2019	SMH
Sulfate	EPA-300.0	0.95	0.26	1	MG/L	01/18/2019	SMH
Mercury	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	01/17/2019	RAL
Arsenic	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Cadmium	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS JOB#:	EV19010081
	Seattle, WA 98102	ALS SAMPLE#:	EV19010081-06
CLIENT CONTACT:	Janet Knox	DATE RECEIVED:	01/11/2019
CLIENT PROJECT:	JK1701.04 Everett Steel	COLLECTION DATE:	1/10/2019 5:10:00 PM
CLIENT SAMPLE ID	52-GW-011019	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Iron	EPA-200.8	87	50	1	UG/L	01/17/2019	RAL
Lead	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Zinc	EPA-200.8	U	2.5	1	UG/L	01/17/2019	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	U	50	1	UG/L	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	U	2.0	1	UG/L	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	3.8	2.5	1	UG/L	01/17/2019	RAL
Alkalinity	SM2320B	U	15	1	MG/L	01/18/2019	CAS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	92.8	01/16/2019	KLS
C25	NWTPH-DX	87.1	01/17/2019	EBS
1,2-Dichloroethane-d4	EPA-8260	98.0	01/14/2019	DLC
Toluene-d8	EPA-8260	87.4	01/14/2019	DLC
4-Bromofluorobenzene	EPA-8260	128 GS4	01/14/2019	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 1/25/2019
ALS SDG#: EV19010081
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY BLANK RESULTS

MBG-011519W - Batch 136666 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	01/15/2019	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-011519W - Batch 136726 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	01/17/2019	EBS
TPH-Oil Range	NWTPH-DX	U	UG/L	250	01/17/2019	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-011419W - Batch 136617 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Chloromethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Vinyl Chloride	EPA-8260	U	UG/L	0.20	01/14/2019	DLC
Bromomethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Chloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Carbon Tetrachloride	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Trichlorofluoromethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Carbon Disulfide	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Acetone	EPA-8260	U	UG/L	25	01/14/2019	DLC
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Methylene Chloride	EPA-8260	U	UG/L	5.0	01/14/2019	DLC
Acrylonitrile	EPA-8260	U	UG/L	10	01/14/2019	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,1-Dichloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
2-Butanone	EPA-8260	U	UG/L	10	01/14/2019	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
2,2-Dichloropropane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Bromochloromethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Chloroform	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,1-Dichloropropene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2-Dichloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Benzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Trichloroethene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS SDG#:	EV19010081
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	JK1701.04 Everett Steel		

LABORATORY BLANK RESULTS

MB-011419W - Batch 136617 - Water by EPA-8260

Compound	EPA-8260	U	UG/L		01/14/2019	DLC
1,2-Dichloropropane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Dibromomethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Bromodichloromethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/L	10	01/14/2019	DLC
Toluene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
2-Hexanone	EPA-8260	U	UG/L	10	01/14/2019	DLC
1,3-Dichloropropane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Tetrachloroethylene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Dibromochloromethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2-Dibromoethane	EPA-8260	U	UG/L	0.010	01/14/2019	DLC
Chlorobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Ethylbenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
m,p-Xylene	EPA-8260	U	UG/L	4.0	01/14/2019	DLC
Styrene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
o-Xylene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Bromoform	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Isopropylbenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Bromobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
N-Propyl Benzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
2-Chlorotoluene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
4-Chlorotoluene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
T-Butyl Benzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
S-Butyl Benzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
P-Isopropyltoluene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
N-Butylbenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/L	10	01/14/2019	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Hexachlorobutadiene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
Naphthalene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/L	2.0	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

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ALS SDG#: EV19010081
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY BLANK RESULTS

MB-011419W - Batch 136617 - Water by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R331213 - Batch R331213 - Water by SM2540C

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Total Dissolved Solids	SM2540C	U	MG/L	5.0	01/16/2019	SMH

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-331748 - Batch R331748 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chloride	EPA-300.0	U	MG/L	0.092	01/16/2019	SMH
Sulfate	EPA-300.0	U	MG/L	0.26	01/16/2019	SMH

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-331759 - Batch R331759 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chloride	EPA-300.0	U	MG/L	0.092	01/18/2019	SMH
Sulfate	EPA-300.0	U	MG/L	0.26	01/18/2019	SMH

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R331462 - Batch R331462 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-245.1	U	UG/L	0.20	01/17/2019	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-331741 - Batch R331741 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved)	EPA-245.1	U	UG/L	0.20	01/17/2019	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-011619W - Batch 136764 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-200.8	U	UG/L	1.0	01/17/2019	RAL
Cadmium	EPA-200.8	U	UG/L	1.0	01/17/2019	RAL
Chromium	EPA-200.8	U	UG/L	2.0	01/17/2019	RAL



CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY BLANK RESULTS

MB-011619W - Batch 136764 - Water by EPA-200.8

Copper	EPA-200.8	U	UG/L	2.0	01/17/2019	RAL
Iron	EPA-200.8	U	UG/L	50	01/17/2019	RAL
Lead	EPA-200.8	U	UG/L	1.0	01/17/2019	RAL
Nickel	EPA-200.8	U	UG/L	2.0	01/17/2019	RAL
Zinc	EPA-200.8	U	UG/L	2.5	01/17/2019	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-011619W - Batch 136765 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	01/17/2019	RAL
Cadmium (Dissolved)	EPA-200.8	U	UG/L	1.0	01/17/2019	RAL
Chromium (Dissolved)	EPA-200.8	U	UG/L	2.0	01/17/2019	RAL
Copper (Dissolved)	EPA-200.8	U	UG/L	2.0	01/17/2019	RAL
Iron (Dissolved)	EPA-200.8	U	UG/L	50	01/17/2019	RAL
Lead (Dissolved)	EPA-200.8	U	UG/L	1.0	01/17/2019	RAL
Nickel (Dissolved)	EPA-200.8	U	UG/L	2.0	01/17/2019	RAL
Zinc (Dissolved)	EPA-200.8	U	UG/L	2.5	01/17/2019	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-331744 - Batch R331744 - Water by SM2320B

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Alkalinity	SM2320B	U	MG/L	15	01/18/2019	CAS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

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		ALS SDG#:	EV19010081
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	JK1701.04 Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 136666 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	82.7			66.5	122.7	01/15/2019	KLS
TPH-Volatile Range - BSD	NWTPH-GX	86.1	4		66.5	122.7	01/15/2019	KLS

ALS Test Batch ID: 136726 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	96.4			67	125.2	01/17/2019	EBS
TPH-Diesel Range - BSD	NWTPH-DX	105	8		67	125.2	01/17/2019	EBS

ALS Test Batch ID: 136617 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Dichlorodifluoromethane - BS	EPA-8260	93.1			50	150	01/14/2019	DLC
Dichlorodifluoromethane - BSD	EPA-8260	81.8	13		50	150	01/14/2019	DLC
Chloromethane - BS	EPA-8260	99.0			50	150	01/14/2019	DLC
Chloromethane - BSD	EPA-8260	88.0	12		50	150	01/14/2019	DLC
Vinyl Chloride - BS	EPA-8260	104			50	150	01/14/2019	DLC
Vinyl Chloride - BSD	EPA-8260	92.2	12		50	150	01/14/2019	DLC
Bromomethane - BS	EPA-8260	101			50	150	01/14/2019	DLC
Bromomethane - BSD	EPA-8260	95.4	6		50	150	01/14/2019	DLC
Chloroethane - BS	EPA-8260	115			50	150	01/14/2019	DLC
Chloroethane - BSD	EPA-8260	104	11		50	150	01/14/2019	DLC
Carbon Tetrachloride - BS	EPA-8260	116			50	150	01/14/2019	DLC
Carbon Tetrachloride - BSD	EPA-8260	103	12		50	150	01/14/2019	DLC
Trichlorofluoromethane - BS	EPA-8260	119			50	150	01/14/2019	DLC
Trichlorofluoromethane - BSD	EPA-8260	106	12		50	150	01/14/2019	DLC
Carbon Disulfide - BS	EPA-8260	117			50	150	01/14/2019	DLC
Carbon Disulfide - BSD	EPA-8260	105	11		50	150	01/14/2019	DLC
Acetone - BS	EPA-8260	125			50	150	01/14/2019	DLC
Acetone - BSD	EPA-8260	125	0		50	150	01/14/2019	DLC
1,1-Dichloroethene - BS	EPA-8260	122			72.5	136	01/14/2019	DLC
1,1-Dichloroethene - BSD	EPA-8260	109	11		72.5	136	01/14/2019	DLC
Methylene Chloride - BS	EPA-8260	146			50	150	01/14/2019	DLC
Methylene Chloride - BSD	EPA-8260	129	13		50	150	01/14/2019	DLC
Acrylonitrile - BS	EPA-8260	120			50	150	01/14/2019	DLC
Acrylonitrile - BSD	EPA-8260	96.1	23		50	150	01/14/2019	DLC
Methyl T-Butyl Ether - BS	EPA-8260	118			50	150	01/14/2019	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	105	12		50	150	01/14/2019	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	114			50	150	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Trans-1,2-Dichloroethene - BSD	EPA-8260	96.2	17		50	150	01/14/2019	DLC
1,1-Dichloroethane - BS	EPA-8260	116			50	150	01/14/2019	DLC
1,1-Dichloroethane - BSD	EPA-8260	92.0	23		50	150	01/14/2019	DLC
2-Butanone - BS	EPA-8260	104			50	150	01/14/2019	DLC
2-Butanone - BSD	EPA-8260	111	6		50	150	01/14/2019	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	111			50	150	01/14/2019	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	107	4		50	150	01/14/2019	DLC
2,2-Dichloropropane - BS	EPA-8260	123			50	150	01/14/2019	DLC
2,2-Dichloropropane - BSD	EPA-8260	114	7		50	150	01/14/2019	DLC
Bromochloromethane - BS	EPA-8260	109			50	150	01/14/2019	DLC
Bromochloromethane - BSD	EPA-8260	107	2		50	150	01/14/2019	DLC
Chloroform - BS	EPA-8260	104			50	150	01/14/2019	DLC
Chloroform - BSD	EPA-8260	99.4	5		50	150	01/14/2019	DLC
1,1,1-Trichloroethane - BS	EPA-8260	111			50	150	01/14/2019	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	101	10		50	150	01/14/2019	DLC
1,1-Dichloropropene - BS	EPA-8260	112			50	150	01/14/2019	DLC
1,1-Dichloropropene - BSD	EPA-8260	101	11		50	150	01/14/2019	DLC
1,2-Dichloroethane - BS	EPA-8260	106			50	150	01/14/2019	DLC
1,2-Dichloroethane - BSD	EPA-8260	102	4		50	150	01/14/2019	DLC
Benzene - BS	EPA-8260	107			74.7	143	01/14/2019	DLC
Benzene - BSD	EPA-8260	98.9	8		74.7	143	01/14/2019	DLC
Trichloroethene - BS	EPA-8260	107			74.4	141	01/14/2019	DLC
Trichloroethene - BSD	EPA-8260	98.5	9		74.4	141	01/14/2019	DLC
1,2-Dichloropropane - BS	EPA-8260	113			50	150	01/14/2019	DLC
1,2-Dichloropropane - BSD	EPA-8260	106	6		50	150	01/14/2019	DLC
Dibromomethane - BS	EPA-8260	109			50	150	01/14/2019	DLC
Dibromomethane - BSD	EPA-8260	105	4		50	150	01/14/2019	DLC
Bromodichloromethane - BS	EPA-8260	112			50	150	01/14/2019	DLC
Bromodichloromethane - BSD	EPA-8260	106	6		50	150	01/14/2019	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	109			50	150	01/14/2019	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	124	13		50	150	01/14/2019	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	98.2			50	150	01/14/2019	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	98.4	0		50	150	01/14/2019	DLC
Toluene - BS	EPA-8260	97.6			71.7	139	01/14/2019	DLC
Toluene - BSD	EPA-8260	98.8	1		71.7	139	01/14/2019	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	118			50	150	01/14/2019	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	111	6		50	150	01/14/2019	DLC
1,1,2-Trichloroethane - BS	EPA-8260	98.5			50	150	01/14/2019	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	114	15		50	150	01/14/2019	DLC
2-Hexanone - BS	EPA-8260	89.8			50	150	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
2-Hexanone - BSD	EPA-8260	95.1	6		50	150	01/14/2019	DLC
1,3-Dichloropropane - BS	EPA-8260	108			50	150	01/14/2019	DLC
1,3-Dichloropropane - BSD	EPA-8260	113	5		50	150	01/14/2019	DLC
Tetrachloroethylene - BS	EPA-8260	112			50	150	01/14/2019	DLC
Tetrachloroethylene - BSD	EPA-8260	118	6		50	150	01/14/2019	DLC
Dibromochloromethane - BS	EPA-8260	109			50	150	01/14/2019	DLC
Dibromochloromethane - BSD	EPA-8260	116	6		50	150	01/14/2019	DLC
1,2-Dibromoethane - BS	EPA-8260	112			50	150	01/14/2019	DLC
1,2-Dibromoethane - BSD	EPA-8260	119	6		50	150	01/14/2019	DLC
Chlorobenzene - BS	EPA-8260	109			73	131	01/14/2019	DLC
Chlorobenzene - BSD	EPA-8260	104	5		73	131	01/14/2019	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	108			50	150	01/14/2019	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	107	1		50	150	01/14/2019	DLC
Ethylbenzene - BS	EPA-8260	108			50	150	01/14/2019	DLC
Ethylbenzene - BSD	EPA-8260	99.7	8		50	150	01/14/2019	DLC
m,p-Xylene - BS	EPA-8260	109			50	150	01/14/2019	DLC
m,p-Xylene - BSD	EPA-8260	103	6		50	150	01/14/2019	DLC
Styrene - BS	EPA-8260	98.9			50	150	01/14/2019	DLC
Styrene - BSD	EPA-8260	97.1	2		50	150	01/14/2019	DLC
o-Xylene - BS	EPA-8260	108			50	150	01/14/2019	DLC
o-Xylene - BSD	EPA-8260	105	3		50	150	01/14/2019	DLC
Bromoform - BS	EPA-8260	112			50	150	01/14/2019	DLC
Bromoform - BSD	EPA-8260	123	9		50	150	01/14/2019	DLC
Isopropylbenzene - BS	EPA-8260	110			50	150	01/14/2019	DLC
Isopropylbenzene - BSD	EPA-8260	114	4		50	150	01/14/2019	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	101			50	150	01/14/2019	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	100	1		50	150	01/14/2019	DLC
1,2,3-Trichloropropane - BS	EPA-8260	101			50	150	01/14/2019	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	99.6	1		50	150	01/14/2019	DLC
Bromobenzene - BS	EPA-8260	102			50	150	01/14/2019	DLC
Bromobenzene - BSD	EPA-8260	97.2	5		50	150	01/14/2019	DLC
N-Propyl Benzene - BS	EPA-8260	103			50	150	01/14/2019	DLC
N-Propyl Benzene - BSD	EPA-8260	95.9	7		50	150	01/14/2019	DLC
2-Chlorotoluene - BS	EPA-8260	99.4			50	150	01/14/2019	DLC
2-Chlorotoluene - BSD	EPA-8260	92.8	7		50	150	01/14/2019	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	104			50	150	01/14/2019	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	96.4	7		50	150	01/14/2019	DLC
4-Chlorotoluene - BS	EPA-8260	104			50	150	01/14/2019	DLC
4-Chlorotoluene - BSD	EPA-8260	96.8	7		50	150	01/14/2019	DLC
T-Butyl Benzene - BS	EPA-8260	110			50	150	01/14/2019	DLC



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CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
T-Butyl Benzene - BSD	EPA-8260	100	9		50	150	01/14/2019	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	108			50	150	01/14/2019	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	101	7		50	150	01/14/2019	DLC
S-Butyl Benzene - BS	EPA-8260	107			50	150	01/14/2019	DLC
S-Butyl Benzene - BSD	EPA-8260	98.5	8		50	150	01/14/2019	DLC
P-Isopropyltoluene - BS	EPA-8260	112			50	150	01/14/2019	DLC
P-Isopropyltoluene - BSD	EPA-8260	102	9		50	150	01/14/2019	DLC
1,3-Dichlorobenzene - BS	EPA-8260	108			50	150	01/14/2019	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	101	6		50	150	01/14/2019	DLC
1,4-Dichlorobenzene - BS	EPA-8260	105			50	150	01/14/2019	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	98.7	7		50	150	01/14/2019	DLC
N-Butylbenzene - BS	EPA-8260	96.6			50	150	01/14/2019	DLC
N-Butylbenzene - BSD	EPA-8260	87.0	10		50	150	01/14/2019	DLC
1,2-Dichlorobenzene - BS	EPA-8260	109			50	150	01/14/2019	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	102	6		50	150	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	103			50	150	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	109	6		50	150	01/14/2019	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	104			50	150	01/14/2019	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	94.1	10		50	150	01/14/2019	DLC
Hexachlorobutadiene - BS	EPA-8260	101			50	150	01/14/2019	DLC
Hexachlorobutadiene - BSD	EPA-8260	91.3	10		50	150	01/14/2019	DLC
Naphthalene - BS	EPA-8260	98.4			50	150	01/14/2019	DLC
Naphthalene - BSD	EPA-8260	91.4	7		50	150	01/14/2019	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	104			50	150	01/14/2019	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	94.1	10		50	150	01/14/2019	DLC

ALS Test Batch ID: R331213 - Water by SM2540C

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Total Dissolved Solids - BS	SM2540C	100			85	115	01/16/2019	SMH

ALS Test Batch ID: R331759 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Chloride - BS	EPA-300.0	96.5			80	120	01/18/2019	SMH
Chloride - BSD	EPA-300.0	96.5	0		80	120	01/18/2019	SMH
Sulfate - BS	EPA-300.0	93.0			80	120	01/18/2019	SMH
Sulfate - BSD	EPA-300.0	102	9		80	120	01/18/2019	SMH



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102
DATE: 1/25/2019
ALS SDG#: EV19010081
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R331462 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-245.1	102			80.6	118	01/17/2019	RAL
Mercury - BSD	EPA-245.1	104	2		80.6	118	01/17/2019	RAL

ALS Test Batch ID: R331741 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury (Dissolved) - BS	EPA-245.1	102			80.6	118	01/17/2019	RAL
Mercury (Dissolved) - BSD	EPA-245.1	104	2		80.6	118	01/17/2019	RAL

ALS Test Batch ID: 136764 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-200.8	100			89.1	110	01/17/2019	RAL
Arsenic - BSD	EPA-200.8	100	0		89.1	110	01/17/2019	RAL
Cadmium - BS	EPA-200.8	103			89.4	110	01/17/2019	RAL
Cadmium - BSD	EPA-200.8	102	1		89.4	109	01/17/2019	RAL
Chromium - BS	EPA-200.8	101			88.3	110.2	01/17/2019	RAL
Chromium - BSD	EPA-200.8	101	0		86.2	107	01/17/2019	RAL
Copper - BS	EPA-200.8	103			85.4	109	01/17/2019	RAL
Copper - BSD	EPA-200.8	102	1		85.4	109	01/17/2019	RAL
Iron - BS	EPA-200.8	101			80	120	01/17/2019	RAL
Iron - BSD	EPA-200.8	101	1		80	120	01/17/2019	RAL
Lead - BS	EPA-200.8	101			87.5	107	01/17/2019	RAL
Lead - BSD	EPA-200.8	102	1		87.5	107	01/17/2019	RAL
Nickel - BS	EPA-200.8	102			85.4	109	01/17/2019	RAL
Nickel - BSD	EPA-200.8	102	0		85.4	109	01/17/2019	RAL
Zinc - BS	EPA-200.8	103			88.2	111	01/17/2019	RAL
Zinc - BSD	EPA-200.8	102	1		88.2	111	01/17/2019	RAL

ALS Test Batch ID: 136765 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic (Dissolved) - BS	EPA-200.8	100			89.1	110	01/17/2019	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	100	0		89.1	110	01/17/2019	RAL
Cadmium (Dissolved) - BS	EPA-200.8	103			89.4	110	01/17/2019	RAL
Cadmium (Dissolved) - BSD	EPA-200.8	102	1		89.4	110	01/17/2019	RAL
Chromium (Dissolved) - BS	EPA-200.8	101			86.2	107	01/17/2019	RAL
Chromium (Dissolved) - BSD	EPA-200.8	101	0		86.2	107	01/17/2019	RAL
Copper (Dissolved) - BS	EPA-200.8	103			85.4	109	01/17/2019	RAL

CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group	DATE:	1/25/2019
	2377 Eastlake Ave E.	ALS SDG#:	EV19010081
	Seattle, WA 98102	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	JK1701.04 Everett Steel		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Copper (Dissolved) - BSD	EPA-200.8	102	1		85.4	109	01/17/2019	RAL
Iron (Dissolved) - BS	EPA-200.8	101			80	120	01/17/2019	RAL
Iron (Dissolved) - BSD	EPA-200.8	101	1		80	120	01/17/2019	RAL
Lead (Dissolved) - BS	EPA-200.8	101			87.5	107	01/17/2019	RAL
Lead (Dissolved) - BSD	EPA-200.8	102	1		87.5	107	01/17/2019	RAL
Nickel (Dissolved) - BS	EPA-200.8	102			85.4	109	01/17/2019	RAL
Nickel (Dissolved) - BSD	EPA-200.8	102	0		85.4	109	01/17/2019	RAL
Zinc (Dissolved) - BS	EPA-200.8	103			88.2	111	01/17/2019	RAL
Zinc (Dissolved) - BSD	EPA-200.8	102	1		88.2	111	01/17/2019	RAL

ALS Test Batch ID: R331744 - Water by SM2320B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Alkalinity - BS	SM2320B	99.0			1	200	01/18/2019	CAS



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS SDG#:	EV19010081
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	JK1701.04 Everett Steel		

MATRIX SPIKE RESULTS

ALS Test Batch ID: 136617 - Water
Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Dichlorodifluoromethane - MS	EPA-8260	90.6			10.0	0	9.06	50	150	01/14/2019	DLC
Dichlorodifluoromethane - MSD	EPA-8260	96.4	6		10.0	0	9.64	50	150	01/14/2019	DLC
Chloromethane - MS	EPA-8260	102			10.0	0	10.2	50	150	01/14/2019	DLC
Chloromethane - MSD	EPA-8260	102	0		10.0	0	10.2	50	150	01/14/2019	DLC
Vinyl Chloride - MS	EPA-8260	109			10.0	0	10.9	50	150	01/14/2019	DLC
Vinyl Chloride - MSD	EPA-8260	112	3		10.0	0	11.2	50	150	01/14/2019	DLC
Bromomethane - MS	EPA-8260	110			10.0	0	11.0	50	150	01/14/2019	DLC
Bromomethane - MSD	EPA-8260	101	9		10.0	0	10.1	50	150	01/14/2019	DLC
Chloroethane - MS	EPA-8260	111			10.0	0	11.1	50	150	01/14/2019	DLC
Chloroethane - MSD	EPA-8260	105	5		10.0	0	10.5	50	150	01/14/2019	DLC
Carbon Tetrachloride - MS	EPA-8260	107			10.0	0	10.7	50	150	01/14/2019	DLC
Carbon Tetrachloride - MSD	EPA-8260	112	4		10.0	0	11.2	50	150	01/14/2019	DLC
Trichlorofluoromethane - MS	EPA-8260	120			10.0	0	12.0	50	150	01/14/2019	DLC
Trichlorofluoromethane - MSD	EPA-8260	121	0		10.0	0	12.1	50	150	01/14/2019	DLC
Carbon Disulfide - MS	EPA-8260	111			10.0	0	11.1	50	150	01/14/2019	DLC
Carbon Disulfide - MSD	EPA-8260	113	2		10.0	0	11.3	50	150	01/14/2019	DLC
Acetone - MS	EPA-8260	115			10.0	0	11.5	50	150	01/14/2019	DLC
Acetone - MSD	EPA-8260	114	0		10.0	0	11.4	50	150	01/14/2019	DLC
1,1-Dichloroethene - MS	EPA-8260	119			10.0	0	11.9	72.5	136	01/14/2019	DLC
1,1-Dichloroethene - MSD	EPA-8260	121	2		10.0	0	12.1	72.5	136	01/14/2019	DLC
Methylene Chloride - MS	EPA-8260	83.4			10.0	0	8.34	50	150	01/14/2019	DLC
Methylene Chloride - MSD	EPA-8260	71.2	16		10.0	0	7.12	50	150	01/14/2019	DLC
Acrylonitrile - MS	EPA-8260	104			10.0	0	10.4	50	150	01/14/2019	DLC
Acrylonitrile - MSD	EPA-8260	107	3		10.0	0	10.7	50	150	01/14/2019	DLC
Methyl T-Butyl Ether - MS	EPA-8260	112			10.0	0	11.2	50	150	01/14/2019	DLC
Methyl T-Butyl Ether - MSD	EPA-8260	95.3	16		10.0	0	9.53	50	150	01/14/2019	DLC
Trans-1,2-Dichloroethene - MS	EPA-8260	111			10.0	0	11.1	50	150	01/14/2019	DLC
Trans-1,2-Dichloroethene - MSD	EPA-8260	101	9		10.0	0	10.1	50	150	01/14/2019	DLC
1,1-Dichloroethane - MS	EPA-8260	100			10.0	0.11	10.1	50	150	01/14/2019	DLC
1,1-Dichloroethane - MSD	EPA-8260	97.5	3		10.0	0.11	9.85	50	150	01/14/2019	DLC
2-Butanone - MS	EPA-8260	84.2			10.0	0	8.42	50	150	01/14/2019	DLC
2-Butanone - MSD	EPA-8260	77.4	8		10.0	0	7.74	50	150	01/14/2019	DLC
Cis-1,2-Dichloroethene - MS	EPA-8260	103			10.0	0	10.3	50	150	01/14/2019	DLC
Cis-1,2-Dichloroethene - MSD	EPA-8260	99.8	3		10.0	0	9.98	50	150	01/14/2019	DLC
2,2-Dichloropropane - MS	EPA-8260	108			10.0	0	10.8	50	150	01/14/2019	DLC
2,2-Dichloropropane - MSD	EPA-8260	117	7		10.0	0	11.7	50	150	01/14/2019	DLC
Bromochloromethane - MS	EPA-8260	95.0			10.0	0	9.50	50	150	01/14/2019	DLC
Bromochloromethane - MSD	EPA-8260	90.5	5		10.0	0	9.05	50	150	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

MATRIX SPIKE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Chloroform - MS	EPA-8260	95.0			10.0	0	9.50	50	150	01/14/2019	DLC
Chloroform - MSD	EPA-8260	92.8	2		10.0	0	9.28	50	150	01/14/2019	DLC
1,1,1-Trichloroethane - MS	EPA-8260	103			10.0	0	10.3	50	150	01/14/2019	DLC
1,1,1-Trichloroethane - MSD	EPA-8260	104	2		10.0	0	10.4	50	150	01/14/2019	DLC
1,1-Dichloropropene - MS	EPA-8260	97.5			10.0	0	9.75	50	150	01/14/2019	DLC
1,1-Dichloropropene - MSD	EPA-8260	102	4		10.0	0	10.2	50	150	01/14/2019	DLC
1,2-Dichloroethane - MS	EPA-8260	94.5			10.0	0	9.45	50	150	01/14/2019	DLC
1,2-Dichloroethane - MSD	EPA-8260	99.3	5		10.0	0	9.93	50	150	01/14/2019	DLC
Benzene - MS	EPA-8260	91.7			10.0	0.13	9.31	74.7	143	01/14/2019	DLC
Benzene - MSD	EPA-8260	103	11		10.0	0.13	10.4	74.7	143	01/14/2019	DLC
Trichloroethene - MS	EPA-8260	95.7			10.0	0	9.57	74.4	141	01/14/2019	DLC
Trichloroethene - MSD	EPA-8260	113	16		10.0	0	11.3	74.4	141	01/14/2019	DLC
1,2-Dichloropropane - MS	EPA-8260	97.1			10.0	0	9.71	50	150	01/14/2019	DLC
1,2-Dichloropropane - MSD	EPA-8260	124	24		10.0	0	12.4	50	150	01/14/2019	DLC
Dibromomethane - MS	EPA-8260	96.3			10.0	0	9.63	50	150	01/14/2019	DLC
Dibromomethane - MSD	EPA-8260	115	18		10.0	0	11.5	50	150	01/14/2019	DLC
Bromodichloromethane - MS	EPA-8260	102			10.0	0	10.2	50	150	01/14/2019	DLC
Bromodichloromethane - MSD	EPA-8260	124	19		10.0	0	12.4	50	150	01/14/2019	DLC
Trans-1,3-Dichloropropene - MS	EPA-8260	100			10.0	0	10.0	50	150	01/14/2019	DLC
Trans-1,3-Dichloropropene - MSD	EPA-8260	107	7		10.0	0	10.7	50	150	01/14/2019	DLC
4-Methyl-2-Pentanone - MS	EPA-8260	100			10.0	0	10.0	50	150	01/14/2019	DLC
4-Methyl-2-Pentanone - MSD	EPA-8260	104	3		10.0	0	10.4	50	150	01/14/2019	DLC
Toluene - MS	EPA-8260	111			10.0	0	11.1	71.7	139	01/14/2019	DLC
Toluene - MSD	EPA-8260	122	10		10.0	0	12.2	71.7	139	01/14/2019	DLC
Cis-1,3-Dichloropropene - MS	EPA-8260	110			10.0	0	11.0	50	150	01/14/2019	DLC
Cis-1,3-Dichloropropene - MSD	EPA-8260	126	13		10.0	0	12.6	50	150	01/14/2019	DLC
1,1,2-Trichloroethane - MS	EPA-8260	101			10.0	0	10.1	50	150	01/14/2019	DLC
1,1,2-Trichloroethane - MSD	EPA-8260	105	4		10.0	0	10.5	50	150	01/14/2019	DLC
2-Hexanone - MS	EPA-8260	74.3			10.0	0	7.43	50	150	01/14/2019	DLC
2-Hexanone - MSD	EPA-8260	79.1	6		10.0	0	7.91	50	150	01/14/2019	DLC
1,3-Dichloropropane - MS	EPA-8260	99.5			10.0	0	9.95	50	150	01/14/2019	DLC
1,3-Dichloropropane - MSD	EPA-8260	103	4		10.0	0	10.3	50	150	01/14/2019	DLC
Tetrachloroethylene - MS	EPA-8260	97.9			10.0	0	9.79	50	150	01/14/2019	DLC
Tetrachloroethylene - MSD	EPA-8260	112	13		10.0	0	11.2	50	150	01/14/2019	DLC
Dibromochloromethane - MS	EPA-8260	99.1			10.0	0	9.91	50	150	01/14/2019	DLC
Dibromochloromethane - MSD	EPA-8260	105	5		10.0	0	10.5	50	150	01/14/2019	DLC
1,2-Dibromoethane - MS	EPA-8260	100			10.0	0	10.0	50	150	01/14/2019	DLC
1,2-Dibromoethane - MSD	EPA-8260	102	2		10.0	0	10.2	50	150	01/14/2019	DLC
Chlorobenzene - MS	EPA-8260	99.7			10.0	0	9.97	73	131	01/14/2019	DLC
Chlorobenzene - MSD	EPA-8260	110	10		10.0	0	11.0	73	131	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

MATRIX SPIKE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
1,1,1,2-Tetrachloroethane - MS	EPA-8260	99.4			10.0	0	9.94	50	150	01/14/2019	DLC
1,1,1,2-Tetrachloroethane - MSD	EPA-8260	107	7		10.0	0	10.7	50	150	01/14/2019	DLC
Ethylbenzene - MS	EPA-8260	97.9			10.0	0	9.79	50	150	01/14/2019	DLC
Ethylbenzene - MSD	EPA-8260	110	12		10.0	0	11.0	50	150	01/14/2019	DLC
m,p-Xylene - MS	EPA-8260	99.0			20.0	0	19.8	50	150	01/14/2019	DLC
m,p-Xylene - MSD	EPA-8260	110	11		20.0	0	22.1	50	150	01/14/2019	DLC
Styrene - MS	EPA-8260	88.4			10.0	0	8.84	50	150	01/14/2019	DLC
Styrene - MSD	EPA-8260	97.8	10		10.0	0	9.78	50	150	01/14/2019	DLC
o-Xylene - MS	EPA-8260	97.1			10.0	0	9.71	50	150	01/14/2019	DLC
o-Xylene - MSD	EPA-8260	108	10		10.0	0	10.8	50	150	01/14/2019	DLC
Bromoform - MS	EPA-8260	101			10.0	0	10.1	50	150	01/14/2019	DLC
Bromoform - MSD	EPA-8260	104	3		10.0	0	10.4	50	150	01/14/2019	DLC
Isopropylbenzene - MS	EPA-8260	98.2			10.0	0	9.82	50	150	01/14/2019	DLC
Isopropylbenzene - MSD	EPA-8260	112	13		10.0	0	11.2	50	150	01/14/2019	DLC
1,1,2,2-Tetrachloroethane - MS	EPA-8260	98.5			10.0	0	9.85	50	150	01/14/2019	DLC
1,1,2,2-Tetrachloroethane - MSD	EPA-8260	102	4		10.0	0	10.2	50	150	01/14/2019	DLC
1,2,3-Trichloropropane - MS	EPA-8260	96.2			10.0	0	9.62	50	150	01/14/2019	DLC
1,2,3-Trichloropropane - MSD	EPA-8260	99.4	3		10.0	0	9.94	50	150	01/14/2019	DLC
Bromobenzene - MS	EPA-8260	97.6			10.0	0	9.76	50	150	01/14/2019	DLC
Bromobenzene - MSD	EPA-8260	106	9		10.0	0	10.6	50	150	01/14/2019	DLC
N-Propyl Benzene - MS	EPA-8260	96.0			10.0	0	9.60	50	150	01/14/2019	DLC
N-Propyl Benzene - MSD	EPA-8260	110	14		10.0	0	11.0	50	150	01/14/2019	DLC
2-Chlorotoluene - MS	EPA-8260	93.0			10.0	0	9.30	50	150	01/14/2019	DLC
2-Chlorotoluene - MSD	EPA-8260	105	12		10.0	0	10.5	50	150	01/14/2019	DLC
1,3,5-Trimethylbenzene - MS	EPA-8260	95.2			10.0	0	9.52	50	150	01/14/2019	DLC
1,3,5-Trimethylbenzene - MSD	EPA-8260	108	12		10.0	0	10.8	50	150	01/14/2019	DLC
4-Chlorotoluene - MS	EPA-8260	95.6			10.0	0	9.56	50	150	01/14/2019	DLC
4-Chlorotoluene - MSD	EPA-8260	108	12		10.0	0	10.8	50	150	01/14/2019	DLC
T-Butyl Benzene - MS	EPA-8260	94.1			10.0	0	9.41	50	150	01/14/2019	DLC
T-Butyl Benzene - MSD	EPA-8260	110	16		10.0	0	11.0	50	150	01/14/2019	DLC
1,2,4-Trimethylbenzene - MS	EPA-8260	96.6			10.0	0	9.66	50	150	01/14/2019	DLC
1,2,4-Trimethylbenzene - MSD	EPA-8260	110	13		10.0	0	11.0	50	150	01/14/2019	DLC
S-Butyl Benzene - MS	EPA-8260	95.6			10.0	0	9.56	50	150	01/14/2019	DLC
S-Butyl Benzene - MSD	EPA-8260	111	15		10.0	0	11.1	50	150	01/14/2019	DLC
P-Isopropyltoluene - MS	EPA-8260	96.0			10.0	0	9.60	50	150	01/14/2019	DLC
P-Isopropyltoluene - MSD	EPA-8260	112	16		10.0	0	11.2	50	150	01/14/2019	DLC
1,3-Dichlorobenzene - MS	EPA-8260	97.0			10.0	0	9.70	50	150	01/14/2019	DLC
1,3-Dichlorobenzene - MSD	EPA-8260	109	12		10.0	0	10.9	50	150	01/14/2019	DLC
1,4-Dichlorobenzene - MS	EPA-8260	94.1			10.0	0	9.41	50	150	01/14/2019	DLC
1,4-Dichlorobenzene - MSD	EPA-8260	106	12		10.0	0	10.6	50	150	01/14/2019	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
2377 Eastlake Ave E.
Seattle, WA 98102

DATE: 1/25/2019
ALS SDG#: EV19010081
WDOE ACCREDITATION: C601

CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

MATRIX SPIKE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
N-Butylbenzene - MS	EPA-8260	76.8			10.0	0	7.68	50	150	01/14/2019	DLC
N-Butylbenzene - MSD	EPA-8260	92.8	19		10.0	0	9.28	50	150	01/14/2019	DLC
1,2-Dichlorobenzene - MS	EPA-8260	96.4			10.0	0	9.64	50	150	01/14/2019	DLC
1,2-Dichlorobenzene - MSD	EPA-8260	107	10		10.0	0	10.7	50	150	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane - MS	EPA-8260	94.7			10.0	0	9.47	50	150	01/14/2019	DLC
1,2-Dibromo 3-Chloropropane - MSD	EPA-8260	103	8		10.0	0	10.3	50	150	01/14/2019	DLC
1,2,4-Trichlorobenzene - MS	EPA-8260	75.4			10.0	0	7.54	50	150	01/14/2019	DLC
1,2,4-Trichlorobenzene - MSD	EPA-8260	88.4	16		10.0	0	8.84	50	150	01/14/2019	DLC
Hexachlorobutadiene - MS	EPA-8260	77.4			10.0	0	7.74	50	150	01/14/2019	DLC
Hexachlorobutadiene - MSD	EPA-8260	93.9	19		10.0	0	9.39	50	150	01/14/2019	DLC
Naphthalene - MS	EPA-8260	71.1			10.0	0	7.11	50	150	01/14/2019	DLC
Naphthalene - MSD	EPA-8260	82.9	15		10.0	0	8.29	50	150	01/14/2019	DLC
1,2,3-Trichlorobenzene - MS	EPA-8260	75.2			10.0	0	7.52	50	150	01/14/2019	DLC
1,2,3-Trichlorobenzene - MSD	EPA-8260	88.4	16		10.0	0	8.84	50	150	01/14/2019	DLC

ALS Test Batch ID: 136666 - Water

Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
TPH-Volatile Range - MS	NWTPH-GX	70.0			500	0	350	66.5	122.7	01/15/2019	KLS
TPH-Volatile Range - MSD	NWTPH-GX	72.1	3		500	0	361	66.5	122.7	01/15/2019	KLS

ALS Test Batch ID: 136726 - Water

Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
TPH-Diesel Range - MS	NWTPH-DX	77.0			1000	690	1460	67	125.2	01/17/2019	EBS

ALS Test Batch ID: 136764 - Water

Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Arsenic - MS	EPA-200.8	101			125	1.2	128	89.1	110	01/17/2019	RAL
Arsenic - MSD	EPA-200.8	102	1		125	1.2	129	89.1	110	01/17/2019	RAL
Cadmium - MS	EPA-200.8	100			125	0	125	89.4	110	01/17/2019	RAL
Cadmium - MSD	EPA-200.8	102	2		125	0	128	89.4	110	01/17/2019	RAL
Chromium - MS	EPA-200.8	101			125	1.4	128	88.3	110.2	01/17/2019	RAL
Chromium - MSD	EPA-200.8	102	1		125	1.4	128	88.3	110.2	01/17/2019	RAL



CERTIFICATE OF ANALYSIS

CLIENT:	Pacific Groundwater Group 2377 Eastlake Ave E. Seattle, WA 98102	DATE:	1/25/2019
		ALS SDG#:	EV19010081
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Janet Knox		
CLIENT PROJECT:	JK1701.04 Everett Steel		

MATRIX SPIKE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Copper - MS	EPA-200.8	98.4			125	4.0	127	85.4	109	01/17/2019	RAL
Copper - MSD	EPA-200.8	99.4	1		125	4.0	128	85.4	109	01/17/2019	RAL
Iron - MS	EPA-200.8	101			12500	320	13000	80	120	01/17/2019	RAL
Iron - MSD	EPA-200.8	102	0		12500	320	13000	80	120	01/17/2019	RAL
Lead - MS	EPA-200.8	104			125	0.37	130	87.5	107	01/17/2019	RAL
Lead - MSD	EPA-200.8	104	0		125	0.37	130	87.5	107	01/17/2019	RAL
Nickel - MS	EPA-200.8	98.7			125	3.3	127	85.4	109	01/17/2019	RAL
Nickel - MSD	EPA-200.8	99.4	1		125	3.3	128	85.4	109	01/17/2019	RAL
Zinc - MS	EPA-200.8	99.1			125	11	135	88.2	111	01/17/2019	RAL
Zinc - MSD	EPA-200.8	99.9	1		125	11	136	88.2	111	01/17/2019	RAL

ALS Test Batch ID: 136765 - Water
Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Arsenic (Dissolved) - MS	EPA-200.8	102			125	1.0	128	89.1	110	01/17/2019	RAL
Arsenic (Dissolved) - MSD	EPA-200.8	102	1		125	1.0	129	89.1	110	01/17/2019	RAL
Cadmium (Dissolved) - MS	EPA-200.8	103			125	0	129	89.4	110	01/17/2019	RAL
Cadmium (Dissolved) - MSD	EPA-200.8	103	0		125	0	129	89.4	110	01/17/2019	RAL
Chromium (Dissolved) - MS	EPA-200.8	102			125	0.72	128	86.2	107	01/17/2019	RAL
Chromium (Dissolved) - MSD	EPA-200.8	101	1		125	0.72	127	86.2	107	01/17/2019	RAL
Copper (Dissolved) - MS	EPA-200.8	99.2			125	2.5	127	85.4	109	01/17/2019	RAL
Copper (Dissolved) - MSD	EPA-200.8	102	3		125	2.5	130	85.4	109	01/17/2019	RAL
Iron (Dissolved) - MS	EPA-200.8	102			12500	84	12800	80	120	01/17/2019	RAL
Iron (Dissolved) - MSD	EPA-200.8	102	1		12500	84	12900	80	120	01/17/2019	RAL
Lead (Dissolved) - MS	EPA-200.8	104			125	0.22	130	87.5	107	01/17/2019	RAL
Lead (Dissolved) - MSD	EPA-200.8	105	1		125	0.22	131	87.5	107	01/17/2019	RAL
Nickel (Dissolved) - MS	EPA-200.8	99.6			125	3.4	128	85.4	109	01/17/2019	RAL
Nickel (Dissolved) - MSD	EPA-200.8	99.1	0		125	3.4	127	85.4	109	01/17/2019	RAL
Zinc (Dissolved) - MS	EPA-200.8	99.8			125	12	137	88.2	111	01/17/2019	RAL
Zinc (Dissolved) - MSD	EPA-200.8	101	1		125	12	139	88.2	111	01/17/2019	RAL

ALS Test Batch ID: R331213 - Water
Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Total Dissolved Solids 2X Dilution - MS	SM2540C	107			250	390	658	85	115	01/16/2019	SMH
Total Dissolved Solids 2X Dilution - MSD	SM2540C	116	3	SQ2	250	390	680	85	115	01/16/2019	SMH

CERTIFICATE OF ANALYSIS

CLIENT: Pacific Groundwater Group
 2377 Eastlake Ave E.
 Seattle, WA 98102
DATE: 1/25/2019
ALS SDG#: EV19010081
WDOE ACCREDITATION: C601
CLIENT CONTACT: Janet Knox
CLIENT PROJECT: JK1701.04 Everett Steel

MATRIX SPIKE RESULTS

SQ2 - Spike outside of control limits due to matrix effect.

ALS Test Batch ID: R331462 - Water

Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Mercury - MS	EPA-245.1	73.0		SQ2	100	0	73.0	80.6	118	01/17/2019	RAL
Mercury - MSD	EPA-245.1	51.0	35	SQ2	100	0	51.0	80.6	118	01/17/2019	RAL

SQ2 - Spike outside of control limits due to matrix effect.

ALS Test Batch ID: R331741 - Water

Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Mercury (Dissolved) - MS	EPA-245.1	73.0		SQ2	100	0	73.0	80.6	118	01/17/2019	RAL
Mercury (Dissolved) - MSD	EPA-245.1	51.0	35	SQ2	100	0	51.0	80.6	118	01/17/2019	RAL

SQ2 - Spike outside of control limits due to matrix effect.

ALS Test Batch ID: R331748 - Water

Parent Sample: F31-GW-011019

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	SPIKE ADDED	PARENT SAMPLE RESULT	RESULT	LIMITS		ANALYSIS DATE	ANALYSIS BY
								MIN	MAX		
Chloride 10X Dilution - MS	EPA-300.0	80.0		SQ2	20.0	20	35.5	80	120	01/16/2019	SMH
Chloride 10X Dilution - MSD	EPA-300.0	80.5	0		20.0	20	35.6	80	120	01/16/2019	SMH
Sulfate 10X Dilution - MS	EPA-300.0	58.0		SQ2	20.0	81	92.9	80	120	01/16/2019	SMH
Sulfate 10X Dilution - MSD	EPA-300.0	63.0	1	SQ2	20.0	81	93.9	80	120	01/16/2019	SMH

SQ2 - Spike outside of control limits due to matrix effect.

APPROVED BY



Laboratory Director



ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job#

(Laboratory Use Only)

EV19010081

Page _____ Of _____

Date _____

PROJECT ID: JK170104 Everett Steel				ANALYSIS REQUESTED												OTHER (Specify)										
REPORT TO COMPANY: PGG																										
PROJECT MANAGER: Janet Knox																										
ADDRESS: 2377 Eastlake Ave E																										
Seattle, WA 98102																										
PHONE: 206 329-0141 PO #: JK170104																										
E-MAIL: Janet@pgg.com / Jeff@pgg.com																										
INVOICE TO COMPANY: Pacific Groundwater Group																										
ATTENTION: hazzel@pgg.com																										
ADDRESS: 2377 Eastlake Ave E																										
Seattle, WA 98102																										
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021	MTBE by EPA 8021	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082	Pesticides by EPA 8081	Metals-MTCA-5	Metals Other (Specify)	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs		
1. E33-GW-011019	1/10/19	10:15	GW	1		X	X				X									X	X	X				
2. F31-GW-011019	1/10/19	12:00	GW	2		X	X				X									X	X	X				
3. 51-GW-011019	1/10/19	12:15	GW	3		X	X				X									X	X	X				
4. F29-GW-011019	1/10/19	14:30	GW	4		X	X				X									X	X	X				
5. D31-GW-011019	1/10/19	16:30	GW	5		X	X				X									X	X	X				
6. 52-GW-011019	1/10/19	17:10	GW	6		X	X				X									X	X	X				
7.																										
8.																										
9.																										
10.																										

SPECIAL INSTRUCTIONS (miscellaneous volume collected for F31-GW-011019) / S2-GW-011019, rinsed preservative in dissolved metals, not field filtered, please lab filter.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Janet Knox 1/11/2019 12:48 PM

Received By: Janet Knox 1/11/19 12:48 PM

2. Relinquished By: _____

Received By: _____

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis

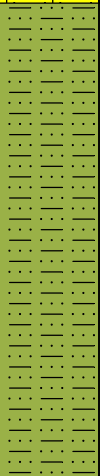
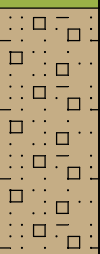
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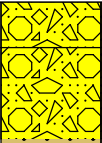
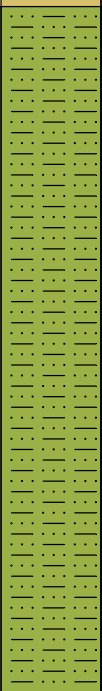
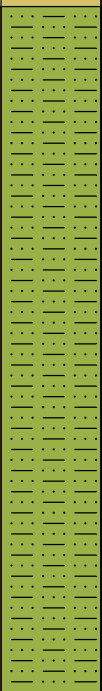
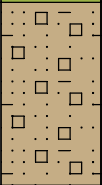
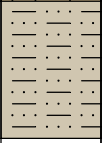
Fuels & Hydrocarbon Analysis

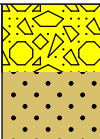
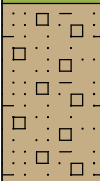
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*Turnaround request less than standard may incur Rush Charges

**EVERETT STEEL RI/FS
BORING LOGS**

Depth (ft)	Geology	Unit	Log	DTW	Well Construction	
0		↑	Dry, loose, f-c SAND and GRAVEL		No Well Constructed	
		↓	Moist, brown-black, slightly silty, gravelly, f-c SAND, with slaggy vesicular grains and black vitreous grains, tr. white flecks.			
5		↑	Moist, dark brown, organic-rich, f. sandy SILT			
		↑	Moist, laminated/massive, stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT softer 8-9 ft (with 0.2' wet interval)			
10		↓				
15		↑	Moist, brown-grey, dense-v.dense, sl gravely (silt casts), SILT and f-c SAND refusal at 19 ft			
20		↓				
25						
30						
35						
Project Name: Everett Steel Drilling Method: Geoprobe Driller: Firm: ESN NW Consulting Firm: Pacific Groundwater Group Logged by: Jeff Parker Location: Everett Steel			Well Name: no well Ecology ID: NA MP Elevation: NA Datum: NA Installed: 6/9/18 DTW: NA		GEOLOGIC LOG AND AS-BUILT FOR BORING D25 Everett Steel Everett, Washington JK1701	

Depth (ft)	Geology	Unit	Log	DTW	Well Construction	
0		↑ FILL ↓	Dry, Railroad Ballast			
			Moist, brown-black, slightly silty, gravelly, f-c SAND, with slaggy vesicular grains and black vitreous grains.			
5		↑ ↓	Moist, grey, slightly silty, f-m SAND			
			Moist, laminated/massive, stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT			
10		↑ SILT ↓				
15		↑ ↓				
20		↑ ↓	Moist, brown-grey, dense, tr. gravely, silty, f-c SAND refusal at 16 feet			
25		↑ ↓	Moist, grey, very dense, slightly clayey, sl. f. sandy, SILT geoprobe refusal at 20 1/2 ft in first attempt, refusal at 26 1/2 ft in 2nd boring			
30						
35						
Project Name: Everett Steel Drilling Method: Geoprobe Driller: Firm: ESN NW Consulting Firm: Pacific Groundwater Group Logged by: Jeff Parker Location: Everett Steel				Well Name: no well Ecology ID: NA MP Elevation: NA Datum: NA Installed: 6/9/18 DTW: NA		
GEOLOGIC LOG AND AS-BUILT FOR BORING D27 Everett Steel Everett, Washington JK1701						

Depth (ft)	Geology	Unit	Log	DTW	Well Construction	
0		↑ FILL ↓	Moist, brown-black, slightly silty, f-c SAND and GRAVEL, with slaggy vesicular grains and black vitreous grains.		No Well Constructed	
		↑ ↓	Moist, grey, slightly silty, f-m SAND			
5		↑ SILT ↓	Moist, laminated/massive, soft to stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT; softer 7-9 ft.			
10						
15		↑ ↓	Moist, brown-grey, dense, sl. gravely, silty, f-c SAND refusal at 16 feet			
20						
25						
30						
35						

Project Name: Everett Steel

Drilling Method: Geoprobe

Driller:

Firm: ESN NW

Consulting Firm: Pacific Groundwater Group

Logged by: Jeff Parker

Location: Everett Steel

Well Name: no well

Ecology ID: NA

MP Elevation: NA

Datum: NA

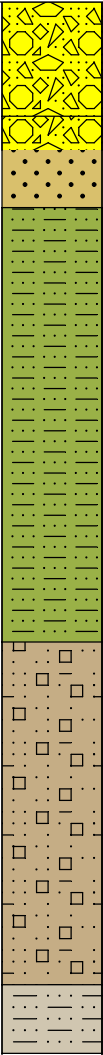
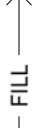
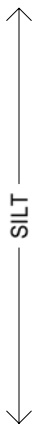
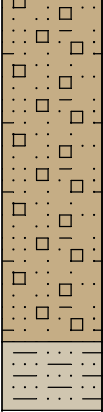
Installed: 6/9/18

DTW: NA

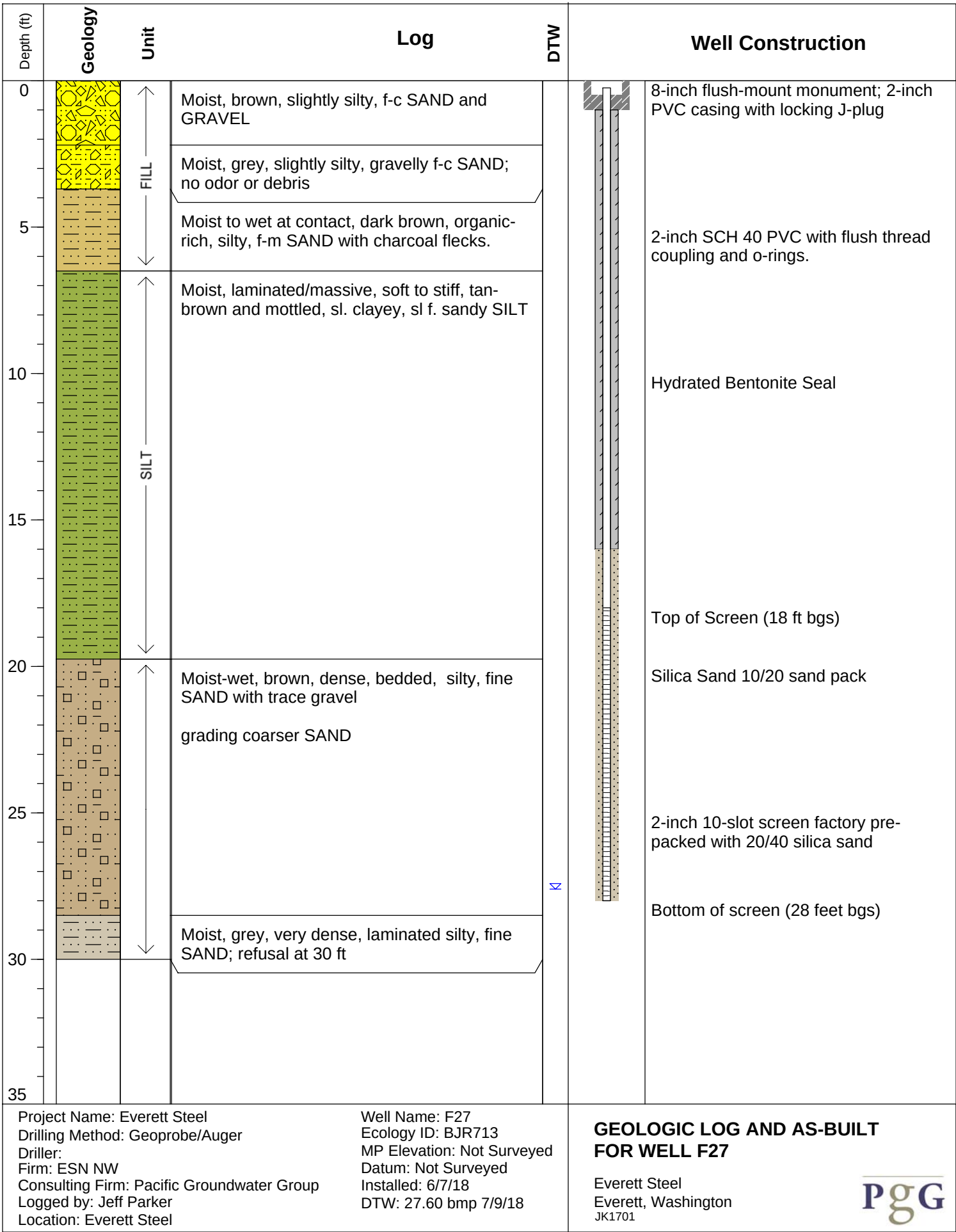
GEOLOGIC LOG AND AS-BUILT
FOR BORING D29

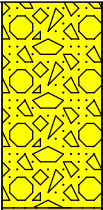
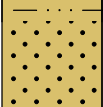
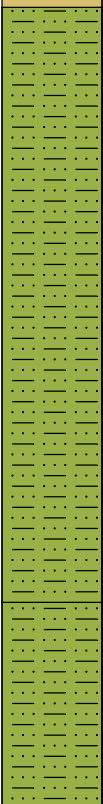
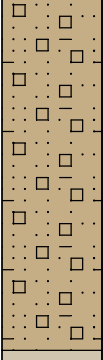
Everett Steel
Everett, Washington
JK1701

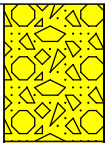
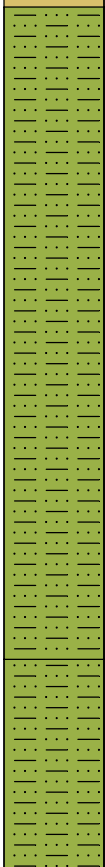
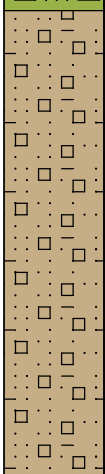


Depth (ft)	Geology	Unit	Log	DTW	Well Construction
0		FILL 	Moist, brown, slightly silty, f-c SAND and GRAVEL (Ballast)		8-inch flush-mount monument; 2-inch PVC casing with locking J-plug
			Moist, black, silty, f-c SAND and GRAVEL, with slaggy vesicular grains and black vitreous grains.		
5		SILT 	Moist, grey, slightly silty, f-m SAND		2-inch SCH 40 PVC with flush thread coupling and o-rings.
			Moist, laminated/massive, soft to stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT		Hydrated Bentonite Seal
10					
15			Moist, brown, dense, bedded, silty, f-c SAND with trace to sl. gravelly		Top of Screen (15 ft bgs)
20					Silica Sand 10/20 sand pack
			Moist, grey, very dense, slightly clayey, sl. f. sandy, SILT geoprobe refusal at 23 ft auger to 25 ft		2-inch 10-slot screen factory pre-packed with 20/40 silica sand
25					Bottom of screen (25 feet bgs)
30					
35					
Project Name: Everett Steel Drilling Method: Geoprobe/Auger Driller: Firm: ESN NW Consulting Firm: Pacific Groundwater Group Logged by: Jeff Parker Location: Everett Steel			Well Name: D31 Ecology ID: BJR712 MP Elevation: Not Surveyed Datum: Not Surveyed Installed: 6/9/18 DTW: 20.83 ft bmp 7/9/18		GEOLOGIC LOG AND AS-BUILT FOR WELL D31 Everett Steel Everett, Washington JK1701 

Depth (ft)	Geology	Unit	Log	DTW	Well Construction
0		↑	Dry, Quarry Spalls		8-inch flush-mount monument; 2-inch PVC casing with locking J-plug
		↓	Moist, brown, sl gravelly, slightly silty to silty f-m SAND, sl. odor ~0.8 ft, tr. glass and rubber debris		
5		↑	Moist, dark brown, organic-rich, silty, f-m SAND		2-inch SCH 40 PVC with flush thread coupling and o-rings.
		↓	Moist, laminated/massive, soft to stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT; softer 7-9 ft and wet, slow-med. response.		Hydrated Bentonite Seal
10					
15		↑	Moist, brown-mottled, dense, tr. gravelly, sl. clayey, f-c sandy SILT		Top of Screen (15 ft bgs)
20					Silica Sand 10/20 sand pack
					2-inch 10-slot screen factory pre-packed with 20/40 silica sand
25			Moist, grey, very dense, sl. f. sandy, SILT		Bottom of screen (25 feet bgs)
30		↓			
35					
Project Name: Everett Steel Drilling Method: Geoprobe/Auger Driller: Firm: ESN NW Consulting Firm: Pacific Groundwater Group Logged by: Jeff Parker Location: Everett Steel			Well Name: MW-E33 Ecology ID: BKX663 MP Elevation: NA Datum: NA Installed: 8/24/18 DTW: NA		
			GEOLOGIC LOG AND AS-BUILT FOR BORING E33 Everett Steel Everett, Washington JK1701		



Depth (ft)	Geology	Unit	Log	DTW	Well Construction
0		FILL	Dry-moist, brown, slightly silty, gravelly, f-c SAND		8-inch flush-mount monument; 2-inch PVC casing with locking J-plug
5			Moist, dark brown, organic-rich, silty, f-m SAND		2-inch SCH 40 PVC with flush thread coupling and o-rings.
		SILT	Wet, grey, slightly silty, medium SAND, no odor		Hydrated Bentonite Seal
10			Moist, laminated/massive, soft to stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT		
			softer w/ incr. moisture at 11-12'		
			wet 14.5-15, slow-med. dilatency.		
20			Moist-wet, soft to stiff, dark grey, sl. clayey, sl f. sandy SILT		Silica Sand 10/20 sand pack
					Top of Screen (22 ft bgs)
25			Moist to wet, brown/grey/mottled, dense, bedded, silty, sl. gravelly-gravelly, f-c SAND,	2	2-inch 10-slot screen factory pre-packed with 20/40 silica sand
30					
			Moist, grey, very dense, laminated, silty, fine SAND, tr. organics		Bottom of screen (32 feet bgs)
35			very hard drive at 32.5 feet		
Project Name: Everett Steel Drilling Method: Geoprobe/Auger Driller: Firm: ESN NW Consulting Firm: Pacific Groundwater Group Logged by: Jeff Parker Location: Everett Steel Well Name: F29 Ecology ID: BKX668 MP Elevation: Not Surveyed Datum: Not Surveyed Installed: 6/6/18 DTW: 26.55 bmp 7/9/18					GEOLOGIC LOG AND AS-BUILT FOR WELL F29 Everett Steel Everett, Washington JK1701 

Depth (ft)	Geology	Unit	Log	DTW	Well Construction
0		FILL	Dry, brown, sl.-tr. gravelly, slightly silty f-c SAND		8-inch flush-mount monument; 2-inch PVC casing with locking J-plug
5			Moist, dark brown, organic-rich, silty, f-m SAND		
		SILT	Wet, grey, slightly silty, medium SAND, no odor no sheen		2-inch SCH 40 PVC with flush thread coupling and o-rings.
10			Moist, laminated/massive, soft to stiff, tan-brown and mottled, sl. clayey, sl f. sandy SILT		Hydrated Bentonite Seal
15			softer w/ incr. moisture at 10.5-12', slow-med. dilatency.		
20			Wet, soft, dark grey, sl. clayey, sl f. sandy SILT, tr. gravelly	N	Silica Sand 10/20 sand pack
25			Moist to wet, brown/grey/mottled, dense, bedded, silty, f-m SAND, tr. gravel		Top of Screen (25 ft bgs)
30					2-inch 10-slot screen factory pre-packed with 20/40 silica sand
35					Bottom of screen (35 feet bgs)
					TD = 35 ft
Project Name: Everett Steel Drilling Method: Geoprobe/Auger Driller: Firm: ESN NW Consulting Firm: Pacific Groundwater Group Logged by: Jeff Parker Location: Everett Steel			Well Name: F31 Ecology ID: BKX661 MP Elevation: Not Surveyed Datum: Not Surveyed Installed: 6/6/18 DTW: 25.92 bmp 7/9/18		
			GEOLOGIC LOG AND AS-BUILT FOR WELL F31 Everett Steel Everett, Washington JK1701		
					