



August 27, 2018

Mr. Thom Davis
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Davis,

On August 3rd, 71 samples were received by our laboratory and assigned our laboratory project number EV18080025. The project was identified as your Jensen's Shipyard Assessment. 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: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: BLWA-3 2-6in

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-01
DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 9:15:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	95	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	100	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	170	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	1000	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	1900	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	820	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	1000	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	830	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	330	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	170	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	64	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	170	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.032	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.5	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.20	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	28	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	180	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	150	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	99	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	73.0	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	87.2	08/08/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-02

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 9:20:00 AM

CLIENT SAMPLE ID BLWA-3 2ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.028	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.0	0.64	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	15	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	32	0.21	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	3.0	0.21	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	29	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	73.9	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	94.3	08/08/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-04

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 9:50:00 AM

CLIENT SAMPLE ID BLWA-4 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	81	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	31	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	93	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	39	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	120	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	27	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	170	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	140	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	67	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	160	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	65	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	68	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	24	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	80	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.17	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	5.2	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.43	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	21	0.30	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	680	0.19	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	150	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	260	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	76.3	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	81.7	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-05

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 9:55:00 AM

CLIENT SAMPLE ID BLWA-4 5ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	25	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	22	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	140	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	86	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	36	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	98	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	140	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	37	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	36	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	41	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.18	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.9	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	17	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	86	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	540	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	110	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	68.8	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	85.5	08/08/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-06

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 10:00:00 AM

CLIENT SAMPLE ID BLWA-5 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	91	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	180	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	140	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	95	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	31	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	860	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	240	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	790	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	790	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	450	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	590	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	600	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	380	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	280	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	91	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	340	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.36	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	10	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.81	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	29	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	1100	0.99	5	MG/KG	08/09/2018	RAL
Lead	EPA-6020	270	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	390	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	84.1	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	86.6	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-07

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: BLWA-5 2ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 10:15:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.038	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.1	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	15	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	28	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	3.2	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	31	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	76.1	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	95.1	08/08/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-09
CLIENT SAMPLE ID	BLWA-6 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 10:55:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	95	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	260	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	140	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	27	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	42	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	350	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	270	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	1200	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	860	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	500	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	1400	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	460	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	420	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	430	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	1.1	0.10	5	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	9.7	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	1.2	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	31	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	9300	4.9	25	MG/KG	08/09/2018	RAL
Lead	EPA-6020	760	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	1400	52	25	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	72.9	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	88.1	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-10

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: BLWA-6 2ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 11:02:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	350	25	1	MG/KG	08/16/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	710	50	1	MG/KG	08/16/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Fluoranthene	EPA-8270 SIM	66	20	1	UG/KG	08/16/2018	PAB
Pyrene	EPA-8270 SIM	81	20	1	UG/KG	08/16/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/16/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	44	20	1	UG/KG	08/16/2018	PAB
Mercury	EPA-7471	0.31	0.020	1	MG/KG	08/23/2018	RAL
Arsenic	EPA-6020	150	0.64	1	MG/KG	08/22/2018	RAL
Cadmium	EPA-6020	2.6	0.20	1	MG/KG	08/22/2018	RAL
Chromium	EPA-6020	78	0.32	1	MG/KG	08/22/2018	RAL
Copper	EPA-6020	3500	2.1	10	MG/KG	08/22/2018	RAL
Lead	EPA-6020	3400	2.1	10	MG/KG	08/22/2018	RAL
Zinc	EPA-6020	3800	22	10	MG/KG	08/22/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	85.9	08/16/2018	EBS
Terphenyl-d14	EPA-8270 SIM	85.9	08/16/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel and lube oil.
Diesel range product results biased high due to oil range product overlap.

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-11
CLIENT SAMPLE ID	BLWA-6 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 11:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	30	4	MG/KG	08/09/2018	JMK
Benzene	EPA-8021	U	0.030	1	MG/KG	08/10/2018	JMK
Toluene	EPA-8021	U	0.050	1	MG/KG	08/10/2018	JMK
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	08/10/2018	JMK
Xylenes	EPA-8021	U	0.20	1	MG/KG	08/10/2018	JMK
TPH-Diesel Range	NWTPH-DX w/ SGA	1400	50	2	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	940	100	2	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	450	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	910	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	710	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.11	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.7	0.63	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	18	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	84	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	560	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	72	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 4X Dilution	NWTPH-GX	66.6	08/09/2018	JMK
TFT	EPA-8021	93.0	08/10/2018	JMK
C25 2X Dilution	NWTPH-DX w/ SGA	82.2	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	97.3	08/08/2018	PAB

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-11
CLIENT SAMPLE ID	BLWA-6 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 11:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains diesel and lube oil.
Gasoline range reporting limit raised due to semivolatile range product overlap.

DRAFT



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-12

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: BLWA-6 10ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 11:20:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	08/09/2018	JMK
Benzene	EPA-8021	U	0.030	1	MG/KG	08/09/2018	JMK
Toluene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Xylenes	EPA-8021	U	0.20	1	MG/KG	08/09/2018	JMK
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	4.6	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	11	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	20	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	1.9	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	47	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.0	08/09/2018	JMK
TFT	EPA-8021	87.1	08/09/2018	JMK
C25	NWTPH-DX w/ SGA	74.4	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	89.3	08/08/2018	PAB

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-12
CLIENT SAMPLE ID	BLWA-6 10ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 11:20:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

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

DRAFT

**CERTIFICATE OF ANALYSIS**

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-13

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 10:35:00 AM

CLIENT SAMPLE ID BLWA-7 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	180	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	31	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	91	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	58	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	340	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	250	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	590	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	160	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	220	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	66	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	250	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.92	0.10	5	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	13	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	1.8	0.18	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	30	0.30	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	2100	1.9	10	MG/KG	08/09/2018	RAL
Lead	EPA-6020	340	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	630	21	10	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	73.7	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	97.2	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-14

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: BLWA-7 2ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 10:40:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.7	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	21	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	50	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	3.0	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	39	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	80.5	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	102	08/08/2018	PAB

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

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-15
CLIENT SAMPLE ID	BLWA-7 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 10:45:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/16/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/16/2018	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	89.1	08/16/2018	EBS

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-16

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: BLWA-8 2-6in

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 12:15:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	56	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	70	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	120	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	81	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	180	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	83	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	78	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	28	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	93	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.18	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	5.1	0.59	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.48	0.18	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	19	0.30	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	1100	0.94	5	MG/KG	08/09/2018	RAL
Lead	EPA-6020	470	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	350	2.0	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	78.3	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	94.8	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-17

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 12:20:00 PM

CLIENT SAMPLE ID BLWA-8 2ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	290	50	1	MG/KG	08/06/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	29	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	73	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	52	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	35	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	32	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	55	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	29	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	28	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	35	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.12	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	6.2	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.23	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	23	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	170	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	200	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	110	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	80.6	08/06/2018	EBS
Terphenyl-d14	EPA-8270 SIM	90.7	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-18
CLIENT SAMPLE ID	BLWA-8 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 12:25:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/16/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	98	50	1	MG/KG	08/16/2018	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	93.4	08/16/2018	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-19
CLIENT SAMPLE ID	BLWA-9 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 11:50:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	61	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	160	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	130	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	76	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	520	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	400	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	320	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	1200	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	610	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	800	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	200	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	950	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	1.5	0.20	10	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	5.7	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.96	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	25	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	2900	2.0	10	MG/KG	08/09/2018	RAL
Lead	EPA-6020	310	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	690	21	10	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	81.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	91.0	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-20

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 11:55:00 AM

CLIENT SAMPLE ID BLWA-9 2ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.048	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.3	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	18	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	49	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	11	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	92	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	82.9	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	94.7	08/08/2018	PAB

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

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-21
CLIENT SAMPLE ID	BLWA-9 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 12:00:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/16/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/16/2018	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	95.0	08/16/2018	EBS

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



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-22
CLIENT SAMPLE ID	AST-1 2ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 9:35:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	08/10/2018	JMK
Toluene	EPA-8021	U	0.050	1	MG/KG	08/10/2018	JMK
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	08/10/2018	JMK
Xylenes	EPA-8021	U	0.20	1	MG/KG	08/10/2018	JMK
TPH-Diesel Range	NWTPH-DX w/ SGA	8000	500	20	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	10000	1000	20	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	400	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	780	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	1300	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	460	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.037	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.3	0.64	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	17	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	40	0.21	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	27	0.21	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	100	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	93.0	08/10/2018	JMK
C25 20X Dilution	NWTPH-DX w/ SGA	104	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	105	08/08/2018	PAB

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-22
CLIENT SAMPLE ID	AST-1 2ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 9:35:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel and lube oil.
Diesel range product results biased high due to oil range product overlap.

DRAFT

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-23
CLIENT SAMPLE ID	Storm Sed.-1	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 3:00:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Mercury (TCLP)	EPA-7470/1311	U	0.00020	1	MG/L	08/13/2018	RAL
Arsenic (TCLP)	EPA-6020/1311	U	0.025	5	MG/L	08/10/2018	RAL
Barium (TCLP)	EPA-6020/1311	1.1	0.025	5	MG/L	08/10/2018	RAL
Cadmium (TCLP)	EPA-6020/1311	U	0.025	5	MG/L	08/10/2018	RAL
Chromium (TCLP)	EPA-6020/1311	U	0.025	5	MG/L	08/10/2018	RAL
Lead (TCLP)	EPA-6020/1311	0.36	0.025	5	MG/L	08/10/2018	RAL
Selenium (TCLP)	EPA-6020/1311	U	0.025	5	MG/L	08/10/2018	RAL
Silver (TCLP)	EPA-6020/1311	U	0.025	5	MG/L	08/10/2018	RAL

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-24

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: MW-1 2-6in

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 1:10:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	2600	250	10	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	8200	500	10	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	29	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	80	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	27	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	120	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	210	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	120	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.47	0.040	2	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	6.2	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	8.9	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	44	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	1700	2.0	10	MG/KG	08/09/2018	RAL
Lead	EPA-6020	410	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	1200	21	10	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25 10X Dilution	NWTPH-DX w/ SGA	159 SUR12	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	87.4	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
SUR12 -Surrogate recoveries were outside of the control limits due to matrix interference.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-25

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 12:50:00 PM

CLIENT SAMPLE ID MW-1 12ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	32	3.0	1	MG/KG	08/09/2018	JMK
Benzene	EPA-8021	U	0.030	1	MG/KG	08/09/2018	JMK
Toluene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Xylenes	EPA-8021	U	0.20	1	MG/KG	08/09/2018	JMK
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	3.4	0.66	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	18	0.33	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	32	0.21	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	4.4	0.21	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	30	2.3	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	90.0	08/09/2018	JMK
TFT	EPA-8021	87.4	08/09/2018	JMK
C25	NWTPH-DX w/ SGA	72.4	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	103	08/08/2018	PAB

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-25
CLIENT SAMPLE ID	MW-1 12ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 12:50:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

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

DRAFT

**CERTIFICATE OF ANALYSIS**

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-26

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 1:15:00 PM

CLIENT SAMPLE ID MW-1 15ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	08/09/2018	JMK
Benzene	EPA-8021	U	0.030	1	MG/KG	08/09/2018	JMK
Toluene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Xylenes	EPA-8021	U	0.20	1	MG/KG	08/09/2018	JMK
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	2.1	0.64	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	12	0.33	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	23	0.21	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	1.8	0.21	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	24	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.8	08/09/2018	JMK
TFT	EPA-8021	94.5	08/09/2018	JMK
C25	NWTPH-DX w/ SGA	66.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	103	08/08/2018	PAB

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-26
CLIENT SAMPLE ID	MW-1 15ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 1:15:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

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

DRAFT



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-27

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: MW-2 6in

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 1:55:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	32	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	160	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	33	20	1	UG/KG	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	100	20	1	UG/KG	08/08/2018	PAB
Anthracene	EPA-8270 SIM	66	20	1	UG/KG	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	290	20	1	UG/KG	08/08/2018	PAB
Pyrene	EPA-8270 SIM	180	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	380	20	1	UG/KG	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	64	20	1	UG/KG	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	110	20	1	UG/KG	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	35	20	1	UG/KG	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	120	20	1	UG/KG	08/08/2018	PAB
Mercury	EPA-7471	0.64	0.080	4	MG/KG	08/08/2018	RAL
Arsenic	EPA-6020	7.2	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	2.3	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	27	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	2100	2.0	10	MG/KG	08/09/2018	RAL
Lead	EPA-6020	230	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	540	21	10	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	74.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	83.0	08/08/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-28

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: MW-2 7ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/30/2018 2:00:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	21	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	75	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	72	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	50	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	45	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	60	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	48	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	35	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	40	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.024	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	6.2	0.74	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.67	0.23	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	13	0.38	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	24	0.24	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	29	0.24	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	37	2.6	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	77.5	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	81.2	08/09/2018	PAB

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

**CERTIFICATE OF ANALYSIS**

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-29

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/30/2018 9:10:00 AM

CLIENT SAMPLE ID WES-Dup.-1

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	41	3.0	1	MG/KG	08/09/2018	JMK
Benzene	EPA-8021	U	0.030	1	MG/KG	08/09/2018	JMK
Toluene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	08/09/2018	JMK
Xylenes	EPA-8021	U	0.20	1	MG/KG	08/09/2018	JMK
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	2.8	0.66	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	15	0.34	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	28	0.21	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	3.4	0.21	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	27	2.3	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	86.7	08/09/2018	JMK
TFT	EPA-8021	90.3	08/09/2018	JMK
C25	NWTPH-DX w/ SGA	82.0	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	81.6	08/09/2018	PAB

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-29
CLIENT SAMPLE ID	WES-Dup.-1	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/30/2018 9:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

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

DRAFT



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-30

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: OPALCO-2 2-6in

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 10:10:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	34	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	72	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	55	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	39	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	22	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.026	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.8	0.63	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.92	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	17	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	68	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	54	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	2600	22	10	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	81.9	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-30
CLIENT SAMPLE ID	OPALCO-2 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 10:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	81.0	08/09/2018	PAB
TCMX	EPA-8082	87.7	08/09/2018	PAB
DCB	EPA-8082	93.2	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-32

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: OPALCO-2 5ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 10:30:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	3.2	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	16	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	45	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	2.1	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	250	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	85.7	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-32
CLIENT SAMPLE ID	OPALCO-2 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 10:30:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	81.6	08/09/2018	PAB
TCMX	EPA-8082	90.3	08/09/2018	PAB
DCB	EPA-8082	96.4	08/09/2018	PAB

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

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
 228 E. Champion St., Suite 101
 Bellingham, WA 98225
CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID OPALCO-3 2-6in

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-33
DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 10:55:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	110	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	40	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	32	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	240	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	44	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	340	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	210	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	95	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	160	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	170	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	61	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	45	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	60	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.34	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	7.1	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	1.1	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	30	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	1300	0.99	5	MG/KG	08/09/2018	RAL
Lead	EPA-6020	990	0.99	5	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	720	11	5	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	83.2	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-33
CLIENT SAMPLE ID	OPALCO-3 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 10:55:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	79.8	08/09/2018	PAB
TCMX	EPA-8082	86.2	08/09/2018	PAB
DCB	EPA-8082	88.5	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-35

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: OPALCO-3 4ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 11:10:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.025	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.1	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	16	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	44	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	4.5	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	39	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	81.1	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-35
CLIENT SAMPLE ID	OPALCO-3 4ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 11:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	90.0	08/09/2018	PAB
TCMX	EPA-8082	88.8	08/09/2018	PAB
DCB	EPA-8082	94.1	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Thom Davis

CLIENT PROJECT: Jensen's Shipyard Assessment

CLIENT SAMPLE ID: OPALCO-4 2-6in

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-36

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 9:35:00 AM

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	24	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	59	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	41	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	57	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	24	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	35	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	41	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/13/2018	PAB
Mercury	EPA-7471	0.67	0.080	4	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	5.5	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	18	0.30	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	120	0.19	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	40	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	74	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	82.4	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-36
CLIENT SAMPLE ID	OPALCO-4 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 9:35:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	84.4	08/09/2018	PAB
TCMX	EPA-8082	61.5	08/13/2018	PAB
DCB	EPA-8082	60.3	08/13/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-38

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: OPALCO-4 5ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 9:50:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	3.3	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	15	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	34	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	2.2	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	31	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	86.6	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-38
CLIENT SAMPLE ID	OPALCO-4 5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 9:50:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	89.3	08/09/2018	PAB
TCMX	EPA-8082	88.2	08/09/2018	PAB
DCB	EPA-8082	72.5	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-39

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 12:25:00 PM

CLIENT SAMPLE ID SYC-1 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	120	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	20	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	25	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.026	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.0	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	24	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	42	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	19	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	74	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	70.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	86.7	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-40

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 12:30:00 PM

CLIENT SAMPLE ID: SYC-1 2ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.026	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.2	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	21	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	26	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	6.6	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	54	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	78.9	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	88.2	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-42
CLIENT SAMPLE ID	SYC-2 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 12:40:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	130	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	34	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.036	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.2	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.21	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	21	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	48	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	46	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	87	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	79.9	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	88.6	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-43

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 12:45:00 PM

CLIENT SAMPLE ID: SYC-2 2ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	0.022	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.2	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	22	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	37	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	8.3	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	46	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	85.3	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	75.6	08/10/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-45
CLIENT SAMPLE ID	SYC-3 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 1:00:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	70	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	31	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	30	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	0.063	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	6.3	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.40	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	29	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	99	0.19	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	57	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	1000	10	5	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	80.2	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	89.6	08/10/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-46

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 1:05:00 PM

CLIENT SAMPLE ID: SYC-3 3ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	3.9	0.61	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	14	0.31	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	33	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	2.9	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	34	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	83.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	44.1	08/10/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-48

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 1:20:00 PM

CLIENT SAMPLE ID SYC-4 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	140	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	45	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	40	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	22	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	24	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	54	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	25	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	26	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	43	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.27	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	6.9	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.32	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	22	0.30	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	140	0.19	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	63	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	140	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	83.2	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	103	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-49

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: SYC-4 2ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 1:25:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	49	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	48	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	24	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	30	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	43	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	27	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	21	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	26	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.23	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.6	0.62	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	22	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	63	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	51	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	76	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	77.8	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	83.8	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-51

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 8:30:00 AM

CLIENT SAMPLE ID MW-4 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	120	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	150	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	45	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	240	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	170	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	95	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	92	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	170	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	76	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	58	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	70	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	0.10	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.22	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	7.9	0.60	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.79	0.19	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	43	0.30	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	590	0.19	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	390	0.19	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	620	2.1	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	75.8	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-51
CLIENT SAMPLE ID	MW-4 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 8:30:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	76.7	08/09/2018	PAB
TCMX	EPA-8082	84.5	08/09/2018	PAB
DCB	EPA-8082	76.0	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-52

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 8:50:00 AM

CLIENT SAMPLE ID MW-4 11ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
PCB-1016	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1221	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1232	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1242	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1248	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1254	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1260	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
PCB-1268	EPA-8082	U	0.10	1	MG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	8.4	0.74	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.23	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	64	0.38	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	31	0.24	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	3.4	0.24	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	45	2.6	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	76.9	08/07/2018	EBS

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-52
CLIENT SAMPLE ID	MW-4 11ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	7/31/2018 8:50:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
Terphenyl-d14	EPA-8270 SIM	81.0	08/09/2018	PAB
TCMX	EPA-8082	167 GS4	08/09/2018	PAB
DCB	EPA-8082	153	08/09/2018	PAB

GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.
 U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-53

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 4:30:00 PM

CLIENT SAMPLE ID MW-5 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	96	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	31	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	96	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	88	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	48	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	53	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	90	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	50	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	39	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	48	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.10	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	4.9	0.63	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	0.70	0.20	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	39	0.32	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	140	0.20	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	120	0.20	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	190	2.2	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	81.4	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	89.8	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-54

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: MW-5 10ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 5:25:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/09/2018	RAL
Arsenic	EPA-6020	2.4	0.71	1	MG/KG	08/09/2018	RAL
Cadmium	EPA-6020	U	0.22	1	MG/KG	08/09/2018	RAL
Chromium	EPA-6020	18	0.36	1	MG/KG	08/09/2018	RAL
Copper	EPA-6020	14	0.23	1	MG/KG	08/09/2018	RAL
Lead	EPA-6020	2.1	0.23	1	MG/KG	08/09/2018	RAL
Zinc	EPA-6020	26	2.4	1	MG/KG	08/09/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	88.0	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	97.3	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-55

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 7/31/2018 1:55:00 PM

CLIENT SAMPLE ID MW-6 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.027	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	4.0	0.60	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.19	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	19	0.30	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	28	0.19	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	13	0.19	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	65	2.1	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	75.4	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	74.3	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-56

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: MW-6 40ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 7/31/2018 3:15:00 PM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	3.0	0.65	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	14	0.33	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	16	0.21	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	1.5	0.21	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	23	2.2	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	77.1	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	97.1	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-57

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 9:55:00 AM

CLIENT SAMPLE ID SRWA-4 6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	79	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	190	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	160	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	240	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	100	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	710	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	730	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	540	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	500	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	590	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	500	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	320	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	98	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	410	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	11	1.0	50	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	54	0.68	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	0.39	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	35	0.34	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	2000	4.4	20	MG/KG	08/14/2018	RAL
Lead	EPA-6020	1800	4.4	20	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	450	47	20	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	80.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	92.0	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS JOB#: EV18080025
ALS SAMPLE#: EV18080025-58

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment
CLIENT SAMPLE ID: SRWA-4 3.5ft

DATE RECEIVED: 08/03/2018
COLLECTION DATE: 8/1/2018 10:00:00 AM
WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/08/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/08/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.098	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	7.7	0.72	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.22	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	24	0.36	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	35	0.23	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	15	0.23	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	64	2.5	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	82.7	08/08/2018	EBS
Terphenyl-d14	EPA-8270 SIM	66.9	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-59

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 9:30:00 AM

CLIENT SAMPLE ID SRWA-5 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/08/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	72	50	1	MG/KG	08/08/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	37	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	140	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	51	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	340	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	330	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	180	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	190	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	240	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	170	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	120	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	35	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	150	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.33	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	12	0.68	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	0.32	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	20	0.35	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	420	0.22	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	940	2.2	10	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	460	2.4	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	77.3	08/08/2018	EBS
Terphenyl-d14	EPA-8270 SIM	96.4	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-60

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 9:35:00 AM

CLIENT SAMPLE ID SRWA-5 3.5ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	31	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	62	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	57	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	130	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	120	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	65	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	60	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	42	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	50	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.040	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	4.2	1.2	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	1.5	0.38	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	11	0.62	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	43	0.39	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	21	0.39	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	58	4.2	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	88.1	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	91.6	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-61

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 9:40:00 AM

CLIENT SAMPLE ID SRWA-5 5ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	5.1	0.76	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.23	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	20	0.38	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	16	0.24	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	3.6	0.24	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	55	2.6	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	83.4	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	98.9	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-62

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 9:00:00 AM

CLIENT SAMPLE ID SRWA-6 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	120	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	640	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	36	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	22	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	260	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	1200	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	370	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	2200	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	1900	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	1200	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	1300	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	1300	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	1100	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	620	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	200	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	680	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	2.8	0.20	10	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	16	0.73	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	0.64	0.23	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	36	0.37	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	550	0.24	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	1200	0.24	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	1100	25	10	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	81.3	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	80.2	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-63

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 9:10:00 AM

CLIENT SAMPLE ID SRWA-6 3ft

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	U	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	5.0	0.67	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	20	0.34	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	11	0.22	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	11	0.22	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	32	2.3	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	91.4	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	89.8	08/09/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-65
CLIENT SAMPLE ID	SRWA-7 2-6in	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	8/1/2018 10:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	170	25	1	MG/KG	08/08/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	690	50	1	MG/KG	08/08/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	74	20	1	UG/KG	08/09/2018	PAB
Anthracene	EPA-8270 SIM	24	20	1	UG/KG	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	150	20	1	UG/KG	08/09/2018	PAB
Pyrene	EPA-8270 SIM	160	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	65	20	1	UG/KG	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	79	20	1	UG/KG	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	130	20	1	UG/KG	08/09/2018	PAB
Mercury	EPA-7471	0.23	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	9.1	0.69	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	2.6	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	25	0.35	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	920	0.22	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	160	0.22	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	400	2.4	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	92.8	08/08/2018	EBS
Terphenyl-d14	EPA-8270 SIM	90.8	08/09/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-66
CLIENT SAMPLE ID	SRWA-7 3ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	8/1/2018 10:15:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	40	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	230	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	91	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	23	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	300	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	290	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	170	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	180	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	230	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	160	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	110	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	150	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	0.10	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	4.3	0.60	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	0.38	0.19	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	19	0.31	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	63	0.19	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	110	0.19	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	140	2.1	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	72.2	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	89.7	08/10/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-68

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 10:30:00 AM

CLIENT SAMPLE ID MW-3 2-6in

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	280	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	22	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	71	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	26	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	150	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	140	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	76	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	110	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	150	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	81	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	71	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	100	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	1.3	0.10	5	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	13	0.67	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	0.74	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	29	0.34	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	400	0.22	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	190	0.22	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	310	2.3	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	81.5	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	88.4	08/10/2018	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	8/27/2018
CLIENT CONTACT:	Thom Davis	ALS JOB#:	EV18080025
CLIENT PROJECT:	Jensen's Shipyard Assessment	ALS SAMPLE#:	EV18080025-70
CLIENT SAMPLE ID	MW-3 5.5ft	DATE RECEIVED:	08/03/2018
		COLLECTION DATE:	8/1/2018 10:45:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	33	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	28	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	42	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	22	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	0.16	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	5.6	0.67	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	28	0.34	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	82	0.22	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	25	0.22	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	110	2.3	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	75.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	87.7	08/10/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018

ALS JOB#: EV18080025

ALS SAMPLE#: EV18080025-71

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

DATE RECEIVED: 08/03/2018

COLLECTION DATE: 8/1/2018 8:30:00 AM

CLIENT SAMPLE ID WES-Dup.-2

WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	08/07/2018	EBS
Naphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Acenaphthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluorene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Phenanthrene	EPA-8270 SIM	21	20	1	UG/KG	08/10/2018	PAB
Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Fluoranthene	EPA-8270 SIM	89	20	1	UG/KG	08/10/2018	PAB
Pyrene	EPA-8270 SIM	78	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	55	20	1	UG/KG	08/10/2018	PAB
Chrysene	EPA-8270 SIM	63	20	1	UG/KG	08/10/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	100	20	1	UG/KG	08/10/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	57	20	1	UG/KG	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	47	20	1	UG/KG	08/10/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	20	1	UG/KG	08/10/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	54	20	1	UG/KG	08/10/2018	PAB
Mercury	EPA-7471	0.16	0.020	1	MG/KG	08/13/2018	RAL
Arsenic	EPA-6020	4.8	0.70	1	MG/KG	08/14/2018	RAL
Cadmium	EPA-6020	U	0.21	1	MG/KG	08/14/2018	RAL
Chromium	EPA-6020	24	0.35	1	MG/KG	08/14/2018	RAL
Copper	EPA-6020	80	0.22	1	MG/KG	08/14/2018	RAL
Lead	EPA-6020	26	0.22	1	MG/KG	08/14/2018	RAL
Zinc	EPA-6020	100	2.4	1	MG/KG	08/14/2018	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX w/ SGA	79.7	08/07/2018	EBS
Terphenyl-d14	EPA-8270 SIM	94.7	08/10/2018	PAB

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY BLANK RESULTS

MBG-080918S2 - Batch 131381 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	08/09/2018	JMK

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

MB-080918S2 - Batch 131381 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	MG/KG	0.030	08/09/2018	JMK
Toluene	EPA-8021	U	MG/KG	0.050	08/09/2018	JMK
Ethylbenzene	EPA-8021	U	MG/KG	0.050	08/09/2018	JMK
Xylenes	EPA-8021	U	MG/KG	0.20	08/09/2018	JMK

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

MB-080618S2 - Batch 131349 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	08/06/2018	EBS
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	08/06/2018	EBS

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

MB-080618S3 - Batch 131354 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	08/07/2018	EBS

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

MB-080718S - Batch 131346 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	08/07/2018	EBS
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	08/07/2018	EBS

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

MB-081618S - Batch 131585 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	08/16/2018	EBS
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	08/16/2018	EBS



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY BLANK RESULTS

MB-081618S - Batch 131585 - Soil by NWTPH-DX

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

MB-080718S - Batch 131446 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB

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

MB-080718S2 - Batch 131482 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Acenaphthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Fluorene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Phenanthrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Anthracene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Pyrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Chrysene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY BLANK RESULTS

MB-080718S2 - Batch 131482 - Soil by EPA-8270 SIM

Benzo[K]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	UG/KG	20	08/08/2018	PAB

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

MB-080918S - Batch 131491 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Acenaphthene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Fluorene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Phenanthrene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Anthracene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Pyrene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Chrysene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	UG/KG	20	08/09/2018	PAB

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

MB-081618S - Batch 131664 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
2-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
1-Methylnaphthalene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Acenaphthylene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Acenaphthene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Fluorene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Phenanthrene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY BLANK RESULTS

MB-081618S - Batch 131664 - Soil by EPA-8270 SIM

Anthracene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Pyrene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Benzo[A]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Chrysene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Benzo[B]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Benzo[K]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Benzo[A]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Dibenzo[A,H]Anthracene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	UG/KG	20	08/16/2018	PAB

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

MB-080818S - Batch 131428 - Soil by EPA-8082

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
PCB-1016	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1221	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1232	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1242	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1248	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1254	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1260	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB
PCB-1268	EPA-8082	U	MG/KG	0.10	08/09/2018	PAB

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

MBLK-321921 - Batch R321921 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	08/08/2018	RAL

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

MBLK-321924 - Batch R321924 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	08/09/2018	RAL

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY BLANK RESULTS

MBLK-321925 - Batch R321925 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	08/13/2018	RAL

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

MBLK-R322340 - Batch R322340 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	08/23/2018	RAL

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

MBLK-321927 - Batch R321927 - TCLP Extract by EPA-7470

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7470	U	MG/L	0.00020	08/13/2018	RAL

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

MB-080718S - Batch 131537 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	08/09/2018	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Chromium	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Copper	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Lead	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Zinc	EPA-6020	U	MG/KG	0.88	08/09/2018	RAL

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

MB-080818S - Batch 131538 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	08/09/2018	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Chromium	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Copper	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Lead	EPA-6020	U	MG/KG	0.10	08/09/2018	RAL
Zinc	EPA-6020	U	MG/KG	0.88	08/09/2018	RAL

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY BLANK RESULTS

MB-081018S - Batch 131556 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	08/14/2018	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	08/14/2018	RAL
Chromium	EPA-6020	U	MG/KG	0.10	08/14/2018	RAL
Copper	EPA-6020	U	MG/KG	0.10	08/14/2018	RAL
Lead	EPA-6020	U	MG/KG	0.10	08/14/2018	RAL
Zinc	EPA-6020	U	MG/KG	0.88	08/14/2018	RAL

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

MB-082118S - Batch 131751 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	08/22/2018	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	08/22/2018	RAL
Chromium	EPA-6020	U	MG/KG	0.10	08/22/2018	RAL
Copper	EPA-6020	U	MG/KG	0.10	08/22/2018	RAL
Lead	EPA-6020	U	MG/KG	0.10	08/22/2018	RAL
Zinc	EPA-6020	U	MG/KG	0.88	08/22/2018	RAL

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

MBLK-321929 - Batch R321929 - TCLP Extract by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL
Barium	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL
Cadmium	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL
Chromium	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL
Lead	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL
Selenium	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL
Silver	EPA-6020	U	MG/L	0.0050	08/10/2018	RAL

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



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 131381 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	105			66.5	122.7	08/09/2018	JMK
TPH-Volatile Range - BSD	NWTPH-GX	111	5		66.5	122.7	08/09/2018	JMK

ALS Test Batch ID: 131381 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Benzene - BS	EPA-8021	94.7			67.7	124	08/09/2018	JMK
Benzene - BSD	EPA-8021	95.0	0		67.7	124	08/09/2018	JMK
Toluene - BS	EPA-8021	98.7			71	123	08/09/2018	JMK
Toluene - BSD	EPA-8021	100	2		71	123	08/09/2018	JMK
Ethylbenzene - BS	EPA-8021	99.6			69.8	117	08/09/2018	JMK
Ethylbenzene - BSD	EPA-8021	100	1		69.8	117	08/09/2018	JMK
Xylenes - BS	EPA-8021	99.7			70	119	08/09/2018	JMK
Xylenes - BSD	EPA-8021	101	1		70	119	08/09/2018	JMK

ALS Test Batch ID: 131346 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	104			75.5	122.1	08/08/2018	EBS
TPH-Diesel Range - BSD	NWTPH-DX	99.9	4		75.5	122.1	08/08/2018	EBS

ALS Test Batch ID: 131349 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	97.1			75.5	122.1	08/06/2018	EBS
TPH-Diesel Range - BSD	NWTPH-DX	106	9		75.5	122.1	08/06/2018	EBS

ALS Test Batch ID: 131354 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	104			75.5	122.1	08/07/2018	EBS
TPH-Diesel Range - BSD	NWTPH-DX	99.8	4		75.5	122.1	08/07/2018	EBS

ALS Test Batch ID: 131585 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Diesel Range - BS	NWTPH-DX	98.2			75.5	122.1	08/16/2018	EBS
TPH-Diesel Range - BSD	NWTPH-DX	95.6	3		75.5	122.1	08/16/2018	EBS



CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 131446 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Naphthalene - BS	EPA-8270 SIM	84.6			20	150	08/08/2018	PAB
Naphthalene - BSD	EPA-8270 SIM	83.6	1		20	150	08/08/2018	PAB
2-Methylnaphthalene - BS	EPA-8270 SIM	87.8			20	150	08/08/2018	PAB
2-Methylnaphthalene - BSD	EPA-8270 SIM	87.2	1		20	150	08/08/2018	PAB
1-Methylnaphthalene - BS	EPA-8270 SIM	82.8			20	150	08/08/2018	PAB
1-Methylnaphthalene - BSD	EPA-8270 SIM	82.2	1		20	150	08/08/2018	PAB
Acenaphthylene - BS	EPA-8270 SIM	83.0			20	150	08/08/2018	PAB
Acenaphthylene - BSD	EPA-8270 SIM	82.7	0		20	150	08/08/2018	PAB
Acenaphthene - BS	EPA-8270 SIM	87.3			41	107	08/08/2018	PAB
Acenaphthene - BSD	EPA-8270 SIM	86.7	1		41	107	08/08/2018	PAB
Fluorene - BS	EPA-8270 SIM	92.4			20	150	08/08/2018	PAB
Fluorene - BSD	EPA-8270 SIM	92.5	0		20	150	08/08/2018	PAB
Phenanthrene - BS	EPA-8270 SIM	92.0			20	150	08/08/2018	PAB
Phenanthrene - BSD	EPA-8270 SIM	91.1	1		20	150	08/08/2018	PAB
Anthracene - BS	EPA-8270 SIM	84.7			20	150	08/08/2018	PAB
Anthracene - BSD	EPA-8270 SIM	84.5	0		20	150	08/08/2018	PAB
Fluoranthene - BS	EPA-8270 SIM	83.1			20	150	08/08/2018	PAB
Fluoranthene - BSD	EPA-8270 SIM	81.3	2		20	150	08/08/2018	PAB
Pyrene - BS	EPA-8270 SIM	75.0			18	136	08/08/2018	PAB
Pyrene - BSD	EPA-8270 SIM	75.2	0		18	136	08/08/2018	PAB
Benzo[A]Anthracene - BS	EPA-8270 SIM	83.3			20	150	08/08/2018	PAB
Benzo[A]Anthracene - BSD	EPA-8270 SIM	82.4	1		20	150	08/08/2018	PAB
Chrysene - BS	EPA-8270 SIM	85.8			20	150	08/08/2018	PAB
Chrysene - BSD	EPA-8270 SIM	84.4	2		20	150	08/08/2018	PAB
Benzo[B]Fluoranthene - BS	EPA-8270 SIM	84.8			20	150	08/08/2018	PAB
Benzo[B]Fluoranthene - BSD	EPA-8270 SIM	82.8	2		20	150	08/08/2018	PAB
Benzo[K]Fluoranthene - BS	EPA-8270 SIM	80.3			20	150	08/08/2018	PAB
Benzo[K]Fluoranthene - BSD	EPA-8270 SIM	79.5	1		20	150	08/08/2018	PAB
Benzo[A]Pyrene - BS	EPA-8270 SIM	83.7			20	150	08/08/2018	PAB
Benzo[A]Pyrene - BSD	EPA-8270 SIM	82.2	2		20	150	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270 SIM	97.5			20	150	08/08/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270 SIM	94.7	3		20	150	08/08/2018	PAB
Dibenz[A,H]Anthracene - BS	EPA-8270 SIM	99.8			20	150	08/08/2018	PAB
Dibenz[A,H]Anthracene - BSD	EPA-8270 SIM	96.8	3		20	150	08/08/2018	PAB
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	91.9			20	150	08/08/2018	PAB
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	89.7	2		20	150	08/08/2018	PAB



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WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 131482 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Naphthalene - BS	EPA-8270 SIM	84.8			20	150	08/09/2018	PAB
Naphthalene - BSD	EPA-8270 SIM	80.9	5		20	150	08/09/2018	PAB
2-Methylnaphthalene - BS	EPA-8270 SIM	87.6			20	150	08/09/2018	PAB
2-Methylnaphthalene - BSD	EPA-8270 SIM	84.5	4		20	150	08/09/2018	PAB
1-Methylnaphthalene - BS	EPA-8270 SIM	83.5			20	150	08/09/2018	PAB
1-Methylnaphthalene - BSD	EPA-8270 SIM	80.2	4		20	150	08/09/2018	PAB
Acenaphthylene - BS	EPA-8270 SIM	85.5			20	150	08/09/2018	PAB
Acenaphthylene - BSD	EPA-8270 SIM	81.0	5		20	150	08/09/2018	PAB
Acenaphthene - BS	EPA-8270 SIM	89.0			41	107	08/09/2018	PAB
Acenaphthene - BSD	EPA-8270 SIM	84.3	5		41	107	08/09/2018	PAB
Fluorene - BS	EPA-8270 SIM	98.1			20	150	08/09/2018	PAB
Fluorene - BSD	EPA-8270 SIM	93.3	5		20	150	08/09/2018	PAB
Phenanthrene - BS	EPA-8270 SIM	92.8			20	150	08/09/2018	PAB
Phenanthrene - BSD	EPA-8270 SIM	88.1	5		20	150	08/09/2018	PAB
Anthracene - BS	EPA-8270 SIM	88.0			20	150	08/09/2018	PAB
Anthracene - BSD	EPA-8270 SIM	84.1	5		20	150	08/09/2018	PAB
Fluoranthene - BS	EPA-8270 SIM	89.6			20	150	08/09/2018	PAB
Fluoranthene - BSD	EPA-8270 SIM	83.7	7		20	150	08/09/2018	PAB
Pyrene - BS	EPA-8270 SIM	76.9			18	136	08/09/2018	PAB
Pyrene - BSD	EPA-8270 SIM	72.8	5		18	136	08/09/2018	PAB
Benzo[A]Anthracene - BS	EPA-8270 SIM	89.4			20	150	08/09/2018	PAB
Benzo[A]Anthracene - BSD	EPA-8270 SIM	84.6	6		20	150	08/09/2018	PAB
Chrysene - BS	EPA-8270 SIM	83.9			20	150	08/09/2018	PAB
Chrysene - BSD	EPA-8270 SIM	79.7	5		20	150	08/09/2018	PAB
Benzo[B]Fluoranthene - BS	EPA-8270 SIM	85.0			20	150	08/09/2018	PAB
Benzo[B]Fluoranthene - BSD	EPA-8270 SIM	81.1	5		20	150	08/09/2018	PAB
Benzo[K]Fluoranthene - BS	EPA-8270 SIM	78.8			20	150	08/09/2018	PAB
Benzo[K]Fluoranthene - BSD	EPA-8270 SIM	75.6	4		20	150	08/09/2018	PAB
Benzo[A]Pyrene - BS	EPA-8270 SIM	81.9			20	150	08/09/2018	PAB
Benzo[A]Pyrene - BSD	EPA-8270 SIM	78.7	4		20	150	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270 SIM	85.7			20	150	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270 SIM	83.2	3		20	150	08/09/2018	PAB
Dibenz[A,H]Anthracene - BS	EPA-8270 SIM	87.9			20	150	08/09/2018	PAB
Dibenz[A,H]Anthracene - BSD	EPA-8270 SIM	85.5	3		20	150	08/09/2018	PAB
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	80.5			20	150	08/09/2018	PAB
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	78.1	3		20	150	08/09/2018	PAB



CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 131491 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Naphthalene - BS	EPA-8270 SIM	66.6			20	150	08/10/2018	PAB
Naphthalene - BSD	EPA-8270 SIM	83.4	22		20	150	08/09/2018	PAB
2-Methylnaphthalene - BS	EPA-8270 SIM	66.4			20	150	08/10/2018	PAB
2-Methylnaphthalene - BSD	EPA-8270 SIM	86.8	27		20	150	08/09/2018	PAB
1-Methylnaphthalene - BS	EPA-8270 SIM	68.5			20	150	08/10/2018	PAB
1-Methylnaphthalene - BSD	EPA-8270 SIM	83.3	20		20	150	08/09/2018	PAB
Acenaphthylene - BS	EPA-8270 SIM	64.1			20	150	08/10/2018	PAB
Acenaphthylene - BSD	EPA-8270 SIM	82.8	25		20	150	08/09/2018	PAB
Acenaphthene - BS	EPA-8270 SIM	70.9			41	107	08/10/2018	PAB
Acenaphthene - BSD	EPA-8270 SIM	86.9	20		41	107	08/09/2018	PAB
Fluorene - BS	EPA-8270 SIM	70.6			20	150	08/10/2018	PAB
Fluorene - BSD	EPA-8270 SIM	92.5	27		20	150	08/09/2018	PAB
Phenanthrene - BS	EPA-8270 SIM	72.6			20	150	08/10/2018	PAB
Phenanthrene - BSD	EPA-8270 SIM	93.4	25		20	150	08/09/2018	PAB
Anthracene - BS	EPA-8270 SIM	67.9			20	150	08/10/2018	PAB
Anthracene - BSD	EPA-8270 SIM	86.0	23		20	150	08/09/2018	PAB
Fluoranthene - BS	EPA-8270 SIM	68.7			20	150	08/10/2018	PAB
Fluoranthene - BSD	EPA-8270 SIM	86.2	23		20	150	08/09/2018	PAB
Pyrene - BS	EPA-8270 SIM	79.3			18	136	08/10/2018	PAB
Pyrene - BSD	EPA-8270 SIM	86.5	9		18	136	08/09/2018	PAB
Benzo[A]Anthracene - BS	EPA-8270 SIM	62.7			20	150	08/10/2018	PAB
Benzo[A]Anthracene - BSD	EPA-8270 SIM	86.7	32		20	150	08/09/2018	PAB
Chrysene - BS	EPA-8270 SIM	74.3			20	150	08/10/2018	PAB
Chrysene - BSD	EPA-8270 SIM	87.7	17		20	150	08/09/2018	PAB
Benzo[B]Fluoranthene - BS	EPA-8270 SIM	65.6			20	150	08/10/2018	PAB
Benzo[B]Fluoranthene - BSD	EPA-8270 SIM	87.7	29		20	150	08/09/2018	PAB
Benzo[K]Fluoranthene - BS	EPA-8270 SIM	67.9			20	150	08/10/2018	PAB
Benzo[K]Fluoranthene - BSD	EPA-8270 SIM	81.4	18		20	150	08/09/2018	PAB
Benzo[A]Pyrene - BS	EPA-8270 SIM	67.6			20	150	08/10/2018	PAB
Benzo[A]Pyrene - BSD	EPA-8270 SIM	84.5	22		20	150	08/09/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270 SIM	71.8			20	150	08/10/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270 SIM	92.7	25		20	150	08/09/2018	PAB
Dibenz[A,H]Anthracene - BS	EPA-8270 SIM	73.2			20	150	08/10/2018	PAB
Dibenz[A,H]Anthracene - BSD	EPA-8270 SIM	94.6	26		20	150	08/09/2018	PAB
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	68.6			20	150	08/10/2018	PAB
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	87.2	24		20	150	08/09/2018	PAB



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WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 131664 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Naphthalene - BS	EPA-8270 SIM	88.2			20	150	08/16/2018	PAB
Naphthalene - BSD	EPA-8270 SIM	93.6	6		20	150	08/17/2018	PAB
2-Methylnaphthalene - BS	EPA-8270 SIM	94.0			20	150	08/16/2018	PAB
2-Methylnaphthalene - BSD	EPA-8270 SIM	99.8	6		20	150	08/17/2018	PAB
1-Methylnaphthalene - BS	EPA-8270 SIM	90.3			20	150	08/16/2018	PAB
1-Methylnaphthalene - BSD	EPA-8270 SIM	97.0	7		20	150	08/17/2018	PAB
Acenaphthylene - BS	EPA-8270 SIM	89.7			20	150	08/16/2018	PAB
Acenaphthylene - BSD	EPA-8270 SIM	95.1	6		20	150	08/17/2018	PAB
Acenaphthene - BS	EPA-8270 SIM	94.0			41	107	08/16/2018	PAB
Acenaphthene - BSD	EPA-8270 SIM	101	7		41	107	08/17/2018	PAB
Fluorene - BS	EPA-8270 SIM	97.6			20	150	08/16/2018	PAB
Fluorene - BSD	EPA-8270 SIM	107	9		20	150	08/17/2018	PAB
Phenanthrene - BS	EPA-8270 SIM	99.9			20	150	08/16/2018	PAB
Phenanthrene - BSD	EPA-8270 SIM	106	5		20	150	08/17/2018	PAB
Anthracene - BS	EPA-8270 SIM	90.2			20	150	08/16/2018	PAB
Anthracene - BSD	EPA-8270 SIM	97.7	8		20	150	08/17/2018	PAB
Fluoranthene - BS	EPA-8270 SIM	92.1			20	150	08/16/2018	PAB
Fluoranthene - BSD	EPA-8270 SIM	99.7	8		20	150	08/17/2018	PAB
Pyrene - BS	EPA-8270 SIM	87.4			18	136	08/16/2018	PAB
Pyrene - BSD	EPA-8270 SIM	100	14		18	136	08/17/2018	PAB
Benzo[A]Anthracene - BS	EPA-8270 SIM	89.0			20	150	08/16/2018	PAB
Benzo[A]Anthracene - BSD	EPA-8270 SIM	88.7	0		20	150	08/17/2018	PAB
Chrysene - BS	EPA-8270 SIM	91.7			20	150	08/16/2018	PAB
Chrysene - BSD	EPA-8270 SIM	102	11		20	150	08/17/2018	PAB
Benzo[B]Fluoranthene - BS	EPA-8270 SIM	92.2			20	150	08/16/2018	PAB
Benzo[B]Fluoranthene - BSD	EPA-8270 SIM	93.4	1		20	150	08/17/2018	PAB
Benzo[K]Fluoranthene - BS	EPA-8270 SIM	90.0			20	150	08/16/2018	PAB
Benzo[K]Fluoranthene - BSD	EPA-8270 SIM	97.6	8		20	150	08/17/2018	PAB
Benzo[A]Pyrene - BS	EPA-8270 SIM	86.9			20	150	08/16/2018	PAB
Benzo[A]Pyrene - BSD	EPA-8270 SIM	90.9	5		20	150	08/17/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270 SIM	92.7			20	150	08/16/2018	PAB
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270 SIM	86.6	7		20	150	08/17/2018	PAB
Dibenz[A,H]Anthracene - BS	EPA-8270 SIM	92.9			20	150	08/16/2018	PAB
Dibenz[A,H]Anthracene - BSD	EPA-8270 SIM	84.9	9		20	150	08/17/2018	PAB
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	88.8			20	150	08/16/2018	PAB
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	85.3	4		20	150	08/17/2018	PAB



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CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 131428 - Soil by EPA-8082

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
PCB-1016 - BS	EPA-8082	78.2			50	150	08/09/2018	PAB
PCB-1016 - BSD	EPA-8082	78.7	1		50	150	08/09/2018	PAB
PCB-1260 - BS	EPA-8082	87.9			50	150	08/09/2018	PAB
PCB-1260 - BSD	EPA-8082	89.0	1		50	150	08/09/2018	PAB

ALS Test Batch ID: R321921 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-7471	105			81.8	117	08/08/2018	RAL
Mercury - BSD	EPA-7471	105	0		81.8	117	08/08/2018	RAL

ALS Test Batch ID: R321924 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-7471	105			81.8	117	08/09/2018	RAL
Mercury - BSD	EPA-7471	107	2		81.8	117	08/09/2018	RAL

ALS Test Batch ID: R321925 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-7471	104			81.8	117	08/13/2018	RAL
Mercury - BSD	EPA-7471	104	0		81.8	117	08/13/2018	RAL

ALS Test Batch ID: R322340 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-7471	102			81.8	117	08/23/2018	RAL
Mercury - BSD	EPA-7471	103	1		81.8	117	08/23/2018	RAL

ALS Test Batch ID: R321927 - TCLP Extract by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Mercury - BS	EPA-7470	108			85	115	08/13/2018	RAL
Mercury - BSD	EPA-7470	109	1		85	115	08/13/2018	RAL

ALS Test Batch ID: 131537 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-6020	99.1			80	120	08/09/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BSD	EPA-6020	96.3	3		80	120	08/09/2018	RAL
Cadmium - BS	EPA-6020	102			80	120	08/09/2018	RAL
Cadmium - BSD	EPA-6020	100	2		80	120	08/09/2018	RAL
Chromium - BS	EPA-6020	99.8			80	120	08/09/2018	RAL
Chromium - BSD	EPA-6020	96.5	3		80	120	08/09/2018	RAL
Copper - BS	EPA-6020	102			80	120	08/09/2018	RAL
Copper - BSD	EPA-6020	99.9	2		80	120	08/09/2018	RAL
Lead - BS	EPA-6020	101			80	120	08/09/2018	RAL
Lead - BSD	EPA-6020	100	0		80	120	08/09/2018	RAL
Zinc - BS	EPA-6020	102			80	119	08/09/2018	RAL
Zinc - BSD	EPA-6020	98.4	3		80	119	08/09/2018	RAL

ALS Test Batch ID: 131538 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-6020	99.8			80	120	08/09/2018	RAL
Arsenic - BSD	EPA-6020	97.2	3		80	120	08/09/2018	RAL
Cadmium - BS	EPA-6020	105			80	120	08/09/2018	RAL
Cadmium - BSD	EPA-6020	102	3		80	120	08/09/2018	RAL
Chromium - BS	EPA-6020	99.0			80	120	08/09/2018	RAL
Chromium - BSD	EPA-6020	96.3	3		80	120	08/09/2018	RAL
Copper - BS	EPA-6020	104			80	120	08/09/2018	RAL
Copper - BSD	EPA-6020	101	3		80	120	08/09/2018	RAL
Lead - BS	EPA-6020	103			80	120	08/09/2018	RAL
Lead - BSD	EPA-6020	100	2		80	120	08/09/2018	RAL
Zinc - BS	EPA-6020	103			80	119	08/09/2018	RAL
Zinc - BSD	EPA-6020	98.1	5		80	119	08/09/2018	RAL

ALS Test Batch ID: 131556 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-6020	102			80	120	08/14/2018	RAL
Arsenic - BSD	EPA-6020	103	1		80	120	08/14/2018	RAL
Cadmium - BS	EPA-6020	105			80	120	08/14/2018	RAL
Cadmium - BSD	EPA-6020	105	1		80	120	08/14/2018	RAL
Chromium - BS	EPA-6020	103			80	120	08/14/2018	RAL
Chromium - BSD	EPA-6020	102	1		80	120	08/14/2018	RAL
Copper - BS	EPA-6020	107			80	120	08/14/2018	RAL
Copper - BSD	EPA-6020	107	0		80	120	08/14/2018	RAL
Lead - BS	EPA-6020	105			80	120	08/14/2018	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 8/27/2018
ALS SDG#: EV18080025
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Jensen's Shipyard Assessment

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Lead - BSD	EPA-6020	104	1		80	120	08/14/2018	RAL
Zinc - BS	EPA-6020	104			80	119	08/14/2018	RAL
Zinc - BSD	EPA-6020	103	1		80	119	08/14/2018	RAL

ALS Test Batch ID: 131751 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-6020	101			80	120	08/22/2018	RAL
Arsenic - BSD	EPA-6020	100	1		80	120	08/22/2018	RAL
Cadmium - BS	EPA-6020	103			80	120	08/22/2018	RAL
Cadmium - BSD	EPA-6020	102	0		80	120	08/22/2018	RAL
Chromium - BS	EPA-6020	103			80	120	08/22/2018	RAL
Chromium - BSD	EPA-6020	103	0		80	120	08/22/2018	RAL
Copper - BS	EPA-6020	105			80	120	08/22/2018	RAL
Copper - BSD	EPA-6020	106	1		80	120	08/22/2018	RAL
Lead - BS	EPA-6020	104			80	120	08/22/2018	RAL
Lead - BSD	EPA-6020	102	2		80	120	08/22/2018	RAL
Zinc - BS	EPA-6020	101			80	119	08/22/2018	RAL
Zinc - BSD	EPA-6020	101	0		80	119	08/22/2018	RAL

ALS Test Batch ID: R321929 - TCLP Extract by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Arsenic - BS	EPA-6020	96.0			89.1	110	08/10/2018	RAL
Arsenic - BSD	EPA-6020	99.0	3		89.1	110	08/10/2018	RAL
Barium - BS	EPA-6020	99.0			88.5	108	08/10/2018	RAL
Barium - BSD	EPA-6020	100	1		88.5	108	08/10/2018	RAL
Cadmium - BS	EPA-6020	97.0			89.4	109	08/10/2018	RAL
Cadmium - BSD	EPA-6020	101	4		89.4	109	08/10/2018	RAL
Chromium - BS	EPA-6020	95.0			86.2	107	08/10/2018	RAL
Chromium - BSD	EPA-6020	98.0	3		86.2	107	08/10/2018	RAL
Lead - BS	EPA-6020	100			87.5	107	08/10/2018	RAL
Lead - BSD	EPA-6020	101	1		87.5	107	08/10/2018	RAL
Selenium - BS	EPA-6020	97.0			90.2	113	08/10/2018	RAL
Selenium - BSD	EPA-6020	100	3		90.2	113	08/10/2018	RAL
Silver - BS	EPA-6020	97.0			80	120	08/10/2018	RAL
Silver - BSD	EPA-6020	101	4		80	120	08/10/2018	RAL

CERTIFICATE OF ANALYSIS

APPROVED BY



Laboratory Director

DRAFT



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)

CV1808025

Date 8/2/18 Page 1 Of 8

PROJECT ID: Jensen's Shipyard Assessment				ANALYSIS REQUESTED												OTHER (Specify)		RECEIVED IN GOOD CONDITION?											
REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	PHONE:	PO. #:	E-MAIL:	INVOICE TO COMPANY:	ATTENTION:	ADDRESS:	NTWPH-HCID	NTWPH-DX w/ silica gel c.c.	NTWPH-CX	BTX 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	Pesticides by EPA 8081	Metals-MTCA-5	Metals-Other (Specify)	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs		
1. BLWA-3 2-6in	7/30/18	915	Soil	1					X										X	X		X	X	X	X	X	X	X	X
2. BLWA-3 2ft	920			2					X										X	X		X	X	X	X	X	X	X	X
3. BLWA-3 5ft	925			3					X										X	X		X	X	X	X	X	X	X	X
4. BLWA-4 2-6in	950			4					X										X	X		X	X	X	X	X	X	X	X
5. BLWA-4 5ft	955			5					X										X	X		X	X	X	X	X	X	X	X
6. BLWA-5 2-6in	1000			6					X										X	X		X	X	X	X	X	X	X	X
7. BLWA-5 2ft	1015			7					X										X	X		X	X	X	X	X	X	X	X
8. BLWA-5 5ft	1020			8					X										X	X		X	X	X	X	X	X	X	X
9. BLWA-6 2-6in	1055			9					X										X	X		X	X	X	X	X	X	X	X
10. BLWA-6 2ft	1102			10					X										X	X		X	X	X	X	X	X	X	X

SPECIAL INSTRUCTIONS: * Hold for follow-up Analysis - preserve As needed - * Added 8/15/18 Studied TAT

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [Signature] WES on 8/2/18 @ 11:55
Received By: [Signature] ALS 8/3/18 2:30
2. Relinquished By: _____
Received By: _____

TURNAROUND REQUESTED IN BUSINESS DAYS*
OTHER:

Specify:

Organic, Metals & Inorganic Analysis	Fuels & Hydrocarbon Analysis
10 5 3 2 1	5 3 1

*Turnaround request less than standard may incur Rush Charges



ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
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Chain Of Custody/ Laboratory Analysis Request

ALS Job#

(Laboratory Use Only)

CV18080025

Date 8/2/18 Page 2 of 8

PROJECT ID: Tensen's Shipyard Assessment
REPORT TO COMPANY: Thom - Eric
PROJECT MANAGER: Whitcom Env.
ADDRESS: 228 E. Champion
B'ham, WA
PHONE: _____ PO. #: _____
E-MAIL: _____
INVOICE TO COMPANY: _____
ATTENTION: Same
ADDRESS: _____

PROJECT ID: Tensen's Shipyard Assessment				ANALYSIS REQUESTED										OTHER (Specify)																			
REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	PHONE:	SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HO/D	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 <input checked="" type="checkbox"/>	MTBE by EPA 8260 <input type="checkbox"/>	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	Pesticides by EPA 8081 <input type="checkbox"/>	Metals-MTCA-5 <input checked="" type="checkbox"/>	RCRA-8 <input type="checkbox"/>	Pb <input type="checkbox"/>	TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/>	VOA <input type="checkbox"/>	Semi-Vol <input type="checkbox"/>	Pest <input type="checkbox"/>	Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?	
Thom - Eric	Whatcom Enviv.	228 E. Champion	B'ham, WA	1. BlWA-6 5ft	7/30/18	1110	Soil	11	X	X	X	X							X	X		X	X				X					2	
				2. BlWA-6 10ft		1120		12	X	X	X	X							X	X		X	X				X					2	
				3. BlWA-7 2-6in		1035		13	X	X	X	X							X	X		X	X				X					1	
				4. BlWA-7 2ft		1040		14	X	X	X	X							X	X		X	X				X					1	
				5. BlWA-7 5ft		1045		15	X	X	X	X							X	X		X	X				X					1	
				6. BlWA-8 2-6in		1215		16	X	X	X	X							X	X		X	X				X					1	
				7. BlWA-8 2ft		1220		17	X	X	X	X							X	X		X	X				X					1	
				8. BlWA-8 5ft		1225		18	X	X	X	X							X	X		X	X				X					1	
				9. BlWA-9 2-6in		1150		19	X	X	X	X							X	X		X	X				X					1	
				10. BlWA-9 2ft		1155		20	X	X	X	X							X	X		X	X				X					1	

SPECIAL INSTRUCTIONS: * Hold for follow-up analysis - preserve as needed. added 8/15/18 per Eric stated THAT

SIGNATURES (Name, Company, Date, Time):

- Relinquished By: [Signature] WES on 8/2/18 @ 1155
- Received By: [Signature] ALS 8/3/18 230
- Relinquished By: _____
- Received By: _____

TURNAROUND REQUESTED IN BUSINESS DAYS*
Organic, Metals & Inorganic Analysis

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Fuels & Hydrocarbon Analysis

*Turnaround request less than standard may incur Rush Charges



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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

CV18080025

Date 8/2/18 Page 3 of 8

PROJECT ID: Jensen's Shipyard
REPORT TO COMPANY: W. E. S.
PROJECT MANAGER: Thom - Eric
ADDRESS: 228 E Champion #101
B. ham wa 98225
PHONE: PO. #:
E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

Same

ANALYSIS REQUESTED				OTHER (Specify)			
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NTPH-HCID	NTPH-DX	NTPH-GX
1. BLWA-9 Sft	7-30-18	1200	Soil	21			
2. AST-1 2ft		935		22			
3. Storm Sed.-1		3pm		23			
4. MW-1 2-6 in		110p		24			
5. MW-1 12ft		1750		25			
6. MW-1 15ft		115p		26			
7. MW-2 26 in		155p		27			
8. MW-2 7ft		2pm		28			
9. WES-Dup.-1		910		29			
				30			
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				100			

SPECIAL INSTRUCTIONS * Hold for follow-up Analysis - Preserve As needed / Added per Eric 8/15/18
Stacy TAT

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: [Signature] WES on 8/2/18 @ 1156
Received By: [Signature] WES 8/3/18 230
2. Relinquished By: _____
Received By: _____
Turnaround request less than standard may incur Rush Charges

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis
Fuels & Hydrocarbon Analysis
Specify: _____
OTHER: _____



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Fax (425) 356-2626
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Chain Of Custody/ Laboratory Analysis Request

ALS Job#

(Laboratory Use Only)

CV18080025

Date

8/2/18

Page

4

Of

8

PROJECT ID: Jensen's Shipyard Assessment
REPORT TO COMPANY: W.E.S.
PROJECT MANAGER: Thom- Eric
ADDRESS: 228 E. Champion #101
B'ham, WA 98225
PHONE: PO. #:
E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

Same

PROJECT ID: Jensen's Shipyards Assessment					ANALYSIS REQUESTED										OTHER (Specify)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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SPECIAL INSTRUCTIONS: * Hold for follow-up analysis - preserve as needed

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: [Signature] WES on 8/2/18 @ 11:56
Received By: [Signature] ALS 8/3/18 2:30
2. Relinquished By: _____
Received By: _____

TURNAROUND REQUESTED IN BUSINESS DAYS*
Organic, Metals & Inorganic Analysis: 5 3 2 1
Fuels & Hydrocarbon Analysis: 5 3 1
Specify: _____
OTHER: _____
Turnaround request less than standard may incur Rush Charges



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)

CV18080025

Date 8/2/18 Page 6 Of 8

PROJECT ID: Jensen's Shipyard Ass.
REPORT TO COMPANY: WES
PROJECT MANAGER: Thom - Eric
ADDRESS: 228 E. Champion #101
B'ham, WA 98225
PHONE: FAX:
P.O. #: E-MAIL:
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

NTMTH-HCID
NTMTH-DX
NTMTH-GX
BTEX by EPA 8260
MTBE by EPA 8260
MTBE by EPA 8260
Halogenated Volatiles by EPA 8260
Volatile Organic Compounds by EPA 8260
EDB / EDC by EPA 8260 (water)
EDB / EDC by EPA 8260 (soil)
Semi-volatile Organic Compounds by EPA 8270
Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM
PCB by EPA 8082
Pesticides by EPA 8081
Metals-WTCA-5
RCRA-8
PCP
TAL
Metals Other (Specify): Copper & Zinc
TCLP-Metals
VOA
Semi-Vol
Pest
Herbs

OTHER (Specify)

Receives in good condition?
Number of containers
Dioxins
Methylchloride - 8270
EPA 8270
EPA 8270

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. SYC-4 5ft	7/31/18	130	Soil	50
2. MW-4 2-6in	830			51
3. MW-4 11ft	850			52
4. MW-5 2-6in	430			53
5. MW-5 10ft	525			54
6. MW-6 2-6in	155			55
7. MW-6 40ft	315			56
8.				
9.				
10.				

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: [Signature] WES on 8-2-18 @ 11:56
Received By: [Signature] 8/2/18 2:30
2. Relinquished By: [Signature]
Received By: [Signature]

TURNAROUND REQUESTED IN BUSINESS DAYS*
OTHER: Specify: 1 2 3 4 5 6 7 8 9 10 11 12

Fuels & Hydrocarbon Analysis

*Turnaround request less than standard may incur Rush Charges



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#

CV18060025

(Laboratory Use Only)

Date 8/2/18 Page 7 of 8

PROJECT ID: Jensen's Shipyard Assessment

REPORT TO
COMPANY: WES

PROJECT
MANAGER: Thom - Eric

ADDRESS: 228 E. Champion #101

B'ham, WA 98225

PHONE:

FAX:

F.O. #:

INVOICE TO
COMPANY:

ATTENTION:

ADDRESS:

Source

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	ANALYSIS REQUESTED										NUMBER OF CONTAINERS								
					NWTPH-HCID	NWTPH-DX	Silica Gel	NWTPH-GX	BTEX by EPA 8021 <input type="checkbox"/>	MTBE by EPA 8021 <input type="checkbox"/>	MTBE by EPA 8260 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 (water)		EDB / EDC by EPA 8260 (soil)	Semi-volatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	Pesticides by EPA 8081 <input type="checkbox"/>	Metals-MTCA-5 <input checked="" type="checkbox"/> RCRA-8 <input type="checkbox"/> P1 Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify) <u>Copper & Zinc</u>	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	
1. SRWA-4 6in	8/1/18	955	Soil	57	X	X											X	X	X	X	X		
2. SRWA-4 3.5ft		10AM		58	X	X											X	X	X	X	X		
3. SRWA-5 2.6in		930		59	X	X											X	X	X	X	X		
4. SRWA-5 3.5ft		935		60	X	X											X	X	X	X	X		
5. SRWA-5 5ft		940		61	X	X											X	X	X	X	X		
6. SRWA-6 2.6in		9AM		62	X	X											X	X	X	X	X		
7. SRWA-6 3ft		910		63	X	X											X	X	X	X	X		
8. SRWA-6 4.5ft		920		64																			
9. SRWA-7 2.6in		1010		65	X	X											X	X	X	X	X		
10. SRWA-7 3ft		1015		66	X	X											X	X	X	X	X		

REPORT TO COMPANY: <u>WES</u>
PROJECT: <u>Thom - Fmz</u>
MANAGER: <u>Thom, WA 98225</u>
ADDRESS: <u>228 E. Champion #101</u>
<u>B'ham, WA 98225</u>
PHONE: _____
FAX: _____
RO. #: _____
INVOICE TO COMPANY: _____
ATTENTION: <u>Sauer</u>
ADDRESS: _____

SPECIAL INSTRUCTIONS: * Add for follow-up Analysis - preserve as needed

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [Signature] WES on 8/2/18 @ 1157

Received By: [Signature] 8/3/18 2:30

2. Relinquished By: _____

Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis

Specify: 10 5 3 2 1 1

Fuels & Hydrocarbon Analysis

5 3 1 1 1 1

*Turnaround request less than standard may incur Rush Charges



ALS Job# (Laboratory Use Only)

EV18080025

<http://www.alsglobal.com>

Date 8/2/18 Page 8 Of 8

PROJECT ID: Jensen's Shipyards Assessment
REPORT TO COMPANY: WES
PROJECT MANAGER: Thom - Fritz
ADDRESS: 228 E. Champion #101
Bilham, WA 98225
PHONE: FAX:
P.O. #: E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

PROJECT ID:	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	PHONE:	P.O. #:	INVOICE TO COMPANY:	ATTENTION:	ADDRESS:	SAMPLE I.D.	DATE	TIME	TYPE	LAB#
Jensen's Shipyards Assessment	WES	Thom - Eric	228 E. Champion #101 Bilham, WA 98225				Same		1. SRWA-7 5ft	8/1/18	1020	Soil	67
									2. MW-3 2-6m		1030		68
									3. MW-3 4ft		1040		69
									4. MW-3 5.5ft		1045		70
									5. WES-Dup-2		830		71
									6.				
									7.				
									8.				
									9.				
									10.				

* Hold for Follow-up Analysis - preserve as needed

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By:

Received By: _____

2. Relinquished By:

Received By: _____

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

Specify:

Fuels & Hydrocarbon Analysis

DATE	7	3	5
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*Turnaround request less than standard may incur Rush Charges



August 29, 2018

Service Request No:E1800729

Rick Bagan
ALS Environmental
8620 Holly Drive #100
Everett, WA 98208

Laboratory Results for: EV18080025 Dioxins Furans Analysis

Dear Rick,

Enclosed are the results of the sample(s) submitted to our laboratory August 07, 2018
For your reference, these analyses have been assigned our service request number **E1800729**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the final complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the TNI 2009 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My number is 281-530-2284. You may also contact me via email at Nicole.Brown@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Nicole Brown
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | **FAX** +1 281 561 6125
ALS Group USA, Corp.
dba ALS Environmental



Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client: ALS Environmental - Everett.
Project: EV18080025
Sample Matrix: Soil

Service Request No.: E1800729
Date Received: 08/07/18

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two soil samples were received for analysis at ALS Environmental in Houston on 08/07/18.

The samples were received at 0.9°C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Re-extraction

Samples EV180080025-51 (E1800729-001) and EV180080025-68 (E1800729-002) were originally extracted on batch EQ1800321, but required re-extraction due to failed QC. The samples were re-extracted on batch EQ1800327. The valid results are reported from the second extraction. The results from the first extraction are not included in this report.

Precision and Accuracy:

EQ1800327: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within control limits.

B flags – Method Blanks

The Method Blank EQ1800327-01 contained low levels of various target compounds above the EDL however below the Method Reporting Limit (MRL).

The associated compounds in the samples are not flagged with a 'B' flag as the sample results are greater than ten times the level detected in the method blank.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

E flags

When OCDD exceeds the upper method calibration limit (MCL), the laboratory uses an 'E' flag on the Sample Analytical Report results page when the detector is not saturated. OCDD in samples EV180080025-51 (E1800729-001) and EV180080025-68 (E1800729-002) are reported with an 'E' flag to denote that they had concentration greater than the highest calibration point. The process of dilution is counter to the isotopic dilution technique that the laboratory uses to determine recovery and produces variability in the final value. The laboratory only dilutes when detector saturation occurs.

P flag

Chlorodiphenyl ether interference was present at the retention time of the target analyte 1,2,3,6,7,8-HxCDF. The reported result should be considered an estimate.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- 2378-TCDF from the DB-225 column, when confirmation required

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("*Materials*") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("*Attribution*") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - Everett
Project: EV18080025 Dioxins Furans Anlaysis

Service Request: E1800729

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E1800729-001	EV18080025-51 MW-4 2-6 in	7/31/2018	0830
E1800729-002	EV18080025-68 MW-3 2-6 in	8/1/2018	1030

DRAFT

Service Request Summary

Folder #: E1800729
Client Name: ALS Environmental - Everett
Project Name: EV18080025 Dioxins Furans Analysis
Project Number:

Report To: Rick Bagan
ALS Environmental
8620 Holly Drive #100
Everett, WA 98208
USA
Phone Number: 425-356-2600
Cell Number:
Fax Number:
E-mail: rick.bagan@alsglobal.com

Project Chemist: Nicole Brown
Originating Lab: HOUSTON
Logged By: NBROWN
Date Received: 08/07/18
Internal Due Date: 8/17/2018
OAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: N, Y
Report to MDL?: Y
P.O. Number: EV18080025
EDD: No EDD Specified

2 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2E
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	Dioxins Furans/1613B	HOUSTON
E1800729-001	EV18080025-51	Soil	07/31/18 0830	II	Total Solids/ALS SOP
E1800729-002	EV18080025-68	Soil	08/01/18 1030	II	II

Service Request Summary

Folder #: E1800729
Client Name: ALS Environmental - Everett
Project Name: EV18080025 Dioxins Furans Analysis
Project Number:

Report To: Rick Bagan
ALS Environmental
8620 Holly Drive #100
Everett, WA 98208
USA

Phone Number: 425-356-2600
Cell Number:
Fax Number:
E-mail: rick.bagan@alsglobal.com

Test Comments:

Group	Test/Method	Samples	Comments
Semivolatile GC/MS	Dioxins Furans/1613B	4	
Semivolatile GC/MS	Total Solids/ALS SOP	2	

Project Chemist: Nicole Brown
Originating Lab: HOUSTON
Logged By: NBROWN
Date Received: 08/07/18
Internal Due Date: 8/17/2018
OAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: N, Y
Report to MDL?: Y
P.O. Number: EV18080025
EDD: No EDD Specified

2 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2E
Pressure Gas:
Rush

Data Qualifiers

HRMS Qualifier Set

- B Indicates the associated analyte was found in the method blank at >1/10th the reported value.
- E Estimated value. The reported concentration is above the calibration range of the instrument.
- H Sample extracted and/or analyzed out of suggested holding time.
- J Estimated value. The reported concentration is below the MRL.
- K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits. The concentration of this analyte should be considered as an estimate.
- P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.
- Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.
- S Signal saturated detector. Result reported from dilution.
- U Compound was analyzed for, but was not detected (ND).
- X See Case Narrative.
- Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-noise ratios are greater than 10:1, making the recoveries acceptable.
 - i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01	11/30/2019
Arizona Department of Health Services	AZ0793	5/27/2019
Arkansas Department of Environmental Quality	17-027-0	3/27/2019
California Department of Health Services	2452	4/30/2019
Florida Department of Health	E87611	7/31/2019
Illinois Environmental Protection Agency	004112	5/29/2019
Kansas Department of Health and Environment	E-10406	7/31/2019
Louisiana Department of Environmental Quality	03048	6/30/2019
Louisiana Department of Health and Hospitals	LA150026	12/31/2018
Maine Center for Disease Control and Prevention	2014019	6/5/2020
Minnesota Department of Health	840911	12/31/2018
New Jersey Department of Environmental Protection	NLC140001	6/30/2019
New York Department of Health	11707	4/1/2019
Oklahoma Department of Environmental Quality	2014 124	8/31/2019
Pennsylvania Department of Environmental Protection	68-03441	6/30/2019
Tennessee Department of Environment and Conservation	04016	6/30/2019
Texas Commission on Environmental Quality	TX104704231-17-18	4/30/2019
Utah Department of Health Environmental Laboratory Certification	TX02694	7/3/2019
Washington Department of Health	c819	11/14/2018
West Virginia Department of Environmental Protection	347	6/30/2019

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID

E1800729

DB-5MSUI

SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:

08/28/18

Analyst:

Jc

Samples:

001RE, 002RE

Second Level - Data Review – to be filled by person doing peer review

Date:

08/29/18

Analyst:

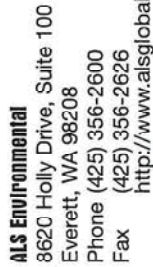
LKL

Samples:

001RE, 002RE

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com



E1800729
ALS Environmental
Dioxin

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<http://www.alsglobal.com>

Date 8/6/18 Page 1 Of 1[illegible]

SPECIAL INSTRUCTIONS

Thank you

100

SIGNATURES (Name, Company, Date, Time):

TURNAROUND REQUESTED in Business Days*

1. Relinquished By: Shawn Robinson ALS 8/6/18 8:40 am

Organic, Metals & Inorganic Analysis

OTHER:

Specify: Please return
cooler and ice packs.

Received By: _____

2. Relinquished By: 2/2/2022

Relinquished By: Kendy Brown ACS Houston 8/7/18 0855 Page 5

*Turnaround request less than standard may incur Rush Charges.

Client/Project

ALS EVERETT

Thermometer ID

SM 04

Date/Time Received:

8/7/18 0845

Initials:

UB

Date/Time Logged in:

8/7/18

Initials

UB

1. Method of delivery:

☐ US Mail

☒ Fed Ex

☐ UPS

☐ DHL

☐ Courier

☐ Client

2. Samples received in:

☒ Cooler

☐ Box

☐ Envelope

☐ Other

3. Were custody seals on coolers?

☐ Yes

☒ No

If yes, how many and where?

Were they intact?

☐ Yes

☐ No

☒ N/A

Were they signed and dated?

☐ Yes

☐ No

☒ N/A

4. Packing Material:

☐ Inserts

☐ Baggies

☐ Bubble Wrap

☐ Gel Packs

☐ Wet Ice

☐ Sleeves

☐ Other

5. Foreign or Regulated Soil?

☐ Yes

☒ No

Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
8085 2716 6157		8/7/18	1215	UB	0.5/0.9	<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

6. Were custody papers properly filled out (ink, signed, dated, etc)?

☒ Yes

☐ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)?

☒ Yes

☐ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)?

☒ Yes

☐ No

9. Were appropriate bottles/containers and volumes received for the requested tests?

☒ Yes

☐ No

10. Did sample labels and tags agree with custody documents?

☒ Yes

☐ No

Notes, Discrepancies, & Resolutions:

Service request Label:

E1800729
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SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sample. The COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report



Preparation Information Benchsheets

ALS Environmental - Houston HRMS
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Preparation Information Benchsheet

Prep Run#: 320081
Team: Semivoa GCMS/ALOPEZ

Prep WorkFlow: OrgExtS(365)
Prep Method: Method Soxhlet

Status: Prepped
Prep Date/Time: 8/21/18 09:02 AM

#	Lab Code	Client ID	B#	Method /Test	pH	CI	Matrix	Amt. Ext.	Sample Description
1	E1800396-002	P4 SOL ID MDL #2	.02	1613B/Dioxins Furans			Soil	10.000g	Sodium Sulfate
2	E1800720-001RE	Sludge - Full Test	.01	1613B/Dioxins Furans			Sludge, Solid	10.256g	Brown Mud
3	E1800724-001RE	18194B01BA	.01	1613B/Dioxins Furans			Misc. Solid	5.260g	White Powder
4	E1800729-001RE	EV18080025-51	.01	1613B/Dioxins Furans			Soil	10.273g	Brown Dirt + Rocks
5	E1800729-002RE	EV18080025-68	.01	1613B/Dioxins Furans			Soil	10.299g	Brown Dirt + Rocks
6	E1800745-001RE	EV18070141-01	.01	1613B/Dioxins Furans			Soil	10.403g	Black Dirt + Rocks
7	E1800745-002RE	EV18070141-02	.01	1613B/Dioxins Furans			Soil	10.408g	Grey Sand + Rocks
8	E1800745-003RE	EV18070141-03	.01	1613B/Dioxins Furans			Soil	10.249g	Black Dirt + Rocks
9	E1800745-004RE	EV18070141-04	.01	1613B/Dioxins Furans			Soil	10.378g	Black Dirt + Rocks
10	E1800745-005RE	EV18070141-05	.01	1613B/Dioxins Furans			Soil	10.440g	Black Dirt + Rocks
11	EQ1800327-04	MB		1613B/Dioxins Furans			Solid	10.000g	
12	EQ1800327-05	LCS		1613B/Dioxins Furans			Solid	10.000g	
13	EQ1800327-06	DLCs		1613B/Dioxins Furans			Solid	10.000g	
14	J1805461-001RE	Fluff	.01	1613B/Dioxins Furans			Misc. Solid	10.092g	White Paper
15	J1805480-001RE	Lighthouse and Lighthouse X Untreated F	.02	1613B/Dioxins Furans			Misc. Solid	10.865g	White Paper

Spiking Solutions

Name:	8290/1613B Cleanup Working Standard	Inventory ID	191999	Logbook Ref:	tw 07/27/18 8ng/ml	Expires On:	10/27/2018
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EQ1800327-04 100.00µL

Name:	1613B Labeled Working Standard	Inventory ID	192316	Logbook Ref:	192316 AL 8/8/18 2-4 ng/mL	Expires On:	01/09/2019
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EQ1800327-04 1,000.00µL

Name:	1613B Matrix Working Standard	Inventory ID	192373	Logbook Ref:	192373 AL 8/9/18 2-20 ng/mL	Expires On:	02/05/2019
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EQ1800327-05 100.00µL EQ1800327-06 100.00µL

Name:	1613B Labeled Working Standard	Inventory ID	192473	Logbook Ref:	192471 2-4NGMIL JG 8/15/18	Expires On:	01/09/2019
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EQ1800327-05 1,000.00µL EQ1800327-06 1,000.00µL

Name:	8290/1613B Cleanup Working Standard	Inventory ID	192605	Logbook Ref:	TW 08/20/18 192605 8NG/MIL	Expires On:	10/27/2018
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E1800720-001 100.00µL E1800724-001 100.00µL E1800729-001 100.00µL E1800729-002 100.00µL E1800745-001 100.00µL E1800745-002 100.00µL E1800745-003 100.00µL E1800745-004 100.00µL EQ1800327-05 100.00µL EQ1800327-06 100.00µL EQ1800327-06 100.00µL J1805480-001 100.00µL E1800729 100.00µL J1805461-001 100.00µL

Preparation Information Benchsheet

Prep Run#: 320081

Team: Semivoa GCMS/ALOPEZ

Prep WorkFlow: OrgExtS(365)

Prep Method: Method Soxhlet

Status: Prepped

Prep Date/Time: 8/21/18 09:02 AM

Name:	1613B Labeled Working Standard	Inventory ID	192640	Logbook Ref:	192640 AL 8/21/18 2-4 ng/mL	Expires On:	01/09/2019
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E1800720-001	1,000.00µL	E1800724-001	1,000.00µL	E1800729-001	1,000.00µL	E1800745-002	1,000.00µL	1,000.00µL
E1800745-003	1,000.00µL	E1800745-004	1,000.00µL	E1800745-005	1,000.00µL	J1805461-001	1,000.00µL	1,000.00µL
Preparation Materials								
Carbon, High Purity		AL 8/10/18 (192392)		Ethyl Acetate 99.9% Minimum EtOAc	tw ethyl acet 080218 (192158)	Glass Wool	GLASS WOOL (190875)	
Hexanes 95%		AL 7/30/18 (192056)		Dichloromethane (Methylene Chloride) 99.9% MeCl2	AL 6/28/18 (191236)	Sodium Hydroxide 1N NaOH	TW 6/14/18 (191093)	
Sodium Sulfate Anhydrous Reagent Grade Na2SO4		AL 7/30/18 (192040)		Tridecane (n-Tridecane)	AL 7/30/18 (192037)	Silica Gel	AL 7/30/18 (192039)	
sulfuric acid		SULFURIC ACID (190871)		Toluene 99.9% Minimum	AL 8/20/18 (192601)			

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	8/21/18 09:02	Started:	8/22/18 07:00	Started:	8/22/18 08:00	Started:	8/23/18 07:00
Finished:	8/22/18 07:00	Finished:	8/22/18 08:00	Finished:	8/22/18 11:00	Finished:	8/23/18 10:00
By:	ALOPEZ	By:	ALOPEZ	By:	ALOPEZ	By:	ALOPEZ
Comments	Comments	Comments	Comments	Comments	Comments	Comments	Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By:	_____	Date:	_____	Extracts Examined
Received By:	_____	Date:	_____	Yes No