



SoundEarth Strategies, Inc.
2811 Fairview Avenue East, Suite 2000
Seattle, Washington 98102

August 24, 2020

Mr. John Guenther, LHG
Washington State Department of Ecology
Bellingham Field Office
913 Squalicum Way, Unit 101
Bellingham, Washington 98225

**SUBJECT: WESMAR COMPANY INC. SITE—YEAR 1 THIRD QUARTERLY GROUNDWATER
MONITORING EVENT: SECOND QUARTER 2020
Former Wesmar Company, Inc.
(Ballard Blocks II Property)
1401 and 1451 Northwest 46th Street
Seattle, Washington
Project No. 1249-001-06**

Dear Mr. Guenther:

On behalf of Block at Ballard II, LLC, SoundEarth Strategies, Inc. (SoundEarth) prepared this subgrade drainage groundwater monitoring report to provide a summary of the results for the third long-term groundwater monitoring event performed for Year 1 in Second Quarter 2020 at the Former Wesmar Company, Inc. Site (the Site), also identified as Ballard Blocks II, in Seattle, Washington.

The Site is located at 1401 and 1451 Northwest 46th Street in Seattle, Washington. Operation and monitoring of the permanent subgrade drainage discharge water treatment system associated with the recently completed development of the Property began in October 2019.

The work was performed pursuant to the requirements of the October 20, 2017, First Amended Consent Decree (No. DE 10-2-21304-0 SEA; Consent Decree) between Block at Ballard II, LLC and the Washington State Department of Ecology (Ecology).

SUBGRADE DRAINAGE GOUNDWATER MONITORING

The approximate location of the subgrade groundwater collection sump and the arsenic water treatment system located in the basement of the parking garage on the Site are shown on Figure 1. Water monitoring analytical results pertaining to the subgrade discharge water and the permanent arsenic treatment system are summarized on Tables 1 and 2.

SAMPLING METHODOLOGY

The following section describes the sampling methodology employed during the subgrade drainage water quality monitoring activities and the permanent arsenic treatment system performance monitoring activities performed at the Site in Second Quarter 2020.

April Through June 2020 Permanent Arsenic Treatment System Performance Monitoring Events

Subgrade drainage pipes under the building on the Site drain water to a sump by gravity feed in the basement parking garage in the southeastern portion of the Site (Figure 1).

Monthly permanent arsenic treatment system performance monitoring activities were performed on April 26, May 23, and June 23, 2020.

During these monitoring events, water samples were collected from a pre-treatment influent water port (INF), located immediately ahead of the two arsenic-targeting media treatment vessels; a mid-treatment system monitoring port (MID), located between the two arsenic-targeting media treatment vessels; and a post-treatment effluent water monitoring port (EFF), located immediately downstream of the permanent arsenic-treatment system prior to discharge to the municipal stormwater system. The approximate locations of these three water monitoring ports (INF, MID, and EFF) are shown on the general design schematic of the treatment system in Attachment A.

Water samples were collected directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, the date and time sampled and project number; placed on ice in a cooler; and transported to Friedman & Bruya, Inc. (F&B) under standard chain-of-custody protocols for laboratory analysis.

Second Quarter 2020 Subgrade Drainage Groundwater Monitoring Event

A subgrade drainage groundwater sample was collected from the subgrade groundwater collection sump inlet pipes on May 23, 2020. A description of the sampling methodology is provided below.

A flow-weighted sample from the subgrade groundwater drainage system was collected directly from the sub-slab drainage outlet pipes located within the sump (Figure 1).

Outlet pipes draining into the subgrade groundwater collection sump from the subgrade drainage system include one pipe on the north side, a lower pipe on the east side, an upper pipe on the east side, and one pipe on the south side of the sump. During the monitoring event May 23, 2020, water was observed flowing from the pipe on the north side and the lower pipe on the east side of the subgrade groundwater collection sump. SoundEarth did not observe water flowing from the pipe on the south side or the upper pipe on the east side of the subgrade groundwater collection sump.

Average flow rates were measured for each outlet pipe producing water from the sub-slab drainage system on May 23, 2020. The water volume collected for analysis was collected from each pipe proportionate to the flow rate of water for the pipe entering the sump. The total water flow rate into the subgrade sump during the monitoring event on May 23, 2020, was approximately 0.2 gallons per minute.

The water sample was collected directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, the date and time sampled, and project number; placed on ice in a cooler; and transported to F&B under standard chain-of-custody protocols for laboratory analysis.

Water samples submitted for laboratory analysis were analyzed by US Environmental Protection Agency Method 200.8 for total arsenic.

Water quality analytical results for the permanent arsenic treatment system performance monitoring activities are summarized below and on Table 1. Analytical results for total arsenic for groundwater samples collected from the subgrade drainage system are summarized below and on Table 2. Laboratory analytical reports are included in Attachment B.

April Through June 2020 Permanent Arsenic Treatment System Performance Monitoring Events

Total arsenic concentrations in post-treatment effluent water, (sample IDs: 1249_GW_EFF_2020426, 1249_GW_EFF_20200523 and 1249_GW_EFF_20200623) following treatment through the permanent arsenic treatment system, were not detected above the Washington State Model Toxics Control Act (MTCA) Method A cleanup level for groundwater of 5 microgram per liter ($\mu\text{g/L}$) during treatment system performance monitoring events on April 26, May 23, and June 23, 2020.

Second Quarter 2020 Subgrade Drainage Groundwater Monitoring Event

The Second Quarter 2020 result for the flow-weighted water sample collected from the subgrade groundwater drainage system (sample ID: 1249_SSGW_20200523) on May 23, 2020, prior to treatment through the permanent arsenic treatment system, revealed a result of 10.0 $\mu\text{g/L}$, above the MTCA Method A cleanup level of 5 $\mu\text{g/L}$.

The post-treatment effluent water, collected on May 23, 2020, following treatment of the collected subgrade drainage water through the permanent arsenic treatment system (sample ID: 1249_GW_EFF_20200523) revealed a result of less than 1 $\mu\text{g/L}$, compliant with MTCA Method A cleanup level for arsenic in groundwater of 5 $\mu\text{g/L}$ for post-treatment effluent discharge water.

SUMMARY OF FINDINGS AND CONCLUSIONS

Relying on the results of analytic testing, the permanent arsenic treatment system is performing as designed and effectively treating concentrations of total arsenic in subgrade discharge water in compliance with the Consent Decree. Concentrations of arsenic in post-treatment subgrade discharge water were compliant with the MTCA Method A cleanup level of 5 $\mu\text{g/L}$.

Long-term groundwater monitoring is planned to continue as outlined in the Revised Cleanup Action Plan of the Consent Decree.

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant and are

not responsible for the accuracy or validity of work performed by others, nor from the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

Respectfully,
SoundEarth Strategies, Inc.

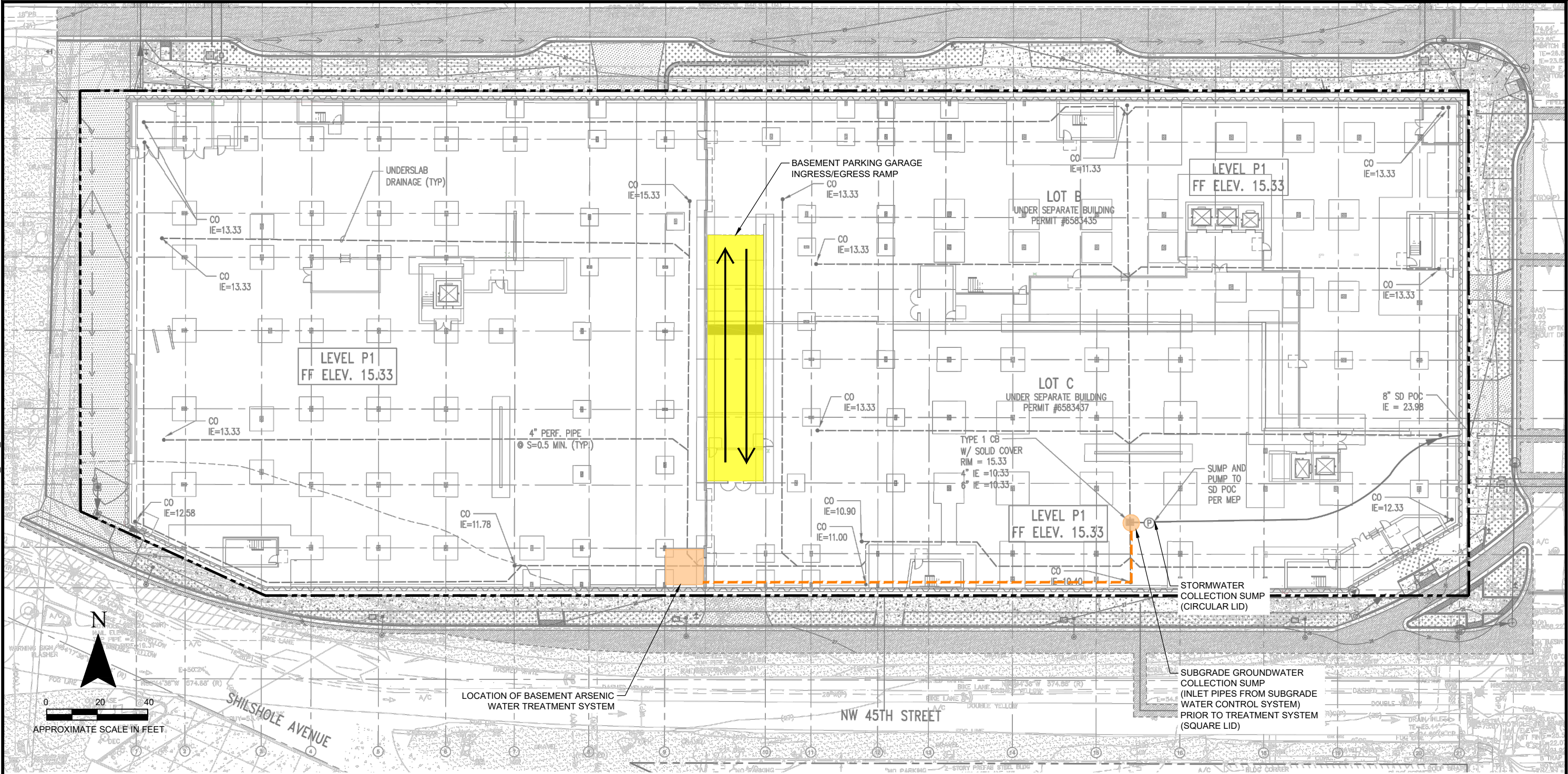


Attachments: Figure 1, Arsenic Treatment System Basement Location Map
Table 1, Summary of Influent, Mid-Treatment, and Effluent Water Analytical Results for Total Arsenic
Table 2, Summary of Groundwater Analytical Results for Raw Pre-Treatment Subgrade Water Control System Water
A, Basic Conceptual Drawing of Permanent Arsenic Treatment System
B, Laboratory Analytical Reports
Friedman & Bruya, Inc. #004310
Friedman & Bruya, Inc. #005330
Friedman & Bruya, Inc. #005331
Friedman & Bruya, Inc. #006393

cc: Eric Silvers, Regency Centers Corporation

JSL/CGC:rt

FIGURE



LEGEND

--- PROPERTY BOUNDARY

NOTES:

BASEMAP PROVIDED BY
WEBER THOMPSON/KPFF, 2018.

SoundEarth
Strategies
WWW.SOUNDEARTHINC.COM

FORMER WESMAR COMPANY, INC.
(BALLARD BLOCKS II PROPERTY)
1401 AND 1451
NORTHWEST 46TH STREET
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #1249-001

FIGURE 1
ARSENIC TREATMENT SYSTEM
BASEMENT LOCATION MAP

TABLES



Table 1
Summary of Influent, Mid-Treatment, and Effluent Water Analytical Results for Total Arsenic
Ballard Blocks II Property
1401 and 1451 Northwest 46th Street
Seattle, Washington

Sample IDs	Date Sampled	Pre-Treatment Influent Water Total Arsenic Analytical Results ⁽¹⁾ (micrograms per liter)	Mid-Treatment System Total Arsenic Analytical Results ⁽¹⁾ (micrograms per liter)	Treated Effluent Water Total Arsenic Analytical Results ⁽¹⁾ (micrograms per liter)
Permanent Arsenic Treatment System Maintenance Water Quality Monitoring Results				
1249_GW_INF/MID/EFF_20191121	11/21/19	9.58	2.43	<1
1249_GW_INF/MID/EFF_20191226	12/26/19	9.25	3.31	<1
1249_GW_INF/MID/EFF_20190123	01/23/20	12.50	7.21	<1
1249_GW_INF/MID/EFF_20190220	02/20/20	9.88	5.78	<1
1249_GW_INF/MID/EFF_20190319	03/19/20	8.83	4.04	<1
1249_GW_INF/MID/EFF_20190426	04/26/20	12.1	6.11	<1
1249_GW_INF/MID/EFF_20190523	05/23/20	15.4	8.0	<1
1249_GW_INF/MID/EFF_20190623	06/23/20	22.3	11.6	1.67
MTCA Cleanup Level for Groundwater		--	--	5 ⁽²⁾

NOTES:

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

⁽¹⁾Samples analyzed by EPA Method 200.8.

⁽²⁾MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

-- = not applicable

< = less than

EPA = US Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code



Table 2
Summary of Groundwater Analytical Results for Raw Pre-Treatment Subgrade Water Control System Water
Ballard Blocks II Property
1401 and 1451 Northwest 46th Street
Seattle, Washington

Sample ID	Date Sampled	Average Estimated Total Water Flow Rate Into Subgrade Sump (GPM)	Total Arsenic Analytical Results for Raw Subgrade Drainage Groundwater ⁽¹⁾ (micrograms per liter)
1249_SSGW_20191121	11/21/19	0.7	8.69
1249_SSGW_20200123	01/23/20	0.5	15.4
1249_SSGW_20200523	05/23/20	0.2	10.0
MTCA Cleanup Level for Groundwater			5⁽²⁾

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

⁽¹⁾ Samples analyzed by EPA Method 200.8.

⁽²⁾ MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

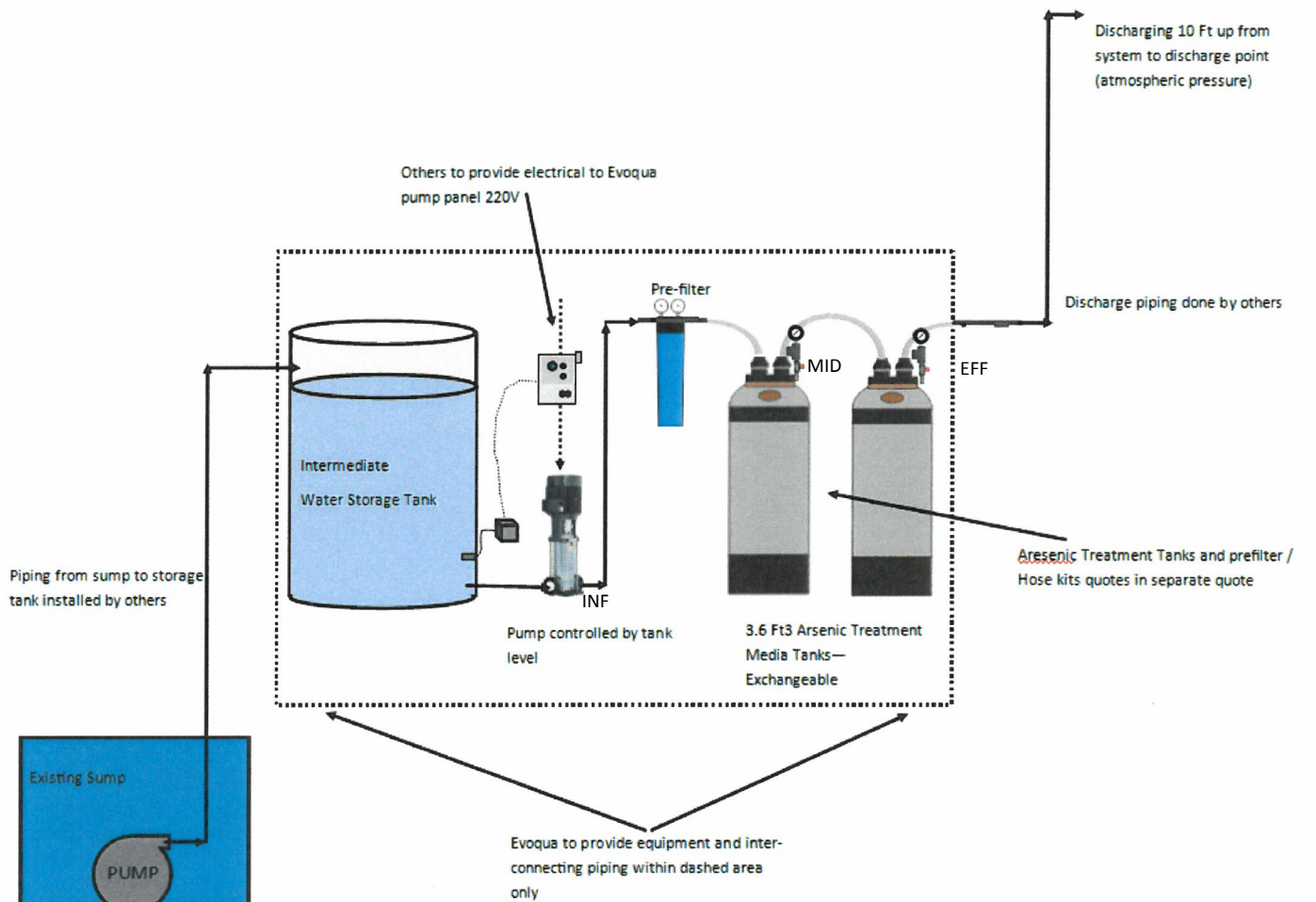
EPA = US Environmental Protection Agency

GPM = gallons per minute

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

ATTACHMENT A
BASIC CONCEPTUAL DRAWING OF PERMANENT ARSENIC TREATMENT
SYSTEM



LEGEND

INF - Pre-treatment System Monitoring Port
MID - Mid-treatment System Monitoring Port
EFF - Post-treatment Effluent Water Monitoring Port

ATTACHMENT B
LABORATORY ANALYTICAL REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 1, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on April 27, 2020 from the SOU_1249-001-06_ 20200427, F&BI 004310 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Jonathan Loeffler
SOU0501R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 27, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_20200427, F&BI 004310 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
004310 -01	1249_GW_INF_20200426
004310 -02	1249_GW_MID_20200426
004310 -03	1249_GW_EFF_20200426

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_INF_20200426	Client:	SoundEarth Strategies
Date Received:	04/27/20	Project:	SOU_1249-001-06_20200427
Date Extracted:	04/28/20	Lab ID:	004310-01
Date Analyzed:	04/28/20	Data File:	004310-01.038
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	12.1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_MID_20200426	Client:	SoundEarth Strategies
Date Received:	04/27/20	Project:	SOU_1249-001-06_20200427
Date Extracted:	04/28/20	Lab ID:	004310-02
Date Analyzed:	04/28/20	Data File:	004310-02.039
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	6.11
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_EFF_20200426	Client:	SoundEarth Strategies
Date Received:	04/27/20	Project:	SOU_1249-001-06_20200427
Date Extracted:	04/28/20	Lab ID:	004310-03
Date Analyzed:	04/28/20	Data File:	004310-03.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_ 20200427
Date Extracted:	04/28/20	Lab ID:	I0-240 mb2
Date Analyzed:	04/28/20	Data File:	I0-240 mb2.037
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/20

Date Received: 04/27/20

Project: SOU_1249-001-06_ 20200427, F&BI 004310

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 004295-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	94	89	70-130	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	99	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

004310

SAMPLE CHAIN OF CUSTODY

ME 04/27/20

A-13

Send Report to Chris Cass; Chris Carter; Jon Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.

Ballard Blocks II Property; Subgrade
Water Quality Monitoring

PO #

1249-001-06

REMARKS

Page # 1 of 1

TURNAROUND TIME

Standard (2 Weeks) 5 day

RUSH 24 hr TAT 87

Rush charges authorized by:

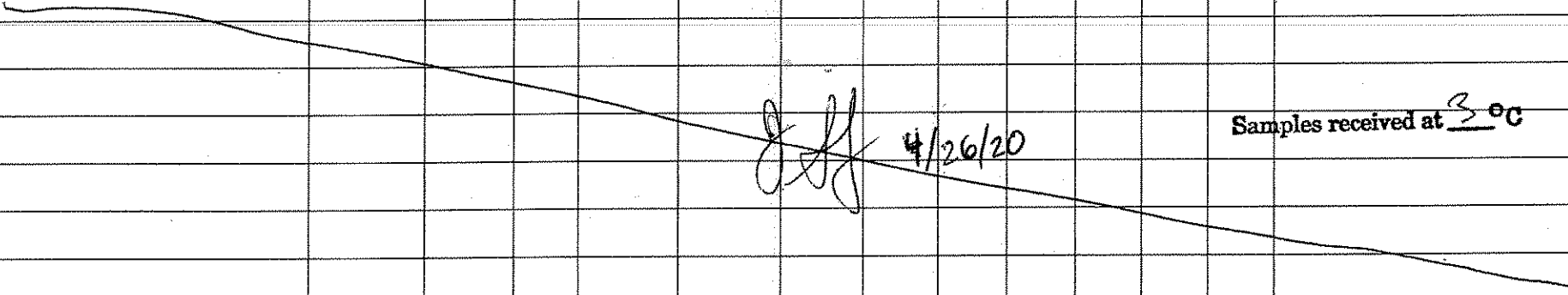
Chris Cass

SAMPLE DISPOSAL

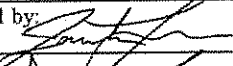
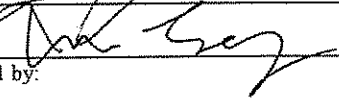
Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED					Notes
								Total Arsenic (200.8)					
1249_GW_INF_20200426	Influent	N/A	01	4/26/20	1400	WATER	1	X					HNO ₃ preserved
1249_GW_MID_20200426	Mid-Treatment	N/A	02	4/26/20	1350	WATER	1	X					HNO ₃ preserved
1249_GW_EFF_20200426	Effluent	N/A	03	4/26/20	1340	WATER	1	X					HNO ₃ preserved
													
												Samples received at 3°C	



SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	JONATHAN LOEFFLER	SOUNDEARTH	4/27/20	1710
Received by: 	Isaac Lessig	FBI	4/27/20	17:10
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 29, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on May 27, 2020 from the SOU_1249-001-06_ 20200527, F&BI 005330 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Jonathan Loeffler
SOU0529R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 27, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_ 20200527, F&BI 005330 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
005330 -01	1249_GW_INF_20200523
005330 -02	1249_GW_MID_20200523
005330 -03	1249_GW_EFF_20200523

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_INF_20200523	Client:	SoundEarth Strategies
Date Received:	05/27/20	Project:	SOU_1249-001-06_20200527
Date Extracted:	05/27/20	Lab ID:	005330-01
Date Analyzed:	05/27/20	Data File:	005330-01.075
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	15.4
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_MID_20200523	Client:	SoundEarth Strategies
Date Received:	05/27/20	Project:	SOU_1249-001-06_20200527
Date Extracted:	05/27/20	Lab ID:	005330-02
Date Analyzed:	05/27/20	Data File:	005330-02.076
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	8.01
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_EFF_20200523	Client:	SoundEarth Strategies
Date Received:	05/27/20	Project:	SOU_1249-001-06_20200527
Date Extracted:	05/27/20	Lab ID:	005330-03
Date Analyzed:	05/27/20	Data File:	005330-03.077
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_20200527
Date Extracted:	05/27/20	Lab ID:	I0-301 mb
Date Analyzed:	05/27/20	Data File:	I0-301 mb.048
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/29/20

Date Received: 05/27/20

Project: SOU_1249-001-06_ 20200527, F&BI 005330

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 005321-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.70	89	87	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	90	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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fb - The analyte was detected in the method blank.

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hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

005330

SAMPLE CHAIN OF CUSTODY

ME 05/27/20

AT3

Send Report to Chris Cass; Chris Carter; Jonathan LoefflerCompany SoundEarth Strategies, Inc.Address 2811 Fairview Avenue E. Suite 2000City, State, ZIP Seattle, Washington 98102Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

Jonathan Loeffler

PROJECT NAME/NO.

Ballard Blocks II Property; Arsenic
Treatment System Water Sampling

PO #

1249-001-06

REMARKS

Page # 1 of 1

TURNAROUND TIME

(Standard (5 days))

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED						Notes
								Total Arsenic (200.8)						
1249_GW_INF_20200523	Influent	N/A	01	5/23/20	1855	WATER	1	X						HNO ₃ preserved
1249_GW_MID_20200523	Mid-Treatment	N/A	02	5/23/20	1850	WATER	1	X						HNO ₃ preserved
1249_GW_EFF_20200523	Effluent	N/A	03	5/23/20	1845	WATER	1	X						HNO ₃ preserved
<i>[Signature]</i> 5/23/20														



SoundEarth
Strategies

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>[Signature]</i>	JONATHAN LOEFFLER	SOUNDEARTH	5/27/20	1015
Received by: <i>[Signature]</i>	S. O'Brien	F&B, Inc	5/27/20	10:58
Relinquished by:				
Received by:		Samples received at <u>3</u> °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 29, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on May 27, 2020 from the SOU_1249-001-06/210_20200527, F&BI 005331 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Jonathan Loeffler
SOU0529R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 27, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_ 1249-001-06/210_ 20200527, F&BI 005331 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
005331 -01	1249_SSGW_20200523

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_SSGW_20200523	Client:	SoundEarth Strategies
Date Received:	05/27/20	Project:	SOU_ 1249-001-06/210_ 20200527
Date Extracted:	05/27/20	Lab ID:	005331-01
Date Analyzed:	05/27/20	Data File:	005331-01.078
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	10.0
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_ 1249-001-06/210_ 20200527
Date Extracted:	05/27/20	Lab ID:	I0-301 mb
Date Analyzed:	05/27/20	Data File:	I0-301 mb.048
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/29/20

Date Received: 05/27/20

Project: SOU_ 1249-001-06/210_ 20200527, F&BI 005331

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 005321-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.70	89	87	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	90	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

005331

SAMPLE CHAIN OF CUSTODY

ME 05/27/20

AI3

Send Report to Chris Cass; Chris Carter; Jonathan Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.

PO #

Ballard Blocks II Property. — Subgrade
Groundwater Monitoring

1249-001-06 /
210

REMARKS

Page # 1 of 1

TURNAROUND TIME

Standard (5 day)

RUSH

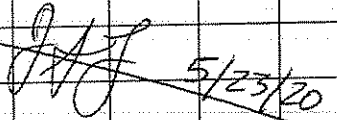
Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED						Notes
								Total As (200.8)						
1249_SSGW_20200523	Sub slab GW	N/A	01	5/23/20	1810	WATER	1	X						HNO ₃ preserved
														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	JONATHAN LOEFFLER	SOUNDEARTH	5/27/20	1015
Received by: 	S. D. BROWN	FJB, Inc.	5/27/20	10:18
Relinquished by:				
Received by:		Samples received at	3	°C



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 26, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on June 23, 2020 from the SOU_1249-001-06_ 20200623, F&BI 006393 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Jonathan Loeffler
SOU0626R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 23, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_ 20200623, F&BI 006393 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
006393 -01	1249_GW_INF_20200623
006393 -02	1249_GW_MID_20200623
006393 -03	1249_GW_EFF_20200623

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_INF_20200623	Client:	SoundEarth Strategies
Date Received:	06/23/20	Project:	SOU_1249-001-06_20200623
Date Extracted:	06/24/20	Lab ID:	006393-01
Date Analyzed:	06/24/20	Data File:	006393-01.060
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	22.3
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_MID_20200623	Client:	SoundEarth Strategies
Date Received:	06/23/20	Project:	SOU_1249-001-06_20200623
Date Extracted:	06/24/20	Lab ID:	006393-02
Date Analyzed:	06/24/20	Data File:	006393-02.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	11.6
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_EFF_20200623	Client:	SoundEarth Strategies
Date Received:	06/23/20	Project:	SOU_1249-001-06_20200623
Date Extracted:	06/24/20	Lab ID:	006393-03
Date Analyzed:	06/24/20	Data File:	006393-03.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	1.67
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_ 20200623
Date Extracted:	06/24/20	Lab ID:	I0-366 mb
Date Analyzed:	06/24/20	Data File:	I0-366 mb.046
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/26/20

Date Received: 06/23/20

Project: SOU_1249-001-06_ 20200623, F&BI 006393

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 006331-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	3.57	96	93	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	92	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

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fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

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ht - The analysis was performed outside the method or client-specified holding time requirement.

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ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

AI3

Send Report to Chris Cass; Chris Carter; Jonathan Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.

PO #

Ballard Blocks II Property; Arsenic
Treatment System Water Sampling

1249-001-06

REMARKS

Page # 1 of 1

TURNAROUND TIME

Standard (5 days)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

[illegible]

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	JONATHAN LOEFFLER	SOUNDEARTH	6/23/20	1900
Received by: 	BISRAT TAPESSE	FBI	+	+
Relinquished by:				
Received by:				

Sample received at 3

Samples received at 3 °C

