

APPENDIX A

PHOTO LOG

Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date:

08/05/2022

Photograph: 1

Description:

A wooden stake marks the proposed location of a new monitoring well.



Photographer:

Joshua Fletcher

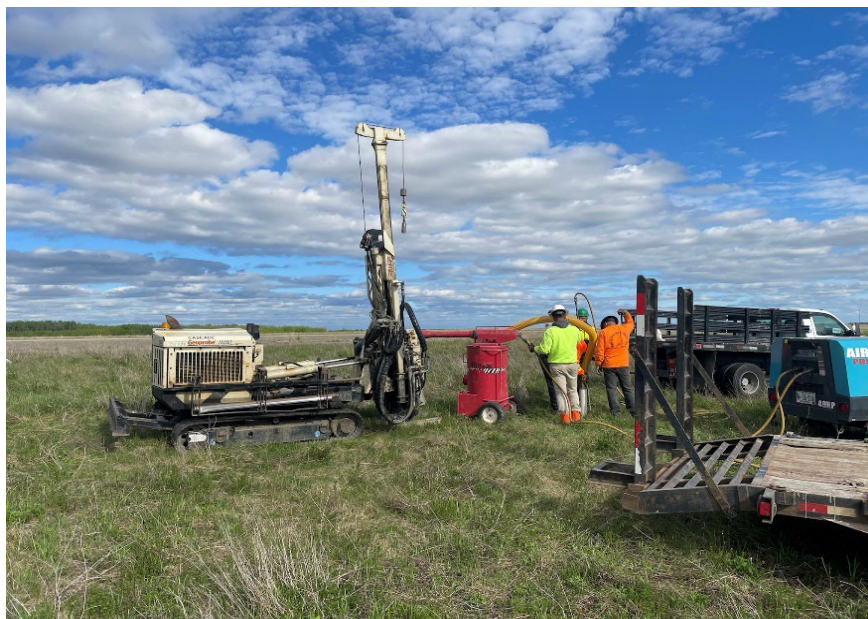
Date:

05/20/2022

Photograph: 2

Description:

Air knifing soil borings at Structural Fire Station down to 6 feet below ground surface prior to drilling.



Appendix A PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Nathan Hershey

Date:

10/18/2023

Photograph:

3

Description:

A stake marks where an obstruction was observed during the pre-clearing process for proposed boring SB05031.



Photographer:

Joshua Fletcher

Date:

06/14/2022

Photograph:

4

Description:

Drilling with the TerraSonic TSI 150 CC drill "Minisonic" at BW18007 .



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Corey King

Date:

7/9/2024

Photograph:

5

Description:

Drilling with the Boart Longyear LS600 at BW06009S/I/D.



Photographer:

Joshua Fletcher

Date:

05/22/2022

Photograph:

6

Description:

Drilling with the RotoSonic Boart Longyear LS250 drill "Minisonic" in the main runway area.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Jerry Rawcliffe

Date:

08/01/2024

Photograph:

7

Description:

Drilling with a Mobile B53 drill rig at BW24001.



Photographer:

Zachary Pierce

Date:

08/08/2022

Photograph:

8

Description:

Drilling SB24003 with Geoprobe (direct push) 7822 DT drill at the Former Jet Engine Test Cell.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Natalie Meenan

Date: 09/26/2024

Photograph: 9

Description:

Soil cores from direct push drilling at SB07036 staged for soil logging and sampling.



Photographer:

Joshua Fletcher

Date: 08/18/2022

Photograph: 10

Description:

WSP (L. Devine and E. Bagley) logging soils from SB21005.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Hannah Mellecker

Date: 08/16/2022

Photograph: 11

Description:

Soil sample from 15 to 25 feet below ground surface at BW22001.



Photographer:

Hannah Mellecker

Date: 08/17/2022

Photograph: 12

Description:

Rock core sample from 75 to 85 feet below ground surface at BW22001.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Jerry Rawcliffe

Date:

08/01/2024

Photograph:

13

Description:

Rock core sample from 92 to 94.5 feet below ground surface at BW24001.



Photographer:

Jerry Rawcliffe

Date:

06/16/2024

Photograph:

14

Description:

Rock chips from drilling 27 to 142 feet below ground surface at site BW05014.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Ryan Ordnung

Date:

07/24/2024

Photograph:

15

Description:

WSP (F. Dorn) logs
bedrock core from sonic
drilling at
BW05013S/D.



Photographer:

Lindsey Papa

Date:

08/06/2024

Photograph:

16

Description:

WSP (H. Braddish) logs
a soil core from
rotary/drive and wash
drilling at OW05006.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Jerry Rawcliffe

Date:

07/30/2024

Photograph:

17

Description:

The drill bit for New England Boring's Mobile B53 drill rig.



Photographer:

Jerry Rawcliffe

Date:

05/17/2022

Photograph:

18

Description:

Sonic core barrel (sampler) used for sonic drilling.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Jerry Rawcliffe

Date:

08/02/2024

Photograph:

19

Description:

Rotary/drive and wash drilling tooling laid out after drilling BW24001.



Photographer:

Jerry Rawcliffe

Date:

08/09/2024

Photograph:

20

Description:

PVC well riser at the drilling location in preparation for well installation.



Appendix A PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Jerry Rawcliffe

Date: 05/19/2022

08/09/2024

Photograph: 21

Description:

#0S and #1S Holliston sand used as filter pack in monitoring wells.



Photographer:

Jerry Rawcliffe

Date: 08/09/2024

Photograph: 22

Description:

Pel-Plug bentonite pellets used in well installation.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Jerry Rawcliffe

Date: 5/19/2022

Photograph: 23

Description:

Puregold Grout used for setting well installations and filling soil borings after logging.



Photographer:

Jerry Rawcliffe

Date: 06/28/2024

Photograph: 24

Description:

Cascade installs a well at BW6009.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Ethan Yan

Date: 7/26/2022

Photograph: 25

Description:

Completed
flushmount well at
BW06008.



Photographer:

Madeline Bruno

Date: 08/23/2022

Photograph: 26

Description:

Bollards installed
around a
completed stick-up
monitoring well at
BW01009.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date:

10/03/2022

Photograph: 27

Description:

Cold patch applied to a soil boring in the arch hanger area.



Photographer:

Joshua Fletcher

Date:

08/22/2022

Photograph: 28

Description:

Geophysical logging in progress at borehole GC_BW002.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date:

08/22/2022

Photograph: 29

Description:

Northeast Geophysics
(R. Rawcliffe)
interprets live
geophysics data.



Photographer:

Zachary Pierce

Date:

08/07/2022

Photograph: 30

Description:

A lysimeter is installed
in the Crash Fire Area.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:
Zachary Pierce

Date: 08/15/2022

Photograph: 31

Description:

Sil-co-sil® silica sand used as filter pack during the lysimeter installation.



Photographer:
Zachary Pierce

Date: 08/15/2022

Photograph: 32

Description:

Mixing silica sand to include as filter pack for a lysimeter installation.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Zachary Pierce

Date: 08/15/2022

Photograph: 33

Description:

Installing silica sand around the lysimeter.



Photographer:

Zachary Pierce

Date: 08/15/2022

Photograph: 34

Description:

An example of a completed lysimeter prior to casing installation.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date: 10/02/2022

Photograph: 35

Description:

WSP (E. Bagley and S. Cochrane) collects a lysimeter sample at LSY05012.



Photographer:

Madeline Bruno

Date: 05/07/2022

Photograph: 36

Description:

County Environmental (M. Hersey) develops a well in the Fire Training Area.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Stephen Cochrane

Date:

08/21/2022

Photograph:

37

Description:

Cascade uses a Waterra® Hydrolift pump to develop a deep bedrock well.



Photographer:

Madeline Bruno

Date:

08/30/2022

Photograph:

38

Description:

WSP (M. Turner) conducts development after a monitoring well installation.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Eric Bagley

Date:

03/20/2024

Photograph:

39

Description:

WSP downloads water level readings from a pressure transducer installed in well AA20MW-01.



Photographer:

Hannah Mellecker

Date:

09/16/2022

Photograph:

40

Description:

WSP (L. Fales) conducts well gauging at JBW8004B as part of a synoptic gauging round.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date: 09/29/2022

Photograph: 41

Description:

A typical low-flow groundwater sampling set-up using a bladder pump at BW05011D.



Photographer:

Eric Bagley

Date: 10/01/2022

Photograph: 42

Description:

A typical low-flow groundwater sampling set-up using a submersible pump at BW08003.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Benjamin Paulus

Date:

5/22/2023

Photograph:

43

Description:

A typical low-flow groundwater sampling set-up using a peristaltic pump and a granular activated carbon treatment bucket at JMW1762.



Photographer:

Reid Fedors

Date:

8/14/2024

Photograph:

44

Description:

WSP (H. Braddish) conducts surface water sampling in support of the ecological risk assessment



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Dodi Keleman

Date: 06/19/2022

Photograph: 45

Description:

WSP (S. Erickson) collects a surface water sample.



Photographer:

Michael Lounsbury

Date: 08/08/2022

Photograph: 46

Description:

Surface water intake sampling location.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Nathan Demers

Date:

09/18/2024

Photograph:

47

Description:

Stream gauge at LSG-11.



Photographer:

Nathan Demers

Date:

09/18/2024

Photograph:

48

Description:

Flooded stream gauge at LSG-4.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Eric Bagley

Date:

06/06/2024

Photograph: 49

Description:

WSP (T. Gerhard) installs flowmeters in storm sewers C1, C2, and C3.



Photographer:

Lindsey Papa

Date:

10/08/2024

Photograph: 50

Description:

Storm sewers C1, C2, and C3 during peak flow sampling conditions after a rain event.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Eric Bagley

Date:

09/19/2022

Photograph:

51

Description:

WSP (S. Schultz) digs to collect a foraging hydric soil sample on Mi'kmaq Nation property.



Photographer:

Eric Bagley

Date:

07/21/2022

Photograph:

52

Description:

WSP (M. Vinci) collects a shallow groundwater sample.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Lindsey Papa

Date: 05/31/2023

Photograph: 53

Description:

WSP (S. Cochrane) uses a hand auger to collect a soil sample in the Burn House area.



Photographer:

Tige Cunningham

Date: 8/14/2024

Photograph: 54

Description:

A soil sample is homogenized and collected from 0 to 2 feet below ground surface in the Burn House area.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Zachary Pierce

Date:

08/15/2022

Photograph:

55

Description:

WSP (B. Robinson) screens soils in advance of collecting a Leaching Environmental Assessment Framework (LEAF) sample.



Photographer:

Tige Cunningham

Date:

05/22/2024

Photograph:

56

Description:

WSP (H. Mellecker) collects a labrador tea sample in support of the human health ecological risk assessment.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Tige Cunningham

Date:

08/13/2024

Photograph:

57

Description:

WSP (T. Sultan) sets up mouse traps for terrestrial biota sampling in support of the ecological risk assessment.



Photographer:

Tige Cunningham

Date:

08/15/2024

Photograph:

58

Description:

WSP (T. Sultan) collects terrestrial invertebrates in support of the ecological risk assessment.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Reid Fedors

Date:

08/14/2024

Photograph:

59

Description:

Fish samples collected in support of the ecological risk assessment.



Photographer:

Brad LaForest

Date:

10/05/2022

Photograph:

60

Description:

Brook trout caught from Noyes Pond for fish tissue sampling in support of the human health risk assessment.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Michael Lounsbury

Date:

10/22/2021

Photograph:

61

Description:

A pressure tank sampled as part of the drinking water sampling program.



Photographer:

Maddy Bruno

Date:

05/17/2022

Photograph:

62

Description:

Drilling water being delivered from Limestone prior to assembly of the mobile investigation derived waste treatment system.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Michael Lounsbury

Date: 04/28/2022

Photograph: 63

Description:

The investigation derived waste system set up to treat water from investigation activities.



Photographer:

Maddy Bruno

Date: 05/07/2022

Photograph: 64

Description:

WSP (B. Robinson) puts purge water into a holding tote so that it can be put through the investigation derived waste system for treatment.



Appendix A **PFAS Remedial Investigation Site Characterization Summary Report Photographic Log**

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Eric Bagley

Date: 09/27/2022

Photograph: 65

Description:

Carbon tanks that were part of the wastewater treatment system in 2022.



Photographer:

Eric Bagley

Date: 09/27/2022

Photograph: 66

Description:

Water flows between sections in the settling tank as part of the 2022 wastewater treatment system.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date:

09/13/2022

Photograph:

67

Description:

A rolloff filled with soil and rock from drilling activities is removed from the site by subcontractor Goulet in 2022.



Photographer:

Josh Fletcher

Date:

05/24/2022

Photograph:

68

Description:

WSP (H. Mellecker and M. Lounsbury) collects a sample of solid investigation derived waste for analysis.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Eric Bagley

Date:

11/14/2024

Photograph: 69

Description:

An investigation derived waste roll off is removed from the site at the end of the 2024 field season.



Photographer:

Lindsey Papa

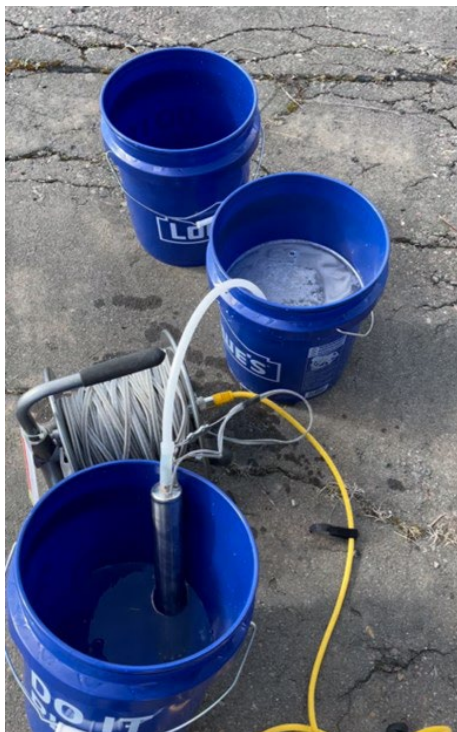
Date:

05/05/2022

Photograph: 70

Description:

Decontamination of non-dedicated sampling equipment.



Appendix A PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date:

05/20/2022

Photograph: 71

Description:

Drilling rods set up on a decontamination pad to be decontaminated prior to being moved to a new location.



Photographer:

Tige Cunningham

Date:

08/13/2024

Photograph: 72

Description:

Decontamination of soil sampling equipment.



Appendix A
PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Joshua Fletcher

Date:

05/20/2022

Photograph: 73

Description:

A roll-off containing investigation derived waste is removed from the site.



Photographer:

Michael Lounsbury

Date:

05/18/2023

Photograph: 74

Description:

WSP (E. Holt and B. Paulus) calibrate water parameter equipment prior to collecting samples.



Appendix A PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Madeline Bruno

Date: 05/21/2022

Photograph: 75

Description:

WSP holds a health and safety meeting prior to conducting work for the day.



Photographer:

Jerry Rawcliffe

Date: 07/07/2022

Photograph: 76

Description:

Drilling at location EBGB_BW001 with traffic control in place.



Appendix A PFAS Remedial Investigation Site Characterization Summary Report Photographic Log

Contract: FA8903-16-D-0027

Project Number: 775361701

Task Order: 1048

Installation: Loring

Photographer:

Savannah Wunderlich

Date:

05/16/2024

Photograph: 77

Description:

Cascade Environmental's Boart Longyear LS600 drilling rig within an established exclusion zone.



Photographer:

Michael Lounsbury

Date:

8/21/2024

Photograph: 78

Description:

WSP completes well development on a well with high pH wearing additional health and safety gear.

