L NYSDEC Material Handling Letter and Response

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management, Region 3
21 South Putt Corners Road, New Paltz, NY 12561-1620
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August 7, 2018

Stephen Kline
GZA Geoenvironmental of New York
stephen.kline@gza.com

Re: Hampshire Country Club Redevelopment, 1025 Cove Road, Mamaroneck, Westchester County

Dear Mr. Kline,

The Division of Materials Management has finished its review of the August 1, 2018 letter and attached Redevelopment Plan and Phase II Investigation submitted by GZA on behalf of the Hampshire Country Club Redevelopment project located at 1025 Cove Road, Mamaroneck, Westchester County.

The Division of Materials Management has determined that the proposed re-use of on-site soils as part of a cut and fill program meets the conditional exemption found in 6NYCRR Part 360.13(c) which states:

(c) Exemption for on-site reuse of fill material. Fill material used as backfill for the excavation from which the fill material was taken or as fill in areas of similar physical characteristics on the project property is exempt form regulation under this Part. If fill material exhibits historical or visual evidence of contamination (including odors), and will be used in an area with public access, the relocated fill material must be covered with a minimum of 12 inches of soil or fill material that meets the criteria for general fill, as defined in this Part. This provision does not apply to sites which are subject toa department approved or undertaken program pursuant to Part 375 of this Title.

Therefore, the soils for this project that are proposed for re-use that meet the conditions of the above exemption cease to be regulated by Part 360.

If you have any questions regarding this matter, please do not hesitate to call me at (845) 256-3134.

Sincerely,

Lee E. Reiff
Region 3, Division of Materials Management

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CONSTRUCTION MANAGEMENT

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August 1, 2018
File No. 41.0162548.00

Lee Reiff, Environmental Program Specialist
New York State Department of Environmental Conservation - Region 3
21 South Putt Corners Road
New Paltz, NY 12561

Re: Hampshire Country Club Redevelopment
1025 Cove Road,
Mamaroneck, NY 10543
6 NYCRR 360.13(c) - Exemption for On-Site Reuse of Excavated Material

Dear Mr. Reiff:

Pursuant to the Title 6 of the New York Codes of Rules and Regulation Part 360 Solid Waste Management Facilities General Requirements (6 NYCRR Part 360), GZA GeoEnvironmental of New York (GZA) requests a review by the New York State Department of Environmental Conservation (NYSDEC) regarding an exemption for on-Site reuse of excavated material during the proposed redevelopment of the Hampshire Country Club property located at 1025 Cove Road, Mamaroneck, New York (the Site). The property is currently used as a private country club with amenities including: an 18-hole golf course, tennis courts, a swimming pool, and club buildings. A proposed planned residential development project for the Site is currently going through an Environmental Impact Statement (EIS) review for the Village of Mamaroneck Planning Board and Board of Appeals.

PROJECT BACKGROUND

The approximately 130-acre Site is known as Hampshire Country Club (see the Existing Conditions Plan in **Attachment A**). The country club is identified in the Village of Mamaroneck Section 9, and the following assessor's block and lot numbers:

Block 35: Lot 700,
Block 36: Lot 1
Block 42: Lots 367, 568, 659
Block 43: Lots 1, 12

The proposed planned residential development consists of the construction of 105 units of single-family homes and town homes with associated roadways, utilities, detention ponds, and recreational facilities. Currently, the Site is comprised of an 18-hole golf course with rolling terrains, elevated tees, and elevated greens.

The construction project involves leveling a 55.6-acre area of the Site and creating a development platform by raising the existing grade for the base of the building foundations. To accomplish this, approximately 84,000 cubic yards of soil will be required to construct a new roadway and development platform. On-Site excavated material is planned to be reused through a cut and fill program to the extent possible. The on-Site soils will then be covered by a minimum 1-foot layer of certified clean fill that will be purchased and

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transported to the Site to be used as part of the construction project until the final development platform grades are reached. The proposed redevelopment plan is provided in **Attachment A**.

ON-SITE SOIL CONDITIONS

GZA completed a Phase I Environmental Site Assessment (Phase I ESA) for the property in April 2016 and a Phase II Environmental Site Investigation (Phase II ESI) dated April 2016. Pesticides and herbicides are commonly used on golf courses and other recreational areas to maintain the health and appearance of the turf. The Site has been a golf course with maintained turf since the 1930s. Standard practice for this industry would include the direct, surface application of pesticides and herbicides (including lead arsenate) and other potential turf maintenance chemicals. These turf maintenance chemicals typically adsorb to the soil.

As described in the Phase II ESI, GZA collected samples of the shallow soils and sediments (0-24 inches below ground surface) to assess the presence of these chemicals. GZA collected 42 samples from 21 individual shallow soil borings (SS-01 through SS-21) across the Site. GZA collected soil samples from two intervals at each location: 1) "surface soil" (a sample at a depth of 0-6 inches), and 2) "subsurface soil" (a sample at a depth of 18-24 inches). In addition, six sediment samples (SED-01 through SED-06) were collected from on-Site ponds. The sampling locations were selected to obtain representative coverage of the Site including the proposed redevelopment area. Soil samples were analyzed for arsenic, lead, organochlorine pesticides, and chlorinated herbicides. The Phase II ESI completed by GZA is provided as **Attachment B**. The results of the Phase II ESI soil sampling are summarized below.

- No visual evidence (including odors) of chemical or physical contamination were observed during Phase II ESI sampling.
- Laboratory analyses reported no potentially hazardous concentrations of the analyzed parameters.
- Arsenic was identified in 8 of the 21 surface soil samples, and 4 of the 21 subsurface soil samples at concentrations that exceeded its Unrestricted Use Soil Cleanup Objective (SCO). The concentrations of arsenic identified in six of the surface samples and two of the subsurface samples also exceeded the Restricted Use SCO. However, the average observed arsenic concentration was less than Residential Use SCOs.
- Lead was identified in 7 of the 21 surface samples and 3 of the 21 subsurface samples at concentrations exceeding its Unrestricted Use SCO. None of the identified lead concentrations exceeded the Restricted Use SCO.
- Six pesticides were detected in the surface soil samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations that exceeded the Unrestricted Use SCO. Pesticides concentrations exceeding the Unrestricted Use SCO were identified in 20 of the 21 surface soil samples. The pesticides 4,4'-DDE, 4,4'-DDT and Dieldrin were identified in three of these locations (SS-06 0-6, SS-07 0-6, and SS-15 0-6) at concentrations that also exceeded the Residential Use SCO.
- Eight pesticides were identified in the 21 subsurface soil samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, delta-BHC, Dieldrin, and Endrin) at concentrations that exceeded the Unrestricted Use SCO. Pesticides concentrations exceeding the Unrestricted Use SCO were identified in 15 of the 21 subsurface soil samples. The pesticide Dieldrin was identified in one of these locations (SS-06 18-24) at a concentration that also exceeded the Residential Use SCO.
- No herbicides were detected in any of the surface or subsurface soil samples.

- The pesticides (including the historic application of lead arsenate) encountered are likely the result of the proper application in normal agricultural or horticultural practices.

SOIL HANDLING AND MANAGEMENT

During the first phase of the construction project, the contractor will regrade and consolidate soil from the planned development area shown in **Attachment A**. The excavated soil will be consolidated in a 41.7-acre development area in the center of the property; and therefore, meets the criteria for 6 NYCRR 360.13(c) – Exemption of On-Site Reuse of Fill Material. Although the Phase II ESI sampling showed some Site soils exhibited exceedances of their respective SCOs, the proposed development platform will cover the reused excavated material with a minimum 1-foot thick layer of certified clean fill purchased from an off-site source. Prior to backfilling with clean fill, all areas that are to be consolidated below the development platform will be covered by a demarcation layer to visually identify the separation between the imported clean fill and historical on-Site materials.

On behalf of the Owner, a Materials Handling Plan (MHP) will be developed for use by the contractor during the construction of the planned residential development. The MHP will detail the soil handling and stockpiling procedures, on-site soil reuse procedures, demarcation, and documentation of imported purchased, clean fill from off-site sources. The MHP will discuss erosion and sediment control procedures to implement corrective actions identified by a qualified inspector during a during construction and comply with the most current version of the New York State Pollutant Discharge Elimination System (SPDES) General Permit for storm water discharges from construction activities. In addition, a construction health and safety plan (CHASP) will be developed that details the identified chemical hazards and methods (such as dust control) to restrict exposure to workers and the community during construction. All soil intrusive activities will be performed in accordance with the MHP and CHASP for the Site.

If there is no visual evidence (including odors) of chemical or physical contamination discovered during excavation, then no additional sampling or analyses of reused excavated material is anticipated.

REQUEST FOR WRITTEN REVIEW COMMENTS

To address comments made during the Draft EIS review process, GZA requests written acknowledgement that the proposed on-Site reuse of the excavated materials (summarized herein) complies with 6 NYCRR 360.13(c), and the proposed self-assessment of these excavated materials prior to their reuse below the development platform (which will include a minimum 1-foot layer of clean fill) is appropriate for this proposed planned residential development.

Thank you. Please contact us should you have any additional questions regarding this matter.

Very truly yours,
GZA GEOENVIRONMENTAL OF NEW YORK

Reinbill Maniquez
Project Manager

Stephen M. Kline, P.E.
Associate Principal

ATTACHMENTS:

A. Proposed Redevelopment Plan
B. Phase II Environmental Site Investigation

ATTACHMENT A

PROPOSED REDEVELOPMENT PLAN

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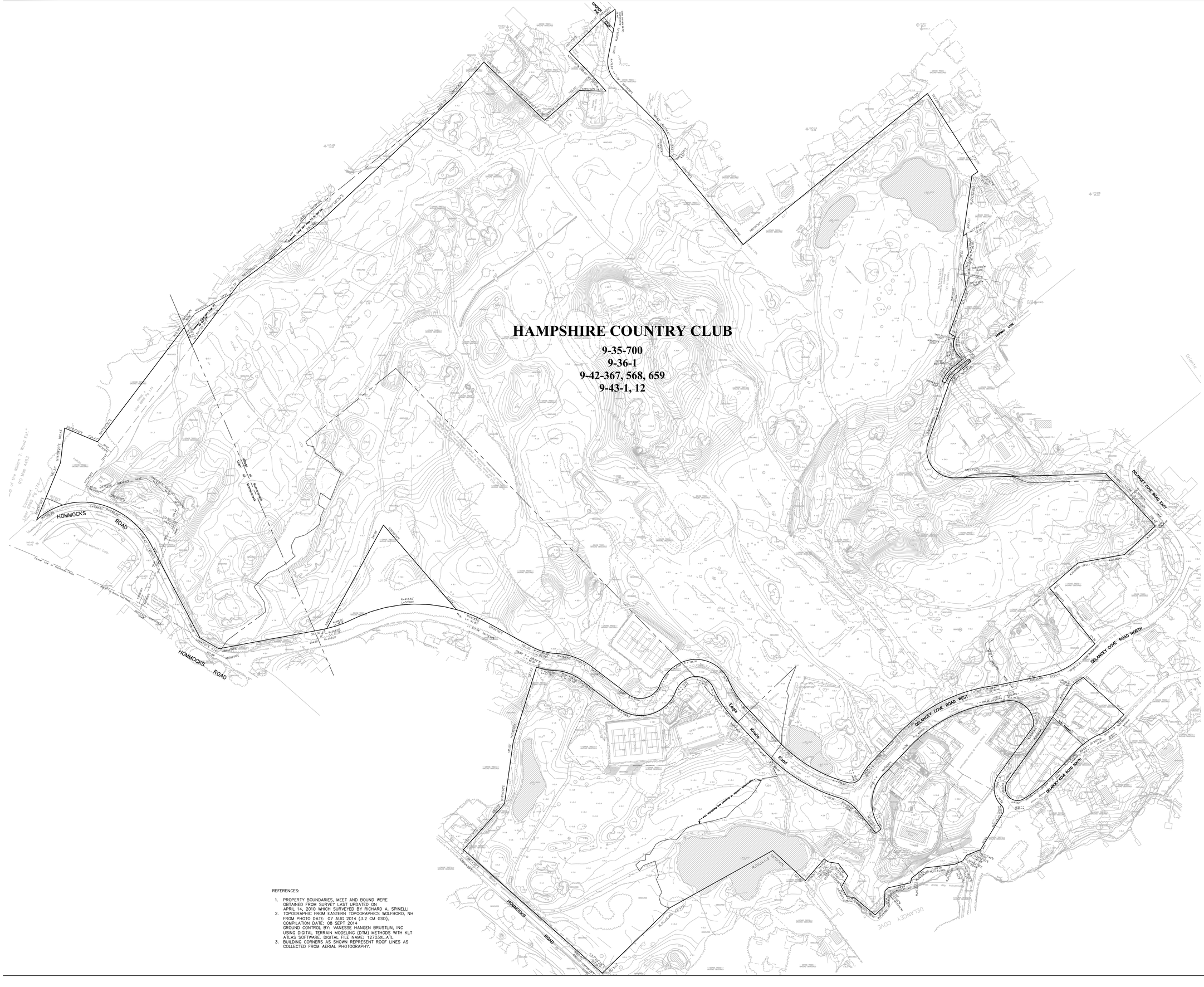
Saved Thursday, June 25, 2015 5:17:19 PM JCHEONG Plotted Thursday, June 25, 2015 5:18:00 PM Cheong, Jason



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SCALE IN FEET

REFERENCES:

1. PROPERTY BOUNDARIES, MEET AND BOUND WERE OBTAINED FROM SURVEY LAST UPDATED ON APRIL 14, 2010 WHICH SURVEYED BY RICHARD A. SPINELLI
2. TOPOGRAPHIC FROM EASTERN TOPOGRAPHICS WOLFBORO, NH FROM PHOTO DATE: 07 AUG 2014 (3.2 CM GSD), COMPILATION DATE: 08 SEPT 2014 GROUND CONTROL BY: VANESSE HANGEN BRUSTLIN, INC USING DIGITAL TERRAIN MODELING (DTM) METHODS WITH KLT ATLAS SOFTWARE. DIGITAL FILE NAME: 12703XLA7L
3. BUILDING CORNERS AS SHOWN REPRESENT ROOF LINES AS COLLECTED FROM AERIAL PHOTOGRAPHY.

VHB
Vanasse Hangen Brustlin, Inc.

Transportation
Land Development
Environmental Services

50 Main Street - Suite 360
White Plains, NY 10606
914.467.6600 • FAX 914.761.3759

No.	Revision	Date	Appvd.

Designed by JC	Drawn by JC	Checked by MWJ	
CAD checked by MWJ	Approved by MWJ		
Scale 1"=100'	Date September 8, 2014		

Project Title
Hampshire Country Club
Planned Residential Development (P.R.D.)

Village of Mamaroneck, NY

Issued for
VILLAGE REVIEW

NOT FOR CONSTRUCTION

Drawing Title
Existing Conditions Plan

Drawing Number
EX-1

Sheet of

Project Number
28677.02

STATE OF NEW YORK
MICHAEL W. JUNGHANS
072072
LICENSED PROFESSIONAL ENGINEER

Michael W. Junghans
N.Y. Professional Engineer
NY Lic. No. 072072

28677.02_EXISTING CONDITIONS.DWG

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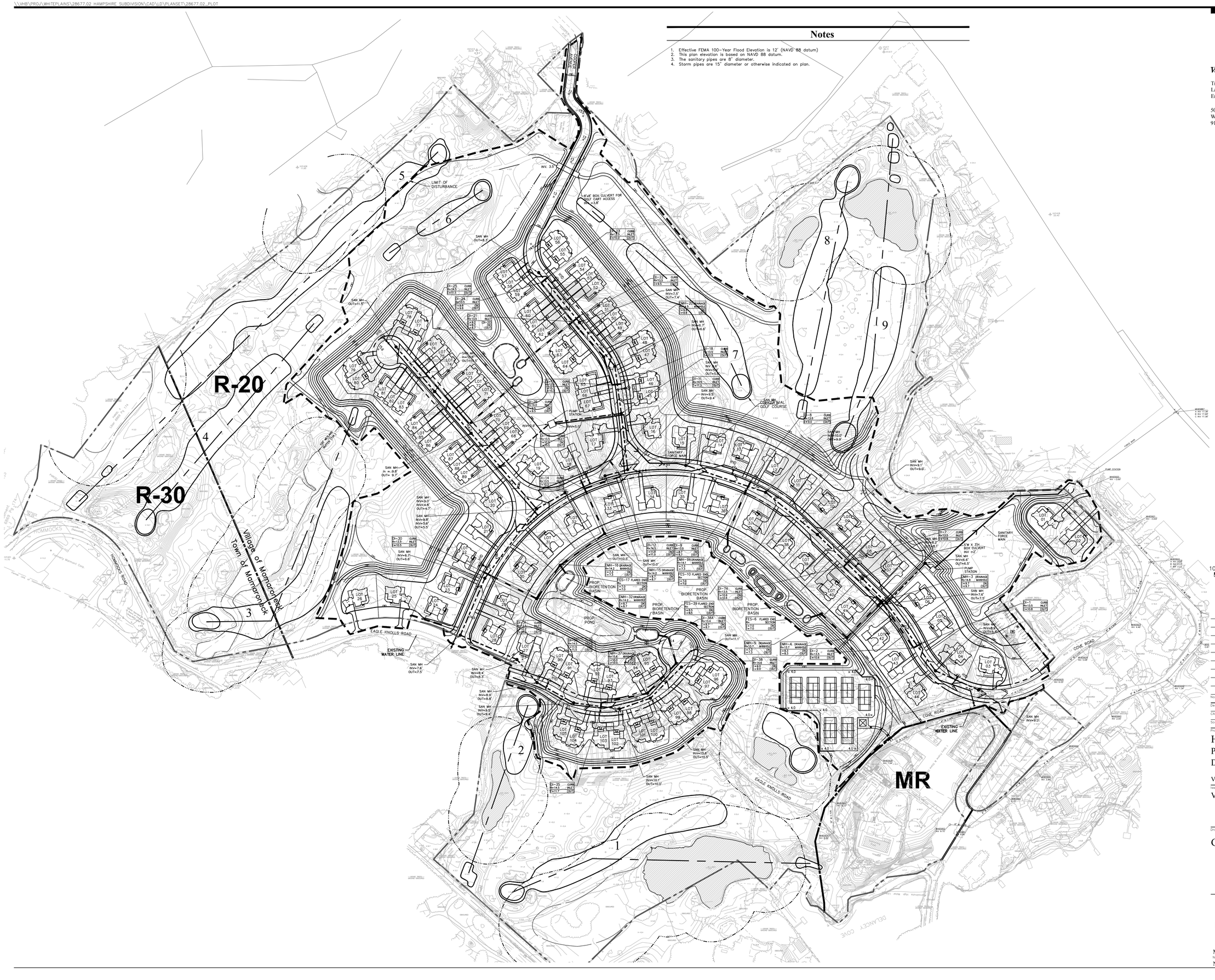
Saved Thursday, October 27, 2016 5:35:42 PM JCHEONG Plotted Thursday, October 27, 2016 5:45:43 PM Cheong, Jason

Notes

1. Effective FEMA 100-Year Flood Elevation is 12' (NAVD 88 datum)
2. This plan elevation is based on NAVD 88 datum.
3. The sanitary pipes are 8" diameter.
4. Storm pipes are 15" diameter or otherwise indicated on plan.



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White Plains, NY 10606
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No.	Revision	Date	Appvd
1	REVISED LAYOUT TO PRESERVE EXISTING GOLF COURSE	09/28/16	MWJ

Designed by	JC	Drawn by	JC
Checked by	MWJ	CAD checked by	MWJ
Approved by	MWJ	Scale	1"=100'
Date	June 25, 2015		

Project Title

Hampshire Country Club
Planned Residential Development (P.R.D.)

Village of Mamaroneck, NY

Issued for

VILLAGE REVIEW

NOT FOR CONSTRUCTION

Drawing Title

Grading & Utility Plan

Drawing Number

C-3

Sheet of

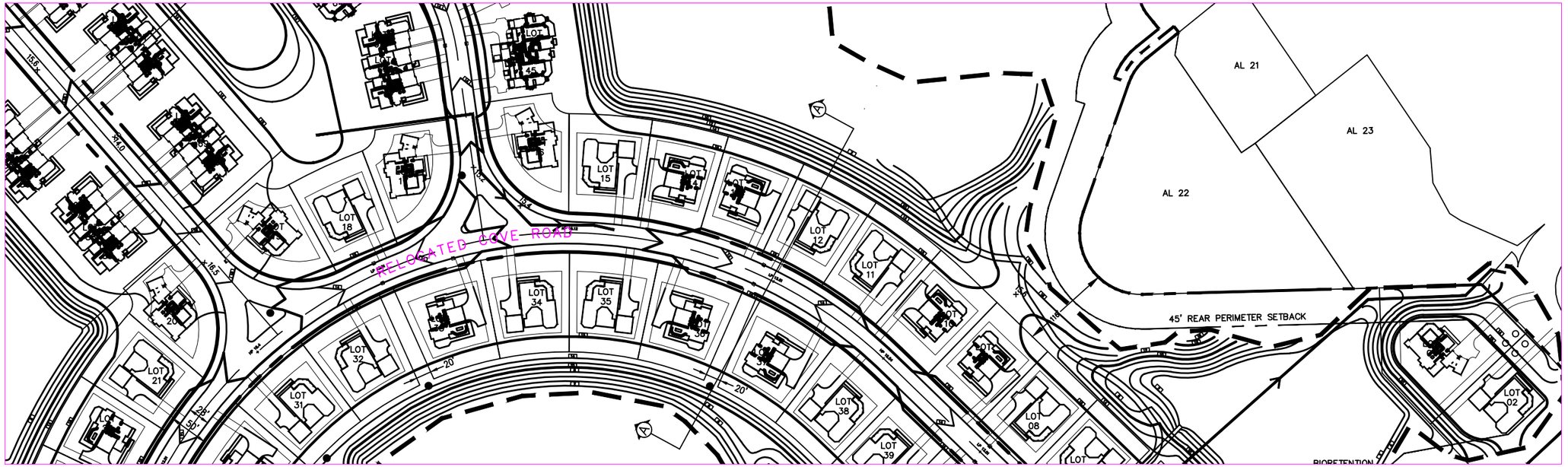
Project Number

28677.02

STATE OF NEW YORK — MICHAEL W. JUNGHANS — 072072 — LICENSED PROFESSIONAL ENGINEER

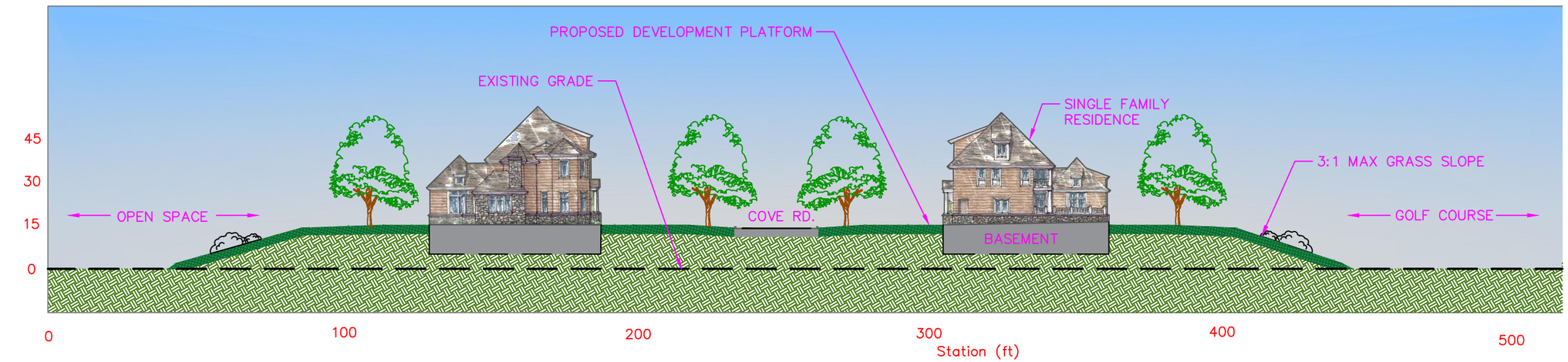
Michael W. Junghans
N.Y. Professional Engineer
NY Lic. No. 072072

28677.02_PLOT.DWG



PARTIAL PLAN

SCALE 1" = 150'



SECTION A–A

SCALE 1" = 40'

ATTACHMENT B

PHASE II ENVIRONMENTAL SITE INVESTIGATION

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WATER
CONSTRUCTION MANAGEMENT

LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NEW YORK 11219

PREPARED FOR:
VHB
50 Main Street, Suite 360
White Plains, New York 10606

PREPARED BY:
GZA GeoEnvironmental of New York
104 West 29th Street, 10th Floor
New York, New York 10001

April 2016

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April 25, 2016
File No.: 41.0162403.00

Michael W. Junghans
VHB
50 Main Street, Suite 360
White Plains, NY 10606

Re: Limited Phase II Environmental Site Investigation
Hampshire Country Club
1025 Cover Road
Mamaroneck, New York

Dear Mr. Junghans:

In accordance with our proposal dated December 30, 2015 (revised February 2, 2016), GZA GeoEnvironmental of New York (GZA) is pleased to provide the attached Limited Phase II Environmental Site Investigation Report.

We hope this satisfies your present needs. If you need any additional information, please call Stephen Kline or John Gavras at 212-594-8140.

Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK

Stephen M. Kline, P.E.
Senior Project Manager

Benjamin Alter, P.G.
Consultant Reviewer

John M. Gavras, P.G., CPG
Associate Principal

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1.0 INTRODUCTION

GZA GeoEnvironmental of New York (GZA) was retained by VHB (the Client) to perform a Limited Phase II Environmental Site Investigation (ESI) of Hampshire County Club, located at 1025 Cove Road, Mamaroneck, New York (Site). Fieldwork was performed from March 14 through March 16, 2016 in accordance with our proposal, dated December 30, 2015, and revised February 2, 2016.

1.1 Objectives

The primary objective of the Limited Phase II ESI was to collect and analyze shallow soil and sediment samples in order to assess the impacts of pesticide and herbicide usage at the Site on the proposed redevelopment of the Site.

1.2 Scope of Services

GZA implemented a specific scope of work that was developed by the Client. GZA's scope of services included the following activities:

- Collection of 21 shallow soil borings using hand tools;
- Description and classification of soil samples;
- Field screening of soil samples using a photoionization detector (PID);
- Collection of six sediment samples from on-Site water bodies;
- Laboratory analyses of 48 samples; and
- Preparation of this Limited Phase II ESI Report (Report).

This Report presents GZA's field observations, results, and opinions. This Report is subject to modification if subsequent information is developed by GZA, or any other party. This Report has been prepared in accordance with the limitations presented in **Appendix A**.

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2.0 PROJECT BACKGROUND

This section provides information regarding the past uses, ownership, and previous investigations performed of the Site.

2.1 Site Location and Description

The Site is located at 1025 Cove Road in Mamaroneck, New York. The Site is bounded by Delancey Cove to the south and residential neighborhoods to the north, west, and east. The border between the Village of Mamaroneck and the Town of Mamaroneck passes through the western portion of the Site. A Site Location Plan is attached as **Figure 1**.

The approximately 130-acre Site is known as Hampshire Country Club. The country club is identified in the Village of Mamaroneck Section 9, and the following assessor's block and lot numbers:

Block 35: Lot 700,
Block 36: Lot 1
Block 42: Lots 367, 568, 659
Block 43: Lots 1, 12

The southern section of the country club contains the clubhouse, a one-story, 35,000-square foot frame and stone building, which provides amenities including locker rooms, fitness rooms and dining areas. To the southwest of the primary clubhouse is the golf pro shop building, swimming pool, and swimming pool maintenance building. On the north side of Delancey Cove Road, is a caddy headquarters/golf cart-storage garage.

The central area is primarily compromised of the 18-hole golf course. Water hazards on the golf course consist of six artificially created ponds are located throughout the golf course. Various sand traps and landscaped hills are located throughout the golf course. A comfort station/restroom is located on the north side of the golf course.

The northern side of the Site contains the maintenance areas. The maintenance area consists of a workshop building, a chemical storage shed, an equipment storage building and an equipment storage shed.

2.2 Site and Area Use

The Site is occupied by Hampshire Country Club. It is a private country club consisting of a golf course, tennis courts, a swimming pool, and associated buildings. Eagle Knolls Road, which turns into Cove Road, passes through the southern side of the Site, to the north of the primary clubhouse and parking areas.

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2.3 Previous Investigations

GZA recently completed a Phase I Environmental Site Assessment (ESA) and a Preliminary Geotechnical Engineering Report as part of the redevelopment studies. The Client also provided GZA with excerpts from a subsurface investigation report performed in 2012. These three previous investigations are summarized below in chronological order.

Subsurface Investigation Boring Logs – East Coast Geoservices, LLC, dated July 2012

GZA reviewed soil-boring logs, dated July 2012, and prepared by East Coast Geoservices, LLC (ECG). ECG performed six soil borings at the Site (identified as B-1 through B-6). Groundwater was encountered at borings B-1 through B-3 at 5 feet below ground surface (bgs). Groundwater was encountered in boring B-4 at 10 feet bgs and in boring B-6 at 15 feet bgs. Groundwater was not encountered in boring B-5. The borings ranged in depth from 6 feet bgs (due to refusal) to 17 feet bgs (due to refusal). ECG assumed that drilling refusal was at the top of bedrock, but ECG did not conduct any rock coring to confirm the bedrock elevation. No environmental observations were noted on the boring logs.

Preliminary Geotechnical Engineering Report, prepared by GZA, dated March 18, 2016

GZA performed a geotechnical investigation at the Site and prepared a Preliminary Geotechnical Engineering Report, dated March 18, 2016. The geotechnical investigation consisted of six test borings (designated GZ-1 through GZ-6), drilled by Soil Testing, Inc. of Oxford, Connecticut, from February 29-March 1, 2016 using hollow-stem auger drilling techniques. Depth to bedrock based on drilling refusal was encountered between three to 17.5 feet bgs. Bedrock was cored at one location (GZ-2). The report evaluated subsurface conditions at the Site and provided preliminary geotechnical design and construction recommendations for proposed redevelopment at the Site.

Phase I Environmental Site Assessment, prepared by GZA, dated April 18, 2016

GZA conducted a Phase I ESA and prepared a Phase I ESA Report dated April 18, 2016. The Phase I ESA report identified the history of pesticide and herbicide use at the Site for maintenance of the golf course, and the absence of quantitative soil quality data at the Site as a data gap.

2.4 Site History

On the 1934 Sanborn Fire Insurance Map reviewed as part of GZA's Phase I ESA, the Site is a golf course. On prior Sanborn maps, the Site and general vicinity consisted of vacant land utilized for agricultural purposes. The Hampshire Country Club website indicates that Devereux Emmet designed the golf course in 1927. In addition, a review of the historical topographic maps indicated that during the development of the country club, inlets from Long Island Sound and coastal marshland that were present on the Site were backfilled. The source of the historic fill material is unknown.

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2.5 Proposed Development

The proposed conceptual site plan consists of the development of 105 units to include single-family homes and town homes, roadways, utilities, detention ponds, and recreational facilities. It is also our understanding that certain areas of the proposed site grades will be raised by up to 10 feet from existing grade and the total building footprint will be approximately 500,000 square feet.

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3.0 ENVIRONMENTAL SETTING

Based on a review of the 2013 U.S. Geologic Survey (USGS) Map for Mamaroneck, New York the Site is located at an approximate elevation between five and 10 feet above mean sea level (MSL). The general, regional topography slopes downward from the north to the south, with a localized higher elevation area running northeast of the Site and separating it from Mamaroneck Harbor further to the northeast of the Site. Running north to south in the middle of the Site are a series of small hills, which reach elevations greater than 20 feet above MSL, and slope downward towards the on-Site ponds in the eastern and southern portions of the Site. As shown on **Figure 1**, topography near the Site generally slopes downward towards Delancey Cove to the south of the Site.

3.1 Soil and Rock Conditions

Based on the results of the subsurface exploration programs conducted by ECG and GZA, the subsurface conditions at the Site generally consist of a thin overburden overlaying shallow bedrock. The strata were generally described as consisting of the following, in order of increasing depth:

- SURFACE COVER – A three to four-inch thick topsoil/sod layer typically was observed at the ground surface.
- FILL – Fill, consisting of gray/tan fine to coarse sand, was encountered in some of the test borings.
- SILT AND CLAY – A Silt and Clay stratum, consisting of gray silt, and clay, was encountered immediately below the surface cover in most locations to depths ranging between 2 and 4 feet bgs.
- PEAT – A fibrous peat layer was noted in the eastern portions of the Site.
- SAND – A sand stratum, consisting of gray/brown fine to coarse sand, was encountered in each test boring below the Surface Cover, Fill, or Silt and Clay layers to depths ranging from three to 17.5 feet bgs. The Sand stratum extended to the top of bedrock in each exploration.
- BEDROCK – Refusal (presumed to be top of bedrock) was encountered at all of the test borings at depths ranging from three to 17.5 feet bgs. The bedrock encountered consisted of slightly fractured, moderately weathered Gneiss.

3.2 Groundwater Conditions

The estimated depth to groundwater is less than 10 feet bgs. Based on a review of regional topography depicted on the USGS Map for the area, the inferred direction of groundwater flow is to the south towards Delancey Cove.

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A groundwater observation well was installed at the Site during a geotechnical investigation on March 1, 2016. Groundwater was encountered in the monitoring well at less than 5 feet bgs. It should be noted that changes in groundwater levels generally would occur due to variations in seasonal influences, tidal fluctuations, precipitation amounts, local pumping, utility leakage, and other factors different from those existing at the time the observations were made.

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4.0 SITE INVESTIGATION ACTIVITIES

GZA collected 42 samples from 21 individual shallow soil borings (SS-01 through SS-21) across the Site from March 14 through March 16, 2016. In addition, six sediment samples (SED-01 through SED-06) were collected from on-Site ponds. The sampling locations were selected to obtain representative coverage of the Site including the proposed redevelopment area.

The soil boring and sediment sampling locations are shown on **Figure 2**. Sample collection information, which includes the location and description of the samples, is provided in **Table 1.** Representative photographs of the field investigation activities are included in **Appendix B**.

4.1 Shallow Soil Sampling

On March 14, 15, and 16, 2016, GZA personnel used a hand auger to collect soil samples from two intervals at each location: 1) "surface soil" (a sample at a depth of 0-6 inches), and 2) "subsurface soil" (a sample at a depth of 18-24 inches). During the sampling, the hand auger was field decontaminated by washing with a laboratory grade detergent (Alconox™) to remove visible contamination. The hand auger was subsequently wiped dry prior to reuse.

GZA personnel screened the soil cores for the presence of total organic vapors (TOV) using a photoionization detector (PID) equipped with a 10.6 eV lamp, visually observed for staining, and classified recovered soil using the modified Burmister soil classification system (see **Table 1**).

4.2 Sediment Sampling

On March 14, 2016, GZA personnel also used a hand auger to collect sediment samples. The sediment samples were collected from the edge of the ponds, and near visible discharge pipes located within the ponds.

Similar to the procedures described above, GZA personnel screen the sediment samples for the presence of TOV using a PID equipped with a 10.6 eV lamp, and visually observed for any staining. During the sediment sampling, the hand auger was field decontaminated by washing with a laboratory grade detergent to remove visible contamination between sampling locations.

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4.3 Sample Collection and Chemical Analysis

Media sampled and evaluated as part of this Limited Phase II ESI included shallow soil and sediment. A summary of the chemical analytical methods performed on the shallow soil and sediment samples is provided below.

Summary of Chemical Analytical Methods Performed

Laboratory	**Description**
Chemical Analytical Laboratory	ESS Laboratory of Cranston, Rhode Island (ESS).
Soil and Sediment Analytical Methods	Arsenic by EPA Method 6010C Lead by EPA Method 6010C Organochlorine Pesticides by EPA Method 8081B Chlorinated Herbicides by EPA Method 8151A

5.0 RESULTS

The analytical results of soil and sediment samples collected during the Limited Phase II ESI activities are discussed below. The soil sample analytical results were compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 "Unrestricted Use" Soil Cleanup Objectives (SCO) and the "Restricted Use" Residential SCO. The soil analytical results are presented in **Tables 2 through 4**. **Tables 2 through 4** provide a summary of only the compounds that were detected in the laboratory analyses. The complete ESS laboratory report with the full list of analyzed compounds is attached as **Appendix C.**

Surface Soil (0"-6" bgs) Samples

Laboratory analytical results for the surface soil samples, collected from 0-6 inches bgs, are summarized in **Table 2.**

Arsenic was identified in eight samples (SS-06, SS-07, SS-12, SS-13, SS-15, SS-16, SS-17, and SS-19) at concentrations that exceeded its respective Unrestricted Use SCO. The arsenic concentration in six of these samples (SS-07, SS-12, SS-13, SS-15, SS-17, and SS-19) also exceeded its respective Residential Use SCO.

Lead was identified in seven samples (SS-03, SS-04, SS-06, SS-07, SS-12, SS-13, and SS-17) at concentrations that exceeded its respective Unrestricted Use SCO. None of the lead concentrations in the surface soil samples exceeded its respective Residential Use SCO.

The laboratory analysis for pesticides identified six compounds (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations that exceeded their respective Unrestricted Use SCOs in 20 of the 21 surface soil samples. The pesticides 4,4'-DDE, 4,4'-DDT and Dieldrin were identified in three of these locations (SS-06, SS-07, and SS-15) at concentrations that also exceeded their respective Residential Use SCO.

No herbicide compounds were detected in any of the surface soil samples.

Subsurface Soil (18"-24" bgs) Samples

Laboratory analytical results for the subsurface soil samples, collected from 18-24 inches bgs, are summarized in **Table 3.**

Arsenic was identified in four subsurface samples (SS-06, SS-12, SS-14, and SS-17) at concentrations that exceeded the Unrestricted Use SCO. The arsenic concentration in two of these subsurface samples (SS-14 and SS-17) also exceeded its Residential Use SCO.

Lead was identified in three subsurface samples (SS-05, SS-06, and SS-12) at concentrations that exceeded the Unrestricted Use SCO. None of the lead concentrations in the subsurface soil samples exceeded the Residential Use SCO.

Proactive by Design

The laboratory analysis for pesticides identified eight compounds (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, delta-BHC, Dieldrin, and Endrin) at concentrations that exceeded the Unrestricted Use SCO. Pesticides concentrations exceeding the Unrestricted Use SCO were identified in 15 of the 21 subsurface soil samples. The pesticide Dieldrin was identified in one of these locations (SS-06) at a concentration that also exceeded its Residential Use SCO.

No herbicide compounds were detected in any of the subsurface soil samples.

Sediment Samples

Laboratory analytical results for the sediment sampling are summarized in **Table 4**.

Arsenic was not detected in any of the sediment samples at concentrations that exceeded the Unrestricted Use SCO. Lead was identified in one sample (SED-06) at a concentration that exceeded its respective Unrestricted Use SCO. Neither metallic element exceed its Residential Use SCO.

The laboratory analysis for pesticides identified six compounds (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations that exceeded their respective Unrestricted Use SCO in four of the six sediment samples. None of the pesticides concentrations exceeded the Residential Use SCO at any of the locations.

Herbicide concentrations were detected in sediment samples (SED-02). However, there are no NYSDEC SCOs for the two compounds detected (i.e., Dicamba and Dichlorprop).

Proactive by Design

6.0 FINDINGS AND CONCLUSIONS

GZA conducted a Limited Phase II Environmental Site Investigation for Hampshire Country Club, located at 1025 Cove Road in Mamaroneck, New York. The Limited Phase II ESI included shallow soil sampling of surface (i.e., 0-inch to 6-inches bgs) and subsurface (i.e., 18-inch to 24-inches bgs) intervals, and sediment sampling from the six on-Site ponds. No groundwater sampling was performed.

The findings of the Limited Phase II ESI are summarized below.

- Arsenic was not detected in any of the sediment samples at concentrations that exceeded its respective soil cleanup objective.
- Lead was identified in one sediment sample (SED-06) at a concentration that exceeded its respective Unrestricted Use SCO.
- Six pesticides were identified in the sediment samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations which exceeded the Unrestricted Use SCO. The exceedances were identified in five of the six sediment samples. None of the pesticide compounds exceeded their Residential Use SCO in any of the samples analyzed.
- Arsenic was identified in eight of the 21 surface soil samples (SS-06 0-6, SS-07 0-6, SS-12 0-6, SS-13 0-6, SS-15 0-6, SS-16 0-6, SS-17 0-6, and SS-19 0-6) at concentrations that exceeded the Unrestricted Use SCO. The arsenic concentrations in six of these samples (SS-07 0-6, SS-12 0-6, SS-13 0-6, SS-15 0-6, SS-17 0-6, and SS-19 0-6) also exceeded the Residential Use SCO.
- Lead was identified in seven of the 21 surface soil samples (SS-03 0-6, SS-04 0-6, SS-06 0-6, SS-07 0-6, SS-12 0-6, SS-13 0-6, and SS-17 0-6) at concentrations that exceeded its respective Unrestricted Use SCO. None of the lead concentrations in the surface soil samples exceeded the Residential Use SCO.
- Six pesticides were detected in the surface soil samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations that exceeded the Unrestricted Use SCO. Pesticides concentrations exceeding the Unrestricted Use SCO were identified in 20 of the 21 surface soil samples. The pesticides 4,4'-DDE, 4,4'-DDT and Dieldrin were identified in three of these locations (SS-06 0-6, SS-07 0-6, and SS-15 0-6) at concentrations that also exceeded the Residential Use SCO.
- Arsenic was identified in four of the 21 deeper soil samples (SS-06 18-24, SS-12 18-24, SS-14 18-24, and SS-17 18-24) at concentrations that exceeded its respective Unrestricted Use SCO. The arsenic concentrations in two of these samples (SS-14 18-24, and SS-17 18-24) also exceeded the Residential Use SCO.
- Lead was identified in three of the subsurface soil samples (SS-05 18-24, SS-06 18-24, and SS-12 18-24) at concentrations that exceeded its respective Unrestricted Use SCO. None

of the lead concentrations in the subsurface soil samples exceeded the Residential Use SCO.

- Eight pesticides were identified in the 21 subsurface soil samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, delta-BHC, Dieldrin, and Endrin) at concentrations that exceeded the Unrestricted Use SCO. Pesticides concentrations exceeding the Unrestricted Use SCO were identified in 15 of the 21 subsurface soil samples. The pesticide Dieldrin was identified in one of these locations (SS-06 18-24) at a concentration that also exceeded the Residential Use SCO.
- No herbicides were detected in any of the surface or subsurface soil samples.
- Herbicide concentrations were detected in one of the sediment samples (SED-02). However, there are no NYSDEC SCOs for the two herbicide compounds detected (i.e., Dicamba and Dichlorprop).

Please note that soils and sediments that exceed Unrestricted Use and/or Residential Use SCOs, and that remain on-Site after redevelopment, may have regulatory restrictions imposed, such as environmental easements, or other land use controls.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

TABLES

Table 1 - Soil and Sediment Sampling Log

Hampshire Country Club
Mamaroneck, New York

Sample No.	Depth	PID	Location Description	Soil Description
SS-1	(0-6")	ND	Between berm and pulloff on road. On north side of cart path	brown, fine to medium SAND
	(18-24")	ND		brown, fine to medium SAND
SS-2	(0-6")	ND	Middle of pond shore between cart path and pond	grey, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		grey, fine to medium SAND, and gravel, trace silt.
SS-3	(0-6")	ND	Flat area south of hill on east side of cart path	black, fiberous PEAT, some silt
	(18-24")	ND		black, fiberous PEAT, some silt
SS-4	(0-6")	ND	Between sand trap and cart path on west side of path	brown, fine to medium SAND, some gravel, trace silt
	(18-24")	ND		grey, fine to medium SAND
SS-5	(0-6")	ND	In brush covered hill side adjacent to back of clubhouse	brown, organic-rich topsoil
	(18-24")	ND		brown, fine to medium SAND, some gravel
SS-6	(0-6")	ND	In flowerbed between upper and lower parking lots (on ramp, south side)	brown, fine to medium SAND, little silt
	(18-24")	ND		brown, fine to medium SAND, some gravel
SS-7	(0-6")	ND	On hillside adjacent to tee east of cart path	light brown, fine to medium SAND, little organics.
	(18-24")	ND		light brown, clay & silt
SS-8	(0-6")	ND	In grass southwest of cart path near boring GZ-04	grey, GRAVEL, little silt, little sand, trace of fiberous organics
	(18-24")	ND		grey, fine to medium SAND, little silt, little gravel.
SS-9	(0-6")	ND	In flat area adjacent to fairway (north side) south of hill in dirt patch	Black fiberous PEAT
	(18-24")	ND		Black fiberous PEAT
SS-10	(0-6")	ND	In flat area between two ponds	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
SS-11	(0-6")	ND	West of cart path adjacent to small hill	dark brown, organic-rich topsoil
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
SS-12	(0-6")	ND	On south side of tee	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
SS-13	(0-6")	ND	In rough area to west of tee	grey to black, organic SILT and CLAY, little fiberous peat
	(18-24")	ND		grey to black, organic SILT and CLAY, little fiberous peat
SS-14	(0-6")	ND	Flat area adjacent to small tree at intersection of cart paths	black, CLAY and fine grained peat
	(18-24")	ND		black, CLAY and fine grained peat
SS-15	(0-6")	ND	Base of hill slope on south side of fairway	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
SS-16	(0-6")	ND	Flat area adjacent to trees and small hill south of tee	light brown, fine to medium SAND
	(18-24")	ND		light brown, fine to medium SAND
SS-17	(0-6")	ND	Directly between two cart paths where they are come closest to each other	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
SS-18	(0-6")	ND	Northwest side of cart path adjacent to sand trap	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		light brown, fine to medium SAND
SS-19	(0-6")	ND	Infront of hose attachment east side of garage	grey, GRAVEL, little silt
	(18-24")	ND		brown to grey CLAY
SS-20	(0-6")	ND	In grass off east edge of pavement	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
SS-21	(0-6")	ND	Directly adjacent to north end of gas tank	brown, fine to medium SAND, and gravel, trace silt.
	(18-24")	ND		brown, fine to medium SAND, and gravel, trace silt.
Sed-1	(0-6")	ND	Near drain pipe in south east end of pond	grey clayey silt
Sed-2	(0-6")	ND	Near drain pipe in south east end of pond	grey clayey silt
Sed-3	(0-6")	ND	Near drain pipe in south west end of pond	grey clayey silt
Sed-4	(0-6")	ND	Near drain pipe in south west end of pond	grey clayey silt
Sed-5	(0-6")	ND	Near drain pipe in south east end of pond	grey clayey silt
Sed-6	(0-6")	ND	Near drain pipe in south west end of pond	grey clayey silt

Table 2 - Surface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603331-07		1603331-09		1603332-01		1603332-03		1603332-05	
Sample Designation				SS-01 0-6		SS-02 0-6		SS-03 0-6		SS-04 0-6		SS-05 0-6	
Sample Date				03/14/2016		03/14/2016		03/14/2016		03/14/2016		03/14/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals													
Arsenic	mg/kg	**13**	**16**	10.9	-	5.58	-	7.73	-	6.55	-	9.1	-
Lead	mg/kg	**63**	**400**	27.8	-	32.9	-	**67.2**	-	**126**	-	44.3	-
Pesticides													
4,4´-DDD	mg/kg	**0.0033**	**2.6**	0.003	U	**0.0101**	**LC, P**	**0.0087**	-	**0.0063**	-	**0.0082**	**U**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**0.026**	-	**1.56**	**D**	**0.0107**	-	**0.0804**	**D**	**0.0264**	-
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.0315**	**D**	**0.443**	**D**	**0.0057**	**U**	**0.0331**	**D**	**0.0106**	**LC, P**
Aldrin	mg/kg	**0.005**	**0.019**	0.003	U	0.0032	U	**0.0057**	**U**	0.0033	U	**0.0082**	**U**
alpha-Chlordane	mg/kg	**0.094**	**0.91**	0.003	U	**0.146**	**D**	0.0057	U	0.0066	LC, P	0.0112	-
beta-BHC	mg/kg	**0.036**	**0.072**	0.003	U	0.0032	U	0.0057	U	0.0033	U	0.0082	U
Chlordane (total)	mg/kg	--	--	0.0354	U	0.345	D	0.0687	U	0.0391	U	0.0986	U
Dieldrin	mg/kg	**0.005**	**0.039**	0.003	U	0.0032	U	**0.0057**	**U**	0.0033	U	**0.0082**	**U**
Endosulfan Sulfate	mg/kg	**2.4**	**2.4**	0.0055	-	0.0032	U	0.0057	U	0.0033	U	0.0082	U
gamma-Chlordane	mg/kg	--	--	0.003	U	0.0293	D	0.0057	U	0.0052	-	0.0082	U
Heptachlor Epoxide	mg/kg	--	--	0.003	U	0.118	D	0.0057	U	0.0047	-	0.0082	U
Hexachlorobenzene	mg/kg	--	--	0.003	U	0.0032	U	0.0057	U	0.0033	U	0.0082	U
Herbicides													
Chlorinated Herbicides List	mg/kg			U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL Qualifiers

J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 2 - Surface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603332-07		1603332-09		1603332-11		1603332-13		1603375-01	
Sample Designation				SS-06 0-6		SS-07 0-6		SS-08 0-6		SS-09 0-6		SS-10 0-6	
Sample Date				03/14/2016		03/14/2016		03/14/2016		03/14/2016		03/15/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals													
Arsenic	mg/kg	**13**	**16**	**13.1**	-	**55.7**	-	4.41	-	9.52	U	11.4	-
Lead	mg/kg	**63**	**400**	**89.8**	-	**189**	-	52.7	-	19	U	14.1	-
Pesticides													
4,4′-DDD	mg/kg	**0.0033**	**2.6**	**0.0035**	**U**	**0.0959**	**LC, P, D**	**0.0226**	**P**	**0.0119**	-	**0.011**	**P**
4,4′-DDE	mg/kg	**0.0033**	**1.8**	**0.0991**	**D**	**4.1**	**D**	**0.0796**	**D**	**0.0109**	**U**	**0.0489**	**D**
4,4′-DDT	mg/kg	**0.0033**	**1.7**	**0.0911**	**D**	**4.11**	**D**	**0.0131**	**-**	**0.0109**	**U**	**0.0607**	**D**
Aldrin	mg/kg	**0.005**	**0.019**	**0.0096**	**-**	0.003	U	0.0031	U	**0.0109**	**U**	0.0029	U
alpha-Chlordane	mg/kg	**0.094**	**0.91**	**0.102**	**P, D**	0.063	P, D	0.03	-	0.0109	U	0.0029	U
beta-BHC	mg/kg	**0.036**	**0.072**	0.0035	U	0.003	U	0.0031	U	0.0109	U	0.0029	U
Chlordane (total)	mg/kg	--	--	0.354	D	0.463	D	0.103	-	0.131	U	0.0349	U
Dieldrin	mg/kg	**0.005**	**0.039**	**0.162**	**D**	0.003	U	0.0031	U	**0.0109**	**U**	**0.0059**	-
Endosulfan Sulfate	mg/kg	**2.4**	**2.4**	0.0035	U	0.003	U	0.0031	U	0.0109	U	0.0029	U
gamma-Chlordane	mg/kg	--	--	0.0514	D	0.0083	LC, P	0.0190	P	0.0109	U	0.0029	U
Heptachlor Epoxide	mg/kg	--	--	0.0094	-	0.0223	LC, P	0.0040	-	0.0109	U	0.0029	U
Hexachlorobenzene	mg/kg	--	--	0.0035	U	0.0141	-	0.0031	U	0.0109	U	0.0029	U
Herbicides													
Chlorinated Herbicides List	mg/kg			U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL Qualifiers

J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 2 - Surface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603375-03		1603375-05		1603375-07		1603375-09		1603375-11	
Sample Designation				SS-11 0-6		SS-12 0-6		SS-13 0-6		SS-14 0-6		SS-15 0-6	
Sample Date				03/15/2016		03/15/2016		03/15/2016		03/15/2016		03/15/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals													
Arsenic	mg/kg	**13**	**16**	11.8	-	**16.9**	-	**32.5**	-	10.3	-	**17.8**	-
Lead	mg/kg	**63**	**400**	31.8	-	**76.6**	-	**304**	-	20.4	-	56.5	-
Pesticides													
4,4´-DDD	mg/kg	**0.0033**	**2.6**	**0.0526**	**LC, P, D**	**0.016**	**LC, P**	**0.117**	**D**	**0.0079**	**LC, P**	**0.266**	**D**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**1.6**	**D**	**1.1**	**D**	**1.58**	**D**	**0.0622**	**D**	**2**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.83**	**D**	**0.682**	**D**	**0.0788**	**P, D**	**0.0146**	**-**	**0.84**	**D**
Aldrin	mg/kg	**0.005**	**0.019**	0.0034	U	0.0032	U	0.0048	U	0.0031	U	0.0036	U
alpha-Chlordane	mg/kg	**0.094**	**0.91**	**0.0951**	**LC, P, D**	0.0541	P, D	**0.106**	**P, D**	0.069	P, D	**0.153**	**LC, P, D**
beta-BHC	mg/kg	**0.036**	**0.072**	0.0034	U	0.0032	U	0.0048	U	0.0031	U	0.0036	U
Chlordane (total)	mg/kg	--	--	0.720	D	0.206	-	0.309	-	0.171	-	0.864	D
Dieldrin	mg/kg	**0.005**	**0.039**	**0.0078**	**LC, P**	0.0032	U	0.0048	-	0.0036	LC, P	**0.0226**	**LC, P**
Endosulfan Sulfate	mg/kg	**2.4**	**2.4**	0.0034	U	0.0032	U	0.0048	U	0.0031	U	0.0036	U
gamma-Chlordane	mg/kg	--	--	0.107	D	0.0310	-	0.0422	D	0.0282	-	0.0938	D
Heptachlor Epoxide	mg/kg	--	--	0.282	D	0.0741	D	0.0337	-	0.0147	-	0.105	D
Hexachlorobenzene	mg/kg	--	--	0.0034	U	---	---	0.0048	U	0.0031	U	0.0036	U
Herbicides													
Chlorinated Herbicides List	mg/kg			U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL Qualifiers

J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 2 - Surface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603375-13		1603396-01		1603396-03		1603396-05		1603396-07		1603396-09	
Sample Designation				SS-16 0-6		SS-17 0-6		SS-18 0-6		SS-19 0-6		SS-20 0-6		SS-21 0-6	
Sample Date				03/15/2016		03/16/2016		03/16/2016		03/16/2016		03/16/2016		03/16/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals															
Arsenic	mg/kg	**13**	**16**	**15.1**	-	**19.3**	-	10.2	-	**27**	-	2.31	U	9.31	-
Lead	mg/kg	**63**	**400**	19.9	-	**65.3**	-	36.6	-	55.6	-	24.4	-	52	-
Pesticides															
4,4´-DDD	mg/kg	**0.0033**	**2.6**	**0.0292**	**-**	**0.0129**	**LC, P**	**0.088**	**D**	**0.069**	**D**	**0.0138**	**U, D**	**0.0072**	**-**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**0.376**	**D**	**1.55**	**D**	**0.392**	**D**	**0.0572**	**D**	**0.0138**	**U, D**	**0.0469**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.0539**	**D**	**0.432**	**D**	**0.111**	**D**	**0.017**	**-**	**0.0138**	**U, D**	**0.0388**	**D**
Aldrin	mg/kg	**0.005**	**0.019**	0.0036	U	0.0035	U	0.0032	U	0.0032	U	**0.0138**	**U, D**	0.003	U
alpha-Chlordane	mg/kg	**0.094**	**0.91**	0.0111	LC, P	0.0064	LC, P	0.0826	P, D	0.0666	LC, P, D	0.0138	U, D	0.0058	LC, P
beta-BHC	mg/kg	**0.036**	**0.072**	0.0036	U	0.0035	U	0.0032	U	0.0053	LC, P	0.0138	U, D	0.003	U
Chlordane (total)	mg/kg	--	--	0.0614	-	0.0418	U	0.275	-	0.735	D	0.165	U, D	0.0362	U
Dieldrin	mg/kg	**0.005**	**0.039**	0.0037	LC, P	0.0035	U	0.0032	LC, P	0.0032	U	**0.0138**	**U, D**	0.003	U
Endosulfan Sulfate	mg/kg	**2.4**	**2.4**	0.0036	U	0.0035	U	0.0032	U	0.0032	U	0.0138	U, D	0.003	U
gamma-Chlordane	mg/kg	--	--	0.0073	-	0.0035	U	0.0264	D	0.191	D	0.0138	U, D	0.0039	-
Heptachlor Epoxide	mg/kg	--	--	0.0043	LC, P	0.0057	LC, P	0.0212	-	0.0302	-	0.0138	U, D	0.003	U
Hexachlorobenzene	mg/kg	--	--	0.0064	LC, P	0.0035	U	0.0063	-	0.0062	-	0.0138	U, D	0.003	U
Herbicides															
Chlorinated Herbicides List	mg/kg			U		U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL Qualifiers

J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 3 - Subsurface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603331-08		1603331-10		1603332-02		1603332-04		1603332-06	
Sample Designation				SS-01 18-24		SS-02 18-24		SS-03 18-24		SS-04 18-24		SS-05 18-24	
Sample Date				03/14/2016		03/14/2016		03/14/2016		03/14/2016		03/14/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals													
Arsenic	mg/kg	**13**	**16**	3.78	-	2.83	U	6.28	U	4.45	-	11.7	-
Lead	mg/kg	**63**	**400**	28.5	-	11.9	-	38.7	-	9.44	-	**123**	**-**
Pesticides													
4,4´-DDD	mg/kg	**0.0033**	**2.6**	0.0027	U	**0.0071**	**LC, P**	**0.0093**	**U**	0.0027	U	**0.0134**	**-**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**0.0269**	**-**	**0.364**	**D**	**0.0093**	**U**	**0.0217**	**-**	**0.282**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.0187**	**-**	**0.14**	**D**	**0.0093**	**U**	**0.0225**	**-**	**0.382**	**D**
Aldrin	mg/kg	**0.005**	**0.019**	0.0027	U	0.0029	U	0.0093	U	0.0027	U	0.0039	U
alpha-BHC	mg/kg	**0.02**	**0.097**	0.0027	U	0.0029	U	0.0093	U	0.0027	U	0.0137	-
alpha-Chlordane	mg/kg	**0.094**	**0.91**	0.0027	U	0.0152	LC, P	0.0093	U	0.0027	U	0.0099	LC, P
beta-BHC	mg/kg	**0.036**	**0.072**	0.0027	U	0.0029	U	0.0093	U	0.0027	U	0.0359	-
Chlordane (Total)	mg/kg	**--**	**--**	0.0329	U	0.0949	-	0.111	U	0.0322	U	0.0474	U
delta-BHC	mg/kg	**0.04**	**100**	0.0027	U	0.0029	U	0.0093	U	0.0027	U	**0.0551**	**D**
Dieldrin	mg/kg	**0.005**	**0.039**	0.0027	U	0.0029	U	**0.0093**	**U**	0.0027	U	**0.0175**	**P**
Endrin	mg/kg	**2.2**	**0.014**	0.0016	U	0.0018	U	0.0056	U	0.0016	U	0.0672	D
gamma-Chlordane	mg/kg	**--**	**--**	0.0027	U	0.0079	-	0.0093	U	0.0027	U	0.0039	U
Heptachlor Epoxide	mg/kg	**--**	**--**	0.0027	U	0.0284	-	0.0093	U	0.0027	U	0.0045	-
Hexachlorobenzene	mg/kg	**--**	**--**	0.0027	U	0.0029	U	0.0093	U	0.0027	U	0.0039	U
Herbicides													
Chlorinated Herbicides List	mg/kg			U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL	Qualifiers
J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 3 - Subsurface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603332-08		1603332-10		1603332-12		1603332-14		1603375-02	
Sample Designation				SS-06 18-24		SS-07 18-24		SS-08 18-24		SS-09 18-24		SS-10 18-24	
Sample Date				03/14/2016		03/14/2016		03/14/2016		03/14/2016		03/15/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals													
Arsenic	mg/kg	**13**	**16**	**15**	**-**	**8.28**	-	2.8	U	8.22	U	12.4	-
Lead	mg/kg	**63**	**400**	**80.4**	**-**	**23.1**	-	8.93	-	16.4	U	13.9	-
Pesticides													
4,4´-DDD	mg/kg	**0.0033**	**2.6**	**0.0075**	**LC, P**	0.003	U	0.0028	U	**0.0174**	**U**	**0.0274**	**-**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**0.231**	**D**	**0.111**	**D**	0.0028	U	0.0174	U	**0.0494**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.21**	**D**	**0.0664**	**D**	0.0028	U	0.0174	U	**0.0744**	**D**
Aldrin	mg/kg	**0.005**	**0.019**	**0.0301**	**D**	0.003	U	0.0028	U	0.0174	U	0.0029	U
alpha-BHC	mg/kg	**0.02**	**0.097**	0.0031	U	0.003	U	0.0028	U	0.0174	U	0.0029	U
alpha-Chlordane	mg/kg	**0.094**	**0.91**	**0.143**	**D**	0.003	U	0.0028	U	0.0174	U	0.0115	-
beta-BHC	mg/kg	**0.036**	**0.072**	0.0031	U	0.003	U	0.0028	U	0.0174	U	0.0029	U
Chlordane (Total)	mg/kg	--	--	0.661	D	0.0363	U	0.0338	U	0.209	U	0.0353	U
delta-BHC	mg/kg	**0.04**	**100**	0.0199	P	0.003	U	0.0028	U	0.0174	U	0.0029	U
Dieldrin	mg/kg	**0.005**	**0.039**	**0.433**	**D**	0.003	U	0.0028	U	0.0174	U	0.0047	LC, P
Endrin	mg/kg	**2.2**	**0.014**	0.0019	U	0.0018	U	0.0017	U	0.0105	U	0.0018	U
gamma-Chlordane	mg/kg	--	--	0.0955	D	0.003	U	0.0028	U	0.0174	U	0.0069	-
Heptachlor Epoxide	mg/kg	--	--	0.0110	-	0.003	U	0.0028	U	0.0174	U	0.0063	-
Hexachlorobenzene	mg/kg	--	--	0.0031	U	0.003	U	0.0028	U	0.0174	U	0.0029	U
Herbicides													
Chlorinated Herbicides List	mg/kg			U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL Qualifiers

J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 3 - Subsurface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603375-04		1603375-06		1603375-08		1603375-10		1603375-12	
Sample Designation				SS-11 18-24		SS-12 18-24		SS-13 18-24		SS-14 18-24		SS-15 18-24	
Sample Date				03/15/2016		03/15/2016		03/15/2016		03/15/2016		03/15/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals													
Arsenic	mg/kg	**13**	**16**	11.7	-	**14.4**	-	9.73	-	**16.4**	-	12.2	-
Lead	mg/kg	**63**	**400**	8.48	-	**85.2**	-	11.6	-	11.2	-	10.2	-
Pesticides													
4,4´-DDD	mg/kg	**0.0033**	**2.6**	0.0029	U	**0.0095**	-	0.0033	U	**0.0035**	**U**	0.003	U
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**0.0673**	**D**	**0.309**	**D**	**0.0081**	-	**0.0035**	-	**0.0338**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.0467**	**D**	**0.244**	**D**	0.0033	U	0.0035	U	**0.0182**	-
Aldrin	mg/kg	**0.005**	**0.019**	0.0029	U	0.003	U	0.0033	U	0.0035	U	0.003	U
alpha-BHC	mg/kg	**0.02**	**0.097**	0.0029	U	0.003	U	0.0033	U	0.0035	U	0.003	U
alpha-Chlordane	mg/kg	**0.094**	**0.91**	0.0029	U	0.0122	-	0.0033	U	0.0035	U	0.003	U
beta-BHC	mg/kg	**0.036**	**0.072**	0.0029	U	0.003	U	0.0033	U	0.0035	U	0.003	U
Chlordane (Total)	mg/kg	--	--	0.0354	U	0.0844	P	0.04	U	0.0416	U	0.0366	U
delta-BHC	mg/kg	**0.04**	**100**	0.0029	U	0.003	U	0.0033	U	0.0035	U	0.003	U
Dieldrin	mg/kg	**0.005**	**0.039**	0.0029	U	0.003	U	0.0033	U	0.0035	U	0.003	U
Endrin	mg/kg	**2.2**	**0.014**	0.0018	U	0.0018	U	0.002	U	0.0021	U	0.0018	U
gamma-Chlordane	mg/kg	--	--	0.0029	U	0.0060	LC, P	0.0033	U	0.0035	U	0.003	U
Heptachlor Epoxide	mg/kg	--	--	0.0037	-	0.0215	-	0.0033	U	0.0035	U	0.003	U
Hexachlorobenzene	mg/kg	--	--	0.0029	U	0.0092	-	0.0033	U	0.0035	U	0.003	U
Herbicides													
Chlorinated Herbicides List	mg/kg			U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL Qualifiers

J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection limit (MDL).
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P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 3 - Subsurface Soil
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603375-14		1603396-02		1603396-04		1603396-06		1603396-08		1603396-10	
Sample Designation				SS-16 18-24		SS-17 18-24		SS-18 18-24		SS-19 18-24		SS-20 18-24		SS-21 18-24	
Sample Date				03/15/2016		03/16/2016		03/16/2016		03/16/2016		03/16/2016		03/16/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals															
Arsenic	mg/kg	**13**	**16**	13	-	**16.5**	-	3.91	-	5.99	-	8.3	U, D	9.52	-
Lead	mg/kg	**63**	**400**	11.2	-	40.5	-	5.59	U	4.59	U	39.1	-	48.5	-
Pesticides															
4,4´-DDD	mg/kg	**0.0033**	**2.6**	0.0033	U	**0.0034**	**U**	0.003	U	0.003	U	**0.0144**	**U, D**	**0.0048**	**LC, P**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	0.0033	U	**0.112**	**D**	**0.0157**	**-**	0.003	U	**0.0144**	**U, D**	**0.0533**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	0.0033	U	**0.0337**	**D**	**0.013**	**-**	0.003	U	**0.0144**	**U, D**	**0.0308**	**D**
Aldrin	mg/kg	**0.005**	**0.019**	0.0033	U	0.0034	U	0.003	U	0.003	U	**0.0144**	**U, D**	0.0029	U
alpha-BHC	mg/kg	**0.02**	**0.097**	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0029	U
alpha-Chlordane	mg/kg	**0.094**	**0.91**	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0113	LC, P
beta-BHC	mg/kg	**0.036**	**0.072**	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0029	U
Chlordane (Total)	mg/kg	--	--	0.0398	U	0.041	U	0.0357	U	0.0362	U	0.173	U, D	0.0484	-
delta-BHC	mg/kg	**0.04**	**100**	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0029	U
Dieldrin	mg/kg	**0.005**	**0.039**	0.0033	U	0.0034	U	0.003	U	0.003	U	**0.0144**	**U, D**	0.0029	U
Endrin	mg/kg	**2.2**	**0.014**	0.002	U	0.002	U	0.0018	U	0.0018	U	0.0086	U, D	0.0017	U
gamma-Chlordane	mg/kg	--	--	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0058	-
Heptachlor Epoxide	mg/kg	--	--	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0029	U
Hexachlorobenzene	mg/kg	--	--	0.0033	U	0.0034	U	0.003	U	0.003	U	0.0144	U, D	0.0029	U
Herbicides															
Chlorinated Herbicides List	mg/kg			U		U		U		U		U		U	

TABLE NOTES:

	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

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D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

Table 4 - Sediment Samples
Analytical Results

Hampshire Country Club
Mamaroneck, New York

Laboratory Sample Designation		Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	1603331-01		1603331-02		1603331-03		1603331-04		1603331-05		1603331-06	
Sample Designation				SED-01		SED-02		SED-03		SED-04		SED-05		SED-06	
Sample Date				03/14/2016		03/14/2016		03/14/2016		03/14/2016		03/14/2016		03/14/2016	
				Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Total Metals															
Arsenic	mg/kg	**13**	**16**	1.51	-	4.48	-	5.11	-	2.04	-	2.14	-	11.4	-
Lead	mg/kg	**63**	**400**	16	-	36.5	-	10.1	-	6.14	-	6	-	**102**	-
Pesticides															
4,4´-DDD	mg/kg	**0.0033**	**2.6**	**0.0295**	**D**	**0.0237**	**-**	**0.037**	**-**	0.0033	U	**0.0034**	**U**	**0.29**	**D**
4,4´-DDE	mg/kg	**0.0033**	**1.8**	**0.0668**	**D**	**0.0664**	**D**	**0.0446**	**D**	0.0033	U	**0.0034**	**U**	**0.309**	**D**
4,4´-DDT	mg/kg	**0.0033**	**1.7**	**0.0136**	**-**	**0.0047**	**U**	**0.004**	**U**	0.0033	U	**0.0034**	**U**	**0.0122**	**LC, P**
Aldrin	mg/kg	**0.005**	**0.019**	0.0032	U	0.0047	U	0.004	U	0.0033	U	0.0034	U	**0.0052**	**U**
alpha-Chlordane	mg/kg	**0.094**	**0.91**	0.0069	P	0.0086	P	0.0453	D	0.0033	U	0.0034	U	0.0898	P, D
Dieldrin	mg/kg	**0.005**	**0.039**	0.0032	U	0.0047	U	0.004	U	0.0033	U	0.0034	U	**0.0052**	**U**
gamma-Chlordane	mg/kg	**--**	**--**	0.0043	-	0.0198	-	0.0238	-	0.0033	U	0.0034	U	0.301	D
Herbicides															
Dicamba	mg/kg	--	--	0.012	U	0.091	LC, P, D	0.014	U	0.012	U	0.013	U	0.019	U
Dichlorprop	mg/kg	--	--	0.24	U	1.30	-	0.29	U	0.231	U	0.252	U	0.382	U

TABLE NOTES:

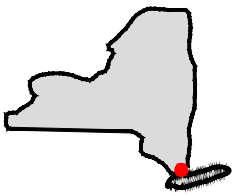
	Value Exceeds Unrestricted Use Soil Cleanup Objectives (SCO)
	Value Exceeds Residential Use SCO.
	Non Detect Value with a reporting limit which exceeds the Unrestricted Use SCO

QUAL	Qualifiers
J	Estimated Value. The target analyte concentration is below the quantitative limit (RL), but above the method detection
D	Sample was diluted.
LC	Lower value is used due to matrix interferences
P	Percent difference between primary and confirmation results exceeds 40%
U	Not detected at the reported detection limit for the sample
--	No Guidance Value
mg/kg	milligrams per kilogram

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

FIGURES

NEW YORK



QUADRANGLE LOCATION

SOURCE:

USGS TOPOGRAPHIC MAP: MAMARONECK, NY–CT (2013). CONTOUR INTERVAL 10FT., NAVD–1988, ORIGINAL SCALE 1:24,000 (1"=2,000FT.)

N W E S

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HAMPSHIRE COUNTRY CLUB
1025 COVE ROAD
MAMARONECK, NY

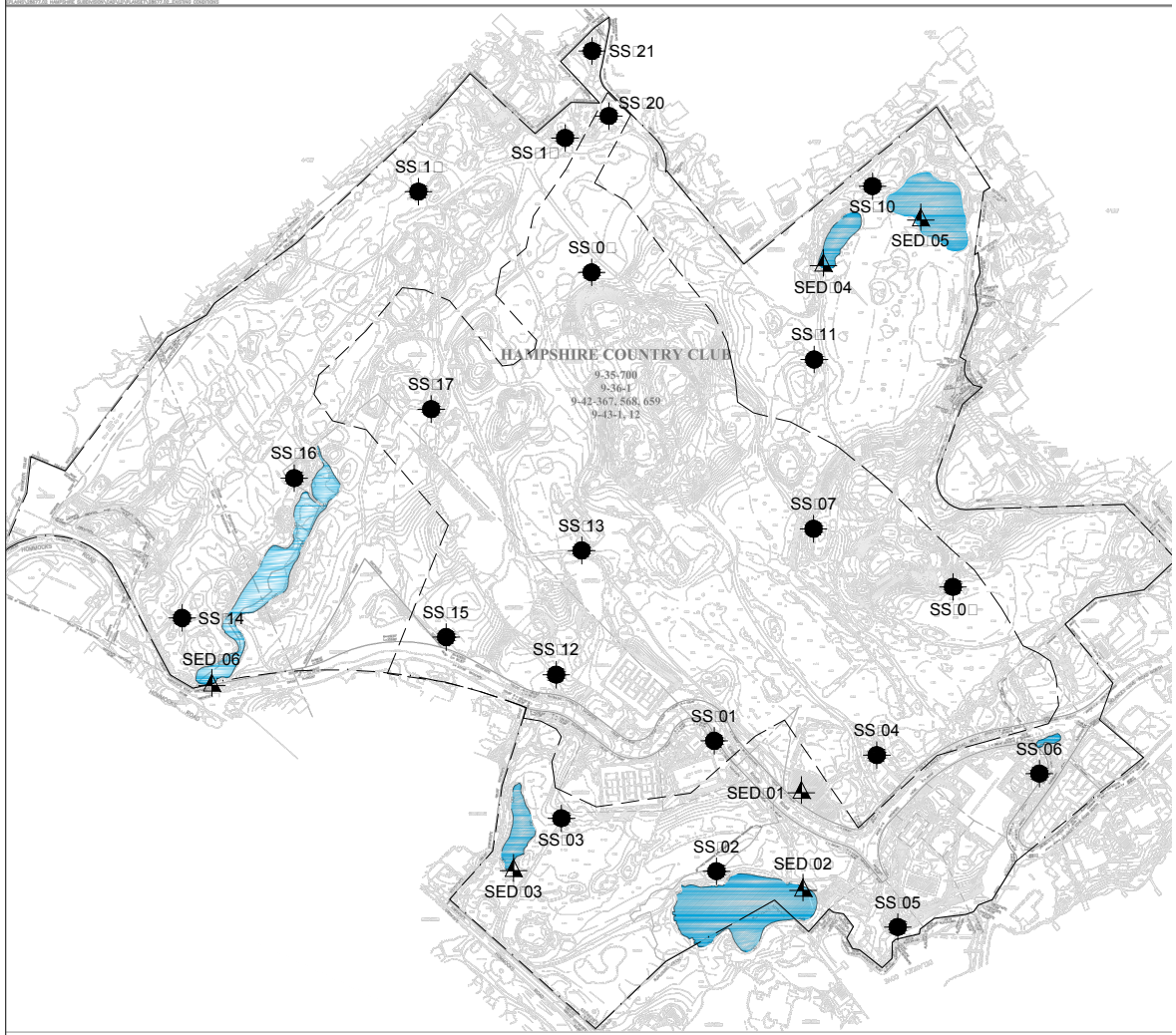
PREPARED BY:
GZA GeoEnvironmental of NY
Engineers and Scientists
www.gza.com

PREPARED FOR:
VHB
50 MAIN STREET, SUITE 360
WHITE PLAINS, NY 10606

SITE LOCATION PLAN

PROJ MGR: MK	REVIEWED BY: CAW	CHECKED BY: DSR	FIGURE 1
DESIGNED BY: KN	DRAWN BY: KN	SCALE: 1"=2000'	
DATE: APRIL 2016	PROJECT NO. 41.0162403.00	REVISION NO. 0	SHEET NO. 01 OF 02

© 2015 – GZA GeoEnvironmental, Inc. GZA–J:\Active 162400 to 162499\162403.10 – VHB Hampshire CC Geotechnical\Drawings\CAD\Figures.dwg [FIGURE 1] March 17, 2016 – 4:46pm kayla.newton



NOTES:

1. BASE MAP DEVELOPED FROM PLAN PROVIDED BY VHB ENTITLED "E□ISTING CONDITIONS PLAN" DATED SEPTEMBER □, 2014, ORIGINAL SCALE 1"=100'
2. SOIL BORING LOCATIONS WERE APPRO□IMATELY DETERMINED BY TAPE MEASUREMENTS FROM E□ISTING TOPOGRAPHIC FEATURES. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
3. SOIL BORINGS AND SEDIMENT SAMPLES WERE PERFORMED BY G□A ON MARCH 14, 15, AND 16, 2016.

LEGEND:

SS□01 — SOIL BORING LOCATION

SED□01 — SEDIMENT SAMPLE LOCATION

PROPERTY BOUNDARY

PLANNED RESIDENTIAL DEVELOPMENT AREA

POND

N

0 300 600 1,200

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

HAMPSHIRE COUNTRY CLUB
1025 COVE ROAD
MAMARONECK, NY

E□PLO□ATION LOCATION PLAN

PREPARED BY:
GZA GeoEnvironmental of NY
Engineers and Scientists
www.gza.com

PREPARED FOR:
VHB
50 MAIN STREET, SUITE 360
WHITE PLAINS, NY 10606

PROJ MGR: SK	REVIEWED BY: JG	CHECKED BY: SK	FIGURE 2
DESIGNED BY: JC	DRAWN BY: RB	SCALE: 1" = 500'	
DATE: APRIL 2016	PROJECT NO. 41.0162403.10	REVISION NO. 0	SHEET NO.

APPENDIX A

LIMITATIONS

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

COMPLIANCE WITH CODES AND REGULATIONS

6. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

7. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

8. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

9. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

10. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

11. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

12. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

APPENDIX B

SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

Client Name:	**Site Name and Location:**	**Project No.**
VHB	Hampshire Country Club, 1025 Cove Road, Mamaroneck, NY	41.0162403.00

Photo No.	**Date:**
1	3/14/16

Description:

GZA collected samples within pond on north margin of site.

Photo No.	**Date:**
2	3/15/16

Description:

Typical soil sampling procedure.

Photo No.	Date:
3	3/16/16

Description:

Fibrous organic soils encountered at SS-09.

Photo No.	Date:
4	3/14/16

Description:

Sampling location near maintenance storage area.

Photo No.	Date:
5	3/15/16

Description:

Typical sampling location

Photo No.	Date:
6	3/16/16

Description:

Typical sampling location borehole after full depth was reached.

APPENDIX C

LABORATORY REPORTS

CERTIFICATE OF ANALYSIS

Stephen Kline
GZA GeoEnvironmental, Inc.
104 West 29th Street, 10th Floor
New York, NY 10001

RE: Hampshire CC (41.0162403.00)
ESS Laboratory Work Order Number: 1603331

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 2:34 pm, Mar 25, 2016

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

SAMPLE RECEIPT

The following samples were received on March 14, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1603331-01	SED-01	Sediment	6010C, 8081B, 8151A
1603331-02	SED-02	Sediment	6010C, 8081B, 8151A
1603331-03	SED-03	Sediment	6010C, 8081B, 8151A
1603331-04	SED-04	Sediment	6010C, 8081B, 8151A
1603331-05	SED-05	Sediment	6010C, 8081B, 8151A
1603331-06	SED-06	Sediment	6010C, 8081B, 8151A
1603331-07	SS-01 0-6	Sediment	6010C, 8081B, 8151A
1603331-08	SS-01 18-24	Sediment	6010C, 8081B, 8151A
1603331-09	SS-02 0-6	Sediment	6010C, 8081B, 8151A
1603331-10	SS-02 18-24	Sediment	6010C, 8081B, 8151A

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

PROJECT NARRATIVE

8081B Organochlorine Pesticides

1603331-01	**Percent difference between primary and confirmation results exceeds 40% (P).**
	alpha-Chlordane
1603331-02	**Percent difference between primary and confirmation results exceeds 40% (P).**
	alpha-Chlordane
1603331-06	**Lower value is used due to matrix interferences (LC).**
	4,4´-DDT
1603331-06	**Percent difference between primary and confirmation results exceeds 40% (P).**
	4,4´-DDT , alpha-Chlordane
1603331-09	**Lower value is used due to matrix interferences (LC).**
	4,4´-DDD
1603331-09	**Percent difference between primary and confirmation results exceeds 40% (P).**
	4,4´-DDD
1603331-10	**Lower value is used due to matrix interferences (LC).**
	4,4´-DDD , alpha-Chlordane [2C]
1603331-10	**Percent difference between primary and confirmation results exceeds 40% (P).**
	4,4´-DDD , alpha-Chlordane [2C]
CZC0278-CCV1	**Continuing Calibration %Diff/Drift is above control limit (CD+).**
	Methoxychlor [2C] (22% @ 20%)
CZC0278-CCV2	**Continuing Calibration %Diff/Drift is above control limit (CD+).**
	Methoxychlor [2C] (25% @ 20%)
CZC0278-CCV4	**Continuing Calibration %Diff/Drift is above control limit (CD+).**
	Methoxychlor [2C] (39% @ 20%)
CZC0278-CCV6	**Continuing Calibration %Diff/Drift is above control limit (CD+).**
	Methoxychlor [2C] (27% @ 20%)
CZC0317-CCV9	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	4,4´-DDD (31% @ 20%), 4,4´-DDE (23% @ 20%), 4,4´-DDT (30% @ 20%), alpha-Chlordane (27% @ 20%), Decachlorobiphenyl (35% @ 20%), Dieldrin (30% @ 20%), Endosulfan I (30% @ 20%), Endosulfan II (33% @ 20%), Endosulfan Sulfate (33% @ 20%), Endrin (30% @ 20%), Endrin Aldehyde (32% @ 20%), Endrin Ketone (35% @ 20%), gamma-Chlordane (27% @ 20%), Heptachlor Epoxide (24% @ 20%), Methoxychlor (29% @ 20%)
CZC0317-CCVA	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Decachlorobiphenyl (28% @ 20%)

8151A Chlorinated Herbicides

1603331-02	**Lower value is used due to matrix interferences (LC).**
	Dicamba [2C]
1603331-02	**Modified result**
	MCPA
1603331-02	**Peaks found in the retention time window for MCPA did not confirm by GC/MS.**
1603331-02	**Percent difference between primary and confirmation results exceeds 40% (P).**
	Dicamba [2C]

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC ESS Laboratory Work Order: 1603331

1603331-03	**Modified result**
	MCPA , MCPP
1603331-03	**Peaks found in the retention time window for MCPA MCPP did not confirm by GC/MS.**
1603331-04	**Modified result**
	MCPP
1603331-04	**Peaks found in the retention time window for MCPP did not confirm by GC/MS.**
1603331-06	**Modified result**
	MCPA , MCPP
1603331-06	**Peaks found in the retention time window for MCPA MCPP did not confirm by GC/MS.**
CC61542-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Dalapon (33% @ 40-140%), Dalapon [2C] (33% @ 40-140%)
CC61542-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Dalapon (29% @ 40-140%), Dalapon [2C] (30% @ 40-140%), Dinoseb [2C] (% @ 10-100%)
CC61542-BSD1	**Relative percent difference for duplicate is outside of criteria (D+).**
	Dinoseb [2C] (200% @ 30%)
CC61724-BS1	**Blank Spike recovery is below lower control limit (B-).**
	2,4-DB [2C] (38% @ 40-140%)
CC61724-BSD1	**Relative percent difference for duplicate is outside of criteria (D+).**
	2,4,5-T (33% @ 30%), 2,4,5-TP (Silvex) (32% @ 30%), 2,4,5-TP (Silvex) [2C] (52% @ 30%), 2,4-D (31% @ 30%), 2,4-D [2C] (31% @ 30%), 2,4-DB (54% @ 30%), 2,4-DB [2C] (58% @ 30%), Dicamba [2C] (33% @ 30%), Dichlorprop [2C] (31% @ 30%), Dinoseb (43% @ 30%), Dinoseb [2C] (36% @ 30%), MCPA (32% @ 30%), MCPA [2C] (45% @ 30%), MCPP (36% @ 30%), MCPP [2C] (49% @ 30%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-01
Date Sampled: 03/14/16 09:00
Percent Solids: 78

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-01
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**1.51** (1.27)		6010C		1	KJK	03/16/16 17:27	5.02	100	CC61502
Lead	**16.0** (2.54)		6010C		1	KJK	03/16/16 0:45	5.02	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-01
Date Sampled: 03/14/16 09:00
Percent Solids: 78
Initial Volume: 20
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-01
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0295** (0.0160)		8081B		5	03/19/16 11:40	CZC0317	CC61616
4,4´-DDE	**0.0668** (0.0160)		8081B		5	03/19/16 11:40	CZC0317	CC61616
4,4´-DDT [2C]	**0.0136** (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Aldrin	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
alpha-BHC	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
alpha-Chlordane	**P 0.0069** (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
beta-BHC	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Chlordane (Total)	ND (0.0383)		8081B		1	03/18/16 8:04	CZC0317	CC61616
delta-BHC	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Dieldrin	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Endosulfan I	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Endosulfan II	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Endrin	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Endrin Aldehyde	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Endrin Ketone	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0019)		8081B		1	03/18/16 8:04	CZC0317	CC61616
gamma-Chlordane [2C]	**0.0043** (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Heptachlor	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Heptachlor Epoxide	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Hexachlorobenzene	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Methoxychlor	ND (0.0032)		8081B		1	03/18/16 8:04	CZC0317	CC61616
Toxaphene	ND (0.160)		8081B		1	03/18/16 8:04	CZC0317	CC61616

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*101 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-01
Date Sampled: 03/14/16 09:00
Percent Solids: 78
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-01
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/21/16 14:51	CZC0356	CC61724
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/21/16 14:51	CZC0356	CC61724
2,4-D	ND (0.240)		8151A		1	03/21/16 14:51	CZC0356	CC61724
2,4-DB	ND (0.243)		8151A		1	03/21/16 14:51	CZC0356	CC61724
Dalapon	ND (0.232)		8151A		1	03/21/16 14:51	CZC0356	CC61724
Dicamba	ND (0.012)		8151A		1	03/21/16 14:51	CZC0356	CC61724
Dichlorprop	ND (0.240)		8151A		1	03/21/16 14:51	CZC0356	CC61724
Dinoseb	ND (0.243)		8151A		1	03/21/16 14:51	CZC0356	CC61724
MCPA	ND (23.7)		8151A		1	03/21/16 14:51	CZC0356	CC61724
MCPP	ND (24.0)		8151A		1	03/21/16 14:51	CZC0356	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*61 %*		*30-150*
Surrogate: DCAA [2C]	*58 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-02
Date Sampled: 03/14/16 09:10
Percent Solids: 56

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-02
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**4.48** (2.01)		6010C		1	KJK	03/16/16 17:47	4.44	100	CC61502
Lead	**36.5** (4.02)		6010C		1	KJK	03/16/16 1:18	4.44	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-02
Date Sampled: 03/14/16 09:10
Percent Solids: 56
Initial Volume: 19.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-02
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0237** (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
4,4´-DDE	**0.0664** (0.0233)		8081B		5	03/19/16 14:26	CZC0317	CC62227
4,4´-DDT	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Aldrin	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
alpha-BHC	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
alpha-Chlordane	**P 0.0086** (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
beta-BHC	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Chlordane (Total)	ND (0.0558)		8081B		1	03/19/16 13:52	CZC0317	CC62227
delta-BHC	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Dieldrin	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Endosulfan I	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Endosulfan II	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Endosulfan Sulfate	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Endrin	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Endrin Aldehyde	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Endrin Ketone	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
gamma-BHC (Lindane)	ND (0.0028)		8081B		1	03/19/16 13:52	CZC0317	CC62227
gamma-Chlordane [2C]	**0.0198** (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Heptachlor	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Heptachlor Epoxide	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Hexachlorobenzene	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Methoxychlor	ND (0.0047)		8081B		1	03/19/16 13:52	CZC0317	CC62227
Toxaphene	ND (0.233)		8081B		1	03/19/16 13:52	CZC0317	CC62227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-02
Date Sampled: 03/14/16 09:10
Percent Solids: 56
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-02
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.017)		8151A		1	03/21/16 15:19	CZC0356	CC61724
2,4,5-TP (Silvex)	ND (0.017)		8151A		1	03/21/16 15:19	CZC0356	CC61724
2,4-D	ND (0.336)		8151A		1	03/21/16 15:19	CZC0356	CC61724
2,4-DB	ND (0.339)		8151A		1	03/21/16 15:19	CZC0356	CC61724
Dalapon [2C]	ND (0.325)		8151A		1	03/21/16 15:19	CZC0356	CC61724
Dicamba [2C]	**LC, P 0.091** (0.084)		8151A		5	03/23/16 7:29	CZC0356	CC61724
Dichlorprop [2C]	**1.30** (0.336)		8151A		1	03/21/16 15:19	CZC0356	CC61724
Dinoseb	ND (0.339)		8151A		1	03/21/16 15:19	CZC0356	CC61724
MCPA	# ND (166)		8151A		5	03/23/16 7:29	CZC0356	CC61724
MCPP	ND (33.6)		8151A		1	03/21/16 15:19	CZC0356	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*100 %*		*30-150*
Surrogate: DCAA [2C]	*47 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-03
Date Sampled: 03/14/16 09:50
Percent Solids: 64

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-03
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**5.11** (1.84)		6010C		1	KJK	03/16/16 17:51	4.24	100	CC61502
Lead	**10.1** (3.67)		6010C		1	KJK	03/16/16 1:22	4.24	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-03
Date Sampled: 03/14/16 09:50
Percent Solids: 64
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-03
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0370** (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
4,4´-DDE	**0.0446** (0.0199)		8081B		5	03/19/16 15:32	CZC0317	CC62227
4,4´-DDT	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Aldrin	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
alpha-BHC	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
alpha-Chlordane	**0.0453** (0.0199)		8081B		5	03/19/16 15:32	CZC0317	CC62227
beta-BHC	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Chlordane (Total)	ND (0.0477)		8081B		1	03/19/16 14:59	CZC0317	CC62227
delta-BHC	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Dieldrin	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Endosulfan I	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Endosulfan II	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Endosulfan Sulfate	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Endrin	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Endrin Aldehyde	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Endrin Ketone	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
gamma-BHC (Lindane)	ND (0.0024)		8081B		1	03/19/16 14:59	CZC0317	CC62227
gamma-Chlordane [2C]	**0.0238** (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Heptachlor	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Heptachlor Epoxide	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Hexachlorobenzene	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Methoxychlor	ND (0.0040)		8081B		1	03/19/16 14:59	CZC0317	CC62227
Toxaphene	ND (0.199)		8081B		1	03/19/16 14:59	CZC0317	CC62227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*70 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*63 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*71 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-03
Date Sampled: 03/14/16 09:50
Percent Solids: 64
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-03
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.015)		8151A		1	03/21/16 15:47	CZC0356	CC61724
2,4,5-TP (Silvex)	ND (0.015)		8151A		1	03/21/16 15:47	CZC0356	CC61724
2,4-D	ND (0.290)		8151A		1	03/21/16 15:47	CZC0356	CC61724
2,4-DB	ND (0.293)		8151A		1	03/21/16 15:47	CZC0356	CC61724
Dalapon	ND (0.281)		8151A		1	03/21/16 15:47	CZC0356	CC61724
Dicamba	ND (0.014)		8151A		1	03/21/16 15:47	CZC0356	CC61724
Dichlorprop	ND (0.290)		8151A		1	03/21/16 15:47	CZC0356	CC61724
Dinoseb	ND (0.293)		8151A		1	03/21/16 15:47	CZC0356	CC61724
MCPA	# ND (28.7)		8151A		1	03/21/16 15:47	CZC0356	CC61724
MCPP	# ND (29.0)		8151A		1	03/21/16 15:47	CZC0356	CC61724

	%Recovery	*Qualifier*	*Limits*
Surrogate: DCAA	*70 %*		*30-150*
Surrogate: DCAA [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-04
Date Sampled: 03/14/16 10:15
Percent Solids: 77

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-04
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**2.04** (1.57)		6010C		1	KJK	03/16/16 18:08	4.11	100	CC61502
Lead	**6.14** (3.14)		6010C		1	KJK	03/16/16 1:26	4.11	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-04
Date Sampled: 03/14/16 10:15
Percent Solids: 77
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-04
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
4,4´-DDE	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
4,4´-DDT	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Aldrin	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
alpha-BHC	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
alpha-Chlordane	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
beta-BHC	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Chlordane (Total)	ND (0.0397)		8081B		1	03/19/16 16:05	CZC0317	CC62227
delta-BHC	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Dieldrin	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Endosulfan I	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Endosulfan II	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Endosulfan Sulfate	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Endrin	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Endrin Aldehyde	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Endrin Ketone	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
gamma-BHC (Lindane)	ND (0.0020)		8081B		1	03/19/16 16:05	CZC0317	CC62227
gamma-Chlordane	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Heptachlor	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Heptachlor Epoxide	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Hexachlorobenzene	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Methoxychlor	ND (0.0033)		8081B		1	03/19/16 16:05	CZC0317	CC62227
Toxaphene	ND (0.165)		8081B		1	03/19/16 16:05	CZC0317	CC62227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*102 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*104 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-04
Date Sampled: 03/14/16 10:15
Percent Solids: 77
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-04
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/21/16 16:15	CZC0356	CC61724
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/21/16 16:15	CZC0356	CC61724
2,4-D	ND (0.231)		8151A		1	03/21/16 16:15	CZC0356	CC61724
2,4-DB	ND (0.234)		8151A		1	03/21/16 16:15	CZC0356	CC61724
Dalapon	ND (0.224)		8151A		1	03/21/16 16:15	CZC0356	CC61724
Dicamba	ND (0.012)		8151A		1	03/21/16 16:15	CZC0356	CC61724
Dichlorprop	ND (0.231)		8151A		1	03/21/16 16:15	CZC0356	CC61724
Dinoseb	ND (0.234)		8151A		1	03/21/16 16:15	CZC0356	CC61724
MCPA	ND (22.9)		8151A		1	03/21/16 16:15	CZC0356	CC61724
MCPP	# ND (23.1)		8151A		1	03/21/16 16:15	CZC0356	CC61724

	%Recovery	*Qualifier*	*Limits*
Surrogate: DCAA	*64 %*		*30-150*
Surrogate: DCAA [2C]	*60 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-05
Date Sampled: 03/14/16 10:30
Percent Solids: 75

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-05
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**2.14** (1.35)		6010C		1	KJK	03/16/16 18:12	4.95	100	CC61502
Lead	**6.00** (2.70)		6010C		1	KJK	03/16/16 1:30	4.95	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-05
Date Sampled: 03/14/16 10:30
Percent Solids: 75
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-05
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
4,4´-DDE	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
4,4´-DDT	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Aldrin	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
alpha-BHC	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
alpha-Chlordane	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
beta-BHC	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Chlordane (Total)	ND (0.0412)		8081B		1	03/18/16 10:16	CZC0317	CC61616
delta-BHC	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Dieldrin	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Endosulfan I	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Endosulfan II	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Endrin	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Endrin Aldehyde	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Endrin Ketone	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0021)		8081B		1	03/18/16 10:16	CZC0317	CC61616
gamma-Chlordane	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Heptachlor	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Heptachlor Epoxide	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Hexachlorobenzene	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Methoxychlor	ND (0.0034)		8081B		1	03/18/16 10:16	CZC0317	CC61616
Toxaphene	ND (0.172)		8081B		1	03/18/16 10:16	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-05
Date Sampled: 03/14/16 10:30
Percent Solids: 75
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-05
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.013)		8151A		1	03/21/16 16:43	CZC0356	CC61724
2,4,5-TP (Silvex)	ND (0.013)		8151A		1	03/21/16 16:43	CZC0356	CC61724
2,4-D	ND (0.252)		8151A		1	03/21/16 16:43	CZC0356	CC61724
2,4-DB	ND (0.254)		8151A		1	03/21/16 16:43	CZC0356	CC61724
Dalapon	ND (0.244)		8151A		1	03/21/16 16:43	CZC0356	CC61724
Dicamba	ND (0.013)		8151A		1	03/21/16 16:43	CZC0356	CC61724
Dichlorprop	ND (0.252)		8151A		1	03/21/16 16:43	CZC0356	CC61724
Dinoseb	ND (0.254)		8151A		1	03/21/16 16:43	CZC0356	CC61724
MCPA	ND (24.9)		8151A		1	03/21/16 16:43	CZC0356	CC61724
MCPP	ND (25.2)		8151A		1	03/21/16 16:43	CZC0356	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*62 %*		*30-150*
Surrogate: DCAA [2C]	*56 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-06
Date Sampled: 03/14/16 10:40
Percent Solids: 48

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-06
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.4** (2.40)		6010C		1	KJK	03/16/16 18:16	4.32	100	CC61502
Lead	**102** (4.80)		6010C		1	KJK	03/16/16 1:34	4.32	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-06
Date Sampled: 03/14/16 10:40
Percent Solids: 48
Initial Volume: 19.9
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-06
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: TJ
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.290** (0.0521)		8081B		10	03/19/16 17:11	CZC0317	CC62227
4,4´-DDE [2C]	**0.309** (0.0521)		8081B		10	03/19/16 17:11	CZC0317	CC62227
4,4´-DDT	**LC, P 0.0122** (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Aldrin	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
alpha-BHC	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
alpha-Chlordane	**P 0.0898** (0.0521)		8081B		10	03/19/16 17:11	CZC0317	CC62227
beta-BHC	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Chlordane (Total)	ND (0.0625)		8081B		1	03/19/16 16:38	CZC0317	CC62227
delta-BHC	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Dieldrin	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Endosulfan I	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Endosulfan II	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Endosulfan Sulfate	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Endrin	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Endrin Aldehyde	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Endrin Ketone	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
gamma-BHC (Lindane)	ND (0.0031)		8081B		1	03/19/16 16:38	CZC0317	CC62227
gamma-Chlordane [2C]	**0.301** (0.0521)		8081B		10	03/19/16 17:11	CZC0317	CC62227
Heptachlor	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Heptachlor Epoxide	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Hexachlorobenzene	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Methoxychlor	ND (0.0052)		8081B		1	03/19/16 16:38	CZC0317	CC62227
Toxaphene	ND (0.260)		8081B		1	03/19/16 16:38	CZC0317	CC62227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SED-06
Date Sampled: 03/14/16 10:40
Percent Solids: 48
Initial Volume: 10.2
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-06
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.019)		8151A		1	03/21/16 17:11	CZC0356	CC61724
2,4,5-TP (Silvex)	ND (0.019)		8151A		1	03/21/16 17:11	CZC0356	CC61724
2,4-D	ND (0.382)		8151A		1	03/21/16 17:11	CZC0356	CC61724
2,4-DB	ND (0.386)		8151A		1	03/21/16 17:11	CZC0356	CC61724
Dalapon [2C]	ND (0.370)		8151A		1	03/21/16 17:11	CZC0356	CC61724
Dicamba	ND (0.019)		8151A		1	03/21/16 17:11	CZC0356	CC61724
Dichlorprop	ND (0.382)		8151A		1	03/21/16 17:11	CZC0356	CC61724
Dinoseb	ND (0.386)		8151A		1	03/21/16 17:11	CZC0356	CC61724
MCPA	# ND (37.8)		8151A		1	03/21/16 17:11	CZC0356	CC61724
MCPP	# ND (38.2)		8151A		1	03/21/16 17:11	CZC0356	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*63 %*		*30-150*
Surrogate: DCAA [2C]	*56 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-01 0-6
Date Sampled: 03/14/16 11:00
Percent Solids: 83

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-07
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**10.9** (2.84)		6010C		1	KJK	03/16/16 18:20	2.11	100	CC61502
Lead	**27.8** (5.68)		6010C		1	KJK	03/16/16 1:38	2.11	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-01 0-6
Date Sampled: 03/14/16 11:00
Percent Solids: 83
Initial Volume: 20.3
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-07
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
4,4´-DDE [2C]	**0.0260** (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
4,4´-DDT [2C]	**0.0315** (0.0148)		8081B		5	03/18/16 22:24	CZC0278	CC62410
Aldrin	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
alpha-BHC	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
alpha-Chlordane [2C]	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
beta-BHC	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Chlordane (Total)	ND (0.0354)		8081B		1	03/17/16 2:04	CZC0278	CC62410
delta-BHC	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Dieldrin	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Endosulfan I	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Endosulfan II	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Endosulfan Sulfate	**0.0055** (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Endrin	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Endrin Aldehyde	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Endrin Ketone	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/17/16 2:04	CZC0278	CC62410
gamma-Chlordane	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Heptachlor	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Hexachlorobenzene	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Methoxychlor	ND (0.0030)		8081B		1	03/17/16 2:04	CZC0278	CC62410
Toxaphene	ND (0.148)		8081B		1	03/17/16 2:04	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-01 0-6
Date Sampled: 03/14/16 11:00
Percent Solids: 83
Initial Volume: 10.2
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-07
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/17/16 15:04	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/17/16 15:04	CZC0298	CC61542
2,4-D	ND (0.221)		8151A		1	03/17/16 15:04	CZC0298	CC61542
2,4-DB	ND (0.223)		8151A		1	03/17/16 15:04	CZC0298	CC61542
Dalapon	ND (0.214)		8151A		1	03/17/16 15:04	CZC0298	CC61542
Dicamba	ND (0.011)		8151A		1	03/17/16 15:04	CZC0298	CC61542
Dichlorprop	ND (0.221)		8151A		1	03/17/16 15:04	CZC0298	CC61542
Dinoseb	ND (0.223)		8151A		1	03/17/16 15:04	CZC0298	CC61542
MCPA	ND (21.9)		8151A		1	03/17/16 15:04	CZC0298	CC61542
MCPP	ND (22.1)		8151A		1	03/17/16 15:04	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*73 %*		*30-150*
Surrogate: DCAA [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-01 18-24
Date Sampled: 03/14/16 11:00
Percent Solids: 88

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-08
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**3.78** (2.48)		6010C		1	KJK	03/16/16 18:24	2.28	100	CC61502
Lead	**28.5** (4.96)		6010C		1	KJK	03/16/16 1:55	2.28	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-01 18-24
Date Sampled: 03/14/16 11:00
Percent Solids: 88
Initial Volume: 20.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-08
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
4,4´-DDE	**0.0269** (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
4,4´-DDT [2C]	**0.0187** (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Aldrin	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
alpha-BHC	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
alpha-Chlordane [2C]	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
beta-BHC	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Chlordane (Total)	ND (0.0329)		8081B		1	03/17/16 2:37	CZC0278	CC62410
delta-BHC	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Dieldrin	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Endosulfan I	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Endosulfan II	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Endrin	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Endrin Aldehyde	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Endrin Ketone	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0016)		8081B		1	03/17/16 2:37	CZC0278	CC62410
gamma-Chlordane	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Heptachlor	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Hexachlorobenzene	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Methoxychlor	ND (0.0027)		8081B		1	03/17/16 2:37	CZC0278	CC62410
Toxaphene	ND (0.137)		8081B		1	03/17/16 2:37	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*65 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-01 18-24
Date Sampled: 03/14/16 11:00
Percent Solids: 88
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-08
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.010)		8151A		1	03/17/16 16:30	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.010)		8151A		1	03/17/16 16:30	CZC0298	CC61542
2,4-D	ND (0.202)		8151A		1	03/17/16 16:30	CZC0298	CC61542
2,4-DB	ND (0.205)		8151A		1	03/17/16 16:30	CZC0298	CC61542
Dalapon	ND (0.196)		8151A		1	03/17/16 16:30	CZC0298	CC61542
Dicamba	ND (0.010)		8151A		1	03/17/16 16:30	CZC0298	CC61542
Dichlorprop	ND (0.202)		8151A		1	03/17/16 16:30	CZC0298	CC61542
Dinoseb	ND (0.205)		8151A		1	03/17/16 16:30	CZC0298	CC61542
MCPA	ND (20.0)		8151A		1	03/17/16 16:30	CZC0298	CC61542
MCPP	ND (20.2)		8151A		1	03/17/16 16:30	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*58 %*		*30-150*
Surrogate: DCAA [2C]	*59 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-02 0-6
Date Sampled: 03/14/16 11:15
Percent Solids: 82

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-09
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**5.58** (2.83)		6010C		1	KJK	03/16/16 18:28	2.15	100	CC61502
Lead	**32.9** (5.66)		6010C		1	KJK	03/16/16 1:59	2.15	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-02 0-6
Date Sampled: 03/14/16 11:15
Percent Solids: 82
Initial Volume: 19.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-09
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0101** (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
4,4´-DDE	**1.56** (0.159)		8081B		50	03/19/16 0:04	CZC0278	CC62410
4,4´-DDT [2C]	**0.443** (0.159)		8081B		50	03/19/16 0:04	CZC0278	CC62410
Aldrin	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
alpha-BHC	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
alpha-Chlordane	**0.146** (0.0159)		8081B		5	03/18/16 23:30	CZC0278	CC62410
beta-BHC	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Chlordane (Total)	**0.345** (0.191)		8081B		5	03/18/16 23:30	CZC0278	CC62410
delta-BHC	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Dieldrin	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Endosulfan I	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Endosulfan II	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Endrin	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Endrin Aldehyde	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Endrin Ketone	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0019)		8081B		1	03/17/16 3:10	CZC0278	CC62410
gamma-Chlordane [2C]	**0.0293** (0.0159)		8081B		5	03/18/16 23:30	CZC0278	CC62410
Heptachlor	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Heptachlor Epoxide	**0.118** (0.0159)		8081B		5	03/18/16 23:30	CZC0278	CC62410
Hexachlorobenzene	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Methoxychlor	ND (0.0032)		8081B		1	03/17/16 3:10	CZC0278	CC62410
Toxaphene	ND (0.159)		8081B		1	03/17/16 3:10	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*113 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*109 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*79 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-02 0-6
Date Sampled: 03/14/16 11:15
Percent Solids: 82
Initial Volume: 10.2
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-09
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/17/16 16:59	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/17/16 16:59	CZC0298	CC61542
2,4-D	ND (0.224)		8151A		1	03/17/16 16:59	CZC0298	CC61542
2,4-DB	ND (0.227)		8151A		1	03/17/16 16:59	CZC0298	CC61542
Dalapon	ND (0.217)		8151A		1	03/17/16 16:59	CZC0298	CC61542
Dicamba	ND (0.011)		8151A		1	03/17/16 16:59	CZC0298	CC61542
Dichlorprop	ND (0.224)		8151A		1	03/17/16 16:59	CZC0298	CC61542
Dinoseb	ND (0.227)		8151A		1	03/17/16 16:59	CZC0298	CC61542
MCPA	ND (22.2)		8151A		1	03/17/16 16:59	CZC0298	CC61542
MCPP	ND (22.4)		8151A		1	03/17/16 16:59	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*62 %*		*30-150*
Surrogate: DCAA [2C]	*59 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-02 18-24
Date Sampled: 03/14/16 11:15
Percent Solids: 88

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-10
Sample Matrix: Sediment
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (2.83)		6010C		1	KJK	03/16/16 18:32	2.01	100	CC61502
Lead	**11.9** (5.66)		6010C		1	KJK	03/16/16 2:03	2.01	100	CC61502

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-02 18-24
Date Sampled: 03/14/16 11:15
Percent Solids: 88
Initial Volume: 19.4
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-10
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0071** (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
4,4´-DDE	**0.364** (0.0586)		8081B		20	03/19/16 1:10	CZC0278	CC62410
4,4´-DDT [2C]	**0.140** (0.0293)		8081B		10	03/19/16 0:37	CZC0278	CC62410
Aldrin	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
alpha-BHC	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
alpha-Chlordane [2C]	**LC, P 0.0152** (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
beta-BHC	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Chlordane (Total)	**0.0949** (0.0352)		8081B		1	03/17/16 3:43	CZC0278	CC62410
delta-BHC	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Dieldrin	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Endosulfan I	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Endosulfan II	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Endrin	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Endrin Aldehyde	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Endrin Ketone	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/17/16 3:43	CZC0278	CC62410
gamma-Chlordane [2C]	**0.0079** (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Heptachlor	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Heptachlor Epoxide [2C]	**0.0284** (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Hexachlorobenzene	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Methoxychlor	ND (0.0029)		8081B		1	03/17/16 3:43	CZC0278	CC62410
Toxaphene	ND (0.147)		8081B		1	03/17/16 3:43	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-02 18-24
Date Sampled: 03/14/16 11:15
Percent Solids: 88
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603331
ESS Laboratory Sample ID: 1603331-10
Sample Matrix: Sediment
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/17/16 17:28	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/17/16 17:28	CZC0298	CC61542
2,4-D	ND (0.212)		8151A		1	03/17/16 17:28	CZC0298	CC61542
2,4-DB	ND (0.214)		8151A		1	03/17/16 17:28	CZC0298	CC61542
Dalapon	ND (0.205)		8151A		1	03/17/16 17:28	CZC0298	CC61542
Dicamba	ND (0.011)		8151A		1	03/17/16 17:28	CZC0298	CC61542
Dichlorprop	ND (0.212)		8151A		1	03/17/16 17:28	CZC0298	CC61542
Dinoseb	ND (0.214)		8151A		1	03/17/16 17:28	CZC0298	CC61542
MCPA	ND (20.9)		8151A		1	03/17/16 17:28	CZC0298	CC61542
MCPP	ND (21.2)		8151A		1	03/17/16 17:28	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*68 %*		*30-150*
Surrogate: DCAA [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch CC61502 - 3050B										
Blank										
Arsenic	ND	2.50	mg/kg wet							
Lead	ND	5.00	mg/kg wet							
LCS										
Arsenic	147	7.81	mg/kg wet	161.0		91	80-120			
Lead	117	15.6	mg/kg wet	138.0		84	80-120			
LCS Dup										
Arsenic	136	9.43	mg/kg wet	161.0		84	80-120	8	20	
Lead	113	18.9	mg/kg wet	138.0		82	80-120	3	20	
8081B Organochlorine Pesticides										
Batch CC61616 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

8081B Organochlorine Pesticides

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CC61616 - 3546										
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0130*		mg/kg wet	*0.01250*		*104*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0130*		mg/kg wet	*0.01250*		*104*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0117*		mg/kg wet	*0.01250*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0114*		mg/kg wet	*0.01250*		*91*	*30-150*			
LCS										
4,4´-DDD	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
4,4´-DDD [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
4,4´-DDE	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
4,4´-DDE [2C]	0.0121	0.0025	mg/kg wet	0.01250		96	40-140			
4,4´-DDT	0.0131	0.0025	mg/kg wet	0.01250		105	40-140			
4,4´-DDT [2C]	0.0133	0.0025	mg/kg wet	0.01250		106	40-140			
Aldrin	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Aldrin [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC [2C]	0.0109	0.0025	mg/kg wet	0.01250		88	40-140			
alpha-Chlordane	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
alpha-Chlordane [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
beta-BHC	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
beta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
delta-BHC	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
delta-BHC [2C]	0.0112	0.0025	mg/kg wet	0.01250		90	40-140			
Dieldrin	0.0121	0.0025	mg/kg wet	0.01250		96	40-140			
Dieldrin [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Endosulfan I	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Endosulfan I [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Endosulfan II	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Endosulfan II [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endosulfan Sulfate	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Endosulfan Sulfate [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
Endrin	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Endrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
Endrin Aldehyde	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endrin Aldehyde [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61616 - 3546										
Endrin Ketone	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Endrin Ketone [2C]	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
gamma-BHC (Lindane)	0.0117	0.0015	mg/kg wet	0.01250		94	40-140			
gamma-BHC (Lindane) [2C]	0.0112	0.0015	mg/kg wet	0.01250		89	40-140			
gamma-Chlordane	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
gamma-Chlordane [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Heptachlor	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Heptachlor [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Heptachlor Epoxide	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Heptachlor Epoxide [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Hexachlorobenzene	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Hexachlorobenzene [2C]	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
Methoxychlor	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
Methoxychlor [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0123*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0123*		mg/kg wet	*0.01250*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0115*		mg/kg wet	*0.01250*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0113*		mg/kg wet	*0.01250*		*91*	*30-150*			
LCS Dup										
4,4´-DDD	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	7	30	
4,4´-DDD [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
4,4´-DDE	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
4,4´-DDE [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
4,4´-DDT	0.0142	0.0025	mg/kg wet	0.01250		113	40-140	8	30	
4,4´-DDT [2C]	0.0142	0.0025	mg/kg wet	0.01250		113	40-140	7	30	
Aldrin	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Aldrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	4	30	
alpha-BHC	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
alpha-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	5	30	
alpha-Chlordane	0.0122	0.0025	mg/kg wet	0.01250		97	40-140	4	30	
alpha-Chlordane [2C]	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
beta-BHC	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	4	30	
beta-BHC [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	4	30	
delta-BHC	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
delta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
Dieldrin	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
Dieldrin [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Endosulfan I	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	5	30	
Endosulfan I [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
Endosulfan II	0.0124	0.0025	mg/kg wet	0.01250		100	40-140	6	30	
Endosulfan II [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	4	30	
Endosulfan Sulfate	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	4	30	
Endosulfan Sulfate [2C]	0.0132	0.0025	mg/kg wet	0.01250		106	40-140	4	30	
Endrin	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	5	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61616 - 3546										
Endrin [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	4	30	
Endrin Aldehyde	0.0117	0.0025	mg/kg wet	0.01250		94	40-140	2	30	
Endrin Aldehyde [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	0.5	30	
Endrin Ketone	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	5	30	
Endrin Ketone [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	5	30	
gamma-BHC (Lindane)	0.0122	0.0015	mg/kg wet	0.01250		97	40-140	4	30	
gamma-BHC (Lindane) [2C]	0.0116	0.0015	mg/kg wet	0.01250		93	40-140	4	30	
gamma-Chlordane	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	5	30	
gamma-Chlordane [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	4	30	
Heptachlor	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
Heptachlor [2C]	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
Heptachlor Epoxide	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	4	30	
Heptachlor Epoxide [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Hexachlorobenzene	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	4	30	
Hexachlorobenzene [2C]	0.0122	0.0025	mg/kg wet	0.01250		97	40-140	5	30	
Methoxychlor	0.0137	0.0025	mg/kg wet	0.01250		110	40-140	6	30	
Methoxychlor [2C]	0.0135	0.0025	mg/kg wet	0.01250		108	40-140	8	30	
Surrogate: Decachlorobiphenyl	*0.0125*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0126*		mg/kg wet	*0.01250*		*101*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0117*		mg/kg wet	*0.01250*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0114*		mg/kg wet	*0.01250*		*91*	*30-150*			
Batch CC62227 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62227 - 3546										
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0124*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0126*		mg/kg wet	*0.01250*		*101*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0117*		mg/kg wet	*0.01250*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0119*		mg/kg wet	*0.01250*		*95*	*30-150*			
LCS										
4,4´-DDD	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
4,4´-DDD [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
4,4´-DDE	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
4,4´-DDE [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
4,4´-DDT	0.0132	0.0025	mg/kg wet	0.01250		106	40-140			
4,4´-DDT [2C]	0.0137	0.0025	mg/kg wet	0.01250		110	40-140			
Aldrin	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Aldrin [2C]	0.0122	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
alpha-BHC [2C]	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
alpha-Chlordane	0.0114	0.0025	mg/kg wet	0.01250		91	40-140			
alpha-Chlordane [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
beta-BHC	0.0114	0.0025	mg/kg wet	0.01250		91	40-140			
beta-BHC [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
delta-BHC	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
delta-BHC [2C]	0.0112	0.0025	mg/kg wet	0.01250		90	40-140			
Dieldrin	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Dieldrin [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62227 - 3546										
Endosulfan I	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Endosulfan I [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endosulfan II	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endosulfan II [2C]	0.0121	0.0025	mg/kg wet	0.01250		96	40-140			
Endosulfan Sulfate	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endosulfan Sulfate [2C]	0.0128	0.0025	mg/kg wet	0.01250		103	40-140			
Endrin	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endrin [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
Endrin Aldehyde	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endrin Aldehyde [2C]	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Endrin Ketone	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endrin Ketone [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
gamma-BHC (Lindane)	0.0120	0.0015	mg/kg wet	0.01250		96	40-140			
gamma-BHC (Lindane) [2C]	0.0117	0.0015	mg/kg wet	0.01250		94	40-140			
gamma-Chlordane	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
gamma-Chlordane [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Heptachlor	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
Heptachlor [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Heptachlor Epoxide	0.0111	0.0025	mg/kg wet	0.01250		88	40-140			
Heptachlor Epoxide [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Hexachlorobenzene	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Hexachlorobenzene [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Methoxychlor	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
Methoxychlor [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140			
Surrogate: Decachlorobiphenyl	*0.0122*		mg/kg wet	*0.01250*		*98*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0129*		mg/kg wet	*0.01250*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0119*		mg/kg wet	*0.01250*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0120*		mg/kg wet	*0.01250*		*96*	*30-150*			
LCS Dup										
4,4´-DDD	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	8	30	
4,4´-DDD [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	8	30	
4,4´-DDE	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	8	30	
4,4´-DDE [2C]	0.0132	0.0025	mg/kg wet	0.01250		105	40-140	7	30	
4,4´-DDT	0.0147	0.0025	mg/kg wet	0.01250		117	40-140	10	30	
4,4´-DDT [2C]	0.0151	0.0025	mg/kg wet	0.01250		121	40-140	10	30	
Aldrin	0.0122	0.0025	mg/kg wet	0.01250		97	40-140	6	30	
Aldrin [2C]	0.0128	0.0025	mg/kg wet	0.01250		103	40-140	5	30	
alpha-BHC	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	3	30	
alpha-BHC [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	4	30	
alpha-Chlordane	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	8	30	
alpha-Chlordane [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	7	30	
beta-BHC	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	5	30	
beta-BHC [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	6	30	
delta-BHC	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	6	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62227 - 3546										
delta-BHC [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	7	30	
Dieldrin	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	8	30	
Dieldrin [2C]	0.0134	0.0025	mg/kg wet	0.01250		107	40-140	7	30	
Endosulfan I	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	9	30	
Endosulfan I [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	7	30	
Endosulfan II	0.0126	0.0025	mg/kg wet	0.01250		100	40-140	9	30	
Endosulfan II [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
Endosulfan Sulfate	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
Endosulfan Sulfate [2C]	0.0139	0.0025	mg/kg wet	0.01250		111	40-140	8	30	
Endrin	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
Endrin [2C]	0.0137	0.0025	mg/kg wet	0.01250		109	40-140	8	30	
Endrin Aldehyde	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	5	30	
Endrin Aldehyde [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Endrin Ketone	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	9	30	
Endrin Ketone [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
gamma-BHC (Lindane)	0.0125	0.0015	mg/kg wet	0.01250		100	40-140	4	30	
gamma-BHC (Lindane) [2C]	0.0122	0.0015	mg/kg wet	0.01250		98	40-140	4	30	
gamma-Chlordane	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	7	30	
gamma-Chlordane [2C]	0.0132	0.0025	mg/kg wet	0.01250		105	40-140	7	30	
Heptachlor	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	5	30	
Heptachlor [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Heptachlor Epoxide	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	7	30	
Heptachlor Epoxide [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	6	30	
Hexachlorobenzene	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	3	30	
Hexachlorobenzene [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Methoxychlor	0.0143	0.0025	mg/kg wet	0.01250		114	40-140	11	30	
Methoxychlor [2C]	0.0144	0.0025	mg/kg wet	0.01250		115	40-140	10	30	
Surrogate: Decachlorobiphenyl	*0.0143*		mg/kg wet	*0.01250*		*115*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0142*		mg/kg wet	*0.01250*		*114*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0123*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0120*		mg/kg wet	*0.01250*		*96*	*30-150*			
Batch CC62410 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

8081B Organochlorine Pesticides

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CC62410 - 3546										
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0121*		mg/kg wet	*0.01250*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0120*		mg/kg wet	*0.01250*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0125*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00951*		mg/kg wet	*0.01250*		*76*	*30-150*			
LCS										
4,4´-DDD	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
4,4´-DDD [2C]	0.0131	0.0025	mg/kg wet	0.01250		104	40-140			
4,4´-DDE	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
4,4´-DDE [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
4,4´-DDT	0.0137	0.0025	mg/kg wet	0.01250		110	40-140			
4,4´-DDT [2C]	0.0142	0.0025	mg/kg wet	0.01250		113	40-140			
Aldrin	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Aldrin [2C]	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62410 - 3546										
alpha-BHC	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
alpha-BHC [2C]	0.0107	0.0025	mg/kg wet	0.01250		85	40-140			
alpha-Chlordane	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
alpha-Chlordane [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
beta-BHC	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
beta-BHC [2C]	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
delta-BHC	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
delta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Dieldrin	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Dieldrin [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140			
Endosulfan I	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Endosulfan I [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
Endosulfan II	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endosulfan II [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140			
Endosulfan Sulfate	0.0131	0.0025	mg/kg wet	0.01250		105	40-140			
Endosulfan Sulfate [2C]	0.0145	0.0025	mg/kg wet	0.01250		116	40-140			
Endrin	0.0128	0.0025	mg/kg wet	0.01250		103	40-140			
Endrin [2C]	0.0139	0.0025	mg/kg wet	0.01250		111	40-140			
Endrin Aldehyde	0.0111	0.0025	mg/kg wet	0.01250		89	40-140			
Endrin Aldehyde [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Endrin Ketone	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
Endrin Ketone [2C]	0.0132	0.0025	mg/kg wet	0.01250		106	40-140			
gamma-BHC (Lindane)	0.0123	0.0015	mg/kg wet	0.01250		98	40-140			
gamma-BHC (Lindane) [2C]	0.0112	0.0015	mg/kg wet	0.01250		90	40-140			
gamma-Chlordane	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
gamma-Chlordane [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140			
Heptachlor	0.0127	0.0025	mg/kg wet	0.01250		101	40-140			
Heptachlor [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Heptachlor Epoxide	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Heptachlor Epoxide [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
Hexachlorobenzene	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Hexachlorobenzene [2C]	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Methoxychlor	0.0145	0.0025	mg/kg wet	0.01250		116	40-140			
Methoxychlor [2C]	0.0155	0.0025	mg/kg wet	0.01250		124	40-140			
Surrogate: Decachlorobiphenyl	*0.0126*		mg/kg wet	*0.01250*		*101*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0130*		mg/kg wet	*0.01250*		*104*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0124*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00958*		mg/kg wet	*0.01250*		*77*	*30-150*			
LCS Dup										
4,4´-DDD	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	0.08	30	
4,4´-DDD [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	0.4	30	
4,4´-DDE	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	1	30	
4,4´-DDE [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	0.7	30	
4,4´-DDT	0.0141	0.0025	mg/kg wet	0.01250		113	40-140	3	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62410 - 3546										
4,4´-DDT [2C]	0.0144	0.0025	mg/kg wet	0.01250		115	40-140	2	30	
Aldrin	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	2	30	
Aldrin [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140	2	30	
alpha-BHC	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	2	30	
alpha-BHC [2C]	0.0109	0.0025	mg/kg wet	0.01250		87	40-140	2	30	
alpha-Chlordane	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	2	30	
alpha-Chlordane [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	0.9	30	
beta-BHC	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
beta-BHC [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140	2	30	
delta-BHC	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	2	30	
delta-BHC [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140	2	30	
Dieldrin	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	1	30	
Dieldrin [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	0.7	30	
Endosulfan I	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	1	30	
Endosulfan I [2C]	0.0128	0.0025	mg/kg wet	0.01250		103	40-140	0.7	30	
Endosulfan II	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	0.9	30	
Endosulfan II [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	0.2	30	
Endosulfan Sulfate	0.0133	0.0025	mg/kg wet	0.01250		107	40-140	2	30	
Endosulfan Sulfate [2C]	0.0145	0.0025	mg/kg wet	0.01250		116	40-140	0.2	30	
Endrin	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	2	30	
Endrin [2C]	0.0141	0.0025	mg/kg wet	0.01250		113	40-140	1	30	
Endrin Aldehyde	0.0114	0.0025	mg/kg wet	0.01250		91	40-140	2	30	
Endrin Aldehyde [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	0.3	30	
Endrin Ketone	0.0133	0.0025	mg/kg wet	0.01250		106	40-140	4	30	
Endrin Ketone [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	1	30	
gamma-BHC (Lindane)	0.0125	0.0015	mg/kg wet	0.01250		100	40-140	2	30	
gamma-BHC (Lindane) [2C]	0.0114	0.0015	mg/kg wet	0.01250		91	40-140	1	30	
gamma-Chlordane	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	1	30	
gamma-Chlordane [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	1	30	
Heptachlor	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	3	30	
Heptachlor [2C]	0.0127	0.0025	mg/kg wet	0.01250		101	40-140	2	30	
Heptachlor Epoxide	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	1	30	
Heptachlor Epoxide [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	1	30	
Hexachlorobenzene	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	2	30	
Hexachlorobenzene [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	2	30	
Methoxychlor	0.0147	0.0025	mg/kg wet	0.01250		118	40-140	1	30	
Methoxychlor [2C]	0.0157	0.0025	mg/kg wet	0.01250		125	40-140	1	30	
Surrogate: Decachlorobiphenyl	*0.0129*		mg/kg wet	*0.01250*		*103*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0131*		mg/kg wet	*0.01250*		*105*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0126*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00964*		mg/kg wet	*0.01250*		*77*	*30-150*			
8151A Chlorinated Herbicides										
Batch CC61542 - 3546										

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61542 - 3546										
Blank										
2,4,5-T	ND	0.010	mg/kg wet							
2,4,5-T [2C]	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex)	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	0.010	mg/kg wet							
2,4-D	ND	0.188	mg/kg wet							
2,4-D [2C]	ND	0.188	mg/kg wet							
2,4-DB	ND	0.190	mg/kg wet							
2,4-DB [2C]	ND	0.190	mg/kg wet							
Dalapon	ND	0.182	mg/kg wet							
Dalapon [2C]	ND	0.182	mg/kg wet							
Dicamba	ND	0.009	mg/kg wet							
Dicamba [2C]	ND	0.009	mg/kg wet							
Dichlorprop	ND	0.188	mg/kg wet							
Dichlorprop [2C]	ND	0.188	mg/kg wet							
Dinoseb	ND	0.190	mg/kg wet							
Dinoseb [2C]	ND	0.190	mg/kg wet							
MCPA	ND	18.6	mg/kg wet							
MCPA [2C]	ND	18.6	mg/kg wet							
MCPP	ND	18.8	mg/kg wet							
MCPP [2C]	ND	18.8	mg/kg wet							
Surrogate: DCAA	*13.6*		mg/kg wet	*20.00*		*68*	*30-150*			
Surrogate: DCAA [2C]	*12.6*		mg/kg wet	*20.00*		*63*	*30-150*			
LCS										
2,4,5-T	0.009	0.010	mg/kg wet	0.01900		46	40-140			
2,4,5-T [2C]	0.010	0.010	mg/kg wet	0.01900		50	40-140			
2,4,5-TP (Silvex)	0.009	0.010	mg/kg wet	0.01900		48	40-140			
2,4,5-TP (Silvex) [2C]	0.008	0.010	mg/kg wet	0.01900		44	40-140			
2,4-D	0.106	0.188	mg/kg wet	0.1880		56	40-140			
2,4-D [2C]	0.102	0.188	mg/kg wet	0.1880		54	40-140			
2,4-DB	0.102	0.190	mg/kg wet	0.1900		54	40-140			
2,4-DB [2C]	0.084	0.190	mg/kg wet	0.1900		44	40-140			
Dalapon	0.150	0.182	mg/kg wet	0.4550		33	40-140			B-
Dalapon [2C]	0.152	0.182	mg/kg wet	0.4550		33	40-140			B-
Dicamba	0.009	0.009	mg/kg wet	0.01880		46	40-140			
Dicamba [2C]	0.009	0.009	mg/kg wet	0.01880		46	40-140			
Dichlorprop	0.131	0.188	mg/kg wet	0.1880		70	40-140			
Dichlorprop [2C]	0.120	0.188	mg/kg wet	0.1880		64	40-140			
Dinoseb	0.012	0.190	mg/kg wet	0.09500		12	10-100			
Dinoseb [2C]	0.011	0.190	mg/kg wet	0.09500		11	10-100			
MCPA	8.51	18.6	mg/kg wet	18.60		46	40-140			
MCPA [2C]	8.03	18.6	mg/kg wet	18.60		43	40-140			
MCPP	8.54	18.8	mg/kg wet	18.80		45	40-140			
MCPP [2C]	8.97	18.8	mg/kg wet	18.80		48	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61542 - 3546										
Surrogate: DCAA	*14.2*		mg/kg wet	*20.00*		*71*	*30-150*			
Surrogate: DCAA [2C]	*14.0*		mg/kg wet	*20.00*		*70*	*30-150*			
LCS Dup										
2,4,5-T	0.008	0.010	mg/kg wet	0.01900		42	40-140	9	30	
2,4,5-T [2C]	0.009	0.010	mg/kg wet	0.01900		46	40-140	8	30	
2,4,5-TP (Silvex)	0.009	0.010	mg/kg wet	0.01900		46	40-140	4	30	
2,4,5-TP (Silvex) [2C]	0.008	0.010	mg/kg wet	0.01900		42	40-140	5	30	
2,4-D	0.099	0.188	mg/kg wet	0.1880		53	40-140	7	30	
2,4-D [2C]	0.095	0.188	mg/kg wet	0.1880		50	40-140	7	30	
2,4-DB	0.087	0.190	mg/kg wet	0.1900		46	40-140	16	30	
2,4-DB [2C]	0.076	0.190	mg/kg wet	0.1900		40	40-140	10	30	
Dalapon	0.132	0.182	mg/kg wet	0.4550		29	40-140	12	30	B-
Dalapon [2C]	0.134	0.182	mg/kg wet	0.4550		30	40-140	12	30	B-
Dicamba	0.008	0.009	mg/kg wet	0.01880		44	40-140	4	30	
Dicamba [2C]	0.008	0.009	mg/kg wet	0.01880		44	40-140	4	30	
Dichlorprop	0.125	0.188	mg/kg wet	0.1880		66	40-140	5	30	
Dichlorprop [2C]	0.111	0.188	mg/kg wet	0.1880		59	40-140	8	30	
Dinoseb	0.010	0.190	mg/kg wet	0.09500		10	10-100	21	30	
Dinoseb [2C]	ND	0.190	mg/kg wet	0.09500			10-100	200	30	B-, D+
MCPA	8.00	18.6	mg/kg wet	18.60		43	40-140	6	30	
MCPA [2C]	7.45	18.6	mg/kg wet	18.60		40	40-140	8	30	
MCPP	7.98	18.8	mg/kg wet	18.80		42	40-140	7	30	
MCPP [2C]	8.07	18.8	mg/kg wet	18.80		43	40-140	11	30	
Surrogate: DCAA	*13.2*		mg/kg wet	*20.00*		*66*	*30-150*			
Surrogate: DCAA [2C]	*12.3*		mg/kg wet	*20.00*		*61*	*30-150*			
Batch CC61724 - 3546										
Blank										
2,4,5-T	ND	0.010	mg/kg wet							
2,4,5-T [2C]	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex)	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	0.010	mg/kg wet							
2,4-D	ND	0.188	mg/kg wet							
2,4-D [2C]	ND	0.188	mg/kg wet							
2,4-DB	ND	0.190	mg/kg wet							
2,4-DB [2C]	ND	0.190	mg/kg wet							
Dalapon	ND	0.182	mg/kg wet							
Dalapon [2C]	ND	0.182	mg/kg wet							
Dicamba	ND	0.009	mg/kg wet							
Dicamba [2C]	ND	0.009	mg/kg wet							
Dichlorprop	ND	0.188	mg/kg wet							
Dichlorprop [2C]	ND	0.188	mg/kg wet							
Dinoseb	ND	0.190	mg/kg wet							
Dinoseb [2C]	ND	0.190	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61724 - 3546										
MCPA	ND	18.6	mg/kg wet							
MCPA [2C]	ND	18.6	mg/kg wet							
MCPP	ND	18.8	mg/kg wet							
MCPP [2C]	ND	18.8	mg/kg wet							
Surrogate: DCAA	*11.4*		mg/kg wet	*20.00*		*57*	*30-150*			
Surrogate: DCAA [2C]	*11.0*		mg/kg wet	*20.00*		*55*	*30-150*			
LCS										
2,4,5-T	0.010	0.010	mg/kg wet	0.01900		50	40-140			
2,4,5-T [2C]	0.010	0.010	mg/kg wet	0.01900		54	40-140			
2,4,5-TP (Silvex)	0.010	0.010	mg/kg wet	0.01900		52	40-140			
2,4,5-TP (Silvex) [2C]	0.010	0.010	mg/kg wet	0.01900		54	40-140			
2,4-D	0.118	0.188	mg/kg wet	0.1880		63	40-140			
2,4-D [2C]	0.160	0.188	mg/kg wet	0.1880		85	40-140			
2,4-DB	0.081	0.190	mg/kg wet	0.1900		43	40-140			
2,4-DB [2C]	0.073	0.190	mg/kg wet	0.1900		38	40-140			B-
Dalapon	0.200	0.182	mg/kg wet	0.4550		44	40-140			
Dalapon [2C]	0.222	0.182	mg/kg wet	0.4550		49	40-140			
Dicamba	0.012	0.009	mg/kg wet	0.01880		64	40-140			
Dicamba [2C]	0.012	0.009	mg/kg wet	0.01880		66	40-140			
Dichlorprop	0.148	0.188	mg/kg wet	0.1880		79	40-140			
Dichlorprop [2C]	0.150	0.188	mg/kg wet	0.1880		80	40-140			
Dinoseb	0.022	0.190	mg/kg wet	0.09500		24	10-100			
Dinoseb [2C]	0.025	0.190	mg/kg wet	0.09500		26	10-100			
MCPA	11.3	18.6	mg/kg wet	18.60		61	40-140			
MCPA [2C]	11.2	18.6	mg/kg wet	18.60		60	40-140			
MCPP	9.86	18.8	mg/kg wet	18.80		52	40-140			
MCPP [2C]	11.2	18.8	mg/kg wet	18.80		60	40-140			
Surrogate: DCAA	*17.3*		mg/kg wet	*20.00*		*87*	*30-150*			
Surrogate: DCAA [2C]	*18.2*		mg/kg wet	*20.00*		*91*	*30-150*			
LCS Dup										
2,4,5-T	0.013	0.010	mg/kg wet	0.01900		70	40-140	33	30	D+
2,4,5-T [2C]	0.014	0.010	mg/kg wet	0.01900		72	40-140	29	30	
2,4,5-TP (Silvex)	0.014	0.010	mg/kg wet	0.01900		72	40-140	32	30	D+
2,4,5-TP (Silvex) [2C]	0.017	0.010	mg/kg wet	0.01900		92	40-140	52	30	D+
2,4-D	0.162	0.188	mg/kg wet	0.1880		86	40-140	31	30	D+
2,4-D [2C]	0.217	0.188	mg/kg wet	0.1880		116	40-140	31	30	D+
2,4-DB	0.141	0.190	mg/kg wet	0.1900		74	40-140	54	30	D+
2,4-DB [2C]	0.132	0.190	mg/kg wet	0.1900		70	40-140	58	30	D+
Dalapon	0.250	0.182	mg/kg wet	0.4550		55	40-140	22	30	
Dalapon [2C]	0.277	0.182	mg/kg wet	0.4550		61	40-140	22	30	
Dicamba	0.015	0.009	mg/kg wet	0.01880		82	40-140	25	30	
Dicamba [2C]	0.017	0.009	mg/kg wet	0.01880		92	40-140	33	30	D+
Dichlorprop	0.197	0.188	mg/kg wet	0.1880		105	40-140	28	30	
Dichlorprop [2C]	0.205	0.188	mg/kg wet	0.1880		109	40-140	31	30	D+

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61724 - 3546										
Dinoseb	0.035	0.190	mg/kg wet	0.09500		36	10-100	43	30	D+
Dinoseb [2C]	0.036	0.190	mg/kg wet	0.09500		38	10-100	36	30	D+
MCPA	15.6	18.6	mg/kg wet	18.60		84	40-140	32	30	D+
MCPA [2C]	17.6	18.6	mg/kg wet	18.60		95	40-140	45	30	D+
MCPP	14.2	18.8	mg/kg wet	18.80		75	40-140	36	30	D+
MCPP [2C]	18.5	18.8	mg/kg wet	18.80		99	40-140	49	30	D+
Surrogate: DCAA	*22.0*		mg/kg wet	*20.00*		*110*	*30-150*			
Surrogate: DCAA [2C]	*22.4*		mg/kg wet	*20.00*		*112*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC ESS Laboratory Work Order: 1603331

Notes and Definitions

Z-09	ND
XHb	Peaks found in the retention time window for MCPP did not confirm by GC/MS.
XHa	Peaks found in the retention time window for MCPA MCPP did not confirm by GC/MS.
XH	Peaks found in the retention time window for MCPA did not confirm by GC/MS.
U	Analyte included in the analysis, but not detected
P	Percent difference between primary and confirmation results exceeds 40% (P).
LC	Lower value is used due to matrix interferences (LC).
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
CD+	Continuing Calibration %Diff/Drift is above control limit (CD+).
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B-	Blank Spike recovery is below lower control limit (B-).
#	Modified result
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603331

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - New York, NY - GZA/CMT

Shipped/Delivered Via: ESS Courier

ESS Project ID: 1603331
Date Received: 3/14/2016
Project Due Date: 3/21/2016
Days for Project: 5 Day

1. Air bill manifest present? Yes
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 1.8 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / (No)
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / (NA)

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOAs brought to freezer: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	16940	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
02	16939	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
03	16938	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
04	16937	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
05	16936	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
06	16935	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
07	16934	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
08	16933	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
09	16932	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
10	16931	Yes	NA	Yes	8 oz. Jar - Unpres	NP	

2nd Review
Are barcode labels on correct containers? (Yes) / No

Completed By: Date & Time: 3/14/16 1830
Reviewed By: Date & Time: 3/14/16 1940

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 16033331

Turn Time X Standard Other_____

Regulatory State: MA RI CT NH NJ (NY) ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - _____

Electonic Deliverables Excel Access PDF

Co. Name: GZA GEOENVIRONMENTAL	Project #: 41.0162403.00	Project Name: HAMPSHIRE CC	
Contact Person: STEPHEN KLINE	Address: 104 W. 29th STREET		
City: NEW YORK	State: NY	Zip: 10001	PO #:
Tel: 212-594-8140	Fax:	email: STEPHEN.KLINE@GZA.COM	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: VOA	PCB	Pest	Herb
1	3/14/16	9:00	G	SEDIMENT	SED-01	NONE	1	AG	8 oz	X	X	X	
2	"	9:10	"	"	SED-02	"	1	"	"	X	X	X	
3	"	9:50	"	"	SED-03	"	1	"	"	X	X	X	
4	"	10:15	"	"	SED-04	"	1	"	"	X	X	X	
5	"	10:30	"	"	SED-05	"	1	"	"	X	X	X	
6	"	10:40	"	"	SED-06	"	1	"	"	X	X	X	
7	"	11:00	"	"	SS-01(0-6)	"	1	"	"	X	X	X	
8	"	11:00	"	"	SS-01(18-24)	"	1	"	"	X	X	X	
9	"	11:15 JC	"	"	SS-02(0-6)	"	1	"	"	X	X	X	
10	"	11:15	"	"	SS-02(18-24)	"	1	"	"	X	X	X	

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____No

Seals Intact ____ Yes ____No NA: X

Cooler Temperature: 1.8 ice RB

Internal Use Only

[4 Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : JAMES COLONY

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
3/14/16 10:45	3/14/16 14:48	3/14/16 18:08	3K1602820
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Stephen Kline
GZA GeoEnvironmental, Inc.
104 West 29th Street, 10th Floor
New York, NY 10001

RE: Hampshire CC (41.0162403.00)
ESS Laboratory Work Order Number: 1603332

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 2:49 pm, Mar 25, 2016

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

SAMPLE RECEIPT

The following samples were received on March 14, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1603332-01	SS-03 0-6	Soil	6010C, 8081B, 8151A
1603332-02	SS-03 18-24	Soil	6010C, 8081B, 8151A
1603332-03	SS-04 0-6	Soil	6010C, 8081B, 8151A
1603332-04	SS-04 18-24	Soil	6010C, 8081B, 8151A
1603332-05	SS-05 0-6	Soil	6010C, 8081B, 8151A
1603332-06	SS-05 18-24	Soil	6010C, 8081B, 8151A
1603332-07	SS-06 0-6	Soil	6010C, 8081B, 8151A
1603332-08	SS-06 18-24	Soil	6010C, 8081B, 8151A
1603332-09	SS-07 0-6	Soil	6010C, 8081B, 8151A
1603332-10	SS-07 18-24	Soil	6010C, 8081B, 8151A
1603332-11	SS-08 0-6	Soil	6010C, 8081B, 8151A
1603332-12	SS-08 18-24	Soil	6010C, 8081B, 8151A
1603332-13	SS-09 0-6	Soil	6010C, 8081B, 8151A
1603332-14	SS-09 18-24	Soil	6010C, 8081B, 8151A

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

PROJECT NARRATIVE

8081B Organochlorine Pesticides

1603332-03	**Lower value is used due to matrix interferences (LC).** alpha-Chlordane [2C]
1603332-03	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane [2C]
1603332-05	**Lower value is used due to matrix interferences (LC).** 4,4´-DDT
1603332-05	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDT
1603332-06	**Lower value is used due to matrix interferences (LC).** alpha-Chlordane
1603332-06	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane , Dieldrin
1603332-07	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane , delta-BHC
1603332-08	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD , Endrin
1603332-08	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , delta-BHC , Endrin
1603332-09	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD , gamma-Chlordane , Heptachlor Epoxide [2C]
1603332-09	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , alpha-Chlordane , gamma-Chlordane , Heptachlor Epoxide [2C]
1603332-11	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD [2C] , gamma-Chlordane [2C]
CZC0278-CCV1	**Continuing Calibration %Diff/Drift is above control limit (CD+).** Methoxychlor [2C] (22% @ 20%)
CZC0278-CCV2	**Continuing Calibration %Diff/Drift is above control limit (CD+).** Methoxychlor [2C] (25% @ 20%)
CZC0278-CCV4	**Continuing Calibration %Diff/Drift is above control limit (CD+).** Methoxychlor [2C] (39% @ 20%)
CZC0278-CCV6	**Continuing Calibration %Diff/Drift is above control limit (CD+).** Methoxychlor [2C] (27% @ 20%)
CZC0317-CCV9	**Continuing Calibration %Diff/Drift is below control limit (CD-).** 4,4´-DDD (31% @ 20%), 4,4´-DDE (23% @ 20%), 4,4´-DDT (30% @ 20%), alpha-Chlordane (27% @ 20%), Decachlorobiphenyl (35% @ 20%), Dieldrin (30% @ 20%), Endosulfan I (30% @ 20%), Endosulfan II (33% @ 20%), Endosulfan Sulfate (33% @ 20%), Endrin (30% @ 20%), Endrin Aldehyde (32% @ 20%), Endrin Ketone (35% @ 20%), gamma-Chlordane (27% @ 20%), Heptachlor Epoxide (24% @ 20%), Methoxychlor (29% @ 20%)
CZC0317-CCVA	**Continuing Calibration %Diff/Drift is below control limit (CD-).** Decachlorobiphenyl (28% @ 20%)

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

8151A Chlorinated Herbicides

CC61542-BS1 **Blank Spike recovery is below lower control limit (B-).**
Dalapon (33% @ 40-140%), Dalapon [2C] (33% @ 40-140%)

CC61542-BSD1 **Blank Spike recovery is below lower control limit (B-).**
Dalapon (29% @ 40-140%), Dalapon [2C] (30% @ 40-140%), Dinoseb [2C] (% @ 10-100%)

CC61542-BSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
Dinoseb [2C] (200% @ 30%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-03 0-6
Date Sampled: 03/14/16 11:35
Percent Solids: 44

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-01
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**7.73** (5.42)		6010C		1	KJK	03/17/16 0:50	2.09	100	CC61503
Lead	**67.2** (10.8)		6010C		1	KJK	03/17/16 0:50	2.09	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-03 0-6
Date Sampled: 03/14/16 11:35
Percent Solids: 44
Initial Volume: 19.8
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0087** (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
4,4´-DDE [2C]	**0.0107** (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
4,4´-DDT	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Aldrin	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
alpha-BHC	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
alpha-Chlordane [2C]	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
beta-BHC	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Chlordane (Total)	ND (0.0687)		8081B		1	03/17/16 4:16	CZC0278	CC62410
delta-BHC	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Dieldrin	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Endosulfan I	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Endosulfan II	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Endrin	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Endrin Aldehyde	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Endrin Ketone	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0034)		8081B		1	03/17/16 4:16	CZC0278	CC62410
gamma-Chlordane	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Heptachlor	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Hexachlorobenzene	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Methoxychlor	ND (0.0057)		8081B		1	03/17/16 4:16	CZC0278	CC62410
Toxaphene	ND (0.286)		8081B		1	03/17/16 4:16	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*49 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*51 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*41 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*51 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-03 0-6
Date Sampled: 03/14/16 11:35
Percent Solids: 44
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.021)		8151A		1	03/21/16 13:55	CZC0356	CC61542
2,4,5-TP (Silvex)	ND (0.021)		8151A		1	03/21/16 13:55	CZC0356	CC61542
2,4-D	ND (0.406)		8151A		1	03/21/16 13:55	CZC0356	CC61542
2,4-DB	ND (0.410)		8151A		1	03/21/16 13:55	CZC0356	CC61542
Dalapon	ND (0.393)		8151A		1	03/21/16 13:55	CZC0356	CC61542
Dicamba [2C]	ND (0.020)		8151A		1	03/21/16 13:55	CZC0356	CC61542
Dichlorprop	ND (0.406)		8151A		1	03/21/16 13:55	CZC0356	CC61542
Dinoseb	ND (0.410)		8151A		1	03/21/16 13:55	CZC0356	CC61542
MCPA	ND (40.2)		8151A		1	03/21/16 13:55	CZC0356	CC61542
MCPP	ND (40.6)		8151A		1	03/21/16 13:55	CZC0356	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*54 %*		*30-150*
Surrogate: DCAA [2C]	*45 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-03 18-24
Date Sampled: 03/14/16 11:45
Percent Solids: 27

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-02
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (6.28)		6010C		1	KJK	03/17/16 0:54	2.9	100	CC61503
Lead	**38.7** (12.6)		6010C		1	KJK	03/17/16 0:54	2.9	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-03 18-24
Date Sampled: 03/14/16 11:45
Percent Solids: 27
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
4,4´-DDE	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
4,4´-DDT	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Aldrin	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
alpha-BHC	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
alpha-Chlordane	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
beta-BHC	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Chlordane (Total)	ND (0.111)		8081B		1	03/17/16 4:49	CZC0278	CC62410
delta-BHC	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Dieldrin	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Endosulfan I	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Endosulfan II	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Endrin	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Endrin Aldehyde	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Endrin Ketone	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0056)		8081B		1	03/17/16 4:49	CZC0278	CC62410
gamma-Chlordane	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Heptachlor	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Hexachlorobenzene	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Methoxychlor	ND (0.0093)		8081B		1	03/17/16 4:49	CZC0278	CC62410
Toxaphene	ND (0.464)		8081B		1	03/17/16 4:49	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*50 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*58 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*45 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*47 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-03 18-24
Date Sampled: 03/14/16 11:45
Percent Solids: 27
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.034)		8151A		1	03/17/16 18:52	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.034)		8151A		1	03/17/16 18:52	CZC0298	CC61542
2,4-D	ND (0.665)		8151A		1	03/17/16 18:52	CZC0298	CC61542
2,4-DB	ND (0.672)		8151A		1	03/17/16 18:52	CZC0298	CC61542
Dalapon	ND (0.643)		8151A		1	03/17/16 18:52	CZC0298	CC61542
Dicamba	ND (0.033)		8151A		1	03/17/16 18:52	CZC0298	CC61542
Dichlorprop	ND (0.665)		8151A		1	03/17/16 18:52	CZC0298	CC61542
Dinoseb	ND (0.672)		8151A		1	03/17/16 18:52	CZC0298	CC61542
MCPA	ND (65.8)		8151A		1	03/17/16 18:52	CZC0298	CC61542
MCPP	ND (66.5)		8151A		1	03/17/16 18:52	CZC0298	CC61542

	%Recovery	*Qualifier*	*Limits*
Surrogate: DCAA	*82 %*		*30-150*
Surrogate: DCAA [2C]	*53 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-04 0-6
Date Sampled: 03/14/16 12:00
Percent Solids: 80

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-03
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**6.55** (2.32)		6010C		1	KJK	03/17/16 0:58	2.68	100	CC61503
Lead	**126** (4.65)		6010C		1	KJK	03/17/16 0:58	2.68	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-04 0-6
Date Sampled: 03/14/16 12:00
Percent Solids: 80
Initial Volume: 19.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**0.0063** (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
4,4´-DDE	**0.0804** (0.0163)		8081B		5	03/19/16 1:43	CZC0278	CC62410
4,4´-DDT [2C]	**0.0331** (0.0163)		8081B		5	03/19/16 1:43	CZC0278	CC62410
Aldrin	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
alpha-BHC	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
alpha-Chlordane [2C]	**LC, P 0.0066** (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
beta-BHC	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Chlordane (Total)	ND (0.0391)		8081B		1	03/17/16 5:23	CZC0278	CC62410
delta-BHC	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Dieldrin	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Endosulfan I	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Endosulfan II	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Endrin	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Endrin Aldehyde	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Endrin Ketone	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0020)		8081B		1	03/17/16 5:23	CZC0278	CC62410
gamma-Chlordane [2C]	**0.0052** (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Heptachlor	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Heptachlor Epoxide	**0.0047** (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Hexachlorobenzene	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Methoxychlor	ND (0.0033)		8081B		1	03/17/16 5:23	CZC0278	CC62410
Toxaphene	ND (0.163)		8081B		1	03/17/16 5:23	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*60 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-04 0-6
Date Sampled: 03/14/16 12:00
Percent Solids: 80
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/17/16 19:21	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/17/16 19:21	CZC0298	CC61542
2,4-D	ND (0.232)		8151A		1	03/17/16 19:21	CZC0298	CC61542
2,4-DB	ND (0.234)		8151A		1	03/17/16 19:21	CZC0298	CC61542
Dalapon	ND (0.224)		8151A		1	03/17/16 19:21	CZC0298	CC61542
Dicamba	ND (0.012)		8151A		1	03/17/16 19:21	CZC0298	CC61542
Dichlorprop	ND (0.232)		8151A		1	03/17/16 19:21	CZC0298	CC61542
Dinoseb	ND (0.234)		8151A		1	03/17/16 19:21	CZC0298	CC61542
MCPA	ND (22.9)		8151A		1	03/17/16 19:21	CZC0298	CC61542
MCPP	ND (23.2)		8151A		1	03/17/16 19:21	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*74 %*		*30-150*
Surrogate: DCAA [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-04 18-24
Date Sampled: 03/14/16 12:10
Percent Solids: 89

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-04
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**4.45** (2.66)		6010C		1	KJK	03/17/16 1:02	2.11	100	CC61503
Lead	**9.44** (5.32)		6010C		1	KJK	03/17/16 1:02	2.11	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-04 18-24
Date Sampled: 03/14/16 12:10
Percent Solids: 89
Initial Volume: 20.9
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
4,4´-DDE [2C]	**0.0217** (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
4,4´-DDT [2C]	**0.0225** (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Aldrin	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
alpha-BHC	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
alpha-Chlordane [2C]	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
beta-BHC	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Chlordane (Total)	ND (0.0322)		8081B		1	03/17/16 5:56	CZC0278	CC62410
delta-BHC	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Dieldrin	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Endosulfan I	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Endosulfan II	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Endrin	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Endrin Aldehyde	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Endrin Ketone	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0016)		8081B		1	03/17/16 5:56	CZC0278	CC62410
gamma-Chlordane	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Heptachlor	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Hexachlorobenzene	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Methoxychlor	ND (0.0027)		8081B		1	03/17/16 5:56	CZC0278	CC62410
Toxaphene	ND (0.134)		8081B		1	03/17/16 5:56	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-04 18-24
Date Sampled: 03/14/16 12:10
Percent Solids: 89
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/17/16 19:49	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/17/16 19:49	CZC0298	CC61542
2,4-D	ND (0.209)		8151A		1	03/17/16 19:49	CZC0298	CC61542
2,4-DB	ND (0.211)		8151A		1	03/17/16 19:49	CZC0298	CC61542
Dalapon	ND (0.202)		8151A		1	03/17/16 19:49	CZC0298	CC61542
Dicamba	ND (0.010)		8151A		1	03/17/16 19:49	CZC0298	CC61542
Dichlorprop	ND (0.209)		8151A		1	03/17/16 19:49	CZC0298	CC61542
Dinoseb	ND (0.211)		8151A		1	03/17/16 19:49	CZC0298	CC61542
MCPA	ND (20.7)		8151A		1	03/17/16 19:49	CZC0298	CC61542
MCPP	ND (20.9)		8151A		1	03/17/16 19:49	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*69 %*		*30-150*
Surrogate: DCAA [2C]	*54 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-05 0-6
Date Sampled: 03/14/16 12:20
Percent Solids: 32

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-05
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.10** (7.14)		6010C		1	KJK	03/17/16 1:06	2.21	100	CC61503
Lead	**44.3** (14.3)		6010C		1	KJK	03/17/16 1:06	2.21	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-05 0-6
Date Sampled: 03/14/16 12:20
Percent Solids: 32
Initial Volume: 19.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
4,4´-DDE	**0.0264** (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
4,4´-DDT	**LC, P 0.0106** (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Aldrin	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
alpha-BHC	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
alpha-Chlordane	**0.0112** (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
beta-BHC	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Chlordane (Total)	ND (0.0986)		8081B		1	03/17/16 6:29	CZC0278	CC62410
delta-BHC	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Dieldrin	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Endosulfan I	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Endosulfan II	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Endrin	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Endrin Aldehyde	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Endrin Ketone	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0049)		8081B		1	03/17/16 6:29	CZC0278	CC62410
gamma-Chlordane	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Heptachlor	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Hexachlorobenzene	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Methoxychlor	ND (0.0082)		8081B		1	03/17/16 6:29	CZC0278	CC62410
Toxaphene	ND (0.411)		8081B		1	03/17/16 6:29	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*64 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*122 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*58 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*116 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-05 0-6
Date Sampled: 03/14/16 12:20
Percent Solids: 32
Initial Volume: 10.2
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.029)		8151A		1	03/17/16 21:42	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.029)		8151A		1	03/17/16 21:42	CZC0298	CC61542
2,4-D	ND (0.582)		8151A		1	03/17/16 21:42	CZC0298	CC61542
2,4-DB	ND (0.588)		8151A		1	03/17/16 21:42	CZC0298	CC61542
Dalapon	ND (0.563)		8151A		1	03/17/16 21:42	CZC0298	CC61542
Dicamba	ND (0.029)		8151A		1	03/17/16 21:42	CZC0298	CC61542
Dichlorprop	ND (0.582)		8151A		1	03/17/16 21:42	CZC0298	CC61542
Dinoseb	ND (0.588)		8151A		1	03/17/16 21:42	CZC0298	CC61542
MCPA	ND (57.5)		8151A		1	03/17/16 21:42	CZC0298	CC61542
MCPP	ND (58.2)		8151A		1	03/17/16 21:42	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*87 %*		*30-150*
Surrogate: DCAA [2C]	*63 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-05 18-24
Date Sampled: 03/14/16 12:30
Percent Solids: 65

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-06
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.7** (3.85)		6010C		1	KJK	03/17/16 1:10	2	100	CC61503
Lead	**123** (7.70)		6010C		1	KJK	03/17/16 1:10	2	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-05 18-24
Date Sampled: 03/14/16 12:30
Percent Solids: 65
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0134** (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
4,4´-DDE	**0.282** (0.0395)		8081B		10	03/19/16 2:16	CZC0278	CC62410
4,4´-DDT [2C]	**0.382** (0.0789)		8081B		20	03/19/16 2:49	CZC0278	CC62410
Aldrin	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
alpha-BHC	**0.0137** (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
alpha-Chlordane	**LC, P 0.0099** (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
beta-BHC [2C]	**0.0359** (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Chlordane (Total)	ND (0.0474)		8081B		1	03/17/16 7:02	CZC0278	CC62410
delta-BHC	**0.0551** (0.0395)		8081B		10	03/19/16 2:16	CZC0278	CC62410
Dieldrin	**P 0.0175** (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Endosulfan I	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Endosulfan II	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Endrin	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Endrin Aldehyde	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Endrin Ketone	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
gamma-BHC (Lindane)	**0.0672** (0.0237)		8081B		10	03/19/16 2:16	CZC0278	CC62410
gamma-Chlordane	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Heptachlor	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Heptachlor Epoxide [2C]	**0.0045** (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Hexachlorobenzene	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Methoxychlor	ND (0.0039)		8081B		1	03/17/16 7:02	CZC0278	CC62410
Toxaphene	ND (0.197)		8081B		1	03/17/16 7:02	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*111 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*69 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-05 18-24
Date Sampled: 03/14/16 12:30
Percent Solids: 65
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.014)		8151A		1	03/17/16 22:11	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.014)		8151A		1	03/17/16 22:11	CZC0298	CC61542
2,4-D	ND (0.276)		8151A		1	03/17/16 22:11	CZC0298	CC61542
2,4-DB	ND (0.279)		8151A		1	03/17/16 22:11	CZC0298	CC61542
Dalapon	ND (0.267)		8151A		1	03/17/16 22:11	CZC0298	CC61542
Dicamba	ND (0.014)		8151A		1	03/17/16 22:11	CZC0298	CC61542
Dichlorprop	ND (0.276)		8151A		1	03/17/16 22:11	CZC0298	CC61542
Dinoseb	ND (0.279)		8151A		1	03/17/16 22:11	CZC0298	CC61542
MCPA	ND (27.3)		8151A		1	03/17/16 22:11	CZC0298	CC61542
MCPP	ND (27.6)		8151A		1	03/17/16 22:11	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*77 %*		*30-150*
Surrogate: DCAA [2C]	*75 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-06 0-6
Date Sampled: 03/14/16 12:40
Percent Solids: 74

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-07
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**13.1** (2.92)		6010C		1	KJK	03/17/16 1:27	2.32	100	CC61503
Lead	**89.8** (5.83)		6010C		1	KJK	03/17/16 1:27	2.32	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-06 0-6
Date Sampled: 03/14/16 12:40
Percent Solids: 74
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
4,4´-DDE	**0.0991** (0.0173)		8081B		5	03/19/16 3:22	CZC0278	CC62410
4,4´-DDT [2C]	**0.0911** (0.0173)		8081B		5	03/19/16 3:22	CZC0278	CC62410
Aldrin [2C]	**0.0096** (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
alpha-BHC	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
alpha-Chlordane	**P 0.102** (0.0173)		8081B		5	03/19/16 3:22	CZC0278	CC62410
beta-BHC [2C]	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Chlordane (Total) [2C]	**0.354** (0.207)		8081B		5	03/19/16 3:22	CZC0278	CC62410
delta-BHC	**P 0.0152** (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Dieldrin [2C]	**0.162** (0.0173)		8081B		5	03/19/16 3:22	CZC0278	CC62410
Endosulfan I	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Endosulfan II	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Endrin	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Endrin Aldehyde	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Endrin Ketone	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0021)		8081B		1	03/17/16 7:35	CZC0278	CC62410
gamma-Chlordane	**0.0514** (0.0173)		8081B		5	03/19/16 3:22	CZC0278	CC62410
Heptachlor	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Heptachlor Epoxide	**0.0094** (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Hexachlorobenzene	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Methoxychlor	ND (0.0035)		8081B		1	03/17/16 7:35	CZC0278	CC62410
Toxaphene	ND (0.173)		8081B		1	03/17/16 7:35	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*116 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-06 0-6
Date Sampled: 03/14/16 12:40
Percent Solids: 74
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.013)		8151A		1	03/17/16 22:39	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.013)		8151A		1	03/17/16 22:39	CZC0298	CC61542
2,4-D	ND (0.254)		8151A		1	03/17/16 22:39	CZC0298	CC61542
2,4-DB	ND (0.257)		8151A		1	03/17/16 22:39	CZC0298	CC61542
Dalapon	ND (0.246)		8151A		1	03/17/16 22:39	CZC0298	CC61542
Dicamba	ND (0.013)		8151A		1	03/17/16 22:39	CZC0298	CC61542
Dichlorprop	ND (0.254)		8151A		1	03/17/16 22:39	CZC0298	CC61542
Dinoseb	ND (0.257)		8151A		1	03/17/16 22:39	CZC0298	CC61542
MCPA	ND (25.2)		8151A		1	03/17/16 22:39	CZC0298	CC61542
MCPP	ND (25.4)		8151A		1	03/17/16 22:39	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*75 %*		*30-150*
Surrogate: DCAA [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-06 18-24
Date Sampled: 03/14/16 12:50
Percent Solids: 79

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-08
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**15.0** (2.98)		6010C		1	KJK	03/17/16 1:47	2.12	100	CC61503
Lead	**80.4** (5.96)		6010C		1	KJK	03/17/16 1:47	2.12	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-06 18-24
Date Sampled: 03/14/16 12:50
Percent Solids: 79
Initial Volume: 20.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0075** (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
4,4´-DDE	**0.231** (0.0308)		8081B		10	03/19/16 5:02	CZC0278	CC62410
4,4´-DDT [2C]	**0.210** (0.0308)		8081B		10	03/19/16 5:02	CZC0278	CC62410
Aldrin [2C]	**0.0301** (0.0154)		8081B		5	03/19/16 4:29	CZC0278	CC62410
alpha-BHC	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
alpha-Chlordane	**0.143** (0.0154)		8081B		5	03/19/16 4:29	CZC0278	CC62410
beta-BHC [2C]	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Chlordane (Total) [2C]	**0.661** (0.185)		8081B		5	03/19/16 4:29	CZC0278	CC62410
delta-BHC	**P 0.0199** (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Dieldrin	**0.433** (0.154)		8081B		50	03/19/16 8:21	CZC0278	CC62410
Endosulfan I	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Endosulfan II	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Endrin	**LC, P 0.0058** (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Endrin Aldehyde	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Endrin Ketone [2C]	**0.0089** (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0019)		8081B		1	03/17/16 8:08	CZC0278	CC62410
gamma-Chlordane [2C]	**0.0955** (0.0154)		8081B		5	03/19/16 4:29	CZC0278	CC62410
Heptachlor	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Heptachlor Epoxide	**0.0110** (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Hexachlorobenzene	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Methoxychlor	ND (0.0031)		8081B		1	03/17/16 8:08	CZC0278	CC62410
Toxaphene	ND (0.154)		8081B		1	03/17/16 8:08	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*102 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*68 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-06 18-24
Date Sampled: 03/14/16 12:50
Percent Solids: 79
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/17/16 23:07	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/17/16 23:07	CZC0298	CC61542
2,4-D	ND (0.231)		8151A		1	03/17/16 23:07	CZC0298	CC61542
2,4-DB	ND (0.233)		8151A		1	03/17/16 23:07	CZC0298	CC61542
Dalapon	ND (0.223)		8151A		1	03/17/16 23:07	CZC0298	CC61542
Dicamba	ND (0.012)		8151A		1	03/17/16 23:07	CZC0298	CC61542
Dichlorprop	ND (0.231)		8151A		1	03/17/16 23:07	CZC0298	CC61542
Dinoseb	ND (0.233)		8151A		1	03/17/16 23:07	CZC0298	CC61542
MCPA	ND (22.8)		8151A		1	03/17/16 23:07	CZC0298	CC61542
MCPP	ND (23.1)		8151A		1	03/17/16 23:07	CZC0298	CC61542

	%Recovery	*Qualifier*	*Limits*
Surrogate: DCAA	*69 %*		*30-150*
Surrogate: DCAA [2C]	*69 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-07 0-6
Date Sampled: 03/14/16 13:00
Percent Solids: 80

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-09
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**55.7** (3.00)		6010C		1	KJK	03/17/16 1:51	2.08	100	CC61503
Lead	**189** (6.00)		6010C		1	KJK	03/17/16 1:51	2.08	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-07 0-6
Date Sampled: 03/14/16 13:00
Percent Solids: 80
Initial Volume: 20.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0959** (0.0151)		8081B		5	03/19/16 8:54	CZC0278	CC62410
4,4´-DDE	**4.10** (0.757)		8081B		250	03/19/16 10:00	CZC0278	CC62410
4,4´-DDT [2C]	**4.11** (0.757)		8081B		250	03/19/16 10:00	CZC0278	CC62410
Aldrin	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
alpha-BHC	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
alpha-Chlordane	**P 0.0630** (0.0151)		8081B		5	03/19/16 8:54	CZC0278	CC62410
beta-BHC	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Chlordane (Total) [2C]	**0.463** (0.182)		8081B		5	03/19/16 8:54	CZC0278	CC62410
delta-BHC	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Dieldrin	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Endosulfan I	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Endosulfan II	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Endrin	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Endrin Aldehyde	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Endrin Ketone	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/17/16 8:41	CZC0278	CC62410
gamma-Chlordane	**LC, P 0.0083** (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Heptachlor	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Heptachlor Epoxide [2C]	**LC, P 0.0223** (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Hexachlorobenzene [2C]	**0.0141** (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Methoxychlor	ND (0.0030)		8081B		1	03/17/16 8:41	CZC0278	CC62410
Toxaphene	ND (0.151)		8081B		1	03/17/16 8:41	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*68 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*57 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*49 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-07 0-6
Date Sampled: 03/14/16 13:00
Percent Solids: 80
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/17/16 23:36	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/17/16 23:36	CZC0298	CC61542
2,4-D	ND (0.232)		8151A		1	03/17/16 23:36	CZC0298	CC61542
2,4-DB	ND (0.235)		8151A		1	03/17/16 23:36	CZC0298	CC61542
Dalapon	ND (0.225)		8151A		1	03/17/16 23:36	CZC0298	CC61542
Dicamba	ND (0.012)		8151A		1	03/17/16 23:36	CZC0298	CC61542
Dichlorprop	ND (0.232)		8151A		1	03/17/16 23:36	CZC0298	CC61542
Dinoseb	ND (0.235)		8151A		1	03/17/16 23:36	CZC0298	CC61542
MCPA	ND (23.0)		8151A		1	03/17/16 23:36	CZC0298	CC61542
MCPP	ND (23.2)		8151A		1	03/17/16 23:36	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*62 %*		*30-150*
Surrogate: DCAA [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-07 18-24
Date Sampled: 03/14/16 13:10
Percent Solids: 83

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-10
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**8.28** (2.76)		6010C		1	KJK	03/17/16 1:55	2.19	100	CC61503
Lead	**23.1** (5.53)		6010C		1	KJK	03/17/16 1:55	2.19	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-07 18-24
Date Sampled: 03/14/16 13:10
Percent Solids: 83
Initial Volume: 20
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
4,4´-DDE	**0.111** (0.0151)		8081B		5	03/19/16 10:34	CZC0278	CC62410
4,4´-DDT [2C]	**0.0664** (0.0151)		8081B		5	03/19/16 10:34	CZC0278	CC62410
Aldrin	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
alpha-BHC	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
alpha-Chlordane	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
beta-BHC	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Chlordane (Total)	ND (0.0363)		8081B		1	03/17/16 9:14	CZC0278	CC62410
delta-BHC	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Dieldrin	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Endosulfan I	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Endosulfan II	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Endrin	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Endrin Aldehyde	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Endrin Ketone	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/17/16 9:14	CZC0278	CC62410
gamma-Chlordane	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Heptachlor	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Hexachlorobenzene	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Methoxychlor	ND (0.0030)		8081B		1	03/17/16 9:14	CZC0278	CC62410
Toxaphene	ND (0.151)		8081B		1	03/17/16 9:14	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*63 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-07 18-24
Date Sampled: 03/14/16 13:10
Percent Solids: 83
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/18/16 0:04	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/18/16 0:04	CZC0298	CC61542
2,4-D	ND (0.225)		8151A		1	03/18/16 0:04	CZC0298	CC61542
2,4-DB	ND (0.228)		8151A		1	03/18/16 0:04	CZC0298	CC61542
Dalapon	ND (0.218)		8151A		1	03/18/16 0:04	CZC0298	CC61542
Dicamba	ND (0.011)		8151A		1	03/18/16 0:04	CZC0298	CC61542
Dichlorprop	ND (0.225)		8151A		1	03/18/16 0:04	CZC0298	CC61542
Dinoseb	ND (0.228)		8151A		1	03/18/16 0:04	CZC0298	CC61542
MCPA	ND (22.3)		8151A		1	03/18/16 0:04	CZC0298	CC61542
MCPP	ND (22.5)		8151A		1	03/18/16 0:04	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*86 %*		*30-150*
Surrogate: DCAA [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-08 0-6
Date Sampled: 03/14/16 13:25
Percent Solids: 78

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-11
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**4.41** (3.17)		6010C		1	KJK	03/17/16 1:59	2.02	100	CC61503
Lead	**52.7** (6.34)		6010C		1	KJK	03/17/16 1:59	2.02	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-08 0-6
Date Sampled: 03/14/16 13:25
Percent Solids: 78
Initial Volume: 20.9
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**P 0.0226** (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
4,4´-DDE	**0.0796** (0.0153)		8081B		5	03/19/16 11:07	CZC0278	CC62410
4,4´-DDT [2C]	**0.0131** (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Aldrin	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
alpha-BHC	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
alpha-Chlordane	**0.0300** (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
beta-BHC	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Chlordane (Total) [2C]	**0.103** (0.0367)		8081B		1	03/17/16 9:47	CZC0278	CC62410
delta-BHC	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Dieldrin	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Endosulfan I	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Endosulfan II	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Endrin	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Endrin Aldehyde	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Endrin Ketone	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/17/16 9:47	CZC0278	CC62410
gamma-Chlordane [2C]	**P 0.0190** (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Heptachlor	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Heptachlor Epoxide [2C]	**0.0040** (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Hexachlorobenzene	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Methoxychlor	ND (0.0031)		8081B		1	03/17/16 9:47	CZC0278	CC62410
Toxaphene	ND (0.153)		8081B		1	03/17/16 9:47	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*60 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*65 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*54 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-08 0-6
Date Sampled: 03/14/16 13:25
Percent Solids: 78
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/18/16 0:32	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/18/16 0:32	CZC0298	CC61542
2,4-D	ND (0.241)		8151A		1	03/18/16 0:32	CZC0298	CC61542
2,4-DB	ND (0.243)		8151A		1	03/18/16 0:32	CZC0298	CC61542
Dalapon	ND (0.233)		8151A		1	03/18/16 0:32	CZC0298	CC61542
Dicamba	ND (0.012)		8151A		1	03/18/16 0:32	CZC0298	CC61542
Dichlorprop	ND (0.241)		8151A		1	03/18/16 0:32	CZC0298	CC61542
Dinoseb	ND (0.243)		8151A		1	03/18/16 0:32	CZC0298	CC61542
MCPA	ND (23.8)		8151A		1	03/18/16 0:32	CZC0298	CC61542
MCPP	ND (24.1)		8151A		1	03/18/16 0:32	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*72 %*		*30-150*
Surrogate: DCAA [2C]	*61 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-08 18-24
Date Sampled: 03/14/16 13:35
Percent Solids: 85

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-12
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (2.80)		6010C		1	KJK	03/17/16 2:03	2.1	100	CC61503
Lead	**8.93** (5.61)		6010C		1	KJK	03/17/16 2:03	2.1	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-08 18-24
Date Sampled: 03/14/16 13:35
Percent Solids: 85
Initial Volume: 20.9
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
4,4´-DDE	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
4,4´-DDT	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Aldrin	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
alpha-BHC	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
alpha-Chlordane	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
beta-BHC	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Chlordane (Total)	ND (0.0338)		8081B		1	03/17/16 10:20	CZC0278	CC62410
delta-BHC	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Dieldrin	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Endosulfan I	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Endosulfan II	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Endosulfan Sulfate	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Endrin	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Endrin Aldehyde	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Endrin Ketone	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
gamma-BHC (Lindane)	ND (0.0017)		8081B		1	03/17/16 10:20	CZC0278	CC62410
gamma-Chlordane	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Heptachlor	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Heptachlor Epoxide	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Hexachlorobenzene	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Methoxychlor	ND (0.0028)		8081B		1	03/17/16 10:20	CZC0278	CC62410
Toxaphene	ND (0.141)		8081B		1	03/17/16 10:20	CZC0278	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*61 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-08 18-24
Date Sampled: 03/14/16 13:35
Percent Solids: 85
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/18/16 1:01	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/18/16 1:01	CZC0298	CC61542
2,4-D	ND (0.219)		8151A		1	03/18/16 1:01	CZC0298	CC61542
2,4-DB	ND (0.222)		8151A		1	03/18/16 1:01	CZC0298	CC61542
Dalapon	ND (0.212)		8151A		1	03/18/16 1:01	CZC0298	CC61542
Dicamba	ND (0.011)		8151A		1	03/18/16 1:01	CZC0298	CC61542
Dichlorprop	ND (0.219)		8151A		1	03/18/16 1:01	CZC0298	CC61542
Dinoseb	ND (0.222)		8151A		1	03/18/16 1:01	CZC0298	CC61542
MCPA	ND (21.7)		8151A		1	03/18/16 1:01	CZC0298	CC61542
MCPP	ND (21.9)		8151A		1	03/18/16 1:01	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*53 %*		*30-150*
Surrogate: DCAA [2C]	*50 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-09 0-6
Date Sampled: 03/14/16 13:45
Percent Solids: 24

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-13
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (9.52)		6010C		1	KJK	03/17/16 2:21	2.2	100	CC61503
Lead	ND (19.0)		6010C		1	KJK	03/17/16 2:21	2.2	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-09 0-6
Date Sampled: 03/14/16 13:45
Percent Solids: 24
Initial Volume: 19.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/15/16 14:15

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0119** (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
4,4´-DDE	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
4,4´-DDT	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Aldrin	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
alpha-BHC	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
alpha-Chlordane	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
beta-BHC	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Chlordane (Total)	ND (0.131)		8081B		1	03/18/16 5:51	CZC0317	CC62410
delta-BHC	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Dieldrin	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Endosulfan I	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Endosulfan II	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Endosulfan Sulfate	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Endrin	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Endrin Aldehyde	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Endrin Ketone [2C]	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
gamma-BHC (Lindane)	ND (0.0065)		8081B		1	03/18/16 5:51	CZC0317	CC62410
gamma-Chlordane	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Heptachlor	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Heptachlor Epoxide	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Hexachlorobenzene	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Methoxychlor	ND (0.0109)		8081B		1	03/18/16 5:51	CZC0317	CC62410
Toxaphene	ND (0.545)		8081B		1	03/18/16 5:51	CZC0317	CC62410

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*53 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*62 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*45 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-09 0-6
Date Sampled: 03/14/16 13:45
Percent Solids: 24
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.039)		8151A		1	03/21/16 14:23	CZC0356	CC61542
2,4,5-TP (Silvex)	ND (0.039)		8151A		1	03/21/16 14:23	CZC0356	CC61542
2,4-D	ND (0.764)		8151A		1	03/21/16 14:23	CZC0356	CC61542
2,4-DB	ND (0.773)		8151A		1	03/21/16 14:23	CZC0356	CC61542
Dalapon	ND (0.740)		8151A		1	03/21/16 14:23	CZC0356	CC61542
Dicamba	ND (0.038)		8151A		1	03/21/16 14:23	CZC0356	CC61542
Dichlorprop	ND (0.764)		8151A		1	03/21/16 14:23	CZC0356	CC61542
Dinoseb	ND (0.773)		8151A		1	03/21/16 14:23	CZC0356	CC61542
MCPA	ND (75.6)		8151A		1	03/21/16 14:23	CZC0356	CC61542
MCPP	ND (76.4)		8151A		1	03/21/16 14:23	CZC0356	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*71 %*		*30-150*
Surrogate: DCAA [2C]	*76 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-09 18-24
Date Sampled: 03/14/16 13:55
Percent Solids: 15

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-14
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (8.22)		6010C		1	KJK	03/17/16 2:41	4.18	100	CC61503
Lead	ND (16.4)		6010C		1	KJK	03/17/16 2:41	4.18	100	CC61503

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-09 18-24
Date Sampled: 03/14/16 13:55
Percent Solids: 15
Initial Volume: 19.7
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
4,4´-DDE [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
4,4´-DDT [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Aldrin [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
alpha-BHC [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
alpha-Chlordane [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
beta-BHC [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Chlordane (Total) [2C]	ND (0.209)		8081B		1	03/19/16 22:10	CZC0317	CC61721
delta-BHC [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Dieldrin [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Endosulfan I [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Endosulfan II [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Endosulfan Sulfate [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Endrin [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Endrin Aldehyde [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Endrin Ketone [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
gamma-BHC (Lindane) [2C]	ND (0.0105)		8081B		1	03/19/16 22:10	CZC0317	CC61721
gamma-Chlordane [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Heptachlor [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Heptachlor Epoxide [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Hexachlorobenzene [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Methoxychlor [2C]	ND (0.0174)		8081B		1	03/19/16 22:10	CZC0317	CC61721
Toxaphene [2C]	ND (0.872)		8081B		1	03/19/16 22:10	CZC0317	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*51 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*54 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*34 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*47 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-09 18-24
Date Sampled: 03/14/16 13:55
Percent Solids: 15
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603332
ESS Laboratory Sample ID: 1603332-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: VSC
Prepared: 3/15/16 17:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.065)		8151A		1	03/18/16 1:57	CZC0298	CC61542
2,4,5-TP (Silvex)	ND (0.065)		8151A		1	03/18/16 1:57	CZC0298	CC61542
2,4-D	ND (1.29)		8151A		1	03/18/16 1:57	CZC0298	CC61542
2,4-DB	ND (1.31)		8151A		1	03/18/16 1:57	CZC0298	CC61542
Dalapon	ND (1.25)		8151A		1	03/18/16 1:57	CZC0298	CC61542
Dicamba	ND (0.065)		8151A		1	03/18/16 1:57	CZC0298	CC61542
Dichlorprop	ND (1.29)		8151A		1	03/18/16 1:57	CZC0298	CC61542
Dinoseb	ND (1.31)		8151A		1	03/18/16 1:57	CZC0298	CC61542
MCPA	ND (128)		8151A		1	03/18/16 1:57	CZC0298	CC61542
MCPP	ND (129)		8151A		1	03/18/16 1:57	CZC0298	CC61542

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*57 %*		*30-150*
Surrogate: DCAA [2C]	*58 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch CC61503 - 3050B										
Blank										
Arsenic	ND	2.50	mg/kg wet							
Lead	ND	5.00	mg/kg wet							
LCS										
Arsenic	161	9.43	mg/kg wet	161.0		100	80-120			
Lead	143	18.9	mg/kg wet	138.0		103	80-120			
LCS Dup										
Arsenic	145	9.80	mg/kg wet	161.0		90	80-120	10	20	
Lead	131	19.6	mg/kg wet	138.0		95	80-120	8	20	
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0125*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0128*		mg/kg wet	*0.01250*		*102*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0111*		mg/kg wet	*0.01250*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0113*		mg/kg wet	*0.01250*		*90*	*30-150*			
LCS										
4,4´-DDD	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
4,4´-DDD [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
4,4´-DDE	0.0116	0.0025	mg/kg wet	0.01250		92	40-140			
4,4´-DDE [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
4,4´-DDT	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
4,4´-DDT [2C]	0.0133	0.0025	mg/kg wet	0.01250		107	40-140			
Aldrin	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Aldrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
alpha-BHC	0.0122	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
alpha-Chlordane	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
alpha-Chlordane [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
beta-BHC	0.0114	0.0025	mg/kg wet	0.01250		92	40-140			
beta-BHC [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
delta-BHC	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
delta-BHC [2C]	0.0114	0.0025	mg/kg wet	0.01250		91	40-140			
Dieldrin	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Dieldrin [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
Endosulfan I	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endosulfan I [2C]	0.0123	0.0025	mg/kg wet	0.01250		99	40-140			
Endosulfan II	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Endosulfan II [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
Endosulfan Sulfate	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Endosulfan Sulfate [2C]	0.0133	0.0025	mg/kg wet	0.01250		106	40-140			
Endrin	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Endrin [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
Endrin Aldehyde	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endrin Aldehyde [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
Endrin Ketone	0.0123	0.0025	mg/kg wet	0.01250		99	40-140			
Endrin Ketone [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
gamma-BHC (Lindane)	0.0117	0.0015	mg/kg wet	0.01250		94	40-140			
gamma-BHC (Lindane) [2C]	0.0116	0.0015	mg/kg wet	0.01250		93	40-140			
gamma-Chlordane	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
gamma-Chlordane [2C]	0.0124	0.0025	mg/kg wet	0.01250		100	40-140			
Heptachlor	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
Heptachlor [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Heptachlor Epoxide	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Heptachlor Epoxide [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Hexachlorobenzene	0.0113	0.0025	mg/kg wet	0.01250		90	40-140			
Hexachlorobenzene [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Methoxychlor	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Methoxychlor [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
Surrogate: Decachlorobiphenyl	*0.0129*		mg/kg wet	*0.01250*		*103*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0132*		mg/kg wet	*0.01250*		*106*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0114*		mg/kg wet	*0.01250*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0115*		mg/kg wet	*0.01250*		*92*	*30-150*			
LCS Dup										
4,4´-DDD	0.0114	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
4,4´-DDD [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
4,4´-DDE	0.0111	0.0025	mg/kg wet	0.01250		89	40-140	4	30	
4,4´-DDE [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	3	30	
4,4´-DDT	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	2	30	
4,4´-DDT [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Aldrin	0.0116	0.0025	mg/kg wet	0.01250		93	40-140	1	30	
Aldrin [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	2	30	
alpha-BHC	0.0121	0.0025	mg/kg wet	0.01250		96	40-140	0.8	30	
alpha-BHC [2C]	0.0113	0.0025	mg/kg wet	0.01250		90	40-140	2	30	
alpha-Chlordane	0.0112	0.0025	mg/kg wet	0.01250		90	40-140	3	30	
alpha-Chlordane [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
beta-BHC	0.0112	0.0025	mg/kg wet	0.01250		90	40-140	2	30	
beta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
delta-BHC	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
delta-BHC [2C]	0.0110	0.0025	mg/kg wet	0.01250		88	40-140	4	30	
Dieldrin	0.0116	0.0025	mg/kg wet	0.01250		93	40-140	3	30	
Dieldrin [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	3	30	
Endosulfan I	0.0114	0.0025	mg/kg wet	0.01250		91	40-140	6	30	
Endosulfan I [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
Endosulfan II	0.0116	0.0025	mg/kg wet	0.01250		93	40-140	2	30	
Endosulfan II [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	3	30	
Endosulfan Sulfate	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	3	30	
Endosulfan Sulfate [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	3	30	
Endrin	0.0119	0.0025	mg/kg wet	0.01250		96	40-140	2	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
Endrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	3	30	
Endrin Aldehyde	0.0118	0.0025	mg/kg wet	0.01250		94	40-140	2	30	
Endrin Aldehyde [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	2	30	
Endrin Ketone	0.0119	0.0025	mg/kg wet	0.01250		96	40-140	3	30	
Endrin Ketone [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	6	30	
gamma-BHC (Lindane)	0.0116	0.0015	mg/kg wet	0.01250		92	40-140	2	30	
gamma-BHC (Lindane) [2C]	0.0113	0.0015	mg/kg wet	0.01250		90	40-140	2	30	
gamma-Chlordane	0.0113	0.0025	mg/kg wet	0.01250		91	40-140	3	30	
gamma-Chlordane [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	3	30	
Heptachlor	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	1	30	
Heptachlor [2C]	0.0117	0.0025	mg/kg wet	0.01250		93	40-140	2	30	
Heptachlor Epoxide	0.0112	0.0025	mg/kg wet	0.01250		90	40-140	2	30	
Heptachlor Epoxide [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
Hexachlorobenzene	0.0113	0.0025	mg/kg wet	0.01250		90	40-140	0.1	30	
Hexachlorobenzene [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140	0.3	30	
Methoxychlor	0.0118	0.0025	mg/kg wet	0.01250		94	40-140	5	30	
Methoxychlor [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0118*		mg/kg wet	*0.01250*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0122*		mg/kg wet	*0.01250*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0113*		mg/kg wet	*0.01250*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0113*		mg/kg wet	*0.01250*		*91*	*30-150*			
Batch CC62410 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62410 - 3546										
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0121*		mg/kg wet	*0.01250*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0120*		mg/kg wet	*0.01250*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0125*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00951*		mg/kg wet	*0.01250*		*76*	*30-150*			
LCS										
4,4´-DDD	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
4,4´-DDD [2C]	0.0131	0.0025	mg/kg wet	0.01250		104	40-140			
4,4´-DDE	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
4,4´-DDE [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
4,4´-DDT	0.0137	0.0025	mg/kg wet	0.01250		110	40-140			
4,4´-DDT [2C]	0.0142	0.0025	mg/kg wet	0.01250		113	40-140			
Aldrin	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Aldrin [2C]	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
alpha-BHC	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
alpha-BHC [2C]	0.0107	0.0025	mg/kg wet	0.01250		85	40-140			
alpha-Chlordane	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
alpha-Chlordane [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
beta-BHC	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
beta-BHC [2C]	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
delta-BHC	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
delta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Dieldrin	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Dieldrin [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62410 - 3546										
Endosulfan I	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Endosulfan I [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
Endosulfan II	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endosulfan II [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140			
Endosulfan Sulfate	0.0131	0.0025	mg/kg wet	0.01250		105	40-140			
Endosulfan Sulfate [2C]	0.0145	0.0025	mg/kg wet	0.01250		116	40-140			
Endrin	0.0128	0.0025	mg/kg wet	0.01250		103	40-140			
Endrin [2C]	0.0139	0.0025	mg/kg wet	0.01250		111	40-140			
Endrin Aldehyde	0.0111	0.0025	mg/kg wet	0.01250		89	40-140			
Endrin Aldehyde [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Endrin Ketone	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
Endrin Ketone [2C]	0.0132	0.0025	mg/kg wet	0.01250		106	40-140			
gamma-BHC (Lindane)	0.0123	0.0015	mg/kg wet	0.01250		98	40-140			
gamma-BHC (Lindane) [2C]	0.0112	0.0015	mg/kg wet	0.01250		90	40-140			
gamma-Chlordane	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
gamma-Chlordane [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140			
Heptachlor	0.0127	0.0025	mg/kg wet	0.01250		101	40-140			
Heptachlor [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Heptachlor Epoxide	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Heptachlor Epoxide [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
Hexachlorobenzene	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Hexachlorobenzene [2C]	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Methoxychlor	0.0145	0.0025	mg/kg wet	0.01250		116	40-140			
Methoxychlor [2C]	0.0155	0.0025	mg/kg wet	0.01250		124	40-140			
Surrogate: Decachlorobiphenyl	*0.0126*		mg/kg wet	*0.01250*		*101*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0130*		mg/kg wet	*0.01250*		*104*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0124*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00958*		mg/kg wet	*0.01250*		*77*	*30-150*			
LCS Dup										
4,4´-DDD	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	0.08	30	
4,4´-DDD [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	0.4	30	
4,4´-DDE	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	1	30	
4,4´-DDE [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	0.7	30	
4,4´-DDT	0.0141	0.0025	mg/kg wet	0.01250		113	40-140	3	30	
4,4´-DDT [2C]	0.0144	0.0025	mg/kg wet	0.01250		115	40-140	2	30	
Aldrin	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	2	30	
Aldrin [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140	2	30	
alpha-BHC	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	2	30	
alpha-BHC [2C]	0.0109	0.0025	mg/kg wet	0.01250		87	40-140	2	30	
alpha-Chlordane	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	2	30	
alpha-Chlordane [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	0.9	30	
beta-BHC	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
beta-BHC [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140	2	30	
delta-BHC	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	2	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62410 - 3546										
delta-BHC [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140	2	30	
Dieldrin	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	1	30	
Dieldrin [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	0.7	30	
Endosulfan I	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	1	30	
Endosulfan I [2C]	0.0128	0.0025	mg/kg wet	0.01250		103	40-140	0.7	30	
Endosulfan II	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	0.9	30	
Endosulfan II [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	0.2	30	
Endosulfan Sulfate	0.0133	0.0025	mg/kg wet	0.01250		107	40-140	2	30	
Endosulfan Sulfate [2C]	0.0145	0.0025	mg/kg wet	0.01250		116	40-140	0.2	30	
Endrin	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	2	30	
Endrin [2C]	0.0141	0.0025	mg/kg wet	0.01250		113	40-140	1	30	
Endrin Aldehyde	0.0114	0.0025	mg/kg wet	0.01250		91	40-140	2	30	
Endrin Aldehyde [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	0.3	30	
Endrin Ketone	0.0133	0.0025	mg/kg wet	0.01250		106	40-140	4	30	
Endrin Ketone [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	1	30	
gamma-BHC (Lindane)	0.0125	0.0015	mg/kg wet	0.01250		100	40-140	2	30	
gamma-BHC (Lindane) [2C]	0.0114	0.0015	mg/kg wet	0.01250		91	40-140	1	30	
gamma-Chlordane	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	1	30	
gamma-Chlordane [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	1	30	
Heptachlor	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	3	30	
Heptachlor [2C]	0.0127	0.0025	mg/kg wet	0.01250		101	40-140	2	30	
Heptachlor Epoxide	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	1	30	
Heptachlor Epoxide [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	1	30	
Hexachlorobenzene	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	2	30	
Hexachlorobenzene [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	2	30	
Methoxychlor	0.0147	0.0025	mg/kg wet	0.01250		118	40-140	1	30	
Methoxychlor [2C]	0.0157	0.0025	mg/kg wet	0.01250		125	40-140	1	30	
Surrogate: Decachlorobiphenyl	*0.0129*		mg/kg wet	*0.01250*		*103*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0131*		mg/kg wet	*0.01250*		*105*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0126*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00964*		mg/kg wet	*0.01250*		*77*	*30-150*			
8151A Chlorinated Herbicides										
Batch CC61542 - 3546										
Blank										
2,4,5-T	ND	0.010	mg/kg wet							
2,4,5-T [2C]	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex)	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	0.010	mg/kg wet							
2,4-D	ND	0.188	mg/kg wet							
2,4-D [2C]	ND	0.188	mg/kg wet							
2,4-DB	ND	0.190	mg/kg wet							
2,4-DB [2C]	ND	0.190	mg/kg wet							
Dalapon	ND	0.182	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61542 - 3546										
Dalapon [2C]	ND	0.182	mg/kg wet							
Dicamba	ND	0.009	mg/kg wet							
Dicamba [2C]	ND	0.009	mg/kg wet							
Dichlorprop	ND	0.188	mg/kg wet							
Dichlorprop [2C]	ND	0.188	mg/kg wet							
Dinoseb	ND	0.190	mg/kg wet							
Dinoseb [2C]	ND	0.190	mg/kg wet							
MCPA	ND	18.6	mg/kg wet							
MCPA [2C]	ND	18.6	mg/kg wet							
MCPP	ND	18.8	mg/kg wet							
MCPP [2C]	ND	18.8	mg/kg wet							
Surrogate: DCAA	*13.6*		mg/kg wet	*20.00*		*68*	*30-150*			
Surrogate: DCAA [2C]	*12.6*		mg/kg wet	*20.00*		*63*	*30-150*			
LCS										
2,4,5-T	0.009	0.010	mg/kg wet	0.01900		46	40-140			
2,4,5-T [2C]	0.010	0.010	mg/kg wet	0.01900		50	40-140			
2,4,5-TP (Silvex)	0.009	0.010	mg/kg wet	0.01900		48	40-140			
2,4,5-TP (Silvex) [2C]	0.008	0.010	mg/kg wet	0.01900		44	40-140			
2,4-D	0.106	0.188	mg/kg wet	0.1880		56	40-140			
2,4-D [2C]	0.102	0.188	mg/kg wet	0.1880		54	40-140			
2,4-DB	0.102	0.190	mg/kg wet	0.1900		54	40-140			
2,4-DB [2C]	0.084	0.190	mg/kg wet	0.1900		44	40-140			
Dalapon	0.150	0.182	mg/kg wet	0.4550		33	40-140			B-
Dalapon [2C]	0.152	0.182	mg/kg wet	0.4550		33	40-140			B-
Dicamba	0.009	0.009	mg/kg wet	0.01880		46	40-140			
Dicamba [2C]	0.009	0.009	mg/kg wet	0.01880		46	40-140			
Dichlorprop	0.131	0.188	mg/kg wet	0.1880		70	40-140			
Dichlorprop [2C]	0.120	0.188	mg/kg wet	0.1880		64	40-140			
Dinoseb	0.012	0.190	mg/kg wet	0.09500		12	10-100			
Dinoseb [2C]	0.011	0.190	mg/kg wet	0.09500		11	10-100			
MCPA	8.51	18.6	mg/kg wet	18.60		46	40-140			
MCPA [2C]	8.03	18.6	mg/kg wet	18.60		43	40-140			
MCPP	8.54	18.8	mg/kg wet	18.80		45	40-140			
MCPP [2C]	8.97	18.8	mg/kg wet	18.80		48	40-140			
Surrogate: DCAA	*14.2*		mg/kg wet	*20.00*		*71*	*30-150*			
Surrogate: DCAA [2C]	*14.0*		mg/kg wet	*20.00*		*70*	*30-150*			
LCS Dup										
2,4,5-T	0.008	0.010	mg/kg wet	0.01900		42	40-140	9	30	
2,4,5-T [2C]	0.009	0.010	mg/kg wet	0.01900		46	40-140	8	30	
2,4,5-TP (Silvex)	0.009	0.010	mg/kg wet	0.01900		46	40-140	4	30	
2,4,5-TP (Silvex) [2C]	0.008	0.010	mg/kg wet	0.01900		42	40-140	5	30	
2,4-D	0.099	0.188	mg/kg wet	0.1880		53	40-140	7	30	
2,4-D [2C]	0.095	0.188	mg/kg wet	0.1880		50	40-140	7	30	
2,4-DB	0.087	0.190	mg/kg wet	0.1900		46	40-140	16	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61542 - 3546										
2,4-DB [2C]	0.076	0.190	mg/kg wet	0.1900		40	40-140	10	30	
Dalapon	0.132	0.182	mg/kg wet	0.4550		29	40-140	12	30	B-
Dalapon [2C]	0.134	0.182	mg/kg wet	0.4550		30	40-140	12	30	B-
Dicamba	0.008	0.009	mg/kg wet	0.01880		44	40-140	4	30	
Dicamba [2C]	0.008	0.009	mg/kg wet	0.01880		44	40-140	4	30	
Dichlorprop	0.125	0.188	mg/kg wet	0.1880		66	40-140	5	30	
Dichlorprop [2C]	0.111	0.188	mg/kg wet	0.1880		59	40-140	8	30	
Dinoseb	0.010	0.190	mg/kg wet	0.09500		10	10-100	21	30	
Dinoseb [2C]	ND	0.190	mg/kg wet	0.09500			10-100	200	30	B-, D+
MCPA	8.00	18.6	mg/kg wet	18.60		43	40-140	6	30	
MCPA [2C]	7.45	18.6	mg/kg wet	18.60		40	40-140	8	30	
MCPP	7.98	18.8	mg/kg wet	18.80		42	40-140	7	30	
MCPP [2C]	8.07	18.8	mg/kg wet	18.80		43	40-140	11	30	
Surrogate: DCAA	*13.2*		mg/kg wet	*20.00*		*66*	*30-150*			
Surrogate: DCAA [2C]	*12.3*		mg/kg wet	*20.00*		*61*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

Notes and Definitions

U	Analyte included in the analysis, but not detected
P	Percent difference between primary and confirmation results exceeds 40% (P).
LC	Lower value is used due to matrix interferences (LC).
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
CD+	Continuing Calibration %Diff/Drift is above control limit (CD+).
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B-	Blank Spike recovery is below lower control limit (B-).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603332

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - New York, NY - GZA/CMT

Shipped/Delivered Via: ESS Courier

ESS Project ID: 1603332
Date Received: 3/14/2016
Project Due Date: 3/21/2016
Days for Project: 5 Day

1. Air bill manifest present? Yes
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 1.8 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No (NA)
10. Were any analyses received outside of hold time? Yes (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / (No)
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / (NA)

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOAs brought to freezer: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	16954	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
02	16953	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
03	16952	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
04	16951	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
05	16950	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
06	16949	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
07	16948	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
08	16947	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
09	16946	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
10	16945	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
11	16944	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
12	16943	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
13	16942	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
14	16941	Yes	NA	Yes	8 oz. Jar - Unpres	NP	

2nd Review
Are barcode labels on correct containers? (Yes) / No

Completed By: Date & Time: 3/14/16 1830
Reviewed By: Date & Time: 3/14/16 1950

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 16003332

Turn Time ✓ Standard Other_____

Regulatory State: MA RI CT NH NJ (NY) ME Other_____

Reporting Limits - _____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name	Project #	Project Name
	41.0162403.00	HAMPSHIRE CC

Contact Person	Address
SEAN N. KLINK	104 W. 29TH STREET

City	State	Zip	PO #
NEW YORK	NY	10001	

Tel.	Fax.	email
212-594-8140		SKLINK@GZA.COM

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: Pb, As	Pest	Herb
1	3/14/16	1135	G	SOIL	SS-03(0-6)	1	1	AG	8 oz	X	X	X
2		1145			SS-03(18-24)					X	X	X
3		1200			SS-04(0-6)					X	X	X
4		1210			SS-04(18-24)					X	X	X
5		1220			SS-05(0-6)					X	X	X
6		1230			SS-05(18-24)					X	X	X
7		1240			SS-06(0-6)					X	X	X
8		1250			SS-06(18-24)					X	X	X
9		1300			SS-07(0-6)					X	X	X
10		1310			SS-07(18-24)					X	X	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 1.8 ice RB

Internal Use Only
[✓] Pickup
[ ] Technician____

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-____

Sampled by : JAMES COLONS

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
3/14/16 14:48	3/14/16 14:48	3/14/16 18:08	3/14/16 18:20
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1603337

Turn Time X Standard Other_____

Regulatory State: MA RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - _____

Electonic Deliverables Excel Access PDF

Co. Name	Project #	Project Name
GZA GEOENVIRONMENTAL	41.1624303.00	HAMPSHIRE CC

Contact Person	Address
STEPHEN. KLINE	104 W. 29TH STREET

City	State	Zip	PO #
NEW YORK	NY	10001	

Tel.	Fax.	email:
212-594-8140		STEPHEN.KLINE@GZA.COM

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: PAHs	Pest	Herb
11	3/14/16	1325	G	SOIL	SS-08(0-6)	1	1	AG	8oz			
12	"	1325	"	"	SS-08(18-24)	"	1	"	"			
13	"	1345	"	"	SS-09(0-6)	"	1	"	"			
14	"	1355	"	"	SS-09(18-24)	"	1	"	"			

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: X

Cooler Temperature: 1.8 ice RB

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: JAMES COLONY

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
3/14/16 14:48	3/14/16 14:48	3/14/16 18:05	3/14/16 1805

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Stephen Kline
GZA GeoEnvironmental, Inc.
104 West 29th Street, 10th Floor
New York, NY 10001

RE: Hampshire CC (41.0162403.00)
ESS Laboratory Work Order Number: 1603375

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 5:17 pm, Mar 28, 2016

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

SAMPLE RECEIPT

The following samples were received on March 15, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1603375-01	SS-10 0-6	Soil	6010C, 8081B, 8151A
1603375-02	SS-10 18-24	Soil	6010C, 8081B, 8151A
1603375-03	SS-11 0-6	Soil	6010C, 8081B, 8151A
1603375-04	SS-11 18-24	Soil	6010C, 8081B, 8151A
1603375-05	SS-12 0-6	Soil	6010C, 8081B, 8151A
1603375-06	SS-12 18-24	Soil	6010C, 8081B, 8151A
1603375-07	SS-13 0-6	Soil	6010C, 8081B, 8151A
1603375-08	SS-13 18-24	Soil	6010C, 8081B, 8151A
1603375-09	SS-14 0-6	Soil	6010C, 8081B, 8151A
1603375-10	SS-14 18-24	Soil	6010C, 8081B, 8151A
1603375-11	SS-15 0-6	Soil	6010C, 8081B, 8151A
1603375-12	SS-15 18-24	Soil	6010C, 8081B, 8151A
1603375-13	SS-16 0-6	Soil	6010C, 8081B, 8151A
1603375-14	SS-16 18-24	Soil	6010C, 8081B, 8151A

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

PROJECT NARRATIVE

8081B Organochlorine Pesticides

1603375-01	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD [2C]
1603375-02	**Lower value is used due to matrix interferences (LC).** Dieldrin
1603375-02	**Percent difference between primary and confirmation results exceeds 40% (P).** Dieldrin
1603375-03	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD , alpha-Chlordane [2C] , Dieldrin
1603375-03	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , alpha-Chlordane [2C] , Dieldrin
1603375-05	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD
1603375-05	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , alpha-Chlordane
1603375-06	**Lower value is used due to matrix interferences (LC).** gamma-Chlordane
1603375-06	**Percent difference between primary and confirmation results exceeds 40% (P).** Chlordane (Total) [2C] , gamma-Chlordane
1603375-07	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDT [2C] , alpha-Chlordane
1603375-09	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD , Dieldrin
1603375-09	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , alpha-Chlordane , Dieldrin
1603375-11	**Lower value is used due to matrix interferences (LC).** alpha-Chlordane [2C] , Dieldrin
1603375-11	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane [2C] , Dieldrin
1603375-13	**Lower value is used due to matrix interferences (LC).** alpha-Chlordane [2C] , Dieldrin , Heptachlor Epoxide [2C] , Hexachlorobenzene [2C]
1603375-13	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane [2C] , Dieldrin , Heptachlor Epoxide [2C] , Hexachlorobenzene [2C]
CZC0317-CCV9	**Continuing Calibration %Diff/Drift is below control limit (CD-).** 4,4´-DDD (31% @ 20%), 4,4´-DDE (23% @ 20%), 4,4´-DDT (30% @ 20%), alpha-Chlordane (27% @ 20%), Decachlorobiphenyl (35% @ 20%), Dieldrin (30% @ 20%), Endosulfan I (30% @ 20%), Endosulfan II (33% @ 20%), Endosulfan Sulfate (33% @ 20%), Endrin (30% @ 20%), Endrin Aldehyde (32% @ 20%), Endrin Ketone (35% @ 20%), gamma-Chlordane (27% @ 20%), Heptachlor Epoxide (24% @ 20%), Methoxychlor (29% @ 20%)
CZC0317-CCVA	**Continuing Calibration %Diff/Drift is below control limit (CD-).** Decachlorobiphenyl (28% @ 20%)

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC ESS Laboratory Work Order: 1603375

CZC0382-CCV5 **Continuing Calibration %Diff/Drift is above control limit (CD+).**
4,4′-DDT [2C] (21% @ 20%), Endosulfan Sulfate (21% @ 20%), Methoxychlor (23% @ 20%), Methoxychlor [2C] (24% @ 20%)

8151A Chlorinated Herbicides

1603375-07 **Modified result**
MCPP

1603375-07 **Peaks found in the retention time window for MCPP did not confirm by GC/MS.**

1603375-14 **Modified result**
MCPP

1603375-14 **Peaks found in the retention time window for MCPP did not confirm by GC/MS.**

CC61724-BS1 **Blank Spike recovery is below lower control limit (B-).**
2,4-DB [2C] (38% @ 40-140%)

CC61724-BSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
2,4,5-T (33% @ 30%), 2,4,5-TP (Silvex) (32% @ 30%), 2,4,5-TP (Silvex) [2C] (52% @ 30%), 2,4-D (31% @ 30%), 2,4-D [2C] (31% @ 30%), 2,4-DB (54% @ 30%), 2,4-DB [2C] (58% @ 30%), Dicamba [2C] (33% @ 30%), Dichlorprop [2C] (31% @ 30%), Dinoseb (43% @ 30%), Dinoseb [2C] (36% @ 30%), MCPA (32% @ 30%), MCPA [2C] (45% @ 30%), MCPP (36% @ 30%), MCPP [2C] (49% @ 30%)

CC62415-BSD1 **Blank Spike recovery is below lower control limit (B-).**
2,4-DB (14% @ 40-140%), 2,4-DB [2C] (12% @ 40-140%)

CC62415-BSD1 **Relative percent difference for duplicate is outside of criteria (D+).**

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-10 0-6
Date Sampled: 03/15/16 09:07
Percent Solids: 85

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-01
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.4** (1.99)		6010C		1	ICP	03/21/16 15:38	2.95	100	CC61733
Lead	**14.1** (3.99)		6010C		1	ICP	03/21/16 15:38	2.95	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-10 0-6
Date Sampled: 03/15/16 09:07
Percent Solids: 85
Initial Volume: 20.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**P 0.0110** (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
4,4´-DDE	**0.0489** (0.0146)		8081B		5	03/23/16 14:38	CZC0317	CC61616
4,4´-DDT	**0.0607** (0.0146)		8081B		5	03/23/16 14:38	CZC0317	CC61616
Aldrin	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
alpha-BHC	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
alpha-Chlordane [2C]	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
beta-BHC	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Chlordane (Total)	ND (0.0349)		8081B		1	03/18/16 11:23	CZC0317	CC61616
delta-BHC	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Dieldrin [2C]	**0.0059** (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Endosulfan I	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Endosulfan II	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Endrin	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Endrin Aldehyde	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Endrin Ketone	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0017)		8081B		1	03/18/16 11:23	CZC0317	CC61616
gamma-Chlordane	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Heptachlor	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Heptachlor Epoxide [2C]	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Hexachlorobenzene	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Methoxychlor	ND (0.0029)		8081B		1	03/18/16 11:23	CZC0317	CC61616
Toxaphene	ND (0.146)		8081B		1	03/18/16 11:23	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*79 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-10 0-6
Date Sampled: 03/15/16 09:07
Percent Solids: 85
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/23/16 7:57	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/23/16 7:57	CZC0390	CC61724
2,4-D	ND (0.221)		8151A		1	03/23/16 7:57	CZC0390	CC61724
2,4-DB	ND (0.224)		8151A		1	03/23/16 7:57	CZC0390	CC61724
Dalapon	ND (0.214)		8151A		1	03/23/16 7:57	CZC0390	CC61724
Dicamba	ND (0.011)		8151A		1	03/23/16 7:57	CZC0390	CC61724
Dichlorprop	ND (0.221)		8151A		1	03/23/16 7:57	CZC0390	CC61724
Dinoseb	ND (0.224)		8151A		1	03/23/16 7:57	CZC0390	CC61724
MCPA	ND (21.9)		8151A		1	03/23/16 7:57	CZC0390	CC61724
MCPP	ND (22.1)		8151A		1	03/23/16 7:57	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*55 %*		*30-150*
Surrogate: DCAA [2C]	*56 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-10 18-24
Date Sampled: 03/15/16 09:45
Percent Solids: 84

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-02
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**12.4** (2.37)		6010C		1	JP	03/21/16 15:58	2.5	100	CC61733
Lead	**13.9** (4.75)		6010C		1	JP	03/21/16 15:58	2.5	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-10 18-24
Date Sampled: 03/15/16 09:45
Percent Solids: 84
Initial Volume: 20.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0274** (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
4,4´-DDE	**0.0494** (0.0147)		8081B		5	03/23/16 15:12	CZC0317	CC61616
4,4´-DDT [2C]	**0.0744** (0.0147)		8081B		5	03/23/16 15:12	CZC0317	CC61616
Aldrin	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
alpha-BHC	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
alpha-Chlordane	**0.0115** (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
beta-BHC	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Chlordane (Total) [2C]	ND (0.0353)		8081B		1	03/18/16 11:56	CZC0317	CC61616
delta-BHC	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Dieldrin	**LC, P 0.0047** (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Endosulfan I	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Endosulfan II	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Endrin	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Endrin Aldehyde	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Endrin Ketone	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/18/16 11:56	CZC0317	CC61616
gamma-Chlordane [2C]	**0.0069** (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Heptachlor	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Heptachlor Epoxide	**0.0063** (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Hexachlorobenzene	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Methoxychlor	ND (0.0029)		8081B		1	03/18/16 11:56	CZC0317	CC61616
Toxaphene	ND (0.147)		8081B		1	03/18/16 11:56	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*103 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-10 18-24
Date Sampled: 03/15/16 09:45
Percent Solids: 84
Initial Volume: 10.2
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/23/16 9:22	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/23/16 9:22	CZC0390	CC61724
2,4-D	ND (0.219)		8151A		1	03/23/16 9:22	CZC0390	CC61724
2,4-DB	ND (0.221)		8151A		1	03/23/16 9:22	CZC0390	CC61724
Dalapon	ND (0.212)		8151A		1	03/23/16 9:22	CZC0390	CC61724
Dicamba	ND (0.011)		8151A		1	03/23/16 9:22	CZC0390	CC61724
Dichlorprop	ND (0.219)		8151A		1	03/23/16 9:22	CZC0390	CC61724
Dinoseb	ND (0.221)		8151A		1	03/23/16 9:22	CZC0390	CC61724
MCPA	ND (21.6)		8151A		1	03/23/16 9:22	CZC0390	CC61724
MCPP	ND (21.9)		8151A		1	03/23/16 9:22	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*54 %*		*30-150*
Surrogate: DCAA [2C]	*57 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-11 0-6
Date Sampled: 03/15/16 10:10
Percent Solids: 75

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-03
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.8** (2.96)		6010C		1	JP	03/21/16 16:02	2.24	100	CC61733
Lead	**31.8** (5.92)		6010C		1	JP	03/21/16 16:02	2.24	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-11 0-6
Date Sampled: 03/15/16 10:10
Percent Solids: 75
Initial Volume: 19.4
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0526** (0.0171)		8081B		5	03/23/16 15:45	CZC0317	CC61616
4,4´-DDE	**1.60** (0.342)		8081B		100	03/23/16 16:51	CZC0317	CC61616
4,4´-DDT	**0.830** (0.342)		8081B		100	03/23/16 16:51	CZC0317	CC61616
Aldrin	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
alpha-BHC	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
alpha-Chlordane [2C]	**LC, P 0.0951** (0.0171)		8081B		5	03/23/16 15:45	CZC0317	CC61616
beta-BHC	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Chlordane (Total)	**0.720** (0.205)		8081B		5	03/23/16 15:45	CZC0317	CC61616
delta-BHC	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Dieldrin	**LC, P 0.0078** (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Endosulfan I	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Endosulfan II	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Endrin	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Endrin Aldehyde	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Endrin Ketone	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0021)		8081B		1	03/18/16 12:29	CZC0317	CC61616
gamma-Chlordane [2C]	**0.107** (0.0171)		8081B		5	03/23/16 15:45	CZC0317	CC61616
Heptachlor	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Heptachlor Epoxide	**0.282** (0.0855)		8081B		25	03/23/16 16:18	CZC0317	CC61616
Hexachlorobenzene	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Methoxychlor	ND (0.0034)		8081B		1	03/18/16 12:29	CZC0317	CC61616
Toxaphene	ND (0.171)		8081B		1	03/18/16 12:29	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*64 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-11 0-6
Date Sampled: 03/15/16 10:10
Percent Solids: 75
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/23/16 9:50	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/23/16 9:50	CZC0390	CC61724
2,4-D	ND (0.242)		8151A		1	03/23/16 9:50	CZC0390	CC61724
2,4-DB	ND (0.245)		8151A		1	03/23/16 9:50	CZC0390	CC61724
Dalapon	ND (0.234)		8151A		1	03/23/16 9:50	CZC0390	CC61724
Dicamba	ND (0.012)		8151A		1	03/23/16 9:50	CZC0390	CC61724
Dichlorprop	ND (0.242)		8151A		1	03/23/16 9:50	CZC0390	CC61724
Dinoseb	ND (0.245)		8151A		1	03/23/16 9:50	CZC0390	CC61724
MCPA	ND (24.0)		8151A		1	03/23/16 9:50	CZC0390	CC61724
MCPP	ND (24.2)		8151A		1	03/23/16 9:50	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*88 %*		*30-150*
Surrogate: DCAA [2C]	*67 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-11 18-24
Date Sampled: 03/15/16 10:30
Percent Solids: 86

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-04
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.7** (2.25)		6010C		1	JP	03/21/16 16:06	2.59	100	CC61733
Lead	**8.48** (4.51)		6010C		1	JP	03/21/16 16:06	2.59	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-11 18-24
Date Sampled: 03/15/16 10:30
Percent Solids: 86
Initial Volume: 19.8
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
4,4´-DDE	**0.0673** (0.0147)		8081B		5	03/23/16 17:25	CZC0317	CC61616
4,4´-DDT	**0.0467** (0.0147)		8081B		5	03/23/16 17:25	CZC0317	CC61616
Aldrin	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
alpha-BHC	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
alpha-Chlordane [2C]	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
beta-BHC	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Chlordane (Total)	ND (0.0354)		8081B		1	03/18/16 13:02	CZC0317	CC61616
delta-BHC	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Dieldrin	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Endosulfan I	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Endosulfan II	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Endrin	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Endrin Aldehyde	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Endrin Ketone	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/18/16 13:02	CZC0317	CC61616
gamma-Chlordane	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Heptachlor	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Heptachlor Epoxide	**0.0037** (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Hexachlorobenzene	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Methoxychlor	ND (0.0029)		8081B		1	03/18/16 13:02	CZC0317	CC61616
Toxaphene	ND (0.147)		8081B		1	03/18/16 13:02	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*101 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-11 18-24
Date Sampled: 03/15/16 10:30
Percent Solids: 86
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/23/16 10:18	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/23/16 10:18	CZC0390	CC61724
2,4-D	ND (0.213)		8151A		1	03/23/16 10:18	CZC0390	CC61724
2,4-DB	ND (0.215)		8151A		1	03/23/16 10:18	CZC0390	CC61724
Dalapon	ND (0.206)		8151A		1	03/23/16 10:18	CZC0390	CC61724
Dicamba	ND (0.011)		8151A		1	03/23/16 10:18	CZC0390	CC61724
Dichlorprop	ND (0.213)		8151A		1	03/23/16 10:18	CZC0390	CC61724
Dinoseb	ND (0.215)		8151A		1	03/23/16 10:18	CZC0390	CC61724
MCPA	ND (21.1)		8151A		1	03/23/16 10:18	CZC0390	CC61724
MCPP	ND (21.3)		8151A		1	03/23/16 10:18	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*57 %*		*30-150*
Surrogate: DCAA [2C]	*52 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-12 0-6
Date Sampled: 03/15/16 10:50
Percent Solids: 80

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-05
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**16.9** (3.01)		6010C		1	JP	03/21/16 16:10	2.07	100	CC61733
Lead	**76.6** (6.02)		6010C		1	JP	03/21/16 16:10	2.07	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-12 0-6
Date Sampled: 03/15/16 10:50
Percent Solids: 80
Initial Volume: 19.3
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0160** (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
4,4´-DDE	**1.10** (0.323)		8081B		100	03/23/16 19:04	CZC0317	CC61616
4,4´-DDT	**0.682** (0.323)		8081B		100	03/23/16 19:04	CZC0317	CC61616
Aldrin	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
alpha-BHC	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
alpha-Chlordane	**P 0.0541** (0.0161)		8081B		5	03/23/16 17:58	CZC0317	CC61616
beta-BHC	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Chlordane (Total) [2C]	**0.206** (0.0387)		8081B		1	03/18/16 13:35	CZC0317	CC61616
delta-BHC	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Dieldrin	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Endosulfan I	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Endosulfan II	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Endrin	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Endrin Aldehyde	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Endrin Ketone	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0019)		8081B		1	03/18/16 13:35	CZC0317	CC61616
gamma-Chlordane [2C]	**0.0310** (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Heptachlor	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Heptachlor Epoxide	**0.0741** (0.0161)		8081B		5	03/23/16 17:58	CZC0317	CC61616
Methoxychlor	ND (0.0032)		8081B		1	03/18/16 13:35	CZC0317	CC61616
Toxaphene	ND (0.161)		8081B		1	03/18/16 13:35	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*101 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*77 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-12 0-6
Date Sampled: 03/15/16 10:50
Percent Solids: 80
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/23/16 10:47	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/23/16 10:47	CZC0390	CC61724
2,4-D	ND (0.232)		8151A		1	03/23/16 10:47	CZC0390	CC61724
2,4-DB	ND (0.234)		8151A		1	03/23/16 10:47	CZC0390	CC61724
Dalapon	ND (0.224)		8151A		1	03/23/16 10:47	CZC0390	CC61724
Dicamba	ND (0.012)		8151A		1	03/23/16 10:47	CZC0390	CC61724
Dichlorprop	ND (0.232)		8151A		1	03/23/16 10:47	CZC0390	CC61724
Dinoseb	ND (0.234)		8151A		1	03/23/16 10:47	CZC0390	CC61724
MCPA	ND (22.9)		8151A		1	03/23/16 10:47	CZC0390	CC61724
MCPP	ND (23.2)		8151A		1	03/23/16 10:47	CZC0390	CC61724

	%Recovery	*Qualifier*	*Limits*
Surrogate: DCAA	*64 %*		*30-150*
Surrogate: DCAA [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-12 18-24
Date Sampled: 03/15/16 11:15
Percent Solids: 82

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-06
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**14.4** (2.12)		6010C		1	JP	03/21/16 16:13	2.89	100	CC61733
Lead	**85.2** (4.24)		6010C		1	JP	03/21/16 16:13	2.89	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-12 18-24
Date Sampled: 03/15/16 11:15
Percent Solids: 82
Initial Volume: 20.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0095** (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
4,4´-DDE	**0.309** (0.0609)		8081B		20	03/23/16 20:11	CZC0317	CC61616
4,4´-DDT [2C]	**0.244** (0.0609)		8081B		20	03/23/16 20:11	CZC0317	CC61616
Aldrin	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
alpha-BHC	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
alpha-Chlordane	**0.0122** (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
beta-BHC	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Chlordane (Total) [2C]	**P 0.0844** (0.0365)		8081B		1	03/18/16 14:08	CZC0317	CC61616
delta-BHC	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Dieldrin	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Endosulfan I	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Endosulfan II	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Endrin	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Endrin Aldehyde	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Endrin Ketone	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/18/16 14:08	CZC0317	CC61616
gamma-Chlordane	**LC, P 0.0060** (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Heptachlor	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Heptachlor Epoxide [2C]	**0.0215** (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Hexachlorobenzene	**0.0092** (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Methoxychlor	ND (0.0030)		8081B		1	03/18/16 14:08	CZC0317	CC61616
Toxaphene	ND (0.152)		8081B		1	03/18/16 14:08	CZC0317	CC61616

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*100 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-12 18-24
Date Sampled: 03/15/16 11:15
Percent Solids: 82
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/23/16 11:15	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/23/16 11:15	CZC0390	CC61724
2,4-D	ND (0.228)		8151A		1	03/23/16 11:15	CZC0390	CC61724
2,4-DB	ND (0.230)		8151A		1	03/23/16 11:15	CZC0390	CC61724
Dalapon	ND (0.221)		8151A		1	03/23/16 11:15	CZC0390	CC61724
Dicamba	ND (0.011)		8151A		1	03/23/16 11:15	CZC0390	CC61724
Dichlorprop	ND (0.228)		8151A		1	03/23/16 11:15	CZC0390	CC61724
Dinoseb	ND (0.230)		8151A		1	03/23/16 11:15	CZC0390	CC61724
MCPA	ND (22.5)		8151A		1	03/23/16 11:15	CZC0390	CC61724
MCPP	ND (22.8)		8151A		1	03/23/16 11:15	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*80 %*		*30-150*
Surrogate: DCAA [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-13 0-6
Date Sampled: 03/15/16 11:45
Percent Solids: 53

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-07
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**32.5** (3.10)		6010C		1	ICP	03/21/16 17:32	3.03	100	CC61733
Lead	**304** (6.20)		6010C		1	ICP	03/21/16 17:32	3.03	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-13 0-6
Date Sampled: 03/15/16 11:45
Percent Solids: 53
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.117** (0.0239)		8081B		5	03/23/16 20:44	CZC0317	CC61616
4,4´-DDE	**1.58** (0.479)		8081B		100	03/23/16 21:51	CZC0317	CC61616
4,4´-DDT [2C]	**P 0.0788** (0.0239)		8081B		5	03/23/16 20:44	CZC0317	CC61616
Aldrin	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
alpha-BHC	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
alpha-Chlordane	**P 0.106** (0.0239)		8081B		5	03/23/16 20:44	CZC0317	CC61616
beta-BHC	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Chlordane (Total) [2C]	**0.309** (0.0575)		8081B		1	03/18/16 14:41	CZC0317	CC61616
delta-BHC	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Dieldrin	**0.0048** (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Endosulfan I	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Endosulfan II	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Endrin	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Endrin Aldehyde	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Endrin Ketone	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0029)		8081B		1	03/18/16 14:41	CZC0317	CC61616
gamma-Chlordane	**0.0422** (0.0239)		8081B		5	03/23/16 20:44	CZC0317	CC61616
Heptachlor	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Heptachlor Epoxide	**0.0337** (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Hexachlorobenzene [2C]	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Methoxychlor	ND (0.0048)		8081B		1	03/18/16 14:41	CZC0317	CC61616
Toxaphene	ND (0.239)		8081B		1	03/18/16 14:41	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*37 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*36 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*31 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*30 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-13 0-6
Date Sampled: 03/15/16 11:45
Percent Solids: 53
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.018)		8151A		1	03/23/16 22:07	CZC0398	CC61724
2,4,5-TP (Silvex)	ND (0.018)		8151A		1	03/23/16 22:07	CZC0398	CC61724
2,4-D	ND (0.349)		8151A		1	03/23/16 22:07	CZC0398	CC61724
2,4-DB	ND (0.353)		8151A		1	03/23/16 22:07	CZC0398	CC61724
Dalapon	ND (0.338)		8151A		1	03/23/16 22:07	CZC0398	CC61724
Dicamba	ND (0.017)		8151A		1	03/23/16 22:07	CZC0398	CC61724
Dichlorprop	ND (0.349)		8151A		1	03/23/16 22:07	CZC0398	CC61724
Dinoseb	ND (0.353)		8151A		1	03/23/16 22:07	CZC0398	CC61724
MCPA	ND (34.6)		8151A		1	03/23/16 22:07	CZC0398	CC61724
MCPP	# ND (34.9)		8151A		1	03/23/16 22:07	CZC0398	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*57 %*		*30-150*
Surrogate: DCAA [2C]	*63 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-13 18-24
Date Sampled: 03/15/16 12:07
Percent Solids: 77

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-08
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.73** (2.75)		6010C		1	ICP	03/21/16 17:36	2.36	100	CC61733
Lead	**11.6** (5.51)		6010C		1	ICP	03/21/16 17:36	2.36	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-13 18-24
Date Sampled: 03/15/16 12:07
Percent Solids: 77
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
4,4´-DDE	**0.0081** (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
4,4´-DDT	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Aldrin	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
alpha-BHC	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
alpha-Chlordane	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
beta-BHC	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Chlordane (Total)	ND (0.0400)		8081B		1	03/18/16 15:14	CZC0317	CC61616
delta-BHC	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Dieldrin	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Endosulfan I	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Endosulfan II	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Endrin	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Endrin Aldehyde	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Endrin Ketone	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0020)		8081B		1	03/18/16 15:14	CZC0317	CC61616
gamma-Chlordane	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Heptachlor	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Heptachlor Epoxide	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Hexachlorobenzene	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Methoxychlor	ND (0.0033)		8081B		1	03/18/16 15:14	CZC0317	CC61616
Toxaphene	ND (0.167)		8081B		1	03/18/16 15:14	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-13 18-24
Date Sampled: 03/15/16 12:07
Percent Solids: 77
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/23/16 12:11	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/23/16 12:11	CZC0390	CC61724
2,4-D	ND (0.237)		8151A		1	03/23/16 12:11	CZC0390	CC61724
2,4-DB	ND (0.240)		8151A		1	03/23/16 12:11	CZC0390	CC61724
Dalapon	ND (0.230)		8151A		1	03/23/16 12:11	CZC0390	CC61724
Dicamba	ND (0.012)		8151A		1	03/23/16 12:11	CZC0390	CC61724
Dichlorprop	ND (0.237)		8151A		1	03/23/16 12:11	CZC0390	CC61724
Dinoseb	ND (0.240)		8151A		1	03/23/16 12:11	CZC0390	CC61724
MCPA	ND (23.5)		8151A		1	03/23/16 12:11	CZC0390	CC61724
MCPP	ND (23.7)		8151A		1	03/23/16 12:11	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*61 %*		*30-150*
Surrogate: DCAA [2C]	*59 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-14 0-6
Date Sampled: 03/15/16 13:15
Percent Solids: 84

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-09
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**10.3** (2.55)		6010C		1	ICP	03/21/16 17:40	2.34	100	CC61733
Lead	**20.4** (5.10)		6010C		1	ICP	03/21/16 17:40	2.34	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-14 0-6
Date Sampled: 03/15/16 13:15
Percent Solids: 84
Initial Volume: 19.4
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0079** (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
4,4´-DDE	**0.0622** (0.0154)		8081B		5	03/24/16 1:10	CZC0317	CC61616
4,4´-DDT [2C]	**0.0146** (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Aldrin	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
alpha-BHC	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
alpha-Chlordane	**P 0.0690** (0.0154)		8081B		5	03/24/16 1:10	CZC0317	CC61616
beta-BHC	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Chlordane (Total) [2C]	**0.171** (0.0369)		8081B		1	03/18/16 15:47	CZC0317	CC61616
delta-BHC	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Dieldrin	**LC, P 0.0036** (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Endosulfan I	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Endosulfan II	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Endrin	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Endrin Aldehyde	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Endrin Ketone	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/18/16 15:47	CZC0317	CC61616
gamma-Chlordane [2C]	**0.0282** (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Heptachlor	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Heptachlor Epoxide	**0.0147** (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Hexachlorobenzene	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Methoxychlor	ND (0.0031)		8081B		1	03/18/16 15:47	CZC0317	CC61616
Toxaphene	ND (0.154)		8081B		1	03/18/16 15:47	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*104 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*107 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-14 0-6
Date Sampled: 03/15/16 13:15
Percent Solids: 84
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/23/16 12:39	CZC0390	CC61724
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/23/16 12:39	CZC0390	CC61724
2,4-D	ND (0.222)		8151A		1	03/23/16 12:39	CZC0390	CC61724
2,4-DB	ND (0.225)		8151A		1	03/23/16 12:39	CZC0390	CC61724
Dalapon	ND (0.215)		8151A		1	03/23/16 12:39	CZC0390	CC61724
Dicamba	ND (0.011)		8151A		1	03/23/16 12:39	CZC0390	CC61724
Dichlorprop	ND (0.222)		8151A		1	03/23/16 12:39	CZC0390	CC61724
Dinoseb	ND (0.225)		8151A		1	03/23/16 12:39	CZC0390	CC61724
MCPA	ND (22.0)		8151A		1	03/23/16 12:39	CZC0390	CC61724
MCPP	ND (22.2)		8151A		1	03/23/16 12:39	CZC0390	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*61 %*		*30-150*
Surrogate: DCAA [2C]	*55 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-14 18-24
Date Sampled: 03/15/16 13:45
Percent Solids: 74

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-10
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**16.4** (3.12)		6010C		1	ICP	03/21/16 17:44	2.17	100	CC61733
Lead	**11.2** (6.23)		6010C		1	ICP	03/21/16 17:44	2.17	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-14 18-24
Date Sampled: 03/15/16 13:45
Percent Solids: 74
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
4,4´-DDE [2C]	**0.0035** (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
4,4´-DDT	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Aldrin	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
alpha-BHC	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
alpha-Chlordane	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
beta-BHC	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Chlordane (Total)	ND (0.0416)		8081B		1	03/18/16 18:33	CZC0317	CC61616
delta-BHC	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Dieldrin	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Endosulfan I	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Endosulfan II	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Endrin	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Endrin Aldehyde	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Endrin Ketone	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0021)		8081B		1	03/18/16 18:33	CZC0317	CC61616
gamma-Chlordane	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Heptachlor	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Heptachlor Epoxide	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Hexachlorobenzene	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Methoxychlor	ND (0.0035)		8081B		1	03/18/16 18:33	CZC0317	CC61616
Toxaphene	ND (0.173)		8081B		1	03/18/16 18:33	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*104 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-14 18-24
Date Sampled: 03/15/16 13:45
Percent Solids: 74
Initial Volume: 10.2
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.013)		8151A		1	03/23/16 14:32	CZC0398	CC61724
2,4,5-TP (Silvex)	ND (0.013)		8151A		1	03/23/16 14:32	CZC0398	CC61724
2,4-D	ND (0.249)		8151A		1	03/23/16 14:32	CZC0398	CC61724
2,4-DB	ND (0.252)		8151A		1	03/23/16 14:32	CZC0398	CC61724
Dalapon	ND (0.241)		8151A		1	03/23/16 14:32	CZC0398	CC61724
Dicamba	ND (0.012)		8151A		1	03/23/16 14:32	CZC0398	CC61724
Dichlorprop	ND (0.249)		8151A		1	03/23/16 14:32	CZC0398	CC61724
Dinoseb	ND (0.252)		8151A		1	03/23/16 14:32	CZC0398	CC61724
MCPA	ND (24.7)		8151A		1	03/23/16 14:32	CZC0398	CC61724
MCPP	ND (24.9)		8151A		1	03/23/16 14:32	CZC0398	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*70 %*		*30-150*
Surrogate: DCAA [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-15 0-6
Date Sampled: 03/15/16 14:15
Percent Solids: 72

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-11
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**17.8** (2.68)		6010C		1	ICP	03/21/16 17:48	2.58	100	CC61733
Lead	**56.5** (5.36)		6010C		1	ICP	03/21/16 17:48	2.58	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-15 0-6
Date Sampled: 03/15/16 14:15
Percent Solids: 72
Initial Volume: 19.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.266** (0.0900)		8081B		25	03/24/16 2:17	CZC0317	CC61616
4,4´-DDE	**2.00** (0.360)		8081B		100	03/24/16 2:50	CZC0317	CC61616
4,4´-DDT	**0.840** (0.0900)		8081B		25	03/24/16 2:17	CZC0317	CC61616
Aldrin	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
alpha-BHC	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
alpha-Chlordane [2C]	**LC, P 0.153** (0.0180)		8081B		5	03/24/16 1:44	CZC0317	CC61616
beta-BHC	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Chlordane (Total)	**0.864** (0.216)		8081B		5	03/24/16 1:44	CZC0317	CC61616
delta-BHC	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Dieldrin	**LC, P 0.0226** (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Endosulfan I	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Endosulfan II	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Endrin	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Endrin Aldehyde	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Endrin Ketone	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0022)		8081B		1	03/18/16 19:06	CZC0317	CC61616
gamma-Chlordane [2C]	**0.0938** (0.0180)		8081B		5	03/24/16 1:44	CZC0317	CC61616
Heptachlor	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Heptachlor Epoxide	**0.105** (0.0180)		8081B		5	03/24/16 1:44	CZC0317	CC61616
Hexachlorobenzene	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Methoxychlor	ND (0.0036)		8081B		1	03/18/16 19:06	CZC0317	CC61616
Toxaphene	ND (0.180)		8081B		1	03/18/16 19:06	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*79 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-15 0-6
Date Sampled: 03/15/16 14:15
Percent Solids: 72
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.013)		8151A		1	03/23/16 15:00	CZC0398	CC61724
2,4,5-TP (Silvex)	ND (0.013)		8151A		1	03/23/16 15:00	CZC0398	CC61724
2,4-D	ND (0.252)		8151A		1	03/23/16 15:00	CZC0398	CC61724
2,4-DB	ND (0.255)		8151A		1	03/23/16 15:00	CZC0398	CC61724
Dalapon	ND (0.244)		8151A		1	03/23/16 15:00	CZC0398	CC61724
Dicamba	ND (0.013)		8151A		1	03/23/16 15:00	CZC0398	CC61724
Dichlorprop	ND (0.252)		8151A		1	03/23/16 15:00	CZC0398	CC61724
Dinoseb	ND (0.255)		8151A		1	03/23/16 15:00	CZC0398	CC61724
MCPA	ND (25.0)		8151A		1	03/23/16 15:00	CZC0398	CC61724
MCPP	ND (25.2)		8151A		1	03/23/16 15:00	CZC0398	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*83 %*		*30-150*
Surrogate: DCAA [2C]	*61 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-15 18-24
Date Sampled: 03/15/16 14:35
Percent Solids: 84

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-12
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**12.2** (2.20)		6010C		1	ICP	03/21/16 17:52	2.72	100	CC61733
Lead	**10.2** (4.39)		6010C		1	ICP	03/21/16 17:52	2.72	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-15 18-24
Date Sampled: 03/15/16 14:35
Percent Solids: 84
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
4,4´-DDE	**0.0338** (0.0152)		8081B		5	03/24/16 3:23	CZC0317	CC61616
4,4´-DDT [2C]	**0.0182** (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Aldrin	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
alpha-BHC	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
alpha-Chlordane [2C]	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
beta-BHC	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Chlordane (Total)	ND (0.0366)		8081B		1	03/18/16 20:45	CZC0317	CC61616
delta-BHC	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Dieldrin	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Endosulfan I	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Endosulfan II	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Endrin	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Endrin Aldehyde	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Endrin Ketone	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/18/16 20:45	CZC0317	CC61616
gamma-Chlordane	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Heptachlor	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Heptachlor Epoxide	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Hexachlorobenzene	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Methoxychlor	ND (0.0030)		8081B		1	03/18/16 20:45	CZC0317	CC61616
Toxaphene	ND (0.152)		8081B		1	03/18/16 20:45	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*107 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*111 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-15 18-24
Date Sampled: 03/15/16 14:35
Percent Solids: 84
Initial Volume: 10.4
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/23/16 15:28	CZC0398	CC61724
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/23/16 15:28	CZC0398	CC61724
2,4-D	ND (0.216)		8151A		1	03/23/16 15:28	CZC0398	CC61724
2,4-DB	ND (0.218)		8151A		1	03/23/16 15:28	CZC0398	CC61724
Dalapon	ND (0.209)		8151A		1	03/23/16 15:28	CZC0398	CC61724
Dicamba	ND (0.011)		8151A		1	03/23/16 15:28	CZC0398	CC61724
Dichlorprop	ND (0.216)		8151A		1	03/23/16 15:28	CZC0398	CC61724
Dinoseb	ND (0.218)		8151A		1	03/23/16 15:28	CZC0398	CC61724
MCPA	ND (21.4)		8151A		1	03/23/16 15:28	CZC0398	CC61724
MCPP	ND (21.6)		8151A		1	03/23/16 15:28	CZC0398	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*60 %*		*30-150*
Surrogate: DCAA [2C]	*61 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-16 0-6
Date Sampled: 03/15/16 14:45
Percent Solids: 71

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-13
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**15.1** (2.88)		6010C		1	ICP	03/21/16 17:56	2.45	100	CC61733
Lead	**19.9** (5.77)		6010C		1	ICP	03/21/16 17:56	2.45	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-16 0-6
Date Sampled: 03/15/16 14:45
Percent Solids: 71
Initial Volume: 19.4
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0292** (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
4,4´-DDE	**0.376** (0.0910)		8081B		25	03/24/16 4:30	CZC0317	CC61616
4,4´-DDT [2C]	**0.0539** (0.0182)		8081B		5	03/24/16 3:57	CZC0317	CC61616
Aldrin	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
alpha-BHC	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
alpha-Chlordane [2C]	**LC, P 0.0111** (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
beta-BHC	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Chlordane (Total)	**0.0614** (0.0437)		8081B		1	03/18/16 21:18	CZC0317	CC61616
delta-BHC	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Dieldrin	**LC, P 0.0037** (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Endosulfan I	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Endosulfan II	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Endosulfan Sulfate	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Endrin	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Endrin Aldehyde	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Endrin Ketone	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
gamma-BHC (Lindane)	ND (0.0022)		8081B		1	03/18/16 21:18	CZC0317	CC61616
gamma-Chlordane [2C]	**0.0073** (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Heptachlor	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Heptachlor Epoxide [2C]	**LC, P 0.0043** (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Hexachlorobenzene [2C]	**LC, P 0.0064** (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Methoxychlor	ND (0.0036)		8081B		1	03/18/16 21:18	CZC0317	CC61616
Toxaphene	ND (0.182)		8081B		1	03/18/16 21:18	CZC0317	CC61616

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*108 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*106 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*110 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*111 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-16 0-6
Date Sampled: 03/15/16 14:45
Percent Solids: 71
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/17/16 12:30

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.013)		8151A		1	03/23/16 15:57	CZC0398	CC61724
2,4,5-TP (Silvex)	ND (0.013)		8151A		1	03/23/16 15:57	CZC0398	CC61724
2,4-D	ND (0.253)		8151A		1	03/23/16 15:57	CZC0398	CC61724
2,4-DB	ND (0.256)		8151A		1	03/23/16 15:57	CZC0398	CC61724
Dalapon	ND (0.245)		8151A		1	03/23/16 15:57	CZC0398	CC61724
Dicamba	ND (0.013)		8151A		1	03/23/16 15:57	CZC0398	CC61724
Dichlorprop	ND (0.253)		8151A		1	03/23/16 15:57	CZC0398	CC61724
Dinoseb	ND (0.256)		8151A		1	03/23/16 15:57	CZC0398	CC61724
MCPA	ND (25.0)		8151A		1	03/23/16 15:57	CZC0398	CC61724
MCPP	ND (25.3)		8151A		1	03/23/16 15:57	CZC0398	CC61724

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*67 %*		*30-150*
Surrogate: DCAA [2C]	*55 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-16 18-24
Date Sampled: 03/15/16 14:50
Percent Solids: 77

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-14
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**13.0** (2.49)		6010C		1	ICP	03/21/16 18:00	2.61	100	CC61733
Lead	**11.2** (4.98)		6010C		1	ICP	03/21/16 18:00	2.61	100	CC61733

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-16 18-24
Date Sampled: 03/15/16 14:50
Percent Solids: 77
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/16/16 12:36

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
4,4´-DDE	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
4,4´-DDT	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Aldrin	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
alpha-BHC	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
alpha-Chlordane	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
beta-BHC	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Chlordane (Total)	ND (0.0398)		8081B		1	03/24/16 5:03	CZC0382	CC62453
delta-BHC	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Dieldrin	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Endosulfan I	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Endosulfan II	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Endosulfan Sulfate	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Endrin	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Endrin Aldehyde	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Endrin Ketone	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
gamma-BHC (Lindane)	ND (0.0020)		8081B		1	03/24/16 5:03	CZC0382	CC62453
gamma-Chlordane	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Heptachlor	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Heptachlor Epoxide	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Hexachlorobenzene	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Methoxychlor	ND (0.0033)		8081B		1	03/24/16 5:03	CZC0382	CC62453
Toxaphene	ND (0.166)		8081B		1	03/24/16 5:03	CZC0382	CC62453

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-16 18-24
Date Sampled: 03/15/16 14:50
Percent Solids: 77
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603375
ESS Laboratory Sample ID: 1603375-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/24/16 11:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/25/16 18:08	CZC0455	CC62415
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/25/16 18:08	CZC0455	CC62415
2,4-D	ND (0.233)		8151A		1	03/25/16 18:08	CZC0455	CC62415
2,4-DB	ND (0.235)		8151A		1	03/25/16 18:08	CZC0455	CC62415
Dalapon	ND (0.225)		8151A		1	03/25/16 18:08	CZC0455	CC62415
Dicamba	ND (0.012)		8151A		1	03/25/16 18:08	CZC0455	CC62415
Dichlorprop	ND (0.233)		8151A		1	03/25/16 18:08	CZC0455	CC62415
Dinoseb	ND (0.235)		8151A		1	03/25/16 18:08	CZC0455	CC62415
MCPA	ND (23.0)		8151A		1	03/25/16 18:08	CZC0455	CC62415
MCPP	# ND (23.3)		8151A		1	03/25/16 18:08	CZC0455	CC62415

	%Recovery	*Qualifier*	*Limits*
Surrogate: DCAA	*51 %*		*30-150*
Surrogate: DCAA [2C]	*56 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61616 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0130*		mg/kg wet	*0.01250*		*104*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61616 - 3546										
Surrogate: Decachlorobiphenyl [2C]	*0.0130*		mg/kg wet	*0.01250*		*104*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0117*		mg/kg wet	*0.01250*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0114*		mg/kg wet	*0.01250*		*91*	*30-150*			
LCS										
4,4´-DDD	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
4,4´-DDD [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
4,4´-DDE	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
4,4´-DDE [2C]	0.0121	0.0025	mg/kg wet	0.01250		96	40-140			
4,4´-DDT	0.0131	0.0025	mg/kg wet	0.01250		105	40-140			
4,4´-DDT [2C]	0.0133	0.0025	mg/kg wet	0.01250		106	40-140			
Aldrin	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Aldrin [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC [2C]	0.0109	0.0025	mg/kg wet	0.01250		88	40-140			
alpha-Chlordane	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
alpha-Chlordane [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
beta-BHC	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
beta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
delta-BHC	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
delta-BHC [2C]	0.0112	0.0025	mg/kg wet	0.01250		90	40-140			
Dieldrin	0.0121	0.0025	mg/kg wet	0.01250		96	40-140			
Dieldrin [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Endosulfan I	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Endosulfan I [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Endosulfan II	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Endosulfan II [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endosulfan Sulfate	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Endosulfan Sulfate [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
Endrin	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Endrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
Endrin Aldehyde	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endrin Aldehyde [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endrin Ketone	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Endrin Ketone [2C]	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
gamma-BHC (Lindane)	0.0117	0.0015	mg/kg wet	0.01250		94	40-140			
gamma-BHC (Lindane) [2C]	0.0112	0.0015	mg/kg wet	0.01250		89	40-140			
gamma-Chlordane	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
gamma-Chlordane [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Heptachlor	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Heptachlor [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Heptachlor Epoxide	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Heptachlor Epoxide [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Hexachlorobenzene	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Hexachlorobenzene [2C]	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

Quality Control Data

8081B Organochlorine Pesticides

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CC61616 - 3546										
Methoxychlor	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
Methoxychlor [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0123*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0123*		mg/kg wet	*0.01250*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0115*		mg/kg wet	*0.01250*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0113*		mg/kg wet	*0.01250*		*91*	*30-150*			
LCS Dup										
4,4´-DDD	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	7	30	
4,4´-DDD [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
4,4´-DDE	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
4,4´-DDE [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
4,4´-DDT	0.0142	0.0025	mg/kg wet	0.01250		113	40-140	8	30	
4,4´-DDT [2C]	0.0142	0.0025	mg/kg wet	0.01250		113	40-140	7	30	
Aldrin	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Aldrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	4	30	
alpha-BHC	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
alpha-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	5	30	
alpha-Chlordane	0.0122	0.0025	mg/kg wet	0.01250		97	40-140	4	30	
alpha-Chlordane [2C]	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
beta-BHC	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	4	30	
beta-BHC [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	4	30	
delta-BHC	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
delta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
Dieldrin	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	4	30	
Dieldrin [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Endosulfan I	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	5	30	
Endosulfan I [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
Endosulfan II	0.0124	0.0025	mg/kg wet	0.01250		100	40-140	6	30	
Endosulfan II [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	4	30	
Endosulfan Sulfate	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	4	30	
Endosulfan Sulfate [2C]	0.0132	0.0025	mg/kg wet	0.01250		106	40-140	4	30	
Endrin	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	5	30	
Endrin [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	4	30	
Endrin Aldehyde	0.0117	0.0025	mg/kg wet	0.01250		94	40-140	2	30	
Endrin Aldehyde [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	0.5	30	
Endrin Ketone	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	5	30	
Endrin Ketone [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	5	30	
gamma-BHC (Lindane)	0.0122	0.0015	mg/kg wet	0.01250		97	40-140	4	30	
gamma-BHC (Lindane) [2C]	0.0116	0.0015	mg/kg wet	0.01250		93	40-140	4	30	
gamma-Chlordane	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	5	30	
gamma-Chlordane [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	4	30	
Heptachlor	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
Heptachlor [2C]	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	4	30	
Heptachlor Epoxide	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	4	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61616 - 3546										
Heptachlor Epoxide [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Hexachlorobenzene	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	4	30	
Hexachlorobenzene [2C]	0.0122	0.0025	mg/kg wet	0.01250		97	40-140	5	30	
Methoxychlor	0.0137	0.0025	mg/kg wet	0.01250		110	40-140	6	30	
Methoxychlor [2C]	0.0135	0.0025	mg/kg wet	0.01250		108	40-140	8	30	
Surrogate: Decachlorobiphenyl	*0.0125*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0126*		mg/kg wet	*0.01250*		*101*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0117*		mg/kg wet	*0.01250*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0114*		mg/kg wet	*0.01250*		*91*	*30-150*			
Batch CC62453 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62453 - 3546										
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0124*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0126*		mg/kg wet	*0.01250*		*101*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0117*		mg/kg wet	*0.01250*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0119*		mg/kg wet	*0.01250*		*95*	*30-150*			
LCS										
4,4´-DDD	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
4,4´-DDD [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
4,4´-DDE	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
4,4´-DDE [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
4,4´-DDT	0.0132	0.0025	mg/kg wet	0.01250		106	40-140			
4,4´-DDT [2C]	0.0137	0.0025	mg/kg wet	0.01250		110	40-140			
Aldrin	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Aldrin [2C]	0.0122	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
alpha-BHC [2C]	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
alpha-Chlordane	0.0114	0.0025	mg/kg wet	0.01250		91	40-140			
alpha-Chlordane [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
beta-BHC	0.0114	0.0025	mg/kg wet	0.01250		91	40-140			
beta-BHC [2C]	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
delta-BHC	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
delta-BHC [2C]	0.0112	0.0025	mg/kg wet	0.01250		90	40-140			
Dieldrin	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Dieldrin [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Endosulfan I	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Endosulfan I [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endosulfan II	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endosulfan II [2C]	0.0121	0.0025	mg/kg wet	0.01250		96	40-140			
Endosulfan Sulfate	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endosulfan Sulfate [2C]	0.0128	0.0025	mg/kg wet	0.01250		103	40-140			
Endrin	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endrin [2C]	0.0126	0.0025	mg/kg wet	0.01250		101	40-140			
Endrin Aldehyde	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Endrin Aldehyde [2C]	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
Endrin Ketone	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endrin Ketone [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62453 - 3546										
gamma-BHC (Lindane)	0.0120	0.0015	mg/kg wet	0.01250		96	40-140			
gamma-BHC (Lindane) [2C]	0.0117	0.0015	mg/kg wet	0.01250		94	40-140			
gamma-Chlordane	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
gamma-Chlordane [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Heptachlor	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
Heptachlor [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Heptachlor Epoxide	0.0111	0.0025	mg/kg wet	0.01250		88	40-140			
Heptachlor Epoxide [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Hexachlorobenzene	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
Hexachlorobenzene [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Methoxychlor	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
Methoxychlor [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140			
Surrogate: Decachlorobiphenyl	*0.0122*		mg/kg wet	*0.01250*		*98*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0129*		mg/kg wet	*0.01250*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0119*		mg/kg wet	*0.01250*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0120*		mg/kg wet	*0.01250*		*96*	*30-150*			
LCS Dup										
4,4´-DDD	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	8	30	
4,4´-DDD [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	8	30	
4,4´-DDE	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	8	30	
4,4´-DDE [2C]	0.0132	0.0025	mg/kg wet	0.01250		105	40-140	7	30	
4,4´-DDT	0.0147	0.0025	mg/kg wet	0.01250		117	40-140	10	30	
4,4´-DDT [2C]	0.0151	0.0025	mg/kg wet	0.01250		121	40-140	10	30	
Aldrin	0.0122	0.0025	mg/kg wet	0.01250		97	40-140	6	30	
Aldrin [2C]	0.0128	0.0025	mg/kg wet	0.01250		103	40-140	5	30	
alpha-BHC	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	3	30	
alpha-BHC [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	4	30	
alpha-Chlordane	0.0123	0.0025	mg/kg wet	0.01250		99	40-140	8	30	
alpha-Chlordane [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	7	30	
beta-BHC	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	5	30	
beta-BHC [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	6	30	
delta-BHC	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	6	30	
delta-BHC [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	7	30	
Dieldrin	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	8	30	
Dieldrin [2C]	0.0134	0.0025	mg/kg wet	0.01250		107	40-140	7	30	
Endosulfan I	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	9	30	
Endosulfan I [2C]	0.0130	0.0025	mg/kg wet	0.01250		104	40-140	7	30	
Endosulfan II	0.0126	0.0025	mg/kg wet	0.01250		100	40-140	9	30	
Endosulfan II [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
Endosulfan Sulfate	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
Endosulfan Sulfate [2C]	0.0139	0.0025	mg/kg wet	0.01250		111	40-140	8	30	
Endrin	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
Endrin [2C]	0.0137	0.0025	mg/kg wet	0.01250		109	40-140	8	30	
Endrin Aldehyde	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	5	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC62453 - 3546										
Endrin Aldehyde [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Endrin Ketone	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	9	30	
Endrin Ketone [2C]	0.0131	0.0025	mg/kg wet	0.01250		105	40-140	8	30	
gamma-BHC (Lindane)	0.0125	0.0015	mg/kg wet	0.01250		100	40-140	4	30	
gamma-BHC (Lindane) [2C]	0.0122	0.0015	mg/kg wet	0.01250		98	40-140	4	30	
gamma-Chlordane	0.0124	0.0025	mg/kg wet	0.01250		99	40-140	7	30	
gamma-Chlordane [2C]	0.0132	0.0025	mg/kg wet	0.01250		105	40-140	7	30	
Heptachlor	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	5	30	
Heptachlor [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Heptachlor Epoxide	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	7	30	
Heptachlor Epoxide [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	6	30	
Hexachlorobenzene	0.0122	0.0025	mg/kg wet	0.01250		98	40-140	3	30	
Hexachlorobenzene [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Methoxychlor	0.0143	0.0025	mg/kg wet	0.01250		114	40-140	11	30	
Methoxychlor [2C]	0.0144	0.0025	mg/kg wet	0.01250		115	40-140	10	30	
Surrogate: Decachlorobiphenyl	*0.0143*		mg/kg wet	*0.01250*		*115*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0142*		mg/kg wet	*0.01250*		*114*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0123*		mg/kg wet	*0.01250*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0120*		mg/kg wet	*0.01250*		*96*	*30-150*			
8151A Chlorinated Herbicides										
Batch CC61724 - 3546										
Blank										
2,4,5-T	ND	0.010	mg/kg wet							
2,4,5-T [2C]	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex)	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	0.010	mg/kg wet							
2,4-D	ND	0.188	mg/kg wet							
2,4-D [2C]	ND	0.188	mg/kg wet							
2,4-DB	ND	0.190	mg/kg wet							
2,4-DB [2C]	ND	0.190	mg/kg wet							
Dalapon	ND	0.182	mg/kg wet							
Dalapon [2C]	ND	0.182	mg/kg wet							
Dicamba	ND	0.009	mg/kg wet							
Dicamba [2C]	ND	0.009	mg/kg wet							
Dichlorprop	ND	0.188	mg/kg wet							
Dichlorprop [2C]	ND	0.188	mg/kg wet							
Dinoseb	ND	0.190	mg/kg wet							
Dinoseb [2C]	ND	0.190	mg/kg wet							
MCPA	ND	18.6	mg/kg wet							
MCPA [2C]	ND	18.6	mg/kg wet							
MCPP	ND	18.8	mg/kg wet							
MCPP [2C]	ND	18.8	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61724 - 3546										
Surrogate: DCAA	*11.4*		mg/kg wet	*20.00*		*57*	*30-150*			
Surrogate: DCAA [2C]	*11.0*		mg/kg wet	*20.00*		*55*	*30-150*			
LCS										
2,4,5-T	0.010	0.010	mg/kg wet	0.01900		50	40-140			
2,4,5-T [2C]	0.010	0.010	mg/kg wet	0.01900		54	40-140			
2,4,5-TP (Silvex)	0.010	0.010	mg/kg wet	0.01900		52	40-140			
2,4,5-TP (Silvex) [2C]	0.010	0.010	mg/kg wet	0.01900		54	40-140			
2,4-D	0.118	0.188	mg/kg wet	0.1880		63	40-140			
2,4-D [2C]	0.160	0.188	mg/kg wet	0.1880		85	40-140			
2,4-DB	0.081	0.190	mg/kg wet	0.1900		43	40-140			
2,4-DB [2C]	0.073	0.190	mg/kg wet	0.1900		38	40-140			B-
Dalapon	0.200	0.182	mg/kg wet	0.4550		44	40-140			
Dalapon [2C]	0.222	0.182	mg/kg wet	0.4550		49	40-140			
Dicamba	0.012	0.009	mg/kg wet	0.01880		64	40-140			
Dicamba [2C]	0.012	0.009	mg/kg wet	0.01880		66	40-140			
Dichlorprop	0.148	0.188	mg/kg wet	0.1880		79	40-140			
Dichlorprop [2C]	0.150	0.188	mg/kg wet	0.1880		80	40-140			
Dinoseb	0.022	0.190	mg/kg wet	0.09500		24	10-100			
Dinoseb [2C]	0.025	0.190	mg/kg wet	0.09500		26	10-100			
MCPA	11.3	18.6	mg/kg wet	18.60		61	40-140			
MCPA [2C]	11.2	18.6	mg/kg wet	18.60		60	40-140			
MCPP	9.86	18.8	mg/kg wet	18.80		52	40-140			
MCPP [2C]	11.2	18.8	mg/kg wet	18.80		60	40-140			
Surrogate: DCAA	*17.3*		mg/kg wet	*20.00*		*87*	*30-150*			
Surrogate: DCAA [2C]	*18.2*		mg/kg wet	*20.00*		*91*	*30-150*			
LCS Dup										
2,4,5-T	0.013	0.010	mg/kg wet	0.01900		70	40-140	33	30	D+
2,4,5-T [2C]	0.014	0.010	mg/kg wet	0.01900		72	40-140	29	30	
2,4,5-TP (Silvex)	0.014	0.010	mg/kg wet	0.01900		72	40-140	32	30	D+
2,4,5-TP (Silvex) [2C]	0.017	0.010	mg/kg wet	0.01900		92	40-140	52	30	D+
2,4-D	0.162	0.188	mg/kg wet	0.1880		86	40-140	31	30	D+
2,4-D [2C]	0.217	0.188	mg/kg wet	0.1880		116	40-140	31	30	D+
2,4-DB	0.141	0.190	mg/kg wet	0.1900		74	40-140	54	30	D+
2,4-DB [2C]	0.132	0.190	mg/kg wet	0.1900		70	40-140	58	30	D+
Dalapon	0.250	0.182	mg/kg wet	0.4550		55	40-140	22	30	
Dalapon [2C]	0.277	0.182	mg/kg wet	0.4550		61	40-140	22	30	
Dicamba	0.015	0.009	mg/kg wet	0.01880		82	40-140	25	30	
Dicamba [2C]	0.017	0.009	mg/kg wet	0.01880		92	40-140	33	30	D+
Dichlorprop	0.197	0.188	mg/kg wet	0.1880		105	40-140	28	30	
Dichlorprop [2C]	0.205	0.188	mg/kg wet	0.1880		109	40-140	31	30	D+
Dinoseb	0.035	0.190	mg/kg wet	0.09500		36	10-100	43	30	D+
Dinoseb [2C]	0.036	0.190	mg/kg wet	0.09500		38	10-100	36	30	D+
MCPA	15.6	18.6	mg/kg wet	18.60		84	40-140	32	30	D+
MCPA [2C]	17.6	18.6	mg/kg wet	18.60		95	40-140	45	30	D+

CERTIFICATE OF ANALYSIS

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ESS Laboratory Work Order: 1603375

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC61724 - 3546										
MCPP	14.2	18.8	mg/kg wet	18.80		75	40-140	36	30	D+
MCPP [2C]	18.5	18.8	mg/kg wet	18.80		99	40-140	49	30	D+
Surrogate: DCAA	*22.0*		mg/kg wet	*20.00*		*110*	*30-150*			
Surrogate: DCAA [2C]	*22.4*		mg/kg wet	*20.00*		*112*	*30-150*			
Batch CC62415 - 3546										
Blank										
2,4,5-T	ND	0.010	mg/kg wet							
2,4,5-T [2C]	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex)	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	0.010	mg/kg wet							
2,4-D	ND	0.188	mg/kg wet							
2,4-D [2C]	ND	0.188	mg/kg wet							
2,4-DB	ND	0.190	mg/kg wet							
2,4-DB [2C]	ND	0.190	mg/kg wet							
Dalapon	ND	0.182	mg/kg wet							
Dalapon [2C]	ND	0.182	mg/kg wet							
Dicamba	ND	0.009	mg/kg wet							
Dicamba [2C]	ND	0.009	mg/kg wet							
Dichlorprop	ND	0.188	mg/kg wet							
Dichlorprop [2C]	ND	0.188	mg/kg wet							
Dinoseb	ND	0.190	mg/kg wet							
Dinoseb [2C]	ND	0.190	mg/kg wet							
MCPA	ND	18.6	mg/kg wet							
MCPA [2C]	ND	18.6	mg/kg wet							
MCPP	ND	18.8	mg/kg wet							
MCPP [2C]	ND	18.8	mg/kg wet							
Surrogate: DCAA	*11.4*		mg/kg wet	*20.00*		*57*	*30-150*			
Surrogate: DCAA [2C]	*10.8*		mg/kg wet	*20.00*		*54*	*30-150*			
LCS										
2,4,5-T	0.014	0.010	mg/kg wet	0.01900		74	40-140			
2,4,5-T [2C]	0.013	0.010	mg/kg wet	0.01900		66	40-140			
2,4,5-TP (Silvex)	0.016	0.010	mg/kg wet	0.01900		86	40-140			
2,4,5-TP (Silvex) [2C]	0.014	0.010	mg/kg wet	0.01900		76	40-140			
2,4-D	0.159	0.188	mg/kg wet	0.1880		84	40-140			
2,4-D [2C]	0.200	0.188	mg/kg wet	0.1880		106	40-140			
2,4-DB	0.106	0.190	mg/kg wet	0.1900		56	40-140			
2,4-DB [2C]	0.094	0.190	mg/kg wet	0.1900		50	40-140			
Dalapon	0.246	0.182	mg/kg wet	0.4550		54	40-140			
Dalapon [2C]	0.292	0.182	mg/kg wet	0.4550		64	40-140			
Dicamba	0.013	0.009	mg/kg wet	0.01880		70	40-140			
Dicamba [2C]	0.015	0.009	mg/kg wet	0.01880		78	40-140			
Dichlorprop	0.174	0.188	mg/kg wet	0.1880		93	40-140			
Dichlorprop [2C]	0.175	0.188	mg/kg wet	0.1880		93	40-140			

CERTIFICATE OF ANALYSIS

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC62415 - 3546										
Dinoseb	0.028	0.190	mg/kg wet	0.09500		30	10-100			
Dinoseb [2C]	0.030	0.190	mg/kg wet	0.09500		32	10-100			
MCPA	13.4	18.6	mg/kg wet	18.60		72	40-140			
MCPA [2C]	13.7	18.6	mg/kg wet	18.60		73	40-140			
MCPP	11.6	18.8	mg/kg wet	18.80		62	40-140			
MCPP [2C]	14.0	18.8	mg/kg wet	18.80		74	40-140			
Surrogate: DCAA	*21.0*		mg/kg wet	*20.00*		*105*	*30-150*			
Surrogate: DCAA [2C]	*21.4*		mg/kg wet	*20.00*		*107*	*30-150*			
LCS Dup										**D+**
2,4,5-T	0.010	0.010	mg/kg wet	0.01900		52	40-140	35	30	
2,4,5-T [2C]	0.009	0.010	mg/kg wet	0.01900		48	40-140	32	30	
2,4,5-TP (Silvex)	0.008	0.010	mg/kg wet	0.01900		42	40-140	69	30	
2,4,5-TP (Silvex) [2C]	0.009	0.010	mg/kg wet	0.01900		46	40-140	49	30	
2,4-D	0.105	0.188	mg/kg wet	0.1880		56	40-140	41	30	
2,4-D [2C]	0.128	0.188	mg/kg wet	0.1880		68	40-140	44	30	
2,4-DB	0.026	0.190	mg/kg wet	0.1900		14	40-140	121	30	B-
2,4-DB [2C]	0.023	0.190	mg/kg wet	0.1900		12	40-140	122	30	B-
Dalapon	0.218	0.182	mg/kg wet	0.4550		48	40-140	12	30	
Dalapon [2C]	0.225	0.182	mg/kg wet	0.4550		49	40-140	26	30	
Dicamba	0.009	0.009	mg/kg wet	0.01880		50	40-140	33	30	
Dicamba [2C]	0.012	0.009	mg/kg wet	0.01880		62	40-140	23	30	
Dichlorprop	0.112	0.188	mg/kg wet	0.1880		60	40-140	44	30	
Dichlorprop [2C]	0.112	0.188	mg/kg wet	0.1880		60	40-140	43	30	
Dinoseb	0.019	0.190	mg/kg wet	0.09500		20	10-100	38	30	
Dinoseb [2C]	0.018	0.190	mg/kg wet	0.09500		19	10-100	49	30	
MCPA	8.22	18.6	mg/kg wet	18.60		44	40-140	48	30	
MCPA [2C]	7.73	18.6	mg/kg wet	18.60		42	40-140	56	30	
MCPP	8.12	18.8	mg/kg wet	18.80		43	40-140	35	30	
MCPP [2C]	8.45	18.8	mg/kg wet	18.80		45	40-140	49	30	
Surrogate: DCAA	*16.2*		mg/kg wet	*20.00*		*81*	*30-150*			
Surrogate: DCAA [2C]	*16.3*		mg/kg wet	*20.00*		*82*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC ESS Laboratory Work Order: 1603375

Notes and Definitions

Z-09	ND
XH	Peaks found in the retention time window for MCPP did not confirm by GC/MS.
U	Analyte included in the analysis, but not detected
P	Percent difference between primary and confirmation results exceeds 40% (P).
LC	Lower value is used due to matrix interferences (LC).
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
CD+	Continuing Calibration %Diff/Drift is above control limit (CD+).
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B-	Blank Spike recovery is below lower control limit (B-).
#	Modified result
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603375

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - New York, NY - GZA/CMT

Shipped/Delivered Via: ESS Courier

ESS Project ID: 1603375
Date Received: 3/15/2016
Project Due Date: 3/22/2016
Days for Project: 5 Day

1. Air bill manifest present? Yes
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 0.2 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / (No)
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / (NA)

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOAs brought to freezer: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	17263	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
02	17262	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
03	17261	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
04	17260	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
05	17259	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
06	17258	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
07	17257	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
08	17256	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
09	17255	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
10	17254	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
11	17253	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
12	17252	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
13	17251	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
14	17250	Yes	NA	Yes	8 oz. Jar - Unpres	NP	

2nd Review
Are barcode labels on correct containers? (Yes) / No

Completed By: Date & Time: 3.15.16 2150
Reviewed By: Date & Time: 3/15/16 2155

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 14033375

Turn Time X Standard Other_____

Regulatory State: MA RI CT NH NJ (NY) ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - _____

Electonic Deliverables Excel Access PDF

Co. Name GZA Geoenvironmental	Project # 41.0162403	Project Name Hawstone Country Club	
Contact Person Stephen Kline	Address 104 West 29th Street 10th Floor		
City New York	State NY	Zip 10001	PO #
Tel.	Fax.	email: Stephen.Kline@GZA.com	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: Pb, Mg AS	Pest.	Herb.
1	3/15/16	9:07	G	Soil	SS-10 (0-6)	None	1	AG	8oz	X	X	X
2		9:45			SS-10 (18-24)		1			X	X	X
3		10:10			SS-11 (0-6)		1			X	X	X
4		10:30			SS-11 (18-24)		1			X	X	X
5		10:50			SS-12 (0-6)		1			X	X	X
6		11:15			SS-12 (18-24)		1			X	X	X
7		11:45			SS-13 (0-6)		1			X	X	X
8		12:07			SS-13 (18-24)		1			X	X	X
9		1:15 pm			SS-14 (0-6)		1			X	X	X
10		1:45 pm			SS-14 (18-24)		1			X	X	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 0°2 ICE KH

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : James Gloy

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
3/15/16 15:00	3/15/16 1500	3/15/16 1822	3/15/16 2145
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Laboratory

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1603375

Turn Time X Standard Other_____

Regulatory State: MA RI CT NH NJ (NY) ME Other_____

Reporting Limits - _____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: GZA GeoEnvironmental	Project #: 41.0162403	Project Name: Hampshire County CC	
Contact Person: Stephen Kline	Address: 104 West 29th Street 10th Floor		
City: New York	State: NY	Zip: 10001	PO #
Tel.	Fax.	email: Stephen.kline@gza.com	

Analysis: Pb, As | Pest | Herb

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Pb, As	Pest	Herb
11	3/15/16	2:15pm	G	Soil	SS-15 (0-6")	None	1	Ag	8oz	X	X	X
12	↓	2:35pm		↓	SS-15 (18-24")	↓	1	↓	↓	X	X	X
13	↓	2:45pm		↓	SS-16 (0-6")	↓	1	↓	↓	X	X	X
14	↓	2:50pm		↓	SS-16 (18-24")	↓	1	↓	↓	X	X	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No Internal Use Only

Seals Intact ____ Yes ____ No NA: ✓ [X] Pickup

Cooler Temperature: 0.2 ICE/K [ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: James Colon

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
15:00	3/15/16 1500	3/15/16 1822	3/15/16 2145
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Stephen Kline
GZA GeoEnvironmental, Inc.
104 West 29th Street, 10th Floor
New York, NY 10001

RE: Hampshire CC (41.0162403.00)
ESS Laboratory Work Order Number: 1603396

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 5:02 pm, Mar 28, 2016

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

SAMPLE RECEIPT

The following samples were received on March 16, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1603396-01	SS-17 0-6	Soil	6010C, 8081B, 8151A
1603396-02	SS-17 18-24	Soil	6010C, 8081B, 8151A
1603396-03	SS-18 0-6	Soil	6010C, 8081B, 8151A
1603396-04	SS-18 18-24	Soil	6010C, 8081B, 8151A
1603396-05	SS-19 0-6	Soil	6010C, 8081B, 8151A
1603396-06	SS-19 18-24	Soil	6010C, 8081B, 8151A
1603396-07	SS-20 0-6	Soil	6010C, 8081B, 8151A
1603396-08	SS-20 18-24	Soil	6010C, 8081B, 8151A
1603396-09	SS-21 0-6	Soil	6010C, 8081B, 8151A
1603396-10	SS-21 18-24	Soil	6010C, 8081B, 8151A

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

PROJECT NARRATIVE

8081B Organochlorine Pesticides

1603396-01	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD , alpha-Chlordane [2C] , Heptachlor Epoxide [2C]
1603396-01	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , alpha-Chlordane [2C] , Heptachlor Epoxide [2C]
1603396-03	**Lower value is used due to matrix interferences (LC).** Dieldrin
1603396-03	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane , Dieldrin
1603396-05	**Lower value is used due to matrix interferences (LC).** alpha-Chlordane [2C] , beta-BHC
1603396-05	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane [2C] , beta-BHC
1603396-09	**Lower value is used due to matrix interferences (LC).** alpha-Chlordane [2C]
1603396-09	**Percent difference between primary and confirmation results exceeds 40% (P).** alpha-Chlordane [2C]
1603396-10	**Lower value is used due to matrix interferences (LC).** 4,4´-DDD , alpha-Chlordane [2C]
1603396-10	**Percent difference between primary and confirmation results exceeds 40% (P).** 4,4´-DDD , alpha-Chlordane [2C]
CZC0317-CCV9	**Continuing Calibration %Diff/Drift is below control limit (CD-).** 4,4´-DDD (31% @ 20%), 4,4´-DDE (23% @ 20%), 4,4´-DDT (30% @ 20%), alpha-Chlordane (27% @ 20%), Decachlorobiphenyl (35% @ 20%), Dieldrin (30% @ 20%), Endosulfan I (30% @ 20%), Endosulfan II (33% @ 20%), Endosulfan Sulfate (33% @ 20%), Endrin (30% @ 20%), Endrin Aldehyde (32% @ 20%), Endrin Ketone (35% @ 20%), gamma-Chlordane (27% @ 20%), Heptachlor Epoxide (24% @ 20%), Methoxychlor (29% @ 20%)
CZC0317-CCVA	**Continuing Calibration %Diff/Drift is below control limit (CD-).** Decachlorobiphenyl (28% @ 20%)
CZC0382-CCV5	**Continuing Calibration %Diff/Drift is above control limit (CD+).** 4,4´-DDT [2C] (21% @ 20%), Endosulfan Sulfate (21% @ 20%), Methoxychlor (23% @ 20%), Methoxychlor [2C] (24% @ 20%)

8151A Chlorinated Herbicides

CC62145-BSD1	**Relative percent difference for duplicate is outside of criteria (D+).** Dinoseb (31% @ 30%)

No other observations noted.

End of Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-17 0-6
Date Sampled: 03/16/16 09:15
Percent Solids: 74

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-01
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**19.3** (3.18)		6010C		1	KJK	03/22/16 11:06	2.14	100	CC61833
Lead	**65.3** (6.35)		6010C		1	KJK	03/22/16 11:06	2.14	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-17 0-6
Date Sampled: 03/16/16 09:15
Percent Solids: 74
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0129** (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
4,4´-DDE	**1.55** (0.174)		8081B		50	03/26/16 22:53	CZC0461	CC61721
4,4´-DDT [2C]	**0.432** (0.174)		8081B		50	03/26/16 22:53	CZC0461	CC61721
Aldrin	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
alpha-BHC	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
alpha-Chlordane [2C]	**LC, P 0.0064** (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
beta-BHC	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Chlordane (Total)	ND (0.0418)		8081B		1	03/26/16 21:49	CZC0461	CC61721
delta-BHC	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Dieldrin	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Endosulfan I	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Endosulfan II	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Endosulfan Sulfate	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Endrin	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Endrin Aldehyde	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Endrin Ketone	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
gamma-BHC (Lindane)	ND (0.0021)		8081B		1	03/26/16 21:49	CZC0461	CC61721
gamma-Chlordane	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Heptachlor	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Heptachlor Epoxide [2C]	**LC, P 0.0057** (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Hexachlorobenzene	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Methoxychlor	ND (0.0035)		8081B		1	03/26/16 21:49	CZC0461	CC61721
Toxaphene	ND (0.174)		8081B		1	03/26/16 21:49	CZC0461	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*76 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-17 0-6
Date Sampled: 03/16/16 09:15
Percent Solids: 74
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/24/16 5:17	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/24/16 5:17	CZC0398	CC62145
2,4-D	ND (0.243)		8151A		1	03/24/16 5:17	CZC0398	CC62145
2,4-DB	ND (0.246)		8151A		1	03/24/16 5:17	CZC0398	CC62145
Dalapon	ND (0.236)		8151A		1	03/24/16 5:17	CZC0398	CC62145
Dicamba	ND (0.012)		8151A		1	03/24/16 5:17	CZC0398	CC62145
Dichlorprop	ND (0.243)		8151A		1	03/24/16 5:17	CZC0398	CC62145
Dinoseb	ND (0.246)		8151A		1	03/24/16 5:17	CZC0398	CC62145
MCPA	ND (24.1)		8151A		1	03/24/16 5:17	CZC0398	CC62145
MCPP	ND (24.3)		8151A		1	03/24/16 5:17	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*66 %*		*30-150*
Surrogate: DCAA [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-17 18-24
Date Sampled: 03/16/16 09:35
Percent Solids: 76

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-02
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**16.5** (3.17)		6010C		1	KJK	03/22/16 11:10	2.08	100	CC61833
Lead	**40.5** (6.34)		6010C		1	KJK	03/22/16 11:10	2.08	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-17 18-24
Date Sampled: 03/16/16 09:35
Percent Solids: 76
Initial Volume: 19.3
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
4,4´-DDE	**0.112** (0.0171)		8081B		5	03/26/16 23:58	CZC0461	CC61721
4,4´-DDT	**0.0337** (0.0171)		8081B		5	03/26/16 23:58	CZC0461	CC61721
Aldrin	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
alpha-BHC	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
alpha-Chlordane [2C]	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
beta-BHC	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Chlordane (Total)	ND (0.0410)		8081B		1	03/26/16 23:26	CZC0461	CC61721
delta-BHC	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Dieldrin	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Endosulfan I	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Endosulfan II	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Endosulfan Sulfate	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Endrin	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Endrin Aldehyde	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Endrin Ketone	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
gamma-BHC (Lindane)	ND (0.0020)		8081B		1	03/26/16 23:26	CZC0461	CC61721
gamma-Chlordane	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Heptachlor	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Heptachlor Epoxide	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Hexachlorobenzene	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Methoxychlor	ND (0.0034)		8081B		1	03/26/16 23:26	CZC0461	CC61721
Toxaphene	ND (0.171)		8081B		1	03/26/16 23:26	CZC0461	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*69 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*67 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*67 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-17 18-24
Date Sampled: 03/16/16 09:35
Percent Solids: 76
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.013)		8151A		1	03/23/16 22:36	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.013)		8151A		1	03/23/16 22:36	CZC0398	CC62145
2,4-D	ND (0.248)		8151A		1	03/23/16 22:36	CZC0398	CC62145
2,4-DB	ND (0.250)		8151A		1	03/23/16 22:36	CZC0398	CC62145
Dalapon	ND (0.240)		8151A		1	03/23/16 22:36	CZC0398	CC62145
Dicamba	ND (0.012)		8151A		1	03/23/16 22:36	CZC0398	CC62145
Dichlorprop	ND (0.248)		8151A		1	03/23/16 22:36	CZC0398	CC62145
Dinoseb	ND (0.250)		8151A		1	03/23/16 22:36	CZC0398	CC62145
MCPA	ND (24.5)		8151A		1	03/23/16 22:36	CZC0398	CC62145
MCPP	ND (24.8)		8151A		1	03/23/16 22:36	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*54 %*		*30-150*
Surrogate: DCAA [2C]	*54 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-18 0-6
Date Sampled: 03/16/16 09:50
Percent Solids: 77

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-03
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**10.2** (2.58)		6010C		1	KJK	03/22/16 11:14	2.5	100	CC61833
Lead	**36.6** (5.17)		6010C		1	KJK	03/22/16 11:14	2.5	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-18 0-6
Date Sampled: 03/16/16 09:50
Percent Solids: 77
Initial Volume: 20.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0880** (0.0161)		8081B		5	03/27/16 0:31	CZC0382	CC61721
4,4´-DDE	**0.392** (0.161)		8081B		50	03/27/16 1:35	CZC0382	CC61721
4,4´-DDT [2C]	**0.111** (0.0161)		8081B		5	03/27/16 0:31	CZC0382	CC61721
Aldrin	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
alpha-BHC	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
alpha-Chlordane	**P 0.0826** (0.0161)		8081B		5	03/27/16 0:31	CZC0382	CC61721
beta-BHC	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Chlordane (Total)	**0.275** (0.0386)		8081B		1	03/24/16 8:23	CZC0382	CC61721
delta-BHC	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Dieldrin	**LC, P 0.0032** (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Endosulfan I	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Endosulfan II	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Endosulfan Sulfate	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Endrin	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Endrin Aldehyde	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Endrin Ketone	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
gamma-BHC (Lindane)	ND (0.0019)		8081B		1	03/24/16 8:23	CZC0382	CC61721
gamma-Chlordane [2C]	**0.0264** (0.0161)		8081B		5	03/27/16 0:31	CZC0382	CC61721
Heptachlor	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Heptachlor Epoxide	**0.0212** (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Hexachlorobenzene [2C]	**0.0063** (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Methoxychlor	ND (0.0032)		8081B		1	03/24/16 8:23	CZC0382	CC61721
Toxaphene	ND (0.161)		8081B		1	03/24/16 8:23	CZC0382	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-18 0-6
Date Sampled: 03/16/16 09:50
Percent Solids: 77
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/23/16 23:05	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/23/16 23:05	CZC0398	CC62145
2,4-D	ND (0.236)		8151A		1	03/23/16 23:05	CZC0398	CC62145
2,4-DB	ND (0.238)		8151A		1	03/23/16 23:05	CZC0398	CC62145
Dalapon	ND (0.228)		8151A		1	03/23/16 23:05	CZC0398	CC62145
Dicamba	ND (0.012)		8151A		1	03/23/16 23:05	CZC0398	CC62145
Dichlorprop	ND (0.236)		8151A		1	03/23/16 23:05	CZC0398	CC62145
Dinoseb	ND (0.238)		8151A		1	03/23/16 23:05	CZC0398	CC62145
MCPA	ND (23.3)		8151A		1	03/23/16 23:05	CZC0398	CC62145
MCPP	ND (23.6)		8151A		1	03/23/16 23:05	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*56 %*		*30-150*
Surrogate: DCAA [2C]	*57 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-18 18-24
Date Sampled: 03/16/16 10:15
Percent Solids: 85

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-04
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**3.91** (2.79)		6010C		1	KJK	03/22/16 11:45	2.11	100	CC61833
Lead	ND (5.59)		6010C		1	KJK	03/22/16 11:45	2.11	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-18 18-24
Date Sampled: 03/16/16 10:15
Percent Solids: 85
Initial Volume: 19.8
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
4,4´-DDE [2C]	**0.0157** (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
4,4´-DDT	**0.0130** (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Aldrin	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
alpha-BHC	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
alpha-Chlordane	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
beta-BHC	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Chlordane (Total)	ND (0.0357)		8081B		1	03/24/16 10:03	CZC0382	CC61721
delta-BHC	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Dieldrin	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Endosulfan I	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Endosulfan II	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Endrin	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Endrin Aldehyde	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Endrin Ketone	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/24/16 10:03	CZC0382	CC61721
gamma-Chlordane	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Heptachlor	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Heptachlor Epoxide	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Hexachlorobenzene	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Methoxychlor	ND (0.0030)		8081B		1	03/24/16 10:03	CZC0382	CC61721
Toxaphene	ND (0.149)		8081B		1	03/24/16 10:03	CZC0382	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*66 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*69 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-18 18-24
Date Sampled: 03/16/16 10:15
Percent Solids: 85
Initial Volume: 10.3
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/24/16 0:30	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/24/16 0:30	CZC0398	CC62145
2,4-D	ND (0.215)		8151A		1	03/24/16 0:30	CZC0398	CC62145
2,4-DB	ND (0.217)		8151A		1	03/24/16 0:30	CZC0398	CC62145
Dalapon	ND (0.208)		8151A		1	03/24/16 0:30	CZC0398	CC62145
Dicamba	ND (0.011)		8151A		1	03/24/16 0:30	CZC0398	CC62145
Dichlorprop	ND (0.215)		8151A		1	03/24/16 0:30	CZC0398	CC62145
Dinoseb	ND (0.217)		8151A		1	03/24/16 0:30	CZC0398	CC62145
MCPA	ND (21.3)		8151A		1	03/24/16 0:30	CZC0398	CC62145
MCPP	ND (21.5)		8151A		1	03/24/16 0:30	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*50 %*		*30-150*
Surrogate: DCAA [2C]	*47 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-19 0-6
Date Sampled: 03/16/16 10:45
Percent Solids: 80

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-05
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**27.0** (2.60)		6010C		1	KJK	03/22/16 11:48	2.39	100	CC61833
Lead	**55.6** (5.20)		6010C		1	KJK	03/22/16 11:48	2.39	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-19 0-6
Date Sampled: 03/16/16 10:45
Percent Solids: 80
Initial Volume: 19.6
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD [2C]	**0.0690** (0.0158)		8081B		5	03/27/16 2:08	CZC0382	CC61721
4,4´-DDE	**0.0572** (0.0158)		8081B		5	03/27/16 2:08	CZC0382	CC61721
4,4´-DDT	**0.0170** (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Aldrin	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
alpha-BHC	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
alpha-Chlordane [2C]	**LC, P 0.0666** (0.0158)		8081B		5	03/27/16 2:08	CZC0382	CC61721
beta-BHC	**LC, P 0.0053** (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Chlordane (Total) [2C]	**0.735** (0.190)		8081B		5	03/27/16 2:08	CZC0382	CC61721
delta-BHC	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Dieldrin	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Endosulfan I	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Endosulfan II	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Endosulfan Sulfate	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Endrin	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Endrin Aldehyde	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Endrin Ketone	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
gamma-BHC (Lindane)	ND (0.0019)		8081B		1	03/24/16 10:37	CZC0382	CC61721
gamma-Chlordane	**0.191** (0.0792)		8081B		25	03/27/16 2:40	CZC0382	CC61721
Heptachlor	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Heptachlor Epoxide	**0.0302** (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Hexachlorobenzene [2C]	**0.0062** (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Methoxychlor	ND (0.0032)		8081B		1	03/24/16 10:37	CZC0382	CC61721
Toxaphene	ND (0.158)		8081B		1	03/24/16 10:37	CZC0382	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*107 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*118 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-19 0-6
Date Sampled: 03/16/16 10:45
Percent Solids: 80
Initial Volume: 10
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.012)		8151A		1	03/24/16 0:59	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.012)		8151A		1	03/24/16 0:59	CZC0398	CC62145
2,4-D	ND (0.234)		8151A		1	03/24/16 0:59	CZC0398	CC62145
2,4-DB	ND (0.236)		8151A		1	03/24/16 0:59	CZC0398	CC62145
Dalapon	ND (0.226)		8151A		1	03/24/16 0:59	CZC0398	CC62145
Dicamba	ND (0.012)		8151A		1	03/24/16 0:59	CZC0398	CC62145
Dichlorprop	ND (0.234)		8151A		1	03/24/16 0:59	CZC0398	CC62145
Dinoseb	ND (0.236)		8151A		1	03/24/16 0:59	CZC0398	CC62145
MCPA	ND (23.1)		8151A		1	03/24/16 0:59	CZC0398	CC62145
MCPP	ND (23.4)		8151A		1	03/24/16 0:59	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*54 %*		*30-150*
Surrogate: DCAA [2C]	*50 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-19 18-24
Date Sampled: 03/16/16 11:00
Percent Solids: 83

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-06
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**5.99** (2.29)		6010C		1	KJK	03/22/16 11:52	2.64	100	CC61833
Lead	ND (4.59)		6010C		1	KJK	03/22/16 11:52	2.64	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-19 18-24
Date Sampled: 03/16/16 11:00
Percent Solids: 83
Initial Volume: 20.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
4,4´-DDE	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
4,4´-DDT	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Aldrin	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
alpha-BHC	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
alpha-Chlordane	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
beta-BHC	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Chlordane (Total)	ND (0.0362)		8081B		1	03/24/16 11:10	CZC0382	CC61721
delta-BHC	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Dieldrin	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Endosulfan I	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Endosulfan II	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Endrin	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Endrin Aldehyde	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Endrin Ketone	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/24/16 11:10	CZC0382	CC61721
gamma-Chlordane	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Heptachlor	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Heptachlor Epoxide	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Hexachlorobenzene	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Methoxychlor	ND (0.0030)		8081B		1	03/24/16 11:10	CZC0382	CC61721
Toxaphene	ND (0.151)		8081B		1	03/24/16 11:10	CZC0382	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*75 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-19 18-24
Date Sampled: 03/16/16 11:00
Percent Solids: 83
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/24/16 1:27	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/24/16 1:27	CZC0398	CC62145
2,4-D	ND (0.217)		8151A		1	03/24/16 1:27	CZC0398	CC62145
2,4-DB	ND (0.219)		8151A		1	03/24/16 1:27	CZC0398	CC62145
Dalapon	ND (0.210)		8151A		1	03/24/16 1:27	CZC0398	CC62145
Dicamba	ND (0.011)		8151A		1	03/24/16 1:27	CZC0398	CC62145
Dichlorprop	ND (0.217)		8151A		1	03/24/16 1:27	CZC0398	CC62145
Dinoseb	ND (0.219)		8151A		1	03/24/16 1:27	CZC0398	CC62145
MCPA	ND (21.5)		8151A		1	03/24/16 1:27	CZC0398	CC62145
MCPP	ND (21.7)		8151A		1	03/24/16 1:27	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*53 %*		*30-150*
Surrogate: DCAA [2C]	*51 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-20 0-6
Date Sampled: 03/16/16 11:20
Percent Solids: 90

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-07
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (2.31)		6010C		1	KJK	03/22/16 11:56	2.4	100	CC61833
Lead	**24.4** (4.62)		6010C		1	KJK	03/22/16 11:56	2.4	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-20 0-6
Date Sampled: 03/16/16 11:20
Percent Solids: 90
Initial Volume: 20.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
4,4´-DDE	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
4,4´-DDT	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Aldrin	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
alpha-BHC	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
alpha-Chlordane	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
beta-BHC	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Chlordane (Total)	ND (0.165)		8081B		5	03/27/16 5:54	CZC0461	CC61721
delta-BHC	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Dieldrin	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Endosulfan I	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Endosulfan II	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Endosulfan Sulfate	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Endrin	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Endrin Aldehyde	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Endrin Ketone	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
gamma-BHC (Lindane)	ND (0.0083)		8081B		5	03/27/16 5:54	CZC0461	CC61721
gamma-Chlordane	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Heptachlor	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Heptachlor Epoxide	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Hexachlorobenzene	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Methoxychlor	ND (0.0138)		8081B		5	03/27/16 5:54	CZC0461	CC61721
Toxaphene	ND (0.689)		8081B		5	03/27/16 5:54	CZC0461	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*64 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*70 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*64 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*72 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-20 0-6
Date Sampled: 03/16/16 11:20
Percent Solids: 90
Initial Volume: 10.4
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.010)		8151A		1	03/24/16 1:56	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.010)		8151A		1	03/24/16 1:56	CZC0398	CC62145
2,4-D	ND (0.200)		8151A		1	03/24/16 1:56	CZC0398	CC62145
2,4-DB	ND (0.203)		8151A		1	03/24/16 1:56	CZC0398	CC62145
Dalapon	ND (0.194)		8151A		1	03/24/16 1:56	CZC0398	CC62145
Dicamba	ND (0.010)		8151A		1	03/24/16 1:56	CZC0398	CC62145
Dichlorprop	ND (0.200)		8151A		1	03/24/16 1:56	CZC0398	CC62145
Dinoseb	ND (0.203)		8151A		1	03/24/16 1:56	CZC0398	CC62145
MCPA	ND (19.8)		8151A		1	03/24/16 1:56	CZC0398	CC62145
MCPP	ND (20.0)		8151A		1	03/24/16 1:56	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*52 %*		*30-150*
Surrogate: DCAA [2C]	*47 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-20 18-24
Date Sampled: 03/16/16 11:40
Percent Solids: 86

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-08
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (8.30)		6010C		3	KJK	03/22/16 15:34	2.09	100	CC61833
Lead	**39.1** (5.53)		6010C		1	KJK	03/22/16 12:02	2.09	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-20 18-24
Date Sampled: 03/16/16 11:40
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
4,4´-DDE	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
4,4´-DDT	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Aldrin	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
alpha-BHC	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
alpha-Chlordane	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
beta-BHC	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Chlordane (Total)	ND (0.173)		8081B		5	03/27/16 6:27	CZC0461	CC61721
delta-BHC	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Dieldrin	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Endosulfan I	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Endosulfan II	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Endosulfan Sulfate	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Endrin	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Endrin Aldehyde	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Endrin Ketone	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
gamma-BHC (Lindane)	ND (0.0086)		8081B		5	03/27/16 6:27	CZC0461	CC61721
gamma-Chlordane	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Heptachlor	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Heptachlor Epoxide	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Hexachlorobenzene	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Methoxychlor	ND (0.0144)		8081B		5	03/27/16 6:27	CZC0461	CC61721
Toxaphene	ND (0.719)		8081B		5	03/27/16 6:27	CZC0461	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*49 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*62 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*57 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*65 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-20 18-24
Date Sampled: 03/16/16 11:40
Percent Solids: 86
Initial Volume: 10.5
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.010)		8151A		1	03/24/16 2:25	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.010)		8151A		1	03/24/16 2:25	CZC0398	CC62145
2,4-D	ND (0.207)		8151A		1	03/24/16 2:25	CZC0398	CC62145
2,4-DB	ND (0.209)		8151A		1	03/24/16 2:25	CZC0398	CC62145
Dalapon	ND (0.201)		8151A		1	03/24/16 2:25	CZC0398	CC62145
Dicamba	ND (0.010)		8151A		1	03/24/16 2:25	CZC0398	CC62145
Dichlorprop	ND (0.207)		8151A		1	03/24/16 2:25	CZC0398	CC62145
Dinoseb	ND (0.209)		8151A		1	03/24/16 2:25	CZC0398	CC62145
MCPA	ND (20.5)		8151A		1	03/24/16 2:25	CZC0398	CC62145
MCPP	ND (20.7)		8151A		1	03/24/16 2:25	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*54 %*		*30-150*
Surrogate: DCAA [2C]	*50 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-21 0-6
Date Sampled: 03/16/16 12:00
Percent Solids: 85

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-09
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.31** (2.25)		6010C		1	KJK	03/22/16 12:08	2.62	100	CC61833
Lead	**52.0** (4.50)		6010C		1	KJK	03/22/16 12:08	2.62	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-21 0-6
Date Sampled: 03/16/16 12:00
Percent Solids: 85
Initial Volume: 19.5
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**0.0072** (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
4,4´-DDE	**0.0469** (0.0151)		8081B		5	03/27/16 3:13	CZC0382	CC61721
4,4´-DDT	**0.0388** (0.0151)		8081B		5	03/27/16 3:13	CZC0382	CC61721
Aldrin	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
alpha-BHC	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
alpha-Chlordane [2C]	**LC, P 0.0058** (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
beta-BHC	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Chlordane (Total) [2C]	ND (0.0362)		8081B		1	03/24/16 11:43	CZC0382	CC61721
delta-BHC	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Dieldrin	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Endosulfan I	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Endosulfan II	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Endosulfan Sulfate	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Endrin	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Endrin Aldehyde	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Endrin Ketone	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
gamma-BHC (Lindane)	ND (0.0018)		8081B		1	03/24/16 11:43	CZC0382	CC61721
gamma-Chlordane	**0.0039** (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Heptachlor	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Heptachlor Epoxide	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Hexachlorobenzene	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Methoxychlor	ND (0.0030)		8081B		1	03/24/16 11:43	CZC0382	CC61721
Toxaphene	ND (0.151)		8081B		1	03/24/16 11:43	CZC0382	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*104 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-21 0-6
Date Sampled: 03/16/16 12:00
Percent Solids: 85
Initial Volume: 10.1
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/24/16 2:53	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/24/16 2:53	CZC0398	CC62145
2,4-D	ND (0.219)		8151A		1	03/24/16 2:53	CZC0398	CC62145
2,4-DB	ND (0.222)		8151A		1	03/24/16 2:53	CZC0398	CC62145
Dalapon	ND (0.212)		8151A		1	03/24/16 2:53	CZC0398	CC62145
Dicamba	ND (0.011)		8151A		1	03/24/16 2:53	CZC0398	CC62145
Dichlorprop	ND (0.219)		8151A		1	03/24/16 2:53	CZC0398	CC62145
Dinoseb	ND (0.222)		8151A		1	03/24/16 2:53	CZC0398	CC62145
MCPA	ND (21.7)		8151A		1	03/24/16 2:53	CZC0398	CC62145
MCPP	ND (21.9)		8151A		1	03/24/16 2:53	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*64 %*		*30-150*
Surrogate: DCAA [2C]	*61 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-21 18-24
Date Sampled: 03/16/16 12:20
Percent Solids: 85

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-10
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.52** (2.16)		6010C		1	KJK	03/22/16 12:12	2.73	100	CC61833
Lead	**48.5** (4.31)		6010C		1	KJK	03/22/16 12:12	2.73	100	CC61833

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-21 18-24
Date Sampled: 03/16/16 12:20
Percent Solids: 85
Initial Volume: 20.2
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 3/17/16 13:30

8081B Organochlorine Pesticides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	**LC, P 0.0048** (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
4,4´-DDE	**0.0533** (0.0146)		8081B		5	03/26/16 21:16	CZC0461	CC61721
4,4´-DDT [2C]	**0.0308** (0.0146)		8081B		5	03/26/16 21:16	CZC0461	CC61721
Aldrin	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
alpha-BHC	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
alpha-Chlordane [2C]	**LC, P 0.0113** (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
beta-BHC	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Chlordane (Total) [2C]	**0.0484** (0.0350)		8081B		1	03/26/16 20:44	CZC0461	CC61721
delta-BHC	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Dieldrin	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Endosulfan I	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Endosulfan II	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Endosulfan Sulfate	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Endrin	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Endrin Aldehyde	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Endrin Ketone	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
gamma-BHC (Lindane)	ND (0.0017)		8081B		1	03/26/16 20:44	CZC0461	CC61721
gamma-Chlordane [2C]	**0.0058** (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Heptachlor	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Heptachlor Epoxide	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Hexachlorobenzene	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Methoxychlor	ND (0.0029)		8081B		1	03/26/16 20:44	CZC0461	CC61721
Toxaphene	ND (0.146)		8081B		1	03/26/16 20:44	CZC0461	CC61721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*61 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*70 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*60 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*63 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC
Client Sample ID: SS-21 18-24
Date Sampled: 03/16/16 12:20
Percent Solids: 85
Initial Volume: 10.4
Final Volume: 4
Extraction Method: 3546

ESS Laboratory Work Order: 1603396
ESS Laboratory Sample ID: 1603396-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 3/21/16 16:00

8151A Chlorinated Herbicides

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
2,4,5-T	ND (0.011)		8151A		1	03/24/16 3:22	CZC0398	CC62145
2,4,5-TP (Silvex)	ND (0.011)		8151A		1	03/24/16 3:22	CZC0398	CC62145
2,4-D	ND (0.213)		8151A		1	03/24/16 3:22	CZC0398	CC62145
2,4-DB	ND (0.215)		8151A		1	03/24/16 3:22	CZC0398	CC62145
Dalapon	ND (0.206)		8151A		1	03/24/16 3:22	CZC0398	CC62145
Dicamba	ND (0.011)		8151A		1	03/24/16 3:22	CZC0398	CC62145
Dichlorprop	ND (0.213)		8151A		1	03/24/16 3:22	CZC0398	CC62145
Dinoseb	ND (0.215)		8151A		1	03/24/16 3:22	CZC0398	CC62145
MCPA	ND (21.1)		8151A		1	03/24/16 3:22	CZC0398	CC62145
MCPP	ND (21.3)		8151A		1	03/24/16 3:22	CZC0398	CC62145

	%Recovery	Qualifier	Limits
Surrogate: DCAA	*54 %*		*30-150*
Surrogate: DCAA [2C]	*50 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch CC61833 - 3050B										
Blank										
Arsenic	ND	2.50	mg/kg wet							
Lead	ND	5.00	mg/kg wet							
LCS										
Arsenic	160	9.43	mg/kg wet	161.0		100	80-120			
Lead	134	18.9	mg/kg wet	138.0		97	80-120			
LCS Dup										
Arsenic	159	9.62	mg/kg wet	161.0		99	80-120	0.8	20	
Lead	132	19.2	mg/kg wet	138.0		96	80-120	1	20	
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
Blank										
4,4´-DDD	ND	0.0025	mg/kg wet							
4,4´-DDD [2C]	ND	0.0025	mg/kg wet							
4,4´-DDE	ND	0.0025	mg/kg wet							
4,4´-DDE [2C]	ND	0.0025	mg/kg wet							
4,4´-DDT	ND	0.0025	mg/kg wet							
4,4´-DDT [2C]	ND	0.0025	mg/kg wet							
Aldrin	ND	0.0025	mg/kg wet							
Aldrin [2C]	ND	0.0025	mg/kg wet							
alpha-BHC	ND	0.0025	mg/kg wet							
alpha-BHC [2C]	ND	0.0025	mg/kg wet							
alpha-Chlordane	ND	0.0025	mg/kg wet							
alpha-Chlordane [2C]	ND	0.0025	mg/kg wet							
beta-BHC	ND	0.0025	mg/kg wet							
beta-BHC [2C]	ND	0.0025	mg/kg wet							
delta-BHC	ND	0.0025	mg/kg wet							
delta-BHC [2C]	ND	0.0025	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Endosulfan I	ND	0.0025	mg/kg wet							
Endosulfan I [2C]	ND	0.0025	mg/kg wet							
Endosulfan II	ND	0.0025	mg/kg wet							
Endosulfan II [2C]	ND	0.0025	mg/kg wet							
Endosulfan Sulfate	ND	0.0025	mg/kg wet							
Endosulfan Sulfate [2C]	ND	0.0025	mg/kg wet							
Endrin	ND	0.0025	mg/kg wet							
Endrin [2C]	ND	0.0025	mg/kg wet							
Endrin Aldehyde	ND	0.0025	mg/kg wet							
Endrin Aldehyde [2C]	ND	0.0025	mg/kg wet							
Endrin Ketone	ND	0.0025	mg/kg wet							
Endrin Ketone [2C]	ND	0.0025	mg/kg wet							
gamma-BHC (Lindane)	ND	0.0015	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
gamma-BHC (Lindane) [2C]	ND	0.0015	mg/kg wet							
gamma-Chlordane	ND	0.0025	mg/kg wet							
gamma-Chlordane [2C]	ND	0.0025	mg/kg wet							
Heptachlor	ND	0.0025	mg/kg wet							
Heptachlor [2C]	ND	0.0025	mg/kg wet							
Heptachlor Epoxide	ND	0.0025	mg/kg wet							
Heptachlor Epoxide [2C]	ND	0.0025	mg/kg wet							
Hexachlorobenzene	ND	0.0025	mg/kg wet							
Hexachlorobenzene [2C]	ND	0.0025	mg/kg wet							
Methoxychlor	ND	0.0025	mg/kg wet							
Methoxychlor [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0125*		mg/kg wet	*0.01250*		*100*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0128*		mg/kg wet	*0.01250*		*102*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0111*		mg/kg wet	*0.01250*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0113*		mg/kg wet	*0.01250*		*90*	*30-150*			
LCS										
4,4´-DDD	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
4,4´-DDD [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
4,4´-DDE	0.0116	0.0025	mg/kg wet	0.01250		92	40-140			
4,4´-DDE [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
4,4´-DDT	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
4,4´-DDT [2C]	0.0133	0.0025	mg/kg wet	0.01250		107	40-140			
Aldrin	0.0117	0.0025	mg/kg wet	0.01250		94	40-140			
Aldrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
alpha-BHC	0.0122	0.0025	mg/kg wet	0.01250		97	40-140			
alpha-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
alpha-Chlordane	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
alpha-Chlordane [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
beta-BHC	0.0114	0.0025	mg/kg wet	0.01250		92	40-140			
beta-BHC [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140			
delta-BHC	0.0118	0.0025	mg/kg wet	0.01250		94	40-140			
delta-BHC [2C]	0.0114	0.0025	mg/kg wet	0.01250		91	40-140			
Dieldrin	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Dieldrin [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
Endosulfan I	0.0121	0.0025	mg/kg wet	0.01250		97	40-140			
Endosulfan I [2C]	0.0123	0.0025	mg/kg wet	0.01250		99	40-140			
Endosulfan II	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Endosulfan II [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140			
Endosulfan Sulfate	0.0123	0.0025	mg/kg wet	0.01250		98	40-140			
Endosulfan Sulfate [2C]	0.0133	0.0025	mg/kg wet	0.01250		106	40-140			
Endrin	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Endrin [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140			
Endrin Aldehyde	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Endrin Aldehyde [2C]	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
Endrin Ketone	0.0123	0.0025	mg/kg wet	0.01250		99	40-140			
Endrin Ketone [2C]	0.0127	0.0025	mg/kg wet	0.01250		102	40-140			
gamma-BHC (Lindane)	0.0117	0.0015	mg/kg wet	0.01250		94	40-140			
gamma-BHC (Lindane) [2C]	0.0116	0.0015	mg/kg wet	0.01250		93	40-140			
gamma-Chlordane	0.0117	0.0025	mg/kg wet	0.01250		93	40-140			
gamma-Chlordane [2C]	0.0124	0.0025	mg/kg wet	0.01250		100	40-140			
Heptachlor	0.0116	0.0025	mg/kg wet	0.01250		93	40-140			
Heptachlor [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140			
Heptachlor Epoxide	0.0115	0.0025	mg/kg wet	0.01250		92	40-140			
Heptachlor Epoxide [2C]	0.0122	0.0025	mg/kg wet	0.01250		98	40-140			
Hexachlorobenzene	0.0113	0.0025	mg/kg wet	0.01250		90	40-140			
Hexachlorobenzene [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140			
Methoxychlor	0.0124	0.0025	mg/kg wet	0.01250		99	40-140			
Methoxychlor [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140			
Surrogate: Decachlorobiphenyl	*0.0129*		mg/kg wet	*0.01250*		*103*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0132*		mg/kg wet	*0.01250*		*106*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0114*		mg/kg wet	*0.01250*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0115*		mg/kg wet	*0.01250*		*92*	*30-150*			
LCS Dup										
4,4´-DDD	0.0114	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
4,4´-DDD [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
4,4´-DDE	0.0111	0.0025	mg/kg wet	0.01250		89	40-140	4	30	
4,4´-DDE [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	3	30	
4,4´-DDT	0.0126	0.0025	mg/kg wet	0.01250		101	40-140	2	30	
4,4´-DDT [2C]	0.0128	0.0025	mg/kg wet	0.01250		102	40-140	4	30	
Aldrin	0.0116	0.0025	mg/kg wet	0.01250		93	40-140	1	30	
Aldrin [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	2	30	
alpha-BHC	0.0121	0.0025	mg/kg wet	0.01250		96	40-140	0.8	30	
alpha-BHC [2C]	0.0113	0.0025	mg/kg wet	0.01250		90	40-140	2	30	
alpha-Chlordane	0.0112	0.0025	mg/kg wet	0.01250		90	40-140	3	30	
alpha-Chlordane [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
beta-BHC	0.0112	0.0025	mg/kg wet	0.01250		90	40-140	2	30	
beta-BHC [2C]	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
delta-BHC	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	3	30	
delta-BHC [2C]	0.0110	0.0025	mg/kg wet	0.01250		88	40-140	4	30	
Dieldrin	0.0116	0.0025	mg/kg wet	0.01250		93	40-140	3	30	
Dieldrin [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	3	30	
Endosulfan I	0.0114	0.0025	mg/kg wet	0.01250		91	40-140	6	30	
Endosulfan I [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
Endosulfan II	0.0116	0.0025	mg/kg wet	0.01250		93	40-140	2	30	
Endosulfan II [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	3	30	
Endosulfan Sulfate	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	3	30	
Endosulfan Sulfate [2C]	0.0129	0.0025	mg/kg wet	0.01250		103	40-140	3	30	
Endrin	0.0119	0.0025	mg/kg wet	0.01250		96	40-140	2	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8081B Organochlorine Pesticides										
Batch CC61721 - 3546										
Endrin [2C]	0.0125	0.0025	mg/kg wet	0.01250		100	40-140	3	30	
Endrin Aldehyde	0.0118	0.0025	mg/kg wet	0.01250		94	40-140	2	30	
Endrin Aldehyde [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	2	30	
Endrin Ketone	0.0119	0.0025	mg/kg wet	0.01250		96	40-140	3	30	
Endrin Ketone [2C]	0.0120	0.0025	mg/kg wet	0.01250		96	40-140	6	30	
gamma-BHC (Lindane)	0.0116	0.0015	mg/kg wet	0.01250		92	40-140	2	30	
gamma-BHC (Lindane) [2C]	0.0113	0.0015	mg/kg wet	0.01250		90	40-140	2	30	
gamma-Chlordane	0.0113	0.0025	mg/kg wet	0.01250		91	40-140	3	30	
gamma-Chlordane [2C]	0.0121	0.0025	mg/kg wet	0.01250		97	40-140	3	30	
Heptachlor	0.0115	0.0025	mg/kg wet	0.01250		92	40-140	1	30	
Heptachlor [2C]	0.0117	0.0025	mg/kg wet	0.01250		93	40-140	2	30	
Heptachlor Epoxide	0.0112	0.0025	mg/kg wet	0.01250		90	40-140	2	30	
Heptachlor Epoxide [2C]	0.0119	0.0025	mg/kg wet	0.01250		95	40-140	3	30	
Hexachlorobenzene	0.0113	0.0025	mg/kg wet	0.01250		90	40-140	0.1	30	
Hexachlorobenzene [2C]	0.0118	0.0025	mg/kg wet	0.01250		95	40-140	0.3	30	
Methoxychlor	0.0118	0.0025	mg/kg wet	0.01250		94	40-140	5	30	
Methoxychlor [2C]	0.0123	0.0025	mg/kg wet	0.01250		98	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0118*		mg/kg wet	*0.01250*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0122*		mg/kg wet	*0.01250*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0113*		mg/kg wet	*0.01250*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0113*		mg/kg wet	*0.01250*		*91*	*30-150*			
8151A Chlorinated Herbicides										
Batch CC62145 - 3546										
Blank										
2,4,5-T	ND	0.010	mg/kg wet							
2,4,5-T [2C]	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex)	ND	0.010	mg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	0.010	mg/kg wet							
2,4-D	ND	0.188	mg/kg wet							
2,4-D [2C]	ND	0.188	mg/kg wet							
2,4-DB	ND	0.190	mg/kg wet							
2,4-DB [2C]	ND	0.190	mg/kg wet							
Dalapon	ND	0.182	mg/kg wet							
Dalapon [2C]	ND	0.182	mg/kg wet							
Dicamba	ND	0.009	mg/kg wet							
Dicamba [2C]	ND	0.009	mg/kg wet							
Dichlorprop	ND	0.188	mg/kg wet							
Dichlorprop [2C]	ND	0.188	mg/kg wet							
Dinoseb	ND	0.190	mg/kg wet							
Dinoseb [2C]	ND	0.190	mg/kg wet							
MCPA	ND	18.6	mg/kg wet							
MCPA [2C]	ND	18.6	mg/kg wet							
MCPP	ND	18.8	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC62145 - 3546										
MCPP [2C]	ND	18.8	mg/kg wet							
Surrogate: DCAA	*16.6*		mg/kg wet	*20.00*		*83*	*30-150*			
Surrogate: DCAA [2C]	*16.9*		mg/kg wet	*20.00*		*85*	*30-150*			
LCS										
2,4,5-T	0.013	0.010	mg/kg wet	0.01900		70	40-140			
2,4,5-T [2C]	0.013	0.010	mg/kg wet	0.01900		66	40-140			
2,4,5-TP (Silvex)	0.013	0.010	mg/kg wet	0.01900		66	40-140			
2,4,5-TP (Silvex) [2C]	0.013	0.010	mg/kg wet	0.01900		68	40-140			
2,4-D	0.158	0.188	mg/kg wet	0.1880		84	40-140			
2,4-D [2C]	0.189	0.188	mg/kg wet	0.1880		100	40-140			
2,4-DB	0.108	0.190	mg/kg wet	0.1900		57	40-140			
2,4-DB [2C]	0.104	0.190	mg/kg wet	0.1900		55	40-140			
Dalapon	0.287	0.182	mg/kg wet	0.4550		63	40-140			
Dalapon [2C]	0.296	0.182	mg/kg wet	0.4550		65	40-140			
Dicamba	0.012	0.009	mg/kg wet	0.01880		64	40-140			
Dicamba [2C]	0.014	0.009	mg/kg wet	0.01880		74	40-140			
Dichlorprop	0.190	0.188	mg/kg wet	0.1880		101	40-140			
Dichlorprop [2C]	0.208	0.188	mg/kg wet	0.1880		111	40-140			
Dinoseb	0.029	0.190	mg/kg wet	0.09500		31	10-100			
Dinoseb [2C]	0.028	0.190	mg/kg wet	0.09500		30	10-100			
MCPA	14.0	18.6	mg/kg wet	18.60		75	40-140			
MCPA [2C]	16.0	18.6	mg/kg wet	18.60		86	40-140			
MCPP	13.1	18.8	mg/kg wet	18.80		70	40-140			
MCPP [2C]	16.6	18.8	mg/kg wet	18.80		88	40-140			
Surrogate: DCAA	*19.5*		mg/kg wet	*20.00*		*98*	*30-150*			
Surrogate: DCAA [2C]	*19.8*		mg/kg wet	*20.00*		*99*	*30-150*			
LCS Dup										
2,4,5-T	0.016	0.010	mg/kg wet	0.01900		86	40-140	21	30	
2,4,5-T [2C]	0.015	0.010	mg/kg wet	0.01900		78	40-140	17	30	
2,4,5-TP (Silvex)	0.014	0.010	mg/kg wet	0.01900		74	40-140	11	30	
2,4,5-TP (Silvex) [2C]	0.013	0.010	mg/kg wet	0.01900		70	40-140	3	30	
2,4-D	0.193	0.188	mg/kg wet	0.1880		103	40-140	20	30	
2,4-D [2C]	0.215	0.188	mg/kg wet	0.1880		115	40-140	13	30	
2,4-DB	0.114	0.190	mg/kg wet	0.1900		60	40-140	6	30	
2,4-DB [2C]	0.099	0.190	mg/kg wet	0.1900		52	40-140	5	30	
Dalapon	0.326	0.182	mg/kg wet	0.4550		72	40-140	13	30	
Dalapon [2C]	0.334	0.182	mg/kg wet	0.4550		73	40-140	12	30	
Dicamba	0.014	0.009	mg/kg wet	0.01880		74	40-140	14	30	
Dicamba [2C]	0.015	0.009	mg/kg wet	0.01880		80	40-140	8	30	
Dichlorprop	0.218	0.188	mg/kg wet	0.1880		116	40-140	14	30	
Dichlorprop [2C]	0.221	0.188	mg/kg wet	0.1880		117	40-140	6	30	
Dinoseb	0.040	0.190	mg/kg wet	0.09500		42	10-100	31	30	D+
Dinoseb [2C]	0.038	0.190	mg/kg wet	0.09500		40	10-100	29	30	
MCPA	17.6	18.6	mg/kg wet	18.60		95	40-140	23	30	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8151A Chlorinated Herbicides										
Batch CC62145 - 3546										
MCPA [2C]	17.4	18.6	mg/kg wet	18.60		94	40-140	9	30	
MCPP	14.0	18.8	mg/kg wet	18.80		75	40-140	7	30	
MCPP [2C]	17.1	18.8	mg/kg wet	18.80		91	40-140	3	30	
Surrogate: DCAA	*21.2*		mg/kg wet	*20.00*		*106*	*30-150*			
Surrogate: DCAA [2C]	*21.0*		mg/kg wet	*20.00*		*105*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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Notes and Definitions

U	Analyte included in the analysis, but not detected
P	Percent difference between primary and confirmation results exceeds 40% (P).
LC	Lower value is used due to matrix interferences (LC).
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
CD+	Continuing Calibration %Diff/Drift is above control limit (CD+).
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Hampshire CC

ESS Laboratory Work Order: 1603396

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - New York, NY - GZA/CMT

Shipped/Delivered Via: ESS Courier

ESS Project ID: 1603396
Date Received: 3/16/2016
Project Due Date: 3/23/2016
Days for Project: 5 Day

1. Air bill manifest present? Yes
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 1.8 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / NA
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / (No)
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOAs brought to freezer: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	17466	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
02	17465	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
03	17464	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
04	17463	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
05	17462	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
06	17461	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
07	17460	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
08	17459	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
09	17458	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
10	17457	Yes	NA	Yes	8 oz. Jar - Unpres	NP	

2nd Review
Are barcode labels on correct containers? Yes / No

Completed By: Date & Time: 3/16/16 1805
Reviewed By: Date & Time: 3/16/16 1903

(1 of 2) 1 of 1 3/16/16

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1603396

Turn Time ___X___ Standard Other_____

Regulatory State: MA RI CT NH NJ (NY) ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - _____

Electonic Deliverables Excel Access PDF

Co. Name: GZA GeoEnvironmental	Project #: 41.0162403.00	Project Name: Hampshire CC	
Contact Person: Stephen Kline	Address: 104 West 29th Street 10th Floor		
City: New York	State: NY	Zip: 10001	PO #:
Tel.: 212-594-8140	Fax:	email: Stephen.Kline@GZA.com	

Analysis: Pb, AS | Pest. | Herb.

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Pb, AS	Pest.	Herb.
1	3/16/16	9:15	G	Soil	SS-17 (0-6)	None	1	AG	8oz	X	X	X
2		9:35			SS-17 (18-24)		1			X	X	X
3		9:50			SS-18 (0-6)		1			X	X	X
4		10:15			SS-18 (18-24)		1			X	X	X
5		10:45			SS-19 (0-6)		1			X	X	X
6		11:00			SS-19 (18-24)		1			X	X	X
7		11:20			SS-20 (0-6)		1			X	X	X
8		11:40			SS-20 (18-24)		1			X	X	X
9		12:00			SS-21 (0-6)		1			X	X	X
10		12:20			SS-21 (18-24)		1			X	X	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___✓___ Yes _____ No

Seals Intact _____ Yes _____ No NA: X

Cooler Temperature: 1.8 ice RB

Internal Use Only

[✓] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : James Colony

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
3/16/16 1:20pm	3/16/16 13:22 RB	3/16/16 17:15	3/16/16 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

GZA GeoEnvironmental of New York