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December 22, 2017

StoneHill Project No. 15046

Mr. Mike McCluskey
Oil Remediation & Compliance Bureau
New Hampshire Department of Environmental Services
P.O. Box 95, Concord, NH 03302-0095

RE: Supplemental Site Investigation and Remedial Action Plan
Former Dagostino Rose Farm
Oak Street Extension, Exeter, NH
NHDES Site #201203003

Dear Mr. McCluskey:

This is to inform you that a Supplemental Site Investigation (SSI) Report and Remedial Action Plan (RAP) Report, completed by StoneHill Environmental, Inc., has been uploaded to the New Hampshire Department of Environmental Services One Stop Data and Information database. The SSI and RAP is specific to the remediation of lead contaminated soil in the area of three former greenhouses, solid waste and soil containing ash in the former boiler and packing building area, and sediments in a manmade retention basin located south of the former greenhouses at the former Dagostino Rose Farm, Oak Street Extension, Exeter, NH.

Please do not hesitate to call us with any questions you may have concerning the report.

Sincerely,

StoneHill Environmental, Inc.

Allen Wyman
Project Manager

Timothy S. Stone, PG
President

cc: Todd Baker, Exeter Rose Farm, LLC
Brenda Kolbow, MSC

Department of Environmental Services
Contaminated Site Management
Remedial Action Plan Check List

The objective of this document is to improve the quality of the Remedial Action Plans, submitted under New Hampshire Code of Administrative Rules Env-Or 600 *Contaminated Site Management*. Quality reports are fundamental to reducing DES review time and backlog, and will lead to faster remediation and site closures.

It is recommended that this check list be submitted with all Remedial Action Plans. All items must be checked. For items that are not applicable, "**N/A**" is to be checked and provide an explanation in the comments column. If you have questions as to the applicability of any items please contact DES staff. Check "**Yes**" only if the Remedial Action Plan adequately documents the required information and include in the comments field the page number where the item can be found in the Remedial Action Plan. Failure to provide adequate information required by Env-Or 600, will result in department disapproval of the Remedial Action Plan.

Site Number: ___NHDES# 201203003_____

Site Name: _____Dagostino Rose Farm_____

Site Address: ____Oak Street Extension_____

Site City/Town: ___Exeter_____

Document Title: _____Remedial Action Plan_____

Document Date: _____December 21, 2017_____

Consultant Company: __StoneHill Environmental, Inc._____

Licensed Professional: __Timothy Stone_____

REMEDIAL ACTION PLAN CRITERIA	YES	N/A	COMMENTS	DES USE ONLY Adequate	Inadequate
1. Professional Registration a. Professional Engineer Seal (Env-Or 606.10(c))	☒	☐	Timothy Stone	☐	☐

REMEDIAL ACTION PLAN CRITERIA	YES	N/A	COMMENTS	DES USE ONLY Adequate	Inadequate
2. Provide recommendations to:					
a. Remove or treat the source of contamination, Env Or 606.10(d)(3)a.	☒	☐	Lead impacted soils and sediments	☐	☐
b. Contain the contamination source to limit the impact to groundwater, surface water, and soil to the extent feasible, Env-Or 606.10(d)(3)b.	☒	☐		☐	☐
c. Protect human health from exposure through the indoor air exposure pathway, Env-Or 606.10(d)(3)c.	☐	☒		☐	☐
d. Protect human health from exposure through the direct contact exposure pathway, Env-Or 606.10(d)(3)d.	☒	☐		☐	☐
e. Contain contaminated groundwater within the limits of a groundwater management zone, Env-Or 606.10(d)(3)e.	☐	☒		☐	☐
f. Restore groundwater quality to Ambient groundwater Quality Standards (AGQS), Env-Or 606.10(d)(3)f.	☐	☒		☐	☐
g. Restore soil quality to the S-1 soil cleanup standards, Env-Or 606.10(d)(3)g.	☒	☐		☐	☐
3. Provide a summary of the site investigation including:			Additional details of background, geology, hydrology and contaminants can be found in historical reports.		
a. Site Background Information, Env-Or 606.12(a).	☒	☐		☐	☐
b. Summary of Subsurface Explorations and Sampling, Env-Or 606.12(a).	☒	☐		☐	☐
c. Site Geology and Hydrology, Env-Or 606.12(a).	☒	☐	See Figure 6, contouring not applicable	☐	☐
d. Conceptual Model including contaminant contour maps, Env-Or 606.12(a).	☒	☐		☐	☐
4. Provide a remedial alternative evaluation of a minimum of 2 alternatives or combination of alternatives which includes:			Excavation and off-site disposal of lead contaminated soils is the only option given the proposed residential use of the property.		
a. Effectiveness and reliability comparison, Env-Or 606.12(c)(1).	☐	☒		☐	☐
b. Feasibility and ease of implementation comparison, Env-Or 606.12(c)(2).	☐	☒		☐	☐
c. A risk/benefit comparison, Env-Or 606.12(c)(3).	☐	☒		☐	☐
d. A cost effectiveness comparison using the present worth of all future costs, Env-Or 606.12(c)(4).	☐	☒		☐	☐
e. A clean-up time comparison, Env-Or 606.12(c)(5).	☐	☒		☐	☐
f. A justification for the recommended alternative; Env-Or 606.12(d).	☒	☐		☐	☐

REMEDIAL ACTION PLAN CRITERIA	YES	N/A	COMMENTS	DES USE ONLY Adequate	Inadequate
5. For the recommended alternative, provide the following information:					
a. A site map showing the remedial system lay out including areas of influence, Env-Or 606.12(e)(1).	☐	☒		☐	☐
b. A preliminary process flow diagram showing major system components and controls, Env-Or 606.12(e)(2).	☐	☒		☐	☐
c. Final and interim contaminant reduction performance standards including target dates, Env-Or 606.12(e)(3).	☒	☐	Remediate until lead in soils < NHDES SRS and sediments < ecological PEC	☐	☐
d. Recommendations for conducting any additional investigations, pilot tests, or bench scale studies, Env-Or 606.12(e)(4).	☐	☒	Post excavation soil sampling	☐	☐
e. A description of performance monitoring, including monitoring locations and frequency, Env-Or 606.12(e)(5).	☒	☐	Between spring 2017 and winter 2018	☐	☐
f. A schedule for implementing the recommended alternative, Env-Or 606.12(e)(7).	☒	☐		☐	☐
g. A list of federal, state, and local permits required, Env-Or 606.12(e)(8).	☒	☐	Wetland permit to be submitted by Marc Jacobs, certified wetland scientist	☐	☐
h. A description of any activity and use restrictions being proposed at the site, Env-Or 606.12(e)(9).	☐	☒		☐	☐
6. Provide the following:					
a. Recommendations for potable water to receptors when a water supply well exceeds AQGS Env-Or 606.12(f).	☐	☒		☐	☐
b. A proposed GMZ overlaid on a tax map, Env-Or 606.12(g).	☐	☒		☐	☐
c. Water Well Board Completion Report Prepared by Licensed Technical Driller (HB 459).	☐	☒		☐	☐

DES USE ONLY
Overall Report: ☐ **Approved** ☐ **Disapproved**

Approval Decision Comments:

Type of Submittal (check one)	Petroleum Reimbursement Fund Phase (check one)	
□ Workscope/Budget ■ Technical Report □ Reimbursement Request □ Monitoring Result (Pre-permit) □ Monitoring Result (Post-permit)	□ Initial Response Action □ Free Product Removal □ Initial Site Characterization □ Site Investigation ■ Remedial Action Plan	□ Remedial Design Plan □ Remedial Implementation Operations/Monitoring □ Groundwater Management Permit

Supplemental Site Investigation and Remedial Action Plan

Former Dagostino Rose Farm
Oak Street Extension, Exeter, NH
NHDES Site #201203003

Prepared For:
Exeter Rose Farm, LLC
953 Islington Street, Suite 23D
Portsmouth, NH 03801
(603) 425-8598
Contact: Mr. Todd Baker

Prepared by:
StoneHill Environmental, Inc.
600 State Street, Suite 2
Portsmouth, NH 03801
(603) 433-1935
Contact: Timothy Stone

December 21, 2017
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RECOMMENDED	RISK (Check one)	CATEGORY
□ 1. Immediate Human Health Risk (Impacted Water Well, etc.) □ 2. Potential Human Health Risk (Residential well within 1000' or site within wellhead area) □ 3. Free Product or Source Hazard	□ 4. Surface Water Impact (Actual Impact to Class B or Potential Impact to Class B) □ 5. No Alternate Water Available/ No Existing Wells in Area □ 6. Alternate Water Available/ High Level Groundwater Contamination (> 1,000 x AGQS)	□ 7. Alternate Water Available Low Level Groundwater Contamination (< 1,000 x AGQS) ■ 8. No AGQS Violation/ No Source Remaining

Supplemental Site Investigation and Remedial Action Plan

Former Dagostino Rose Farm Oak Street Extension, Exeter, NH NHDES Site #201203003

Prepared for:

Exeter Rose Farm, LLC
953 Islington Street, Suite 23D
Portsmouth, NH 03801

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December 21, 2017
StoneHill Project No. 15046

Allen Wyman
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Timothy S. Stone, PG
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Project Reviewer

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Oak Street Extension, Exeter, NH

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Former Dagostino Rose Farm
Oak Street Extension, Exeter, NH
NHDES Site #201203003

1.0 INTRODUCTION

The Former Dagostino Rose Farm, Oak Street Extension, Exeter, NH (Site), approximately 41 acres, is located in "The Oaklands" section of Exeter, on the north end of the downtown area (Figure 1 and 2). The historical use of the property included the construction of three large greenhouses (GH1 to GH3), a boiler building and rose packing building circa 1940, in which a commercial rose growing facility was active until the 1990s (Photograph 1). Activities at the Site have remained relatively inactive following the closure of the rose farm. Decades prior to that, the Site was used for brick manufacturing. At some point during these activities, man-made apparent unlined water containment basins (Retention Basins) were also constructed (Figure 3). The historical uses of the Site have, by best current estimate, resulted in:

1. A release of lead to soils within the area of the three former greenhouses (±3 acres).
2. Deposition of fill containing coal ash, brick, concrete, metal and large electrical goods (such as a washing machine) west of the former boiler and packing buildings (BPB Area), of approximately 1 acre.
3. Lead impacted soil and/or sediments in man-made Retention Basins #1, #2, #3 and #4 (±0.3 acres).

The soil (shallow) lead contamination is believed to be the result of a lead based caulking used while glazing the greenhouse windows, likely scattered throughout the Former Greenhouse Area upon the greenhouse demolitions in the 1990s. Given the lead impacted soils were thereafter exposed to precipitation events, it is likely the lead contamination discovered in the man-made retention basin sediments were the result of overland flow from the greenhouse area. The deposition of soil containing ash, filled in along a slope behind the boiler building on the western side of the property, was likely the result of soil mixed with ash from the former brick manufacturing operations. These areas of fill and lead contamination were first identified via site investigations conducted by Credere Associates, LLC, Westbrook, ME (Credere) between 2012 and 2016 in support of the Rockingham Planning Commission, Exeter, NH (Commission). The Credere reports on file with the New Hampshire Department of Environmental Services (NHDES) include:

- Phase I Environmental Assessment (ESA) Report, April 2012
- Site-Specific QAPP Addendum, November 2012
- Supplemental Phase II ESA Work Plan, July 2015
- Phase II Environmental Site Assessment, November 2015
- Phase II Environmental Site Assessment, April 2016
- Supplemental Phase II Environmental Site Assessment, July 2016
- Amendment to Supplemental Phase II Environmental Site Assessment, September 2016

On January 27, 2016, following the Credere November 2015 Phase II Site Assessment report, the NHDES provided the Commission a letter requesting additional investigations, remedial actions, or longer-term monitoring of contamination at the Site. Specifically, the NHDES requested additional soil sample collection and analysis to determine the extent of lead contamination in the Former Greenhouse Area, further delineation of the soil containing ash in the BPB Area, as well as a proposed approach to address sediment impacts in areas now designated as Basin #4 and Wetland H. Credere began additional investigative work and submitted an amendment to the Phase II in September 2016, addressing some of the concerns identified in the NHDES letter. By this point, however, Exeter Rose Farm, LLC, Portsmouth, NH (Exeter Rose) had declared their interest in, and eventually purchased the Site in August 2017 for a proposed residential development. As a follow-up to the work completed by Credere and NHDES request for additional actions, Exeter Rose retained StoneHill Environmental, Inc., Portsmouth, NH (StoneHill) to complete the additional site investigations and develop a Remedial Action Plan (RAP). This Site Investigation Report (SIR) and RAP is the result of work conducted by StoneHill to address portions of the NHDES letter and includes recent test pits, soil data and groundwater elevation measurements. This additional assessment determined the extent of site contamination and/or fill in three areas; i) the lead impacted soil within the footprint of the former greenhouses, ii) the lead impacted sediments in Basin #4 and Wetland H, and iii) the soil containing coal ash and solid waste deposition in the BPB Area. This RAP recommends methods of addressing these three areas. This RAP does not address building demolition regulated material abatement, such as for asbestos or lead paint. This RAP is specific to the lead in the surficial soils within the Former Greenhouse Area, fill in the Former Boiler and Packing Building Area, and mitigation of lead in the sediments of Basin #4.

This RAP requires no direct engineering of the recommended remedial actions. MSC Civil Engineers (MSC), 170 Commerce Way, Suite 102, Portsmouth, NH, is working with Exeter Rose to submit final grading elevations to the town and will be responsible for post remedial site grading and completion as necessary for the proposed development. Similarly, Marc Jacobs, New Hampshire certified wetland and soil scientist will be acquiring any necessary state and local wetland permits prior to StoneHill implementing the recommendations in this RAP.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site Description

The property includes three parcels of land totaling 41+/- acres of primarily undeveloped, wooded area with a brook, a natural spring and several man-made retention basins. Aside from a three car garage on the property intermittently used for automobile repair, there are currently no commercial or industrial operations ongoing at the property. There are four occupied residential structures located on the southern portion of the property. Additionally there are three dilapidated mobile homes and one house, uninhabitable and unoccupied, located on the northern portion of the property. A detailed description of the historical uses of the property can be found in the Credere reports listed above and on file at the NHDES. Currently, the property is owned by Exeter Rose for the proposed development as a residential subdivision with municipally supplied water and sewer. Groundwater elevation data (Table 1) reveals groundwater flow through the Former Greenhouse Area is to the west toward Norris Brook, which flows southerly (Figure 4).

The subjects of this RAP include three areas on the property; one area is approximately 3 acres within the footprint of the former greenhouses used between the 1940s to the 1990s to grow roses. The second is an area of fill containing coal ash, concrete, brick and solid waste historically disposed of over an embankment on the western edge of the property in the BPB Area (±1 acre). The third area is a man-made retention basin (Basin #4) of approximately 0.2 acres and jurisdictional wetland (Wetland H) on the east and west sides of Oak Street Extension, respectively.

The Former Greenhouse Area

The Former Greenhouse Area is currently covered in grass, bushes and trees (Photograph 2). Concrete slabs and metal greenhouse window frames are partially buried throughout the footprint of each of the three former greenhouses. Several concrete drainage troughs exist throughout the length of and perpendicular to each of the former greenhouses (Figure 5). These appear to have historically drained water used in the greenhouses to piping along the south edge of the southernmost greenhouse (GH#3), which likely drained into Basin #4.

Glass, wood and caulking is mixed to approximately two feet below ground surface (bgs) within the dark sand, silt and organic matter (loam) throughout areas of the Former Greenhouse Area. Native silt and clay is present below the loam. Three small man-made retention basins (Basin #1, #2, and #3), dug into the silt and clay, currently exist within the Former Greenhouse Area. Shallow exploratory excavations within the Former Greenhouse Area reveal groundwater perched intermittently on the silt and clay after precipitation events. However, groundwater elevation measurements collected from monitoring well CA-MW-102, located in the approximate center of the Former Greenhouse Area, reveal a groundwater level at 11.78 feet below the existing grade on September 25, 2017.

Former Boiler and Packing Buildings Area

An area of mixed soil and coal ash as well as solid waste debris (fill) is located off the southern edge of the former BPB Area, and covers an area approximately 550 feet by 150 feet along the west side of Oak Street Extension (Photograph 3). Soil containing coal ash, concrete pieces, household appliances, asphalt, bricks, glass, and other debris vary in depth in this area between 3 to 13 feet bgs (Photographs 4 – 6). There is a 12-inch metal pipe (within which is a smaller diameter pipe) coming from the embankment beneath the existing packing building, thought to be associated with a floor drain within the packing building (Photograph 7). The 12-inch pipe is believed to have been placed to protect the smaller pipe. StoneHill observations of the packing building revealed layers of white goods and wood debris (from the collapsing roof) covering the floor throughout the packing building, thus making identification of the floor drain infeasible without significant debris removal (Photograph 8).

Retention Basin #4 and Wetland H

As discussed above, it appears that excess water from the greenhouse operations drained through troughs (Photograph 9) within the former greenhouses to pipes located adjacent the south side of GH#3 to the man-made retention Basin #4 (Photograph 10). The depth of Basin #4 is unknown. The overflow from Basin #4 drains through a 12-inch diameter concrete pipe (Photograph 11) that runs westerly under Oak Street Extension to Wetland H (Photograph 12). The inlet of the concrete pipe is significantly higher than high-water staining and flora elevations within the banks of Basin #4 indicating the likelihood that the pipe currently drains water from Basin #4 only during significant rainfall events. It is possible, during the active use of the greenhouses, greater quantities of water resulted in higher water levels within Basin #4, thus explaining the need for overflow drainage from Basin #4, beneath Oak Street Extension into Wetland H.

Wetland H is a shallow depression located adjacent the Oak Street Extension westerly embankment, beyond which is another jurisdictional wetland (Wetland B) that borders Norris Brook. Although the ground surface in Wetland H was wet during the spring of 2017, it does not retain surface water.

2.2 Assessment of Lead Impacted Soils in the Former Greenhouse Area

In response to the NHDES request to delineate the lead contaminated soil in the Former Greenhouse Area initially identified by Credere, StoneHill completed sampling and lead analyses of surficial soils around and throughout the footprint of the former green houses (Figure 6). On May 17th, 18th and June 9th 2017, StoneHill sampled 121 locations (F-1 through F-106, and A through O) at multiple depths (surface to 18 inches), 11 wood samples (W1 through W11), and 8 caulking samples (G1 through G8). Field concentrations of lead in each sample (204 samples in total) were measured using a Scientific Niton XL3t GOLDD+ XRF Analyzer (XRF). These samples were collected primarily from a layer of loam which is present to depths up to 2 feet bgs. The results are presented in Table 2. Based upon the XRF results, select sample locations were resampled and submitted to Absolute Resource Associates, Portsmouth, NH, for laboratory confirmation of the field measured lead results (Table 3). Comparison of the laboratory and field results indicated that the XRF could be relied upon to read at least 75 percent of lead concentrations reported by the laboratory. The laboratory and field measurement results indicate that lead contaminated soils, likely above the NHDES Soil Remediation Standards (SRS) of 400 mg/kg, are scattered throughout the Former Greenhouse Area. The laboratory analytical data is provided in Appendix B.

As shown by the field and laboratory analytical data of soil samples (A through M) collected from outside of the perimeter of the Former Greenhouse Area, the lead impacted soils are contained within a few feet of the footings of the former greenhouses.

To assess the vertical extent of the lead contamination, clay and silt samples were collected from 18 and 24 inches bgs, beneath the layer of loam, at select locations (F11, F23, F40, and F86) throughout the Former Greenhouse Area. These samples were submitted to Aquarian Analytical Laboratory in Canterbury, NH (Aquarian) for total lead analyses. The highest lead concentration

reported was 20.1 mg/kg, indicating that the lead contamination is likely confined within the loam. Lead soil sample locations and the corresponding XRF field measurement results are depicted in yellow on Figure 6.

This additional investigation revealed that lead contaminated soil above the NHDES SRS of 400 mg/kg exists in the loam throughout, but is primarily contained within, the Former Greenhouse Area to depths of approximately 2 feet bgs.

2.3 Test Pitting and the Extent of Ash Impacted Soil in the BPB Area

To address the NHDES request to provide further information in the delineation of the soil containing coal ash and solid waste fill in the BPB Area, StoneHill conducted several test pits (TP-107 through TP-114) on June 2, 2017 (Figure 7). The StoneHill test pits were located primarily along the edges of the impacted area previously identified by Credere. Based on the test pit descriptions provided in Table 4 and a visual assessment of the area, the extent of fill identified by Credere was decreased slightly in the south end of the area identified by Credere. Specifically, Credere identified fill material in the eastern edge of Wetland B. StoneHill noted no significant amount of solid waste in that area. Further, to address the NHDES request to revise the location of coal ash containing soil in relation to the solid waste area to better reflect current conditions, StoneHill reviewed the analytical data and test pit descriptions provided in the Credere test pit and boring logs (Appendix A) along with descriptions from the recent StoneHill test pits. The review resulted in the locations of coal ash impacted soil and solid waste as depicted in Figure 7. This reflects differences in the solid waste fill and ash locations identified in in the July 29, 2016, *"Supplemental Phase II Environmental Site Assessment,"* Figure 2. Specifically, it appears Credere transposed the identifiers in the legend on Figure 2 between the "Approximate Area of Coal Ash and Clinker" and "Approximate Area of Solid Waste Fill." That is, StoneHill's review of the Credere logs indicate that the coal ash area identified by Credere is actually solid waste and the area identified as solid waste is actually soil containing ash. Also, what was identified as coal ash and clinker in Credere Figure 2, according to the Credere boring logs, is more accurately identified as sand, silt, clay, gravel, clinker and ash. Given this, it does not appear that the embankment in the BPB Area is just coal ash but rather fill material generated elsewhere on the property and used to fill the embankment in the BPB Area prior to the construction of the former boiler building. It is likely that coal ash generated as part of the historical use of the Site for brick manufacturing was, at some point, mixed with sand, silt, clay, and gravel for the purpose of filling the embankment on which the boiler and packing buildings were constructed.

2.4 Sources of Contamination

Former Greenhouse Area

It is likely that the source of lead contamination in soils within the Former Greenhouse Area is lead based caulking used when glazing the greenhouses. The laboratory result for total lead of a composite sample of caulking collected from various locations throughout the Site was 5,600 mg/kg. Mr. Dagostino, the former owner and operator of the greenhouses, also indicated that lead powder was used to make caulking that was then used during the replacement of window panes. During field activities, StoneHill noted that the caulking is primarily adhered to pieces of

old wood and metal trim used to hold the greenhouse window panes in place.

The composite sample of caulking was also analyzed for polychlorinated biphenyls (PCBs), often associated with old caulking. The results identified PCBs (Aroclor 1254) at 0.224 mg/kg. Although the PCB result from the caulking is lower than the NHDES SRS of 1 mg/kg, the existence of PCBs within the caulking raised the question as to the existence of PCBs in the area soils. It was assumed that soil samples with high lead levels were the best candidates for PCB analyses because the same soils exposed to lead leaching from the caulking would be the most likely to be exposed to PCB leaching from that same caulking. To assess the possibility that PCBs leached from the caulking into the soils, three known lead contaminated soil samples (F-20, F-24 and F-63) were analyzed for PCBs. The analytical results for PCBs were all below the laboratory detection limit of 0.0720 mg/kg.

To assess the possibility of removing the lead contaminated soils to an off-site disposal facility, the three lead contaminated soils were also analyzed for eight Resource Conservation and Recovery Act (RCRA) total metals and leachable lead via total characteristic leaching procedure (TCLP). The TCLP result associated with the greatest reported concentration of total lead in the three samples (1,570 mg/kg) was 1.51 milligrams per liter (mg/l). This is below the TCLP lead limit of 5 mg/l for acceptance of lead contaminated soils at various New Hampshire soil disposal facilities. Aside from lead, none of the other seven total metals results were above the NHDES SRS.

Former Boiler and Packing Building Area

Relative to the source of the low concentrations of PAHs identified in two samples (CA-SB-1 and CA-SB-4) collected from the historical fill in the BPB Area, these are likely the result of asphalt noted to be within the samples submitted to the laboratory. Further, no source was discovered for the arsenic concentrations reported in sand, silt, and clay samples collected from CA-SB-4 (67 mg/kg) and CA-TP-102 (45 mg/kg) in the BPB Area. However, these results are well within one order of magnitude of the site established background (up to 27 mg/kg). Given no clear source of arsenic and the similar background levels, it is likely the arsenic reported in CA-SB-4 and CA-TP-102 is background.

The above stated conclusions are based upon a review of test pit and boring descriptions and laboratory data of debris samples collected by Credere. In all, nine locations were sampled at multiple depths throughout the BPB Area (CA-TP-100A, 101, 102, 104, 105, and CA-SB-1, 2, 4, 5). In total, 14 samples were collected and submitted for laboratory analyses of TPH, VOCs, PAHs, metals, pesticides, and/or PCBs (Table 5). Of those, two samples (CA-SB/MW-1 and CA-SB/MW-4) contained benzo(a)anthracene (2.4 mg/kg), benzo(b)flouranthene (1.8 mg/kg), and/or benzo(a)pyrene (2.1 mg/kg), above the NHDES SRSs of 1 mg/kg, 1 mg/kg, and 0.70 mg/kg, respectively. As the development of the NHDES SRS standards includes a leaching component, and the three PAHs from these two locations were above the NHDES SRS Standards, the groundwater sample results from MW-1 and MW-4 were reviewed to assess whether the PAH impacted soils were leaching and thus affecting the groundwater at those locations. The three PAH compounds were below the groundwater method detection limits of 0.7 ug/l, 0.7 ug/l, and 0.3 ug/l, respectively. It should be noted, however, that the method detection limits are above the NHDES

GW-1 standards of 0.1 ug/l, 0.1 ug/l, and 0.2 ug/l, respectively.

The sample descriptions for CA-SB/MW-1 and CA-SB/MW-4 contain no reference to coal, coal ash, or coal clinkers. These two soil samples are identified as sand, silt, gravel, concrete, and asphalt. Given this, and the existence of anthracene and phenanthrene (petrogenic PAHs) in these two samples, it is likely the benzo(a)anthracene, benzo(b)flouranthene, and/or benzo(a)pyrene are associated with the asphalt in the sample and not coal ash. Further, the anthracene and phenanthrene that were found in the asphalt containing samples were not found in the ash containing samples CA-SB-2, CA-SB-5, CA-TP-101s, and CA-TP-105s, thus confirming the petrogenic nature of the PAHs. It is also unlikely the PAHs found in the two asphalt containing samples are the result of a release of a petroleum product such as diesel, oil/waste oil or gasoline given the laboratory results of the diesel range organics and volatile organic compounds in these two samples were below their respective analytical method detection limits. Given the available lines of evidence, it is likely the three PAHs detected above the NHDES SRS in CA-SB/MW-1 and CA-SB/MW-4 are the result of asphalt and thus considered background conditions per NHDES Env-Or 602.03[1].

The laboratory results of arsenic in soil samples CA-SB/MW-4 (67 mg/kg) and CA-TP-102 (45 mg/kg) were above the background concentrations (up to 27 mg/kg), identified via samples BKG-1 and BKG-2. However, the soil sample descriptions for these two samples were sand, silt, and clay. There was no indication of ash, clinker, or cinders. Also, the difference in arsenic concentrations between these two samples (67 mg/kg and 45 mg/kg, respectively) and background (27 mg/kg) is well within an order of magnitude, and thus could be the result of Site or laboratory analysis variations. Also, the results of arsenic in the four "coal ash" reference samples (CA-SB-1 and 5, CA-TP-101S and 105S) were no greater than 13 mg/kg and thus the arsenic detected in CA-SB/MW-4 and CA-TP-102 are unlikely the result of coal ash or anything in the fill from which the four reference samples were collected. That is, the boring descriptions throughout the "ash filled" area are similarly identified as sand, silt, clay, or gravel and ash as is the case with the four reference samples. Thus, the analytical results for the four samples should be indicative of the fill throughout the "ash filled" area. Given the fill is unlikely a source and there are no other indications of a source of arsenic, it is likely these arsenic results are indicative of background.

To assess whether the arsenic identified in CA-SB/MW-4 and CA-TP-102 is leaching, arsenic results in groundwater samples collected from MW-4 and MW-1 (immediately downgradient of CA-TP-102) were reviewed and found to be non-detectable (<8 ug/l) and 9 ug/l, respectively. Both are below the NHDES GW-1 standard of 10 ug/l (Table 6). Given such, it is unlikely the arsenic reported in soils collected from CA-SB/MW-4 and CA-TP-102 is impacting groundwater above the NHDES GW-1 Standard.

Retention Basin #4 and Wetland H

The drainage piping, which runs along the south side of GH#3, leads to a man-made retention basin immediately adjacent the east side of Oak Street Extension (Basin #4), through a culvert beneath Oak Street Extension, to a wetland down slope of the west side of Oak Street Extension (Wetland H). Sediment samples collected from Basin #4 and Wetland H revealed lead levels up to

180 mg/kg and 220 mg/kg, respectively (Table 7). Although these are above the ecological probable effect concentration (PEC) for lead of 128 mg/kg (levels above which benthic invertebrates may be adversely impacted), these concentrations are below the NHDES SRS for lead of 400 mg/kg. As previously stated, it is likely that the lead contamination identified in Basin #4 and Wetland H is the result of sediment transport from the Former Greenhouse Area.

3.0 CONCEPTUAL SUMMARY

3.1 Former Greenhouse Area

As reported in the Credere April 2012 ESA, the property was purchased by the historical Exeter Rose Farm, Inc. in 1939 and the greenhouses were constructed by 1942. The property was reportedly operated by the Dagostino family as a rose farm until the 1990s and the greenhouses were razed by 1998. Lead contaminated soils, initially identified by Credere and further defined by StoneHill, are mixed with several concrete drainage troughs and large concrete slabs likely associated with the foundations and drainage systems of the three former greenhouses. Also, present within the soils is glass, wood and caulking. Although Credere reported their belief that the lead contamination in the area may be the result of lead based paint, additional investigation by StoneHill revealed lead levels, via XRF field measurements, up to 3,600 ppm in loam sampled from within the footprint of the former greenhouses. A composite sample of caulking (G1, G4, and G5) contained lead at 5,600 mg/kg. While sampling for lead in the Former Greenhouse Area, StoneHill noted that much of the caulking was found adhered to pieces of wood located around the perimeter of the three greenhouses and in the eastern portions of Greenhouses GH#2 and GH#3. Lead contaminated soils are contained within a few feet of the perimeter of the Former Greenhouse Area.

As previously discussed and depicted in Figure 6, the extent of lead contaminated soils within and beyond the former greenhouse locations is defined sufficiently to pursue the remediation plan proposed in this RAP, the objective of which will be the off-site disposal of soils contaminated with lead equal to or above the NHDES SRS for lead of 400 mg/kg.

3.2 Former Boiler and Packing Buildings Area

Prior to operation as a rose farm, the Site was reportedly used for the manufacturing of brick. Given that brick and coal ash are mixed in with the fill in the area behind the former boiler building location, it is likely coal was used for that process. This filled area slopes significantly downhill to the west and away from the boiler building, impacting jurisdictional Wetlands B and G at the toe of the slope. It appears that the soil containing coal ash, along with solid waste such as brick, concrete and residential appliances, was used to fill this area (Photographs 3 and 4). Given the varying ages of the mix of concrete, brick, coal ash, and appliances, it is likely this area was filled over decades. Several test pits, borings, and soil sampling and laboratory analyses conducted by Credere and StoneHill in and around the BPB Area resulted in the characterization and extent of the fill such that a recommendation can be made for managing this fill.

3.3 Retention Basin #4 and Wetland H

During site investigation activities, StoneHill noted concrete drainage troughs within the former greenhouses. It appears these troughs were used historically to drain excess water during the greenhouse operations to pipes located in a trench that runs east to west, along GH#3. The pipes subsequently drain into Basin #4. Given the concentrations of lead in soil samples collected from the Former Greenhouse Area, it is likely that the lead concentrations identified in sediments collected from Basin #4 and Wetland H are the result of sediment transport from the Former Greenhouse Area being deposited into these features. Rather than conducting an ecological assessment of the effects of the lead impacted sediment on benthic invertebrates, a sufficient understanding of the conditions exists to recommend a remedial alternative in lieu of additional study.

4.0 REMEDIAL ALTERNATIVES

4.1 Former Greenhouse Area

The proposed use of the property is as a residential development, some of which will be located in and around the Former Greenhouse Area. As such, the lead contaminant levels in area soils must be brought below the NHDES SRS of 400 mg/kg. This cannot be accomplished via on-site encapsulation or treatment. The only feasible means of lessening lead contaminated soils below residential levels in the Former Greenhouse Area is via the excavation and removal of the lead contaminated soils. Given this, Exeter Rose will remove soils contaminated with lead equal to or above the NHDES SRS lead standard of 400 mg/kg. These soils will be disposed off-site at a facility permitted to accept lead contaminated soils. As a preliminary assessment of acceptance of the material for daily cover, three lead contaminated soil samples (F-20, F-24, and F-63) were collected and analyzed for 8 RCRA metals and TCLP lead. Of the results for the 8 RCRA metals, only lead required further analyses via TCLP. Of the three soil samples, the highest total lead level was 1,570 mg/kg and the TCLP result was 1.51 mg/l. These results are within the acceptable criteria for disposal as daily cover at disposal sites within New Hampshire. As such, the remedial alternative will be the excavation and off-site removal of soil contaminated with lead equal to or greater than 400 mg/kg.

4.2 Former Boiler and Packing Buildings Area

This area, in part, currently impacts jurisdictional Wetland G. The only alternative for mitigating the wetland impacts is to remove the fill from within the jurisdictional wetlands and return the wetlands to their natural condition. To that end, the solid waste will be removed and the concrete and brick will be consolidated (Figure 8) in place east of the wetland boundary or otherwise used as road base elsewhere on the property. Similarly, the sand, silt, clay, gravel and coal ash impacted soil will be encased in place.

4.3 Retention Basin #4 and Wetland H

The NHDES January 27, 2016 response to the Credere Phase II requested an ecological risk characterization or the remediation of areas with sediments impacted with lead above the ecological PEC. If an ecological risk characterization is proposed, the NHDES requires that this RAP include a description of how the EPA Sediment Quality Triad ecological risk assessment will be conducted. The purpose would be to determine whether lead in sediments from man-made Basin #4 and Wetland H are detrimentally impacting benthic or higher trophic organisms that may consume aquatic life. Benthic (meaning "bottom-dwelling") organisms spend all or most of their time in water. Basin #4 is a waterbody that may sustain benthic organisms. Wetland H, however, is a distinct wetland area that does not retain surface water and thus cannot sustain benthic organisms. Also, relative to higher trophic organisms that may consume aquatic life, inorganic forms of lead do not bio-magnify within the food chain. Thus, the consumption of aquatic life from Basin #4 will not impact higher level trophic organisms. Even so, the sediment lead levels in Basin #4 are in excess of the ecological PEC for lead of 128 mg/kg. Given this, either an ecological assessment of lead impacts to benthic organisms living in Basin #4 must be performed or otherwise the sediments in Basin #4 must be remediated.

Given Wetland H does not sustain benthic organisms, lead does not bio-magnify, the strong adhesion characteristics of lead to soils, and laboratory results indicating lead concentrations in Wetland H being below the NHDES SRS, there is no beneficial justification for disturbing the wetland and associated flora for the sole purpose of removing lead impacted soils. Also, it is likely this area will be filled during the widening of the road. Thus, soils in Wetland H will not be removed and are not being considered while assessing remedial alternatives for this area.

As stated in the NHDES January 27, 2016 letter, "Depending on the volume of impacted sediment, a responsible party may determine it is more cost-effective to assume toxicity to organisms and move forward with remediation." Similarly, as stated in the 2005 NHDES Evaluation of Sediment Quality Guidance Document, "it may be more efficient to initially skip the triad and move directly to remediation." Given the cost of conducting an ecological risk assessment, and the uncertain outcome, sediments from Basin #4 will be remediated. There is no means of conducting in-situ encapsulation of the lead impacted sediments. As such, excavation of the sediments is recommended.

5.0 REMEDIAL ACTION PLAN

Site remediation activities will temporarily alter or eliminate site drainage features or other areas that involve wetlands which may trigger local, state or federal jurisdiction. Wetland permit applications will be prepared by Marc Jacobs, wetland scientist and submitted to the State of New Hampshire and Town of Exeter as appropriate prior to commencing excavation and remediation activities.

5.1 Former Greenhouse Area

Soil Excavation and Staging

Remedial actions in the Former Greenhouse Area will be completed by removing the largest pieces of concrete and metal (Photographs 13 and 14) and the material will be staged on 6 mill poly sheeting. Afterwards a pattern of 50 foot by 50 foot grids will be laid across the Former Greenhouse Area (Figure 9). Starting at the east end of the Former Greenhouse Area, soil will be removed to the native silt and clay (approximately 2 feet bgs) from each grid and stockpiled on 6 mill poly sheeting resulting in multiple, approximate 200 ton piles.

Any residual pieces of concrete and metal not previously removed will be staged separately. Representative composite soil samples will be collected from each stockpile and submitted to a NHDES certified laboratory for total lead analysis. Soil samples from stockpiles shown to contain total lead concentrations equal to or greater than the NHDES SRS of 400 mg/l will be further analyzed for the disposal parameters necessary for off-site disposal and transported from the staging area to the receiving facility. This will be ongoing, thus allowing for additional staging as the excavation in the Former Greenhouse Area continues west. Stockpiles shown to contain lead concentrations below 400 mg/kg will remain stockpiled for eventual reuse on site. All stockpiles will be covered with 6 mil poly sheeting until otherwise found to contain total lead levels below 400 mg/kg or while being removed for off-site disposal. It is estimated that 5,500 to 7,500 cubic yards of lead contaminated soil may need to be removed and transported off site for disposal.

The remediation of lead contaminated soils in the Former Greenhouse Area will result in the removal of man-made retention Basins #1, #2, and #3, which also contain lead contaminated soils. The fate of the metal and concrete will be determined as explained in Section 5.2, "Former Boiler and Packing Buildings Area," below.

Off-Site Disposal

A representative composite soil sample is required for every 200 tons of the first 2,000 tons of contaminated soil taken to the receiving facility. Representative composite soil samples will be collected for every 500 tons (or approximately every two soil piles) beyond the initial 2,000 tons. These samples will be analyzed for the disposal parameters dictated by the receiving facility and may include total RCRA metals, total volatiles and semi-volatiles, pesticides, herbicides, PCBs, ignitability, corrosivity, reactive sulfide and cyanide. After the first five rounds of sampling, if the data consistently reveals certain chemical compounds consistent with background conditions and there are no known sources, StoneHill recommends working with the receiving facility and the NHDES to have an agreement in place to assess whether the disposal parameters can be updated to better reflect actual site conditions. That is, if the stockpile results consistently reveal no semi-volatile or volatile organic compounds or ignitability, StoneHill will request the requirement of laboratory analyses for PAH, VOC, and ignitability be replaced by the use of a ppbRAE 3000 Photoionization Detector for the measurement of volatile organic compounds and ignitability and Oil IN Soil™, a colorimetric field test kit with a total petroleum hydrocarbon detection limit of 500 parts per million.

The contaminated stockpiles will be loaded and transported to the disposal facility via a non-hazardous waste manifest. If necessary, water will be sprayed over the remedial area to minimize the dust created during remedial activities. Further, steps will be taken to manage and maintain the loading area such that it remains clear of lead contaminated soil.

The Town of Exeter will be notified and the necessary town permits acquired and agreements with the receiving facility, including whether the laboratory data receiving parameters can be modified as recommended above, will be put in place prior to the start of the excavation of lead contaminated soils.

Post Excavation Sampling and Analyses

Simultaneous with the excavation and off-site disposal of the lead contaminated soils, several post excavation soil samples will be collected from within each grid to assess total lead using the XRF. Upon verification that the soils remaining in the grid are below 300 ppm as measured using the XRF, a confirmatory composite soil sample from each grid will be collected and submitted to a NH certified laboratory for total lead analyses. The grids will not be backfilled until the confirmatory total lead results for each grid are received by StoneHill, confirming the efficacy of the lead contaminated soil removal.

This RAP is specific to the removal and off-site disposal of up to 2 feet of loam from a large swath of the Former Greenhouse Area, the removal of which requires no post remedial backfilling for conformance with this RAP. If backfilling occurs it will be overseen by the construction contractor for the purposes of completing the residential construction as proposed in the pre-approved Exeter Town permits.

Once all the stockpiles are removed StoneHill will collect several surficial soil samples throughout the stockpile areas and perform field measurements for lead using the XRF. Any soil sample locations found to be in excess of 300 ppm will be excavated, stockpiled, sampled and submitted to a NH certified laboratory for total lead analysis. Stockpiles containing total lead levels equal to or in excess of 400 mg/kg will be further assessed for off-site disposal. The purpose is to assure the areas used for stockpiling the lead contaminated soils, even though protected by poly sheeting, were not contaminated by lead as a result of the stockpiling efforts.

5.2 Former Boiler and Packing Buildings Area

The primary strategy in this area, which currently impacts jurisdictional wetlands downslope to the west of the BPB Area, is to remove an estimated 1,100 cubic yards of fill from the wetlands and the adjacent slope such that the area between Oak Street Extension and the wetlands can be graded to the specifications proposed by MSC in their construction plans and as further described in the Wetland Restoration Program prepared by Marc Jacobs. The final construction of the banking will be completed by the construction contractor as specified by MSC. This RAP is specific to the removal and disposal, as necessary, to allow MSC to meet those slope specifications and to assure that fill remaining in the final slope is properly encapsulated as detailed below. Erosion and siltation control measures will be implemented to contain potential

migration of sediment into the wetland.

For disposal purposes, any material removed from the BPB Area will be sifted, likely resulting in the creation of four piles of differing materials, including:

1. Metal debris
2. concrete and brick,
3. plastics and white goods (such as couches and mattresses), and
4. fill containing coal ash.

These materials will be stockpiled separately west of the Former Greenhouse Area.

Metal Debris

The metal debris will be transported off-site to a recycling facility or a solid waste landfill.

Concrete and Brick

The proper management of solid waste and the facilities that collect, process and dispose of solid waste such as concrete and brick are regulated per Env-Sw 100-2100 and is overseen by the NHDES Solid Waste Management Bureau (SW Bureau). As per NHDES Env-Sw 103.26[ii], concrete and brick are considered inert construction and demolition debris. Thus, per NHDES Env-Sw 302.03(b)(9)[iii], the disposal of waste concrete, cement, and brick does not require a permit from the SW Bureau if the material meets the specifications outlined in that section of the regulation and the disposal occurs after March 30, 1999. The specifications include concrete and brick that was derived from waste materials, is fully cured, and will not leach. The concrete and brick is cured and not expected to leach as confirmed via the groundwater analytical data as previously discussed.

Further, per NHDES Env-Sw 810.04[iv], *"On-site Asphalt and Masonry Debris Landfills,"* On-site concrete fill does not need to be removed if it is located at least 75 feet from surface waters and at least 4 feet above the mean high water table (presumably to avoid inundating the material, thus causing the potential for chemicals from the material to leach and impact nearby surface and groundwater). Given this, any concrete and brick noted in the banking (75 feet and more from Norris Brook) that does not need to be removed to implement the proposed grade, may be left in place if doing so results in less damage to the surrounding wetland flora.

Exeter Rose intends to remove concrete from wetland areas and as much of the concrete and brick from the banking as necessary to open the area west of the BPB Area to allow for a properly engineered slope beyond the west side of Oak Street Extension. Concrete and brick that is removed will be pulverized and re-used, if engineering specifications allow, in a base material mix placed beneath roads constructed throughout the property. Residual concrete and brick not re-used beneath roadways will be pulverized and re-used on-site as necessary with the understanding that the material will be buried 2 feet and more bgs, 4 feet above mean high groundwater, and 75 feet from the water bodies. Concrete removed from the Former Greenhouse Area will be similarly re-used.

Plastics and White Goods

The pile of plastic and white goods will be separated between waste types such as tires, couches/mattresses, plastics, etc. or a combination thereof as applicable to the specific disposal facility and transported off-site to facilities accepting the specific types of materials for disposal or recycling.

Soil Containing Coal Ash

In their January 27, 2016 letter to the Commission the NHDES stated that the coal ash did not meet the definition of background per NHDES ENV-Or 602.03(c) which states that [Background] means the concentration of a chemical…that is ubiquitous and consistently present at or in the vicinity of the site such as chemicals associated with: (a) Coal ash associated with fill material and (c) Asphalt pavement. The NHDES specifically stated that the concentrations of arsenic and PAHs were associated with the coal ash and that these two chemicals were not "ubiquitous and consistently present at or in the vicinity of the site."

However, as previously stated the arsenic is consistent with background conditions and further, given the low levels of arsenic in the coal ash samples, not associated with the coal ash. Also, the PAHs are not pyrogenic and are considered the result of asphalt in the samples and thus also not associated with the coal ash. Further, the soil boring and test pit logs indicate the fill to be a mixture of sand, gravel and coal ash as identified in samples collected throughout the bank, revealing that the coal ash is universal throughout the fill used in the area. Further, no other PAHs or metals identified in the soil samples containing coal ash were above the NHDES SRS Standards. Given the PAHs in excess of the NHDES SRS Standards are chemicals associated with asphalt, the PAHs are considered background, and no other chemicals were noted above NHDES SRS, the soil containing coal ash that is not removed to meet the engineers specifications, will be left in place. The area will be covered with a minimum of two feet of clean fill or a geotextile fabric and one foot of riprap and graded as required per engineering specifications and Env-Sw 810.03(f)(1) and (2)[v]. Soil containing coal ash removed from the northern portion of the embankment (slated as a residential lot) will be returned to the embankment, as feasible, prior to the encapsulation discussed above. Any soil containing coal ash that is not encapsulated in this manner will be transported off-site to a facility for recycling as a raw material for commercial and/or industrial purposes.

As stated, the coal ash that remains in place over the westerly embankment of the BPB Area will be covered with a moisture barrier and 2 feet of clean fill if the final pitch of the westerly slope allows. If the final finish ground surface grade is too steep to allow for 2 feet of soil, the material will be covered with a geotextile fabric and one foot of 4-inch minimum diameter rip-rap. The final finish ground surface grade will be no steeper than 2 horizontal to 1 vertical (2H:1V).

The laboratory results for samples collected throughout this area were indicative of background concentrations or below NHDES SRS standards and thus there is no known risk associated with the material. However, as per Env-Sw 810.03(c), (e) and (f)(3) and (4)[vi], required monitoring and maintenance will be included in the condominium association activity and use restriction relative to any fill left in place and encapsulated by either of these two means. As referenced in the above stated regulations, the purpose of including monitoring, maintenance, and use restrictions will be

to assure the area is regularly inspected to assess the integrity of the bank and cover material and to implement repairs if necessary.

5.3 Retention Basin #4 and Wetland H

The remediation of sediments within Basin #4 will require dewatering and excavation. A surface water sample (CA-SW-100) from Basin #4, collected by Credere on August 6, 2015, was analyzed for VOCs, SVOCs, pesticides, RCRA 8 metals, and hardness. No contaminants were reported above their respective laboratory method detection limits. Given no obvious changes in conditions at the site, this sample is considered indicative of current surface water conditions in Basin #4 and thus the quality of the surface water presents no concern to dewatering.

A NHDES Groundwater Discharge Permit will be obtained and Basin #4 will be hydraulically isolated and dewatered onto the western portion of the Former Greenhouse Area. The discharge will be contained to the known areas of lead contamination in the Former Greenhouse Area via the use of bales and other erosion control measures per instruction of Marc Jacobs, Certified Professional in Erosion and Sediment Control. Given lead is highly adsorbed to soil, the low leaching potential as noted by the TCLP lead data from the Former Greenhouse Area, and the soil samples collected in the Former Greenhouse Area between 18" and 24" revealed little lead impacts (20.1 mg/kg), it is unlikely dewatering onto the lead contaminated soils in the Former Greenhouse Area will change the soil conditions, impact groundwater, or otherwise prevent soil remediation in that area.

Once dewatering allows for sufficient access to the sediments, excavating within Basin #4 will begin. One to two feet of lead impacted sediment will be removed and separated into 200 ton stockpiles. A composite sample will be collected from each pile and submitted for laboratory analysis of total lead. Stockpiles found to contain total lead below the NHDES SRS standard will be re-used on site. Piles found to contain total lead equal to or above the NHDES SRS for lead will be resampled for disposal parameters and disposed off-site. Post excavation sediment samples will be collected from within Basin #4, and analyzed for total lead. Remedial actions will continue until lead concentrations within Basin #4 are below the ecological PEC for lead of 128 mg/kg as confirmed via laboratory analyses.

5.4 Implementation Schedule

Ideally, all permits and approvals would be in place to begin excavation activities in the Spring of 2018 and complete the field activities associated with the RAP prior to the Winter of 2019.

6.0 LIMITATIONS

This Supplemental Site Investigation Report and Remedial Action Plan was prepared to further assess site conditions and to propose remedial actions for contamination in the Former Greenhouse Area, management of fill in the BPB Area, and to propose an approach to address sediment impacts in man-made drainage Basin #4 and Wetland H at the former Dagostino Rose Farm, Oak Street Extension, Exeter, NH. This plan is not intended to be a complete

environmental site assessment, audit or industrial hygiene survey which would ascertain compliance with federal and state regulations other than those explicitly stated herein.

The information provided in this report is based upon personal interviews and research of publically available documentation, field investigations, records and maps. Therefore, the information in this report is subject to the limitations of historical documentation, the availability and accuracy of pertinent data analyses, records, and the personal recollection of the persons interviewed during the course of the investigation. The information presented in this report is applicable only to the dates of the records and lists reviewed as indicated within.

It should be noted that the findings and conclusions of this report do not constitute scientific certainties, but rather probabilities based upon our professional judgement concerning data gathered during the course of the investigation. Information potentially obtained during further investigative activities, which were beyond the scope of the work completed for this report, could result in a modification of the findings stated above. This report has been prepared in accordance with generally accepted remedial action plan preparation practices and a degree of care and skill exercised by other environmental consulting firms undertaking similar studies at the same time in the same geographical area. No other warranty, expressed or implied, is made.

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[i] Env-Or 602.03 "Background" means the concentration of a chemical in the environment that would exist at a site in the absence of a discharge, including chemicals that are ubiquitous and consistently present at or in the vicinity of the site such as: (a) Coal or wood ash associated with fill material; (b) Petroleum residues that are incidental to the normal operation of motor vehicles; (c) Asphalt pavement and petroleum compounds contained in associated sub-base materials...

[ii] ENV-Sw 103.26 "Inert construction and demolition debris means construction and demolition debris which is comprised of materials that do not degrade, combust or generate leachate."

[iii] ENV-Sw 302.03(b)(9) – Solid Waste Exemptions, "no permit shall be required to: Collect, store, transfer, process, treat, or dispose of waste con rete, cement, rick, or other inert masonry materials, or bituminous concrete, provided that..." the waste is actively managed in a way that complies with Env-Sw 1000, is derived from virgin materials, are fully cured, will not leach contaminants to ground or surface waters, the asphalt is not pulverized, and the activity occurs after March 30, 1999.

[iv] Env-Sw 810.04 – Effective as of October 29, 1997, asphalt and masonry debris buried at the waste generation site shall not be required to be removed provided that the facility buried the following wastes only: Fully cured asphalt, concrete, brick and cement, the asphalt is not pulverized, and the material is buried 4 feet above seasonal high water table and 75 feet from surface waters and water supply wells.

[v] Env-Sw 810.03(f) Exemption Conditions – All permit-exempt landfills shall... place at least 2 feet of clean, compacted soil as a final cover over the material and the cover be, "graded, seeded and mulched to produce and sustain vegetative growth, or otherwise stabilized to prevent erosion."

[vi] Env-Sw 810.03 Exemption Conditions – The owner of the property on which exists a permit-exempt landfill shall be designated as the permittee and subject to the requirements of the permit exemption as well as prevent dumping, regularly inspect the integrity of the cover, check for sinkholes or otherwise check that the area is protective of human health and environment, and implement repairs as necessary.

FIGURES

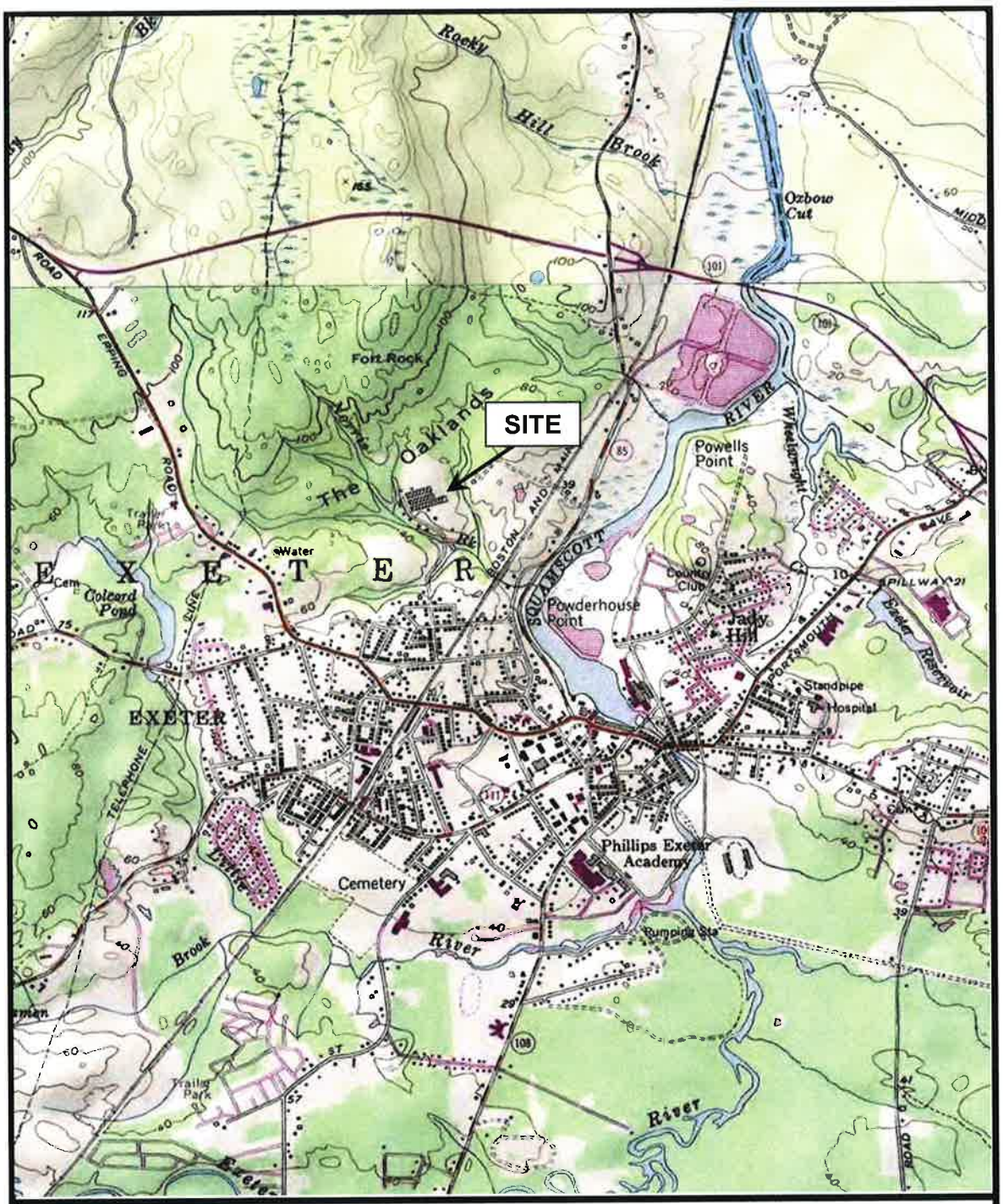


FIGURE 1

SITE LOCATION MAP

Dagostino Rose Farm
Oak Street Extension
Exeter, NH

0 2000 4000

approximate scale in feet

Contour Interval 10 feet

N

Map Source:
USGS 7.5 Minute
Topographic Quadrangle
Exeter, NH

Prepared by:
StoneHill Environmental, Inc.
Project No. 15046

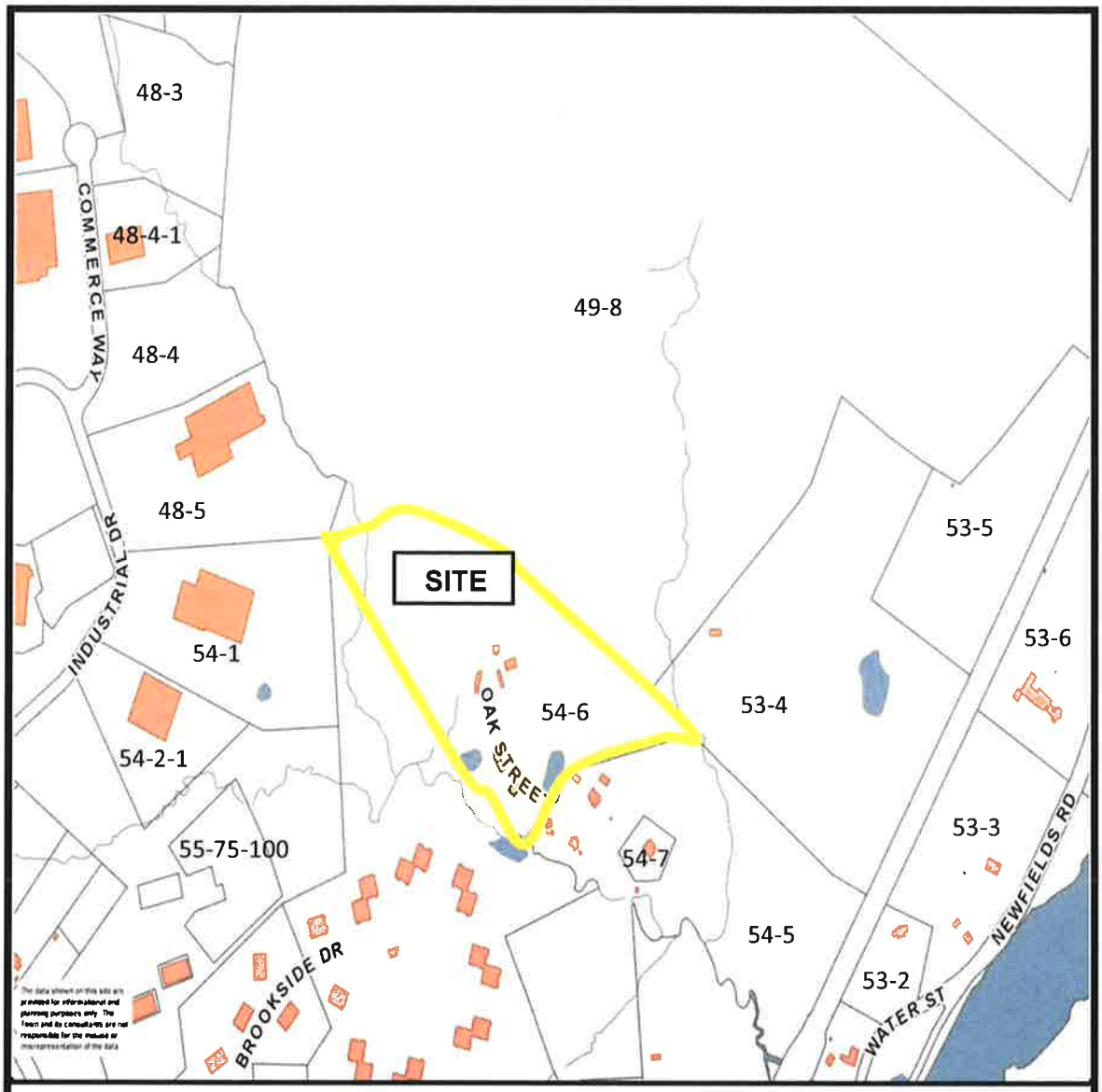


FIGURE 2

TAX MAP

Oak Street Extention
Exeter, NH

0 660 1320

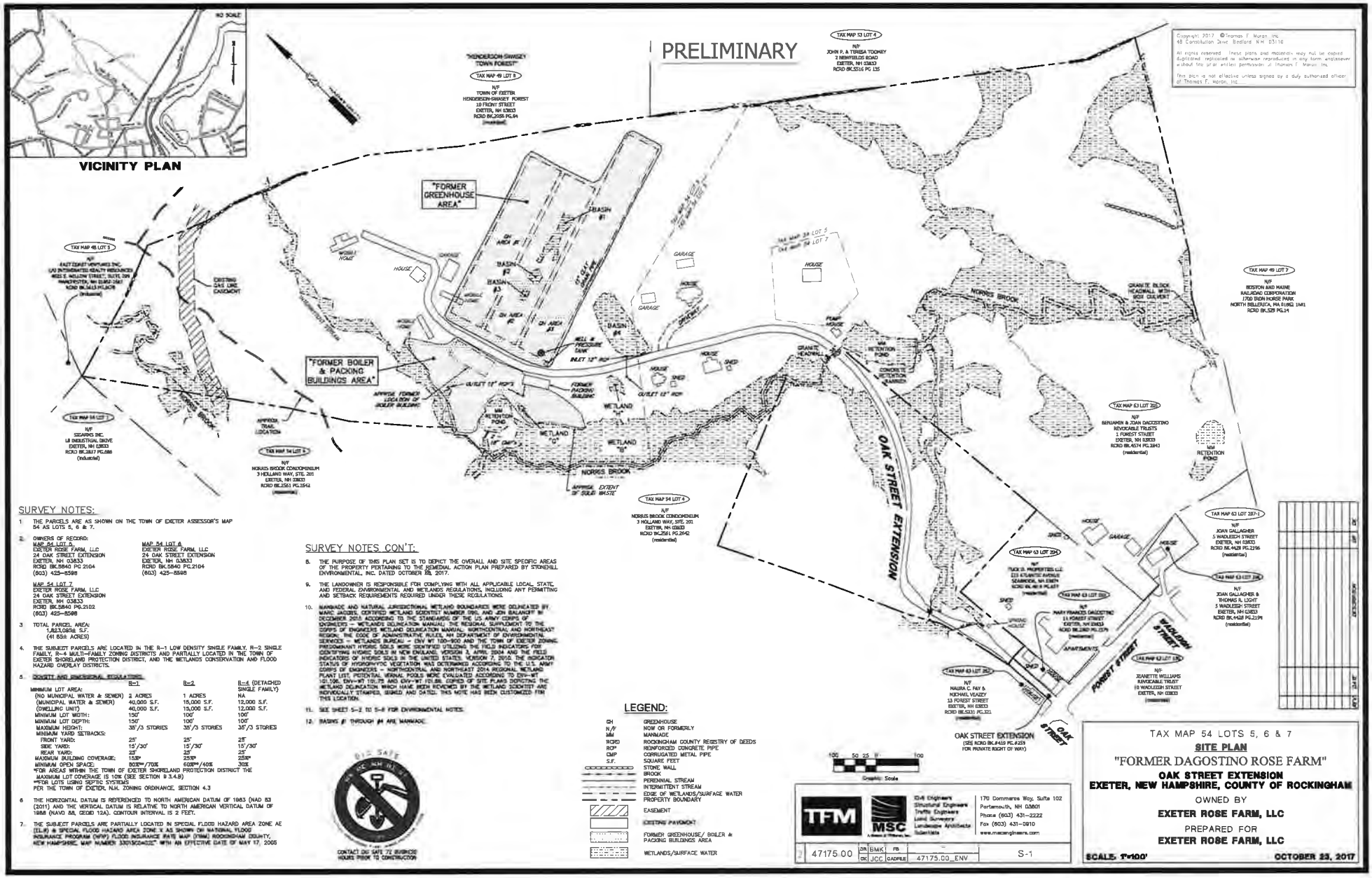
approximate scale in feet

N

Map Source:
Town of Exeter, NH
Tax Assessor's Map

Prepared by:
StoneHill Environmental, Inc.
Project No. 15046

FIGURE 3



SURVEY NOTES:

1. THE PARCELS ARE AS SHOWN ON THE TOWN OF EXETER ASSESSOR'S MAP 54 AS LOTS 5, 6 & 7.
2. OWNERS OF RECORD:
   MAP 54 LOT 5:
   EXETER ROSE FARM, LLC
   24 OAK STREET EXTENSION
   EXETER, NH 03833
   RCRD BK.5840 PG 2104
   (603) 425-8598

   MAP 54 LOT 6
   EXETER ROSE FARM, LLC
   24 OAK STREET EXTENSION
   EXETER, NH 03833
   RCRD BK.5840 PG.2104
   (603) 425-8598

   MAP 54 LOT 7
   EXETER ROSE FARM, LLC
   24 OAK STREET EXTENSION
   EXETER, NH 03833
   RCRD BK.5840 PG.2102
   (603) 425-8598
3. TOTAL PARCEL AREA:
   1,823,085± S.F.
   (41.85± ACRES)
4. THE SUBJECT PARCELS ARE LOCATED IN THE R-1 LOW DENSITY SINGLE FAMILY, R-2 SINGLE FAMILY, R-4 MULTI-FAMILY ZONING DISTRICTS AND PARTIALLY LOCATED IN THE TOWN OF EXETER SHORELAND PROTECTION DISTRICT, AND THE WETLANDS CONSERVATION AND FLOOD HAZARD OVERLAY DISTRICTS.
5. ZONING AND DIMENSIONAL REGULATIONS:

	R-1	R-2	R-4 (DETACHED SINGLE FAMILY)
MINIMUM LOT AREA:			
(NO MUNICIPAL WATER & SEWER)	2 ACRES	1 ACRES	NA
(MUNICIPAL WATER & SEWER)	40,000 S.F.	15,000 S.F.	12,000 S.F.
(DWELLING UNIT)	40,000 S.F.	15,000 S.F.	12,000 S.F.
MINIMUM LOT WIDTH:	150'	100'	100'
MINIMUM LOT DEPTH:	150'	100'	100'
MAXIMUM HEIGHT:	35'/3 STORIES	35'/3 STORIES	35'/3 STORIES
MINIMUM YARD SETBACKS:			
FRONT YARD:	25'	25'	25'
SIDE YARD:	15'/30'	15'/30'	15'/30'
REAR YARD:	25'	25'	25'
MAXIMUM BUILDING COVERAGE:	15%*	25%*	25%*
MINIMUM OPEN SPACE:	80%**/70%	60%**/40%	30%

*FOR AREAS WITHIN THE TOWN OF EXETER SHORELAND PROTECTION DISTRICT THE MAXIMUM LOT COVERAGE IS 10% (SEE SECTION 9 3.4.B)
**FOR LOTS USING SEPTIC SYSTEMS PER THE TOWN OF EXETER, N.H. ZONING ORDINANCE, SECTION 4.3

6. THE HORIZONTAL DATUM IS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83 (2011) AND THE VERTICAL DATUM IS RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88, GEOID 12A). CONTOUR INTERVAL IS 2 FEET.
7. THE SUBJECT PARCELS ARE PARTIALLY LOCATED IN SPECIAL FLOOD HAZARD AREA ZONE AE (ELEV) & SPECIAL FLOOD HAZARD AREA ZONE X AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, MAP NUMBER 33015C0452F WITH AN EFFECTIVE DATE OF MAY 17, 2005

SURVEY NOTES CON'T:

8. THE PURPOSE OF THIS PLAN SET IS TO DEPICT THE OVERALL AND SITE SPECIFIC AREAS OF THE PROPERTY PERTAINING TO THE REMEDIAL ACTION PLAN PREPARED BY STONEHILL ENVIRONMENTAL, INC. DATED OCTOBER 23, 2017.
9. THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL AND WETLANDS REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
10. WARRANTED AND NATURAL JURISDICTIONAL WETLAND BOUNDARIES WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST NUMBER 090, AND JON BALANOFF IN DECEMBER 2015 ACCORDING TO THE STANDARDS OF THE US ARMY CORPS OF ENGINEERS – WETLANDS DELINEATION MANUAL; THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION; THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES – WETLANDS BUREAU – ENV WT 100-900 AND THE TOWN OF EXETER ZONING. PRELIMINARY HYDRIC SOILS WERE IDENTIFIED UTILIZING THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 3, APRIL 2004 AND THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, 2010. THE INDICATOR STATUS OF HYDROPHYTIC VEGETATION WAS DETERMINED ACCORDING TO THE U.S. ARMY CORPS OF ENGINEERS – NORTHCENTRAL AND NORTHEAST 2014 REGIONAL WETLAND PLANT LIST. POTENTIAL VERNAL POOLS WERE EVALUATED ACCORDING TO ENV-WT 101.106. ENV-WT 101.75 AND ENV-WT 101.88. COPIES OF SITE PLANS DEPICTING THE WETLAND DELINEATION WHICH HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED, SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS LOCATION.
11. SEE SHEET 5-2 TO 5-8 FOR ENVIRONMENTAL NOTES.
12. BASINS #1 THROUGH #4 ARE MANMADE.

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

LEGEND:

CH	GREENHOUSE
N/F	NOW OR FORMERLY
MM	MANHOLE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
S.F.	SQUARE FEET
	STONE WALL
	BROOK
	PERENNIAL STREAM
	INTERMITTENT STREAM
	EDGE OF WETLANDS/SURFACE WATER
	PROPERTY BOUNDARY
	EASEMENT
	EXISTING PAVEMENT
	FORMER GREENHOUSE/ BOILER & PACKING BUILDINGS AREA
	WETLANDS/SURFACE WATER

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2	47175.00	DR	BMK	FB	-	S-1
		CK	JCC	CADFILE	47175.00_ENV	

TAX MAP 54 LOTS 5, 6 & 7

SITE PLAN

"FORMER DAGOSTINO ROSE FARM"

OAK STREET EXTENSION

EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

OWNED BY

EXETER ROSE FARM, LLC

PREPARED FOR

EXETER ROSE FARM, LLC

SCALE: 1"=100' **OCTOBER 23, 2017**

Oct 23, 2017 - 4:38pm
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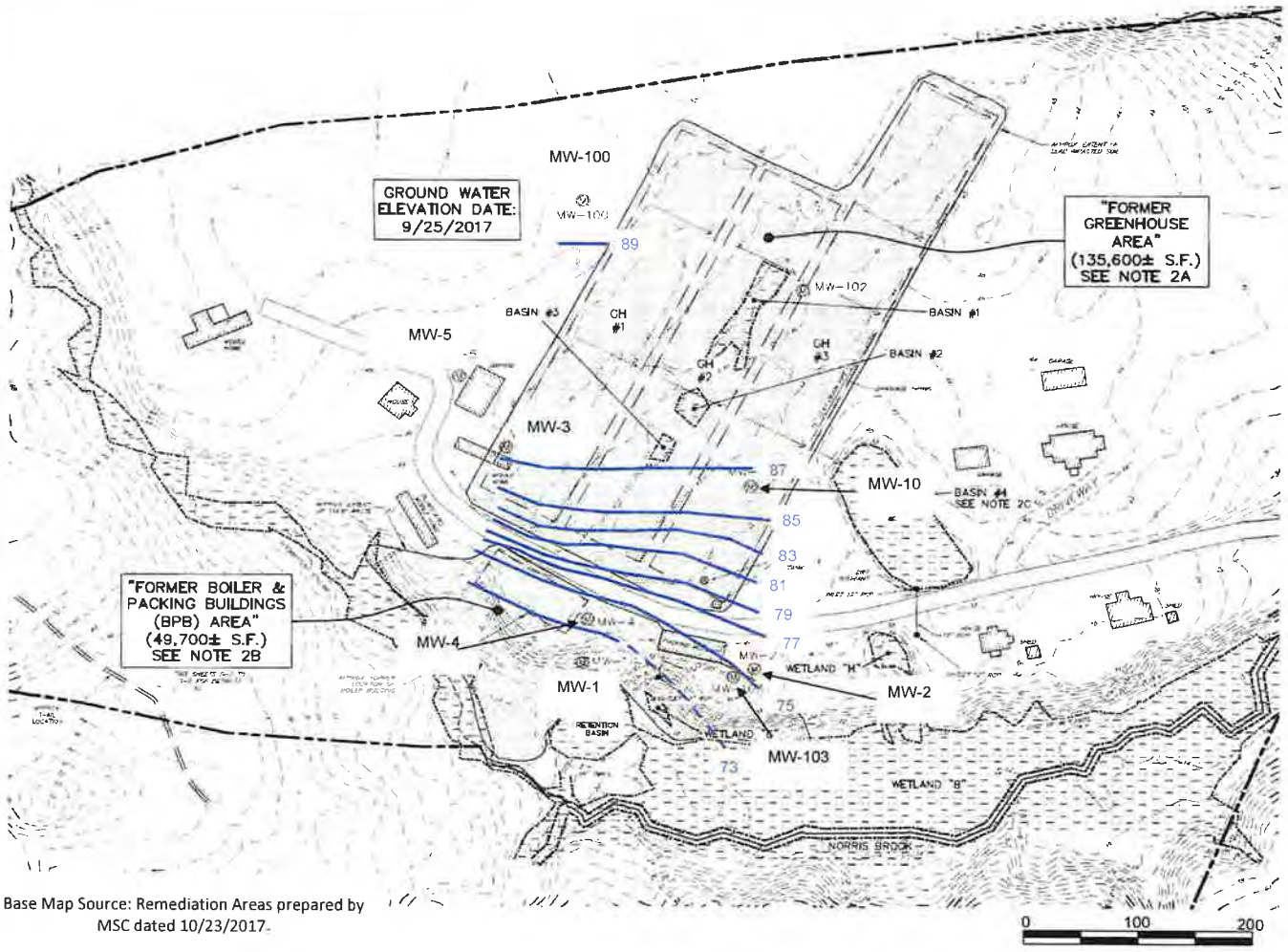


LEGEND:

- CMP — CORRUGATED METAL PIPE
- RCP — REINFORCED CONCRETE PIPE
- MM — MANMADE
- S.F. — SQUARE FEET
- GH — GREENHOUSE
- STONE WALL
- BROOK
- PERENNIAL STREAM
- INTERMITTENT STREAM
- EDGE OF WETLANDS AND SURFACE WATER
- PROPERTY BOUNDARY
- EXISTING PAVEMENT
- FORMER GREENHOUSE/BOILER & PACKING BUILDINGS AREA
- WETLANDS
- MW-10 — MONITORING WELL & #
- (89.61) — Groundwater Elevation in feet
- 89 — Groundwater Contour Line in feet

Base Map Source: Remediation Areas prepared by MSC dated 10/23/2017.

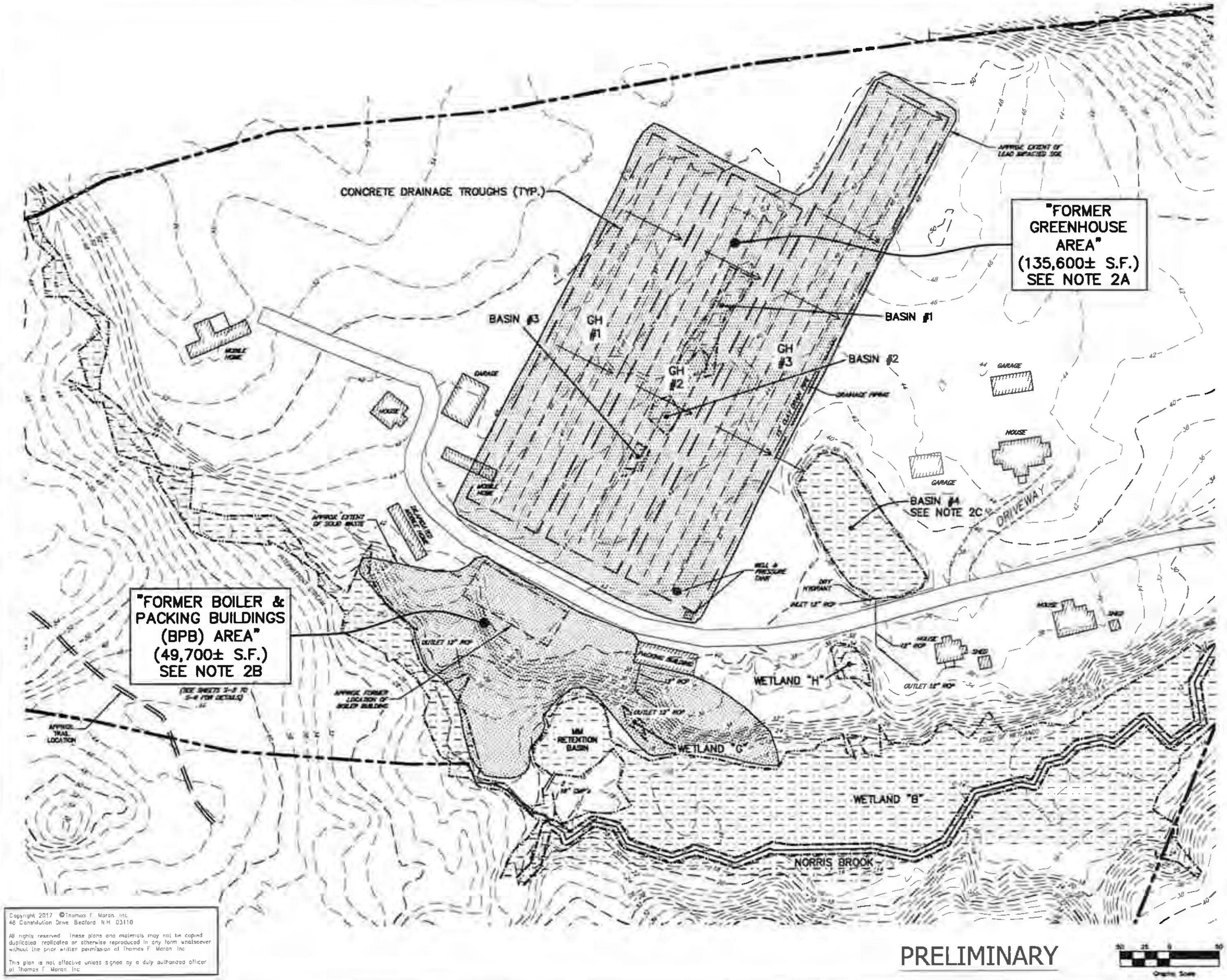
FIGURE 4

GROUNDWATER CONTOUR PLAN (September 25, 2007)

Dagostino Rose Farm
Oak Street Extension
Exeter, NH

Prepared by:
StoneHill Environmental, Inc.
Project No. 15046

FIGURE 5



ENVIRONMENTAL NOTES:

1. THIS SITE IS NHDES SITE #201203083 AND IS KNOWN AS THE "FORMER DAGOSTINO ROSE FARM" IN EXETER NH.
2. REMEDIAL ACTION PLAN:

   A: FORMER GREENHOUSE AREA – SHALLOW SOIL CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES STANDARD APPLICABLE TO RESIDENTIAL PROPERTIES WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY.

   B: FORMER BOILER & PACKING BUILDING AREA – SOLID WASTES WILL BE IDENTIFIED, REMOVED AND PROPERLY DISPOSED OF. CONCRETE AND BRICK REMOVED FROM THE SOLID WASTE AREA MAY BE CRUSHED AND USED AS ROAD BASE. COAL ASH/CLINKER WILL BE CONSOLIDATED IN THE FORMER PACKING HOUSE AREA, CAPPED AND COVERED.

   C: MANMADE RETENTION BASIN #4 – SEDIMENTS CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES ECOLOGICAL STANDARDS WILL BE REMOVED AND PROPERLY DISPOSED OF AT AN OFF-SITE LOCATION.
3. DESCRIPTIONS:

   BASIN #1 – MANMADE RETENTION BASIN – 2,633± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   BASIN #2 – MANMADE RETENTION BASIN – 781± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   BASIN #3 – MANMADE RETENTION BASIN – 392± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   BASIN #4 – MANMADE RETENTION BASIN – 10,206± S.F. TO BE REMEDIATED AND RESTORED IN PLACE.

   WETLAND "G" – MANMADE WETLAND – 278± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

(SEE SHEET S-1 FOR SURVEY NOTES AND SHEETS S-2 TO S-8 FOR DETAILS)

LEGEND:

CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
MM	MANMADE
S.F.	SQUARE FEET
GH	GREENHOUSE
	STONE WALL
	BROOK
	PERENNIAL STREAM
	INTERMITTENT STREAM
	EDGE OF WETLANDS AND SURFACE WATER
	PROPERTY BOUNDARY
	EXISTING PAVEMENT
	FORMER GREENHOUSE/BOILER & PACKING BUILDINGS AREA
	WETLANDS

TAX MAP 54 LOTS 5, 6 & 7

REMEDIATION AREAS

"FORMER DAGOSTINO ROSE FARM"

OAK STREET EXTENSION
EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

OWNED BY

EXETER ROSE FARM, LLC

PREPARED FOR

EXETER ROSE FARM, LLC

SCALE: 1"=60' **OCTOBER 23, 2017**

TFM MSC

47175.00 | DR JCC | FILE 47175.00_ENV | S-3

Oct 23, 2017 - 4:20pm

FIGURE 6

StoneHill Environmental, Inc.

Oct 23, 2017 - 4:29pm
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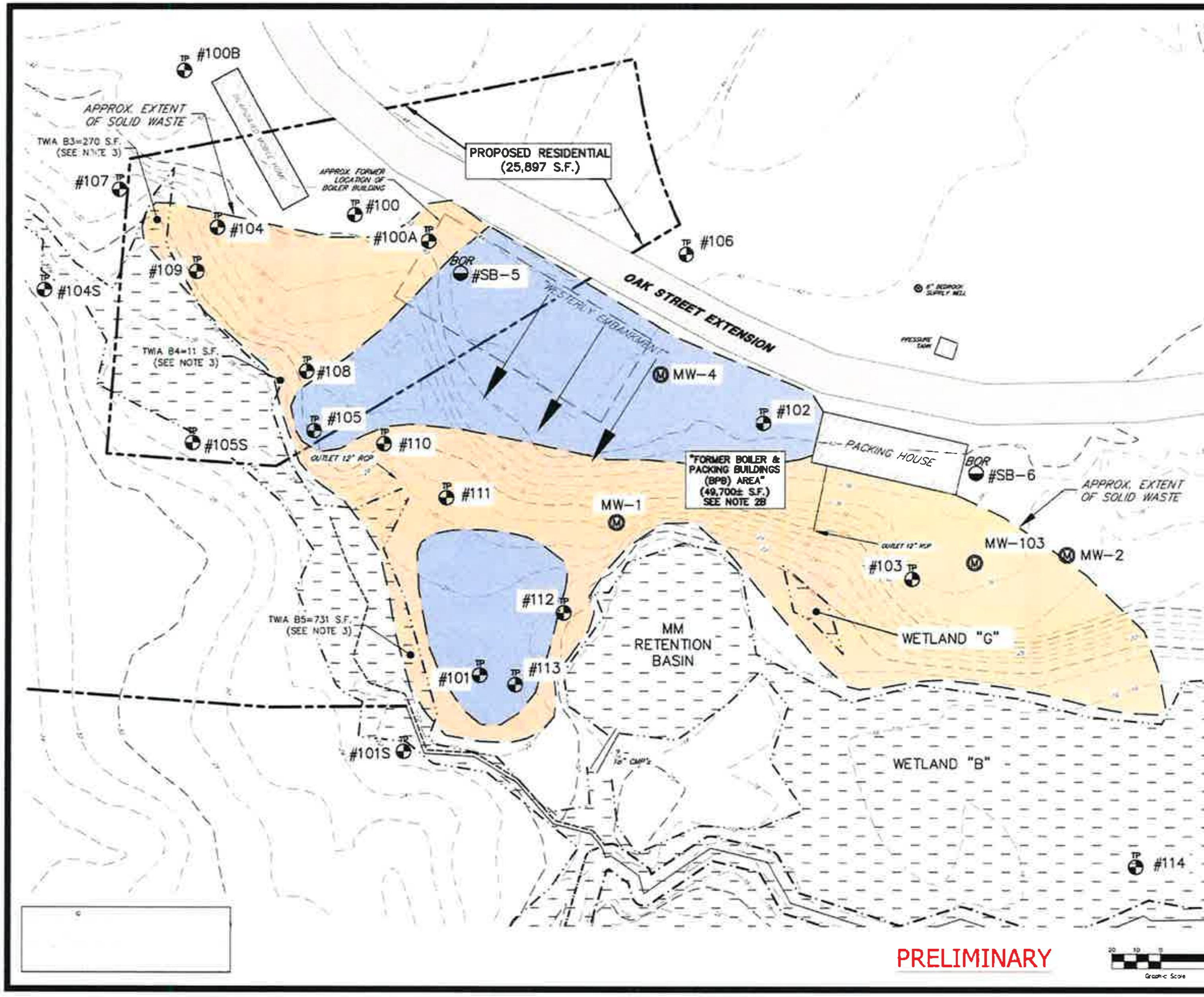
FIGURE 7



ENVIRONMENTAL NOTES:

1. THIS SITE IS NHDES SITE #201283003 AND IS KNOWN AS THE "FORMER DAGOSTINO ROSE FARM" IN EXETER NH.
2. REMEDIAL ACTION PLAN:

   A: FORMER GREENHOUSE AREA – SHALLOW SOIL CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES STANDARD APPLICABLE TO RESIDENTIAL PROPERTIES WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY.

   B: FORMER BOILER & PACKING BUILDING AREA – SOLID WASTES WILL BE IDENTIFIED, REMOVED AND PROPERLY DISPOSED OF. CONCRETE AND BRICK REMOVED FROM THE SOLID WASTE AREA MAY BE CRUSHED AND USED AS ROAD BASE. COAL ASH/CLINKER WILL BE CONSOLIDATED IN THE FORMER PACKING HOUSE AREA, CAPPED AND COVERED.

   C: MANMADE RETENTION BASIN #4 – SEDIMENTS CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES ECOLOGICAL STANDARDS WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY.

3. DESCRIPTIONS:

   BASIN #1 – MANMADE RETENTION BASIN – 2,633± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   BASIN #2 – MANMADE RETENTION BASIN – 781± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   BASIN #3 – MANMADE RETENTION BASIN – 392± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   BASIN #4 – MANMADE RETENTION BASIN – 10,208± S.F. TO BE REMEDIATED AND RESTORED IN PLACE.

   WETLAND "G" – MANMADE WETLAND – 276± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

   TEMPORARY WETLAND IMPACT AREAS B3–B5 – AREAS OF WETLANDS THAT WILL BE TEMPORARILY IMPACTED DURING THE REMEDIATION OF SOLID WASTE AND RESTORED IN PLACE. (NHDES WETLANDS PERMIT APPLICATION TO BE SUBMITTED IN CORRELATION WITH THIS REMEDIAL ACTION PLAN)

4. TEST PIT AND BORINGS SHOWN HEREON ARE FOR REFERENCE PURPOSES AND ARE APPROXIMATE LOCATIONS ONLY.

(SEE SHEET S-1 FOR OVERALL SITE AND SURVEY NOTES, SEE SHEET S-2 FOR FORMER GREENHOUSE AREA)

LEGEND:

CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
MM	MANMADE
S.F.	SQUARE FEET
TWA	TEMPORARY WETLAND IMPACT AREA
BOR	BORING
TP	TEST PIT
M	MONITORING WELL
	STONE WALL
	BROOK
	PERENNIAL STREAM
	INTERMITTENT STREAM
	EDGE OF WETLANDS AND SURFACE WATER
	PROPERTY BOUNDARY
	EXISTING PAVEMENT
	APPROX. SOLID WASTE AREA
	APPROX. COAL ASH/CLINKER AREA
	WETLANDS

REV.	DATE	DESCRIPTION	DR	CK

TAX MAP 54 LOTS 5, 6 & 7

BPB Area Consolidation

"FORMER DAGOSTINO ROSE FARM"

OAK STREET EXTENSION

EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

OWNED BY

EXETER ROSE FARM, LLC

PREPARED FOR

EXETER ROSE FARM, LLC

SCALE: 1"=20' **OCTOBER 23, 2017**

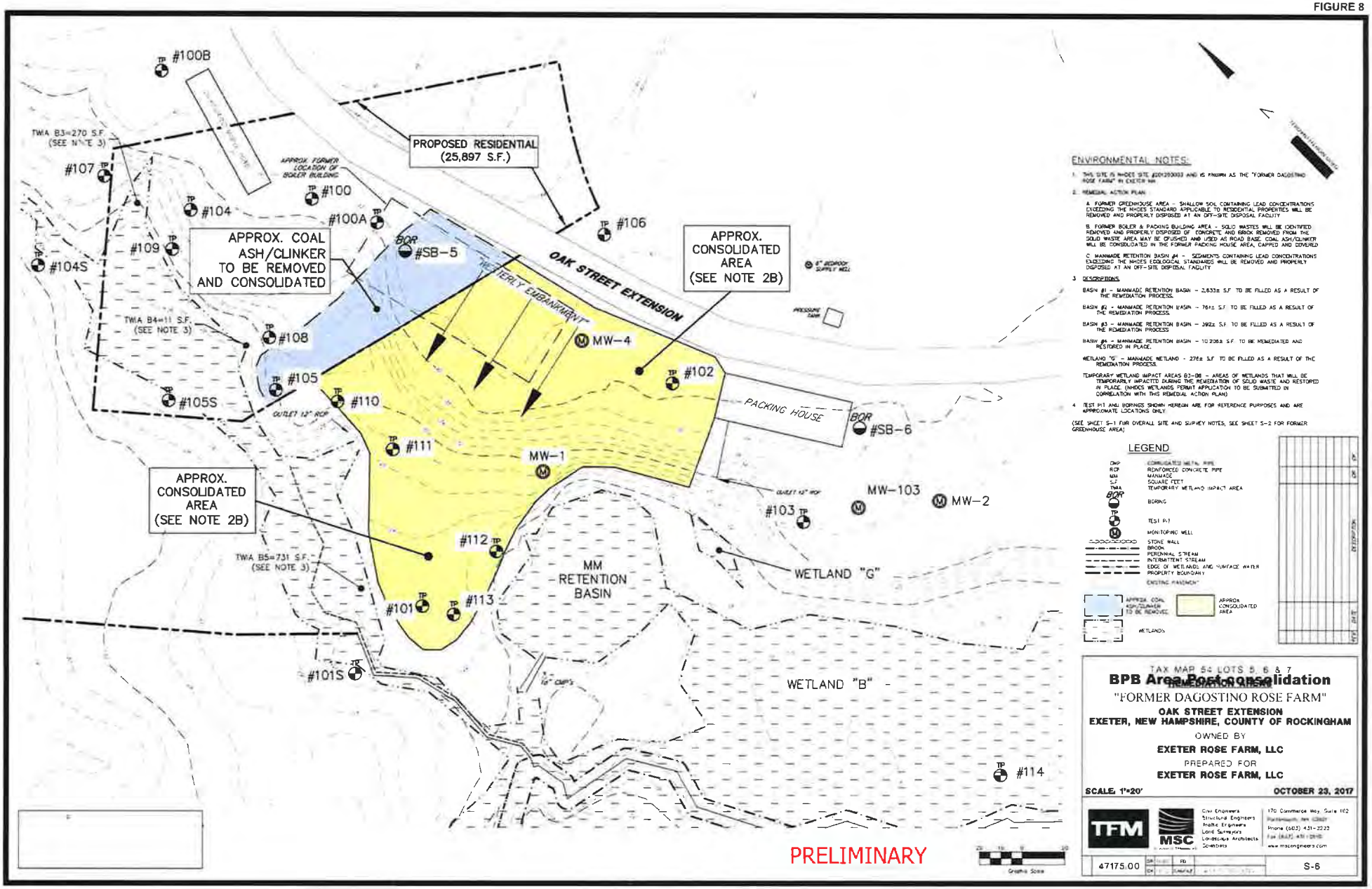
TFM MSC

Civil Engineers, Structural Engineers, Traffic Engineers, Land Surveyors, Landscape Architects, Scientists

170 Commerce Way, Suite 102, Portsmouth, NH 03801, Phone (603) 431-2222, Fax (603) 431-0910, www.mscengineers.com

47175.00 S-5

FIGURE 8



ENVIRONMENTAL NOTES:

1. THIS SITE IS NHDES SITE #200203003 AND IS KNOWN AS THE "FORMER DAGOSTINO ROSE FARM" IN EXETER NH.
2. REMEDIAL ACTION PLAN:
   A. FORMER GREENHOUSE AREA – SHALLOW SOIL CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES STANDARD APPLICABLE TO RESIDENTIAL PROPERTIES WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY.
   B. FORMER BOILER & PACKING BUILDING AREA – SOLID WASTES WILL BE IDENTIFIED REMOVED AND PROPERLY DISPOSED OF. CONCRETE AND BRICK REMOVED FROM THE SOLID WASTE AREA MAY BE CRUSHED AND USED AS ROAD BASE. COAL ASH/CLINKER WILL BE CONSOLIDATED IN THE FORMER PACKING HOUSE AREA, CAPPED AND COVERED.
   C. MANMADE RETENTION BASIN #4 – SEDIMENTS CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES ECOLOGICAL STANDARDS WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY.
3. DESCRIPTIONS:
   BASIN #1 – MANMADE RETENTION BASIN – 2,633± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   BASIN #2 – MANMADE RETENTION BASIN – 761± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   BASIN #3 – MANMADE RETENTION BASIN – 392± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   BASIN #4 – MANMADE RETENTION BASIN – 10,206± S.F. TO BE REMEDIATED AND RESTORED IN PLACE.
   WETLAND "B" – MANMADE WETLAND – 276± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   TEMPORARY WETLAND IMPACT AREAS B3-B6 – AREAS OF WETLANDS THAT WILL BE TEMPORARILY IMPACTED DURING THE REMEDIATION OF SOLID WASTE AND RESTORED IN PLACE. (NHDES WETLANDS PERMIT APPLICATION TO BE SUBMITTED IN CORRELATION WITH THIS REMEDIAL ACTION PLAN).
4. TEST PIT AND BORINGS SHOWN HEREON ARE FOR REFERENCE PURPOSES AND ARE APPROXIMATE LOCATIONS ONLY.

(SEE SHEET S-1 FOR OVERALL SITE AND SURVEY NOTES, SEE SHEET S-2 FOR FORMER GREENHOUSE AREA)

LEGEND

CMP CORRUGATED METAL PIPE
RCP REINFORCED CONCRETE PIPE
MH MANHOLE
S.F. SQUARE FEET
TWA TEMPORARY WETLAND IMPACT AREA
BOR BORING
TP TEST PIT
M MONITORING WELL
STONE WALL
BROOK
PERENNIAL STREAM
INTERMITTENT STREAM
EDGE OF WETLANDS AND SURFACE WATER
PROPERTY BOUNDARY
EXISTING PAVEMENT
APPROX. COAL ASH/CLINKER TO BE REMOVED
APPROX CONSOLIDATED AREA
WETLANDS

TAX MAP 54 LOTS 5, 6 & 7

BPB Area Post-consolidation
REMEDIATION AREAS

"FORMER DAGOSTINO ROSE FARM"

OAK STREET EXTENSION

EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

OWNED BY

EXETER ROSE FARM, LLC

PREPARED FOR

EXETER ROSE FARM, LLC

SCALE: 1"=20' OCTOBER 23, 2017

TFM MSC

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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Portsmouth, NH 03801
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Fax (603) 431-0910
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Graphic Scale

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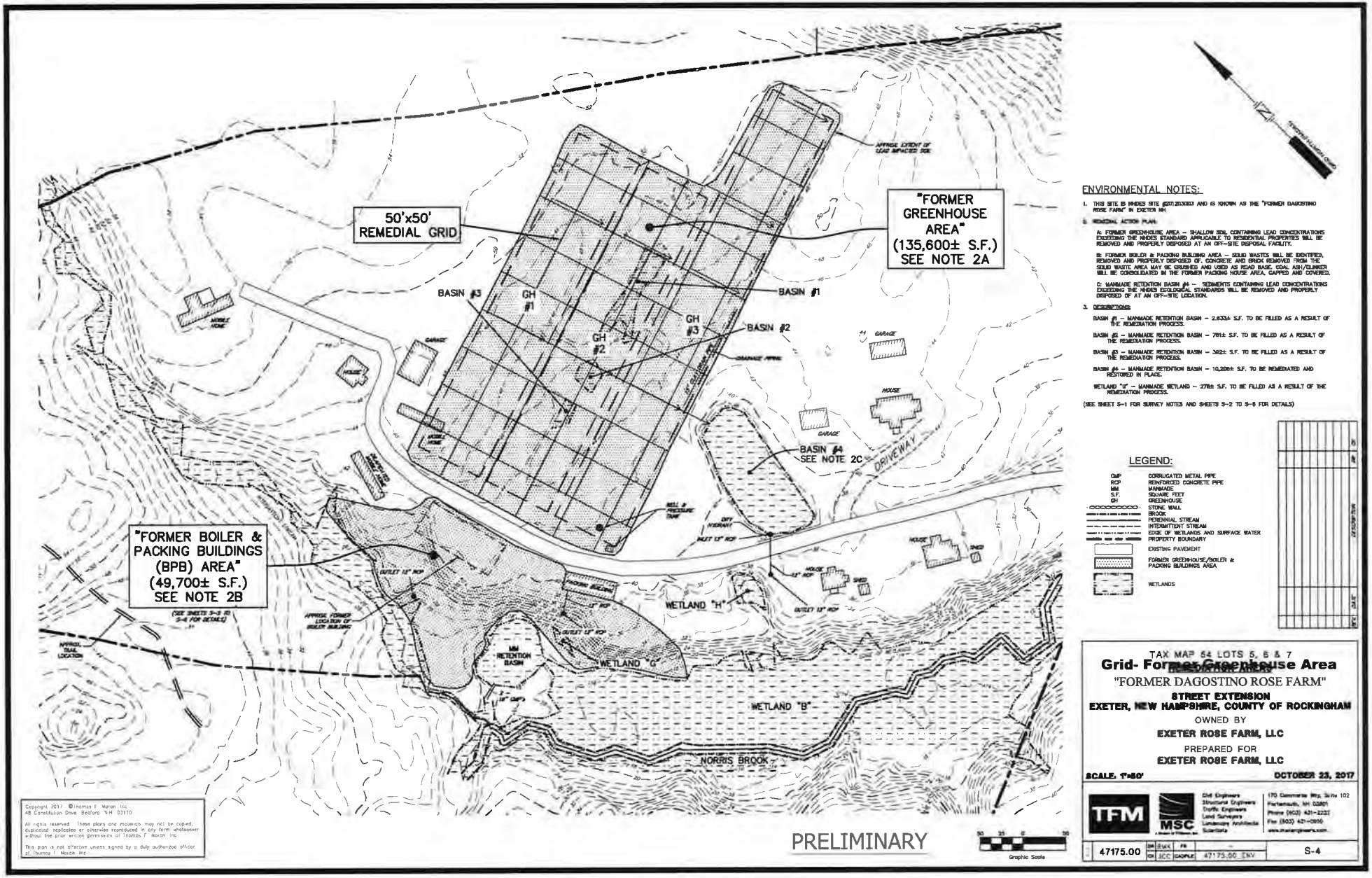
F:\MSC Projects\47175 - Oak Street Extension - Exeter\47175.00 Base Properties\47175.00 C3D Survey\Dwgs\ENVIRONMENTAL\47175.00 Detail.dwg

FIGURE 9



ENVIRONMENTAL NOTES:

1. THIS SITE IS NHDES SITE #201203003 AND IS KNOWN AS THE "FORMER DAGOSTINO ROSE FARM" IN EXETER NH
2. REMEDIAL ACTION PLAN:
   - A: FORMER GREENHOUSE AREA – SHALLOW SOIL CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES STANDARD APPLICABLE TO RESIDENTIAL PROPERTIES WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY.
   - B: FORMER BOILER & PACKING BUILDING AREA – SOLID WASTES WILL BE IDENTIFIED, REMOVED AND PROPERLY DISPOSED OF. CONCRETE AND BRICK REMOVED FROM THE SOLID WASTE AREA MAY BE CRUSHED AND USED AS ROAD BASE. COAL ASH/CLINKER WILL BE CONSOLIDATED IN THE FORMER PACKING HOUSE AREA, CAPPED AND COVERED.
   - C: MANMADE RETENTION BASIN #4 – SEDIMENTS CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES ECOLOGICAL STANDARDS WILL BE REMOVED AND PROPERLY DISPOSED OF AT AN OFF-SITE LOCATION.
3. DESCRIPTIONS:
   - BASIN #1 – MANMADE RETENTION BASIN – 2,633± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   - BASIN #2 – MANMADE RETENTION BASIN – 781± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   - BASIN #3 – MANMADE RETENTION BASIN – 382± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.
   - BASIN #4 – MANMADE RETENTION BASIN – 10,208± S.F. TO BE REMEDIATED AND RESTORED IN PLACE.
   - WETLAND "G" – MANMADE WETLAND – 278± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS.

(SEE SHEET S-1 FOR SURVEY NOTES AND SHEETS S-2 TO S-6 FOR DETAILS)

LEGEND:

CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
MM	MANMADE
S.F.	SQUARE FEET
GH	GREENHOUSE
	STONE WALL
	BROOK
	PERENNIAL STREAM
	INTERMITTENT STREAM
	EDGE OF WETLANDS AND SURFACE WATER
	PROPERTY BOUNDARY
	EXISTING PAVEMENT
	FORMER GREENHOUSE/BOILER & PACKING BUILDINGS AREA
	WETLANDS

TAX MAP 54 LOTS 5, 6 & 7

Grid- Former Greenhouse Area

"FORMER DAGOSTINO ROSE FARM"

STREET EXTENSION

EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

OWNED BY

EXETER ROSE FARM, LLC

PREPARED FOR

EXETER ROSE FARM, LLC

SCALE: 1"=50' **OCTOBER 23, 2017**

TFM MSC — Civil Engineers, Structural Engineers, Traffic Engineers, Land Surveyors, Landscape Architects, Scientists

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Oct 23, 2017 - 4:30pm
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TABLES

Table 1
Summary of Groundwater Elevation Data
Dagostino Rose Farm
Oak Street Extension, Exeter, NH

Monitoring Well	Well Depth (feet bgs)	Well Screen (feet bgs)	Top of Casing Elevation[1]	Measurement Date	Depth to Groundwater[2] (feet)	Groundwater Elevation
MW-1	27.41	17-27	92.01	9/23/2016	Dry	N/A
				8/4/2017	21.14	70.87
				8/10/2017	21.39	70.62
				9/25/2017	23.97	68.04
MW-2	19.96	10-20	86.76	9/23/2016	12.19	74.57
				8/4/2017	NM	NM
				8/10/2017	10.92	75.84
				9/25/2017	11.51	75.25
MW-3	17.31	7-17	98.96	9/23/2016	12.88	86.08
				8/4/2017	10.31	88.65
				8/10/2017	10.60	88.36
				9/25/2017	11.45	87.51
MW-4	27.18	17-27	93.14	9/23/2016	19.88	73.26
				8/4/2017	NM	NM
				8/10/2017	NM	NM
				9/25/2017	19.32	73.82
MW-5	17.35	7-17	100.00	9/23/2016	13.50	86.50
				8/4/2017	10.67	89.33
				8/10/2017	10.90	89.10
				9/25/2017	12.07	87.93
MW-100	14.35	5-15	101.63	8/6/2015	11.00	90.63
				4/29/2016	5.55	96.08
				9/23/2016	13.46	88.17
				8/4/2017	9.22	82.12
				8/10/2017	10.73	80.61
				9/25/2017	12.02	89.61
MW-101	11.65	2-12	91.34	8/6/2015	4.55	86.79
				4/29/2016	2.70	88.64
				9/23/2016	6.33	85.01
				8/4/2017	4.43	86.91
				8/10/2017	4.62	86.72
				9/25/2017	4.91	86.43
MW-102	14.45	5-15	94.60	8/6/2015	9.45	85.15
				4/29/2016	3.40	91.2
				9/23/2016	13.72	80.88
				8/4/2017	NM	NM
				8/10/2017	8.80	85.80
				9/25/2017	11.78	82.82
MW-103	20.35	10-20	87.60	4/29/2016	11.25	76.35
				9/23/2016	14.37	73.23
				8/4/2017	NM	NM
				8/10/2017	NM	NM
				9/25/2017	13.15	74.45

Notes:

[1]MW-5 - Arbitrary Bench Mark set to 100 ft.

[2]Elevation data collected prior to 8/4/2017 collected by Credere Associates, LLC

Depths measured from top of riser

NM = Not measured

N/A = Not applicable

bgs- below ground surface

TABLE 2

Former Greenhouse Area Field Investigation
XRF Lead Results
(May 17 & 18, 2017)
Dagostino Rose Farm
Oak Street Extension, Exeter, NH

Sample Location	Coordinates	Field Samples XRF Lead Results (mg/kg)	Re-Sampled for Laboratory Analysis?
F1	42° 59' 28.95" -70° 57' 27.61"	s-226 6"-252 concrete	--
F2	28.53 27.27	s-3478 concrete	--
F3	28.53 27.29	s-229 6"-217	--
F4	28.45 27.25	s-407	--
F5	27.94 27.20	s-2609 concrete	--
F6	27.95 27.22	s-638 6"-448	yes
G1 glaze	28.01 27.21	6910	--
F7 glaze	27.57 26.79	s-898 6"-1574 12"-582 (clay)	yes
F8	27.06 26.11	s-141 6"-201	--
F9	26.97 26.02	s-134 6"-192	--
F10	26.98 26.05	s-340 concrete	--
F11	26.95 25.99	s-644 6"-600 8-10"-1870 12"-1059	--
F12	26.78 25.99	s-421 6"-411	--
F13	26.56 25.72	s-69 6"-26	--
F14	26.85 26.54	s-393 concrete	yes
F15	27.23 27.04	s-249 6"-268	--
F16	26.73 26.90	s-322 6"-351 concrete	--
F17	26.55 27.09	s-81 6"-94	--
F18	26.29 27.29	s-93 6"-103	--
F19	27.89 28.31	s-103 6"-188	--
F20	29.37 27.09	6"-702	yes
F21	29.43 27.08	s-446 4"-723	--
F22	28.83 26.88	s-87 concrete	--

Sample Location	Coordinates	Field Samples XRF Lead Results (mg/kg)	Re-Sampled for Laboratory Analysis?
W1	28.60 26.69	7503	--
F23	28.60 26.69	s-3197 concrete	yes
F24	28.48 26.69	s-552 6"-315	yes
F25	28.55 26.71	s-1476 concrete	--
F26	28.12 26.24	s-191 6"215 concrete	--
W2	28.07 26.65	7133	--
F27	28.07 26.65	6"-303	--
F28	27.73 26.21	s-234 3"-251 concrete	--
F29	27.54 25.66	s-194 6"-219	--
F30	27.21 23.75	s-105	--
F31	27.34 23.84	s-340	--
F32	27.40 23.73	s-1399	--
F33	28.04 23.80	s-490 6"-472	--
F34	28.19 24.34	s-1187 6"-1536 12"-515	yes
F35	27.66 24.25	s-331	--
F36	27.74 24.70	6"-171	--
F37	27.99 25.24	s-198 6"-185	--
F38	28.40 25.21	s-413 concrete	--
G2	28.50 25.33	1209	--
F39	28.40 25.32	278	yes
F40 glass	28.41 25.31	1466	--
F41 glass	28.25 25.38	s-195 6"-99	--
F42	28.70 25.68	421	--
F43	28.69 25.71	s-690 6"-351	yes
F44	28.74 25.73	s-487	--
F45	28.72 25.84	s-218 6"-91	--
F46	28.82 25.77	s-1988 concrete	--
F47	28.94 25.96	s-243	--

Sample Location	Coordinates	Field Samples XRF Lead Results (mg/kg)	Re-Sampled for Laboratory Analysis?
F48	29.03 26.10	s-219 6"-420 12"-177	--
G3	29.16 26.14	2873	--
F49	29.27 26.26	s-185 6"-283 concrete	--
F50	29.65 26.39	s-1256 3-6"-2023 8"-2035	--
F51	29.94 25.76	s-33 6"-15	--
F52	29.72 25.69	s-380 concrete	--
F53	29.71 25.57	s-690 6"-470	yes
F54	29.48 25.34	s-410 6"-223	yes
F55	29.27 25.59	s-186	--
F56	28.99 24.97	s-323	--
F57	28.95 24.94	s-172 6"-217	--
F58	28.84 24.95	s-281	--
W3	28.80 24.82	2504	--
F59	28.80 24.82	s-511 3"-566 concrete	--
G4	28.72 24.67	7113	--
F60	28.72 24.67	3"-1634 concrete	--
F61	28.66 24.89	s-255 6"-142	--
F62	28.58 24.88	s-165	--
F63	28.52 24.92	s-1088	yes
W4	28.53 25.00	1372	--
F64	27.74 23.32	2"-255 6"-276	--
F65	27.62 22.73	s-292 6"-313	yes
F66	N/A	s-690	--
F67	N/A	s-144	--
G5	N/A	3235	--
W5	N/A	11300	--
F68	28.02 22.91	s-956 6"-744 concrete	--
F69	28.37 23.01	s-262	--

Sample Location	Coordinates	Field Samples XRF Lead Results (mg/kg)	Re-Sampled for Laboratory Analysis?
F70	28.43 23.09	s-410 6"-395	yes
F71	28.52 23.34	s-227 6"-250 concrete	--
F72	28.72 23.21	s-179 12"-88	--
F73	28.58 23.54	s-1315 6"-3525 12"-2837	--
G6	28.80 23.55	1798	--
F74	28.80 23.55	s-801	yes
F75	28.78 23.60	s-137 concrete	--
F76	28.83 23.62	s-295	--
F77	28.93 23.63	s-455	--
G7	28.93 23.63	1509	--
F78	28.90 23.88	s-831 concrete	--
F79	28.95 23.93	s-2440	--
F80	28.93 23.95	s-390	--
F81	29.07 24.07	s-297	--
F82	29.05 24.04	s-108 6"-217	--
F83	29.10 24.05	s-825	--
F84	29.21 23.97	s-2606	--
F85	29.61 24.98	s-351 6"-258 concrete	--
F86	29.85 25.12	s-1941 6"-3712	yes
F87	30.16 24.77	s-269 6"-126	--
F88	29.77 24.19	s-445 6"-460 concrete	yes
F89	30.12 23.99	s-137 6"-48	--
F90	28.74 22.36	s-40 6"-pond water 45	--
W6	28.37 22.53	1321	--
F91	28.02 22.43	136 concrete	yes
F92	27.82 21.10	s-70	--
F93	27.90 21.15	s-540 6"-1599	--
F94	28.00 21.22	s-147	--
G8	28.04 21.37	1636	--

Sample Location	Coordinates	Field Samples XRF Lead Results (mg/kg)	Re-Sampled for Laboratory Analysis?
W7	28.04 21.37	68	--
F95	28.20 21.38	s-246 6"-307 concrete	yes
F96	28.31 21.57	s-1372	--
W8	28.31 21.57	2650	--
F97	28.47 21.80	s-1366	--
W9	28.47 21.80	2396	--
F98	28.54 21.78	s-346 6"-431 12"-263	yes
F99	28.59 21.88	s-758	--
F100	28.68 22.12	s-64 6"-18	--
F101	28.77 21.99	s-85 6"-81	--
F102	28.78 22.00	s-43 6"-63	--
F103	28.05 21.00	3662	--
W10	28.05 21.00	3550	--
F104	28.11 20.46	s-168 6"-199	--
F105	28.19 20.42	s-383	--
W11	28.20 20.64	776	--
F106	N/A	s-966 6"-1262	--
A	N/A	349	--
B	N/A	2416	--
C	N/A	89	--
D	N/A	287	--
E	N/A	212	--
F	N/A	63	--
G	N/A	107	--
H	N/A	95	--
I	N/A	101	--
J	N/A	315	--
K	N/A	296	--
L	N/A	136	--
M	N/A	217	--
N	N/A	63	--
O	N/A	54	--

Notes:

Field results measured using a Thermofisher Niton XL3t GOLDD+ XRF

mg/kg = milligrams per kilogram

s = Surface sample

6" = depth below ground surface

N/A =not available

"yes" = Sample locations resampled and submitted for laboratory confirmation

"--" = Sample locations not resasmpled for laboratory confirmation

TABLE 3

Former Greenhouse Area Field Investigation
XRF and Laboratory Data Results for Lead
(May 17 & 18, 2017)
Dagostino Rose Farm
Oak Street Extension, Exeter, NH

Sample Location	Coordinates	Field Results from Prior Samples (mg/kg)	Field Results of New Samples (mg/kg)	Laboratory Results of New Samples (mg/kg)
F6	42° 59' 27.95" -70° 57' 27.22"	s-638 6"-448	530	630
F7 glass	27.57 26.79	s-898 6"-1574 12"-582 (clay)	1875	1700
F14	26.85 26.54	s-393	523	670
F20	29.37 27.09	6"-702	618	810
F23	28.60 26.69	s-3197	3717	4400
F24	28.48 26.69	s-552 6"-315	543	400
F34	28.19 24.34	s-1187 6"-1536 12"-515	1908	2300
F39	28.40 25.32	278	232	490
F43	28.69 25.71	s-690 6"-351	276	300
F53	29.71 25.57	s-690 6"-470	869	920
F54	29.48 25.34	s-410 6"-223	426	540
F63	28.52 24.92	s-1088	1261	2000
F65	27.62 22.73	s-292 6"-313	301	410
F70	28.43 23.09	s-410 6"-395	592	670
F74	28.80 23.55	s-801	1194	4800
F86	29.85 25.12	s-1941 6"-3712	3391	4900
F88	29.77 24.19	s-445 6"-460	614	610
F91	28.02 22.43	136	138	190
F95	28.20 21.38	s-246 6"-307	434	430
F98	28.54 21.78	s-346 6"-431 12"-263	461	730

SAMPLES OF SILTY CLAY (June 2, 2017)			
Sample Location	Coordinates	Sample Depth (inches)	Laboratory Results (mg/kg)
F11	26.95 25.99	24	20.1
F23	28.60 26.69	24	4.99
F40	28.41 25.31	18-20	10
F86	29.85 25.12	18-20	10.6

Notes:

Field results measured using a Thermofisher Niton XL3t GOLDD+ XRF

Sample locations identified in Table 2 were resampled and submitted for laboratory analysis for duplication and and field confirmation purposes

mg/kg = milligram per kilogram

s = Surface sample

6" = depth below ground surface

TABLE 4

BPB Area Field Investigation
Test Pit Descriptions
StoneHill, June 2, 2017
Dagostino Rose Farm
Oak Street Extension, Exeter, NH

Test Pit ID	Description (feet)
TP-107	0.5 - 1 - loam 1-4 - Brown clayey sand All virgin soils, no fill
TP-108	0-4 - Virgin soils - No fill noted
TP-109	1-4.5 - Brick, glass, wire, metal 4.5 - Virgin soils
TP-110	0-4 - Virgin soils - No fill noted
TP-111	0-3 - Brick 3 - Virgin soils
TP-112	0-4 - Virgin soils - No fill noted
TP-113	0-5 - Coal clinkers 5 - Virgin soils
TP-114	0-4 - Sand - No fill noted

Notes:
TP = Test Pit
(0-4) = feet below ground surface

TABLE 5

Summary of Former Boiler and Packing Building Area
Soil Analytical Data and Descriptions
Source - Credere Associates, LLC
Dagostino Rose Farm
Oak Street Extension, Exeter, NH

StoneHill Environmental, Inc.

Sample ID	NHDES SRS (mg/kg)	CA-SB-1	CA-SB-2	CA-SB-2	CA-SB-4	CA-SB-4	CA-SB-5	CA-SB-6	CA-TP-100A	CA-TP-101	CA-TP-101S	CA-TP-102	CA-TP-104S	CA-TP-105	CA-TP-105S
Sample Date		12/11/2012[1]	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	08/06/15	08/06/15	08/06/15	08/06/15	08/06/15	08/06/15	08/06/15
Sample Depth (inches)		5-7.5	0-2.5	12.5-15	0-2.5	7.5-10	5-7	7.5-10	9-10/9	5-5.5	0-2	4-5	0-2	5-6	0-2
Sample Description		Sand, Silt, Concrete, Asphalt	Sand, Clinker, Gravel	Sand, Silt	Sand, Silt, Gravel, Asphalt	Sand, Silt	Gravel, Coal, Clinker, Cinder	Sand, Silt	Silt, Clay	Sand, Silt	Sand, Ash	Sand, Clay, Silt	Hose, Car Parts, Plastic, Fabric	Silt, Clay	Ash, Clinkers, Bottles, Brick
FIELD HEADSPACE (ppmv)	**NS**	0.80	ND	0.50	ND	1.20	1.90	ND	ND	ND	ND	ND	ND	ND	ND
PAH by EPA Method 8270 (mg/kg)															
acenaphthylene	**490**	0.53	ND<0.6	ND<0.6	0.38	ND<0.07	ND<0.05	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
naphthalene	**5**	NA	NA	NA	NA	NA	NA	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
2-methylnaphthalene	**96**	NA	NA	NA	NA	NA	NA	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
phenanthrene	**NS**	3.8	ND<0.6	ND<0.6	0.74	ND<0.07	ND<0.05	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
anthracene	**1000**	0.72	ND<0.6	ND<0.6	0.2	ND<0.07	ND<0.05	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
fluoranthene	**960**	5.3	ND<0.6	ND<0.6	1.4	ND<0.07	0.1	NA	ND<0.06	ND<0.06	0.12	ND<0.6	ND<0.6	ND<0.8	ND<0.6
pyrene	**720**	4.2	ND<0.6	ND<0.6	1.5	ND<0.07	0.09	NA	ND<0.06	ND<0.06	0.1	ND<0.6	ND<0.6	ND<0.8	ND<0.6
benzo(a)anthracene	**1**	2.4	ND<0.6	ND<0.6	0.76	ND<0.07	0.06	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
chrysene	**120**	2.6	ND<0.6	ND<0.6	0.77	ND<0.07	0.08	NA	ND<0.06	ND<0.06	0.1	ND<0.6	ND<0.6	ND<0.8	ND<0.6
benzo(b)fluoranthene	**1**	1.8	ND<0.6	ND<0.6	0.8	ND<0.07	0.09	NA	ND<0.06	ND<0.06	0.12	ND<0.6	ND<0.6	ND<0.8	ND<0.6
benzo(k)fluoranthene	**12**	2.1	ND<0.6	ND<0.6	0.7	ND<0.07	0.11	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
benzo(a)pyrene	**0.7**	**2.1**	ND<0.6	ND<0.6	**0.79**	ND<0.07	0.06	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
indeno(1,2,3-cd)pyrene	**1**	0.9	ND<0.6	ND<0.6	0.22	ND<0.07	ND<0.05	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
dibenzo(a,h)anthracene	**0.7**	0.44	ND<0.6	ND<0.6	0.12	ND<0.07	ND<0.05	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
benzo(g,h,i)perylene	**NS**	0.91	ND<0.6	ND<0.6	0.21	ND<0.07	ND<0.05	NA	ND<0.06	ND<0.06	ND<0.09	ND<0.6	ND<0.6	ND<0.8	ND<0.6
VOC by EPA Method 8260 (mg/kg)															
All compounds	**NS**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Pesticides by EPA Method 8081 (mg/kg)															
4,4'-DDE	**4**	--	--	--	--	--	--	--	ND<0.04	ND<0.05	ND<0.07	NA	NA	NA	NA
4,4'-DDT	**4**	--	--	--	--	--	--	--	0.27	ND<0.05	ND<0.07	NA	NA	NA	NA
TPH by EPA Method 3550 (mg/kg)															
TPH	**10,000**	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH by EPA Method 8015 (mg/kg)															
Gasoline Range Organics (GRO)	**10,000**	NA	NA	NA	NA	NA	NA	ND<4	--	--	--	--	--	--	--
Diesel Range Organics (DRO) C10-C28	**10,000**	ND<190	NA	NA	ND<220	ND<260	ND<200	NA	--	--	--	--	--	--	--
PCB by EPA Method 8082 (mg/kg)															
Total PCBs	**1**	NA	ND<0.2	ND<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Priority Pollutant Metals by EPA Method 6010 & 7471 (mg/kg)															
arsenic	**11**	5.6	8.7	5.2	10	**67**	**13**	NA	**20**	**11**	9.8	**45**	7.8	**23**	**13**
barium	**1,000**	20	20	45	37	100	58	NA	110	80	90	59	65	100	100
cadmium	**33**	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.3	0.3	NA	ND<0.5	ND<0.5	ND<0.7	ND<0.5	ND<0.5	ND<0.5	ND<0.6
chromium (total)	**130**	17	17	21	31	37	40	NA	17	31	31	24	36	33	36
lead	**400**	32	32	7.7	120	17	73	2.1	25	13	57	15	39	79	59
mercury	**7**	ND<0.15	ND<0.15	ND<0.19	ND<0.16	ND<0.20	0.16	NA	ND<0.20	ND<0.22	0.34	ND<0.20	ND<0.23 UJ	ND<23	ND<0.26
selenium	**180**	ND<3	ND<3	ND<3	ND<3	7	ND<3	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

NHDES SRS = New Hampshire Department of Environmental Services Soil Remediation Standards

bold = concentrations above NHDES SRS

ND = Not detected above laboratory method detection limit

NA = Not Analyzed

NS = No Standard

ppmv = parts per million by volume

[1]Sample tested positive for 0.32 mg/kg of fluorene, which is not over the NHDES SRS of 77 mg/kg

TABLE 6
Dagostino Rose Farm Property
Oak Street Extension, Exeter, New Hampshire
NHDES #201203003

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

Parameter[1]	Regulatory Standard	Sample ID, Sample Date						
	NH AGQS[2] (µg/L)	DW-1	DW-2	CA-MW-1	CA-MW-2	CA-MW-3	CA-MW-4	CA-MW-5
		1/3/2013	1/3/2013	1/4/2013	1/3/2013	1/3/2013	1/4/2013	1/3/2013
Volatile Organic Compounds (µg/L) EPA Method 8260B								
carbon disulfide	70	ND< 0.5	ND< 0.5	**21**	ND< 2	ND< 2	ND< 2	ND< 2
methyl t-butyl ether (MTBE)	13	ND< 0.5	**0.5**	ND< 2	ND< 2	ND< 2	ND< 2	ND< 2
chloroform	70	ND< 0.5	**2.3**	ND< 2	ND< 2	ND< 2	ND< 2	ND< 2
Low Level EDB & 1,4-dioxane (µg/L) EPA Method 8260 SIM								
1,4-dioxane	3	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25
1,2-dibromoethane (EDB)	0.05	ND< 0.05	ND< 0.05	ND< 0.05	ND< 0.05	ND< 0.05	ND< 0.05	ND< 0.05
Semi-volatile Organic Compounds Including Polycyclic Aromatic Hydrocarbons (ug/L) EPA Method 8270D								
di-n-butylphthalate	800	**5**	**6**	**11**	NS	**8**	**24**	**12**
Metals (mg/L)	**NH AGQS (mg/L)**							
arsenic	0.01	**0.008**	ND< 0.008	**0.009**	ND< 0.008	ND< 0.008	ND< 0.008	ND< 0.008
barium	2	ND< 0.05	ND< 0.05	**0.05**	ND< 0.05	ND< 0.05	**0.05**	ND< 0.05

NOTES:
[1] With the exception of low level VOCs, which are shown for reference, only analytes identified above detection limit are summarized herein.
[2] New Hampshire Code of Administrative Rules Ambient Groundwater Quality Standards, July 23, 2008.
µg/L = micrograms per liter
mg/L = milligrams per liter
ND = Not detected above practical quantitation limit (i.e. 0.2 µg/L)
NS = Not sampled
Bold Exceeds laboratory quantitation limit
Exceeds NH AGQS

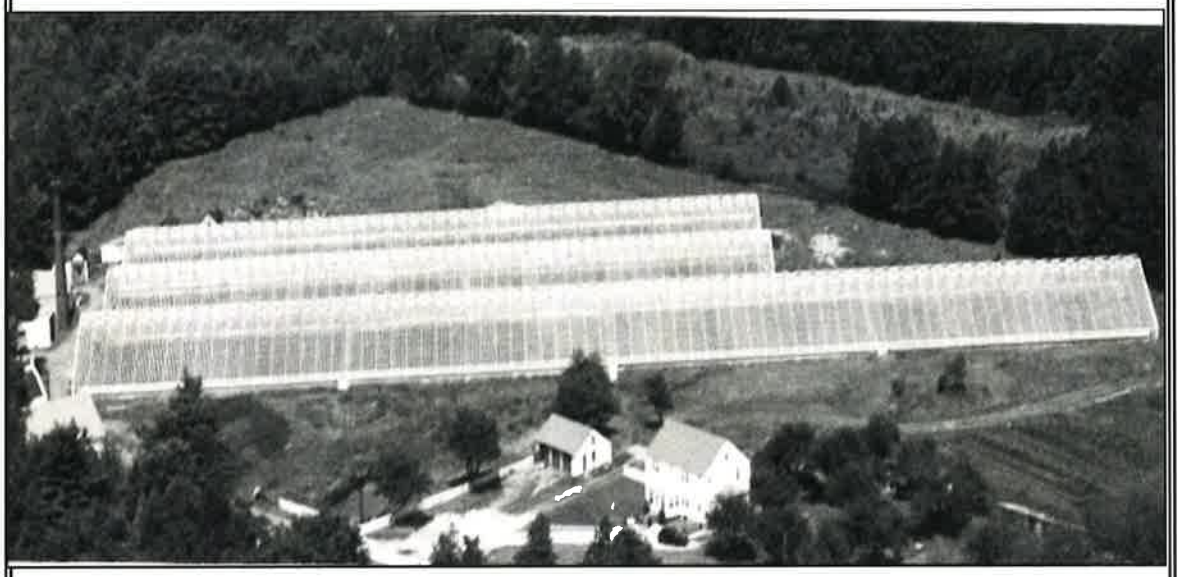
Table 7
Summary of New and Historical Sediment Analytical Results
Dagostino Rose Farm, NHDES Site #201203003
Oak Street Extension, Exeter, New Hampshire

Parameter*	Regulatory Criteria[1] (mg/kg)		Sample ID, Depth, Sample Date									
			SED-BKG	CA-SED-100	CA-SED-101	CA-SED-102	**CA-SED-103**	**CA-SED-104**	**CA-SED-105**	**CA-SED-106**	**CA-SED-107**	**CA-SED-108**
	TEC	PEC	0-0.5	0-0.5	0-0.5	0-0.5	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**
			7/23/2015	7/23/2015	7/23/2015	7/23/2015	**4/8/2016**	**4/8/2016**	**4/8/2016**	**4/8/2016**	**4/8/2016**	**4/8/2016**
Volatile Organic Compounds (VOCs) by EPA Method 8260C (mg/kg)												
All compounds	NA	NA	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS
Semivolatile Organic Compounds (SVOCs) or Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270D (mg/kg)												
fluoranthene	0.423	2.23	ND<0.07	ND<0.09	0.76	ND<0.41	NS	NS	NS	ND<1.1	ND<0.96	ND<0.66
pyrene	0.195	1.52	ND<0.07	ND<0.09	0.75	ND<0.41	NS	NS	NS	ND<1.1	ND<0.96	ND<0.66
chrysene	0.166	1.29	ND<0.07	ND<0.09	0.53	ND<0.41	NS	NS	NS	ND<1.1	ND<0.96	ND<0.66
benzo(b)fluoranthene	0.24	13.4	ND<0.07	ND<0.09	0.53	ND<0.41	NS	NS	NS	ND<1.1	ND<0.96	ND<0.66
benzo(a)pyrene	0.15	1.45	ND<0.07	ND<0.09	0.56	ND<0.41	NS	NS	NS	ND<1.1	ND<0.96	ND<0.66
Pesticides by EPA Method 8081B (mg/kg)												
All compounds	NA	NA	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS
Priority Pollutant Metals by EPA Method 6010C & 7471B (mg/kg)												
arsenic	9.79	33	**32**	**9.5**	**12**	**14**	NS	NS	NS	NS	NS	NS
barium	NE	NE	**64**	**460**	**39**	**47**	NS	NS	NS	NS	NS	NS
cadmium	0.99	4.98	**1.8**	**1.3**	**1.0**	ND<0.6	NS	NS	NS	NS	NS	NS
chromium (total)	43.4	111	**29**	ND<9	ND<9	**14**	NS	NS	NS	NS	NS	NS
lead	35.8	128	**44**	**180**	**140**	**46**	**110**	**140**	**81**	**220**	**66**	**57**

NOTES:
Gray and Bold headings are new samples collected during this Supplemental Phase II ESA
mg/kg - milligrams per kilogram
*Only analytes with detections are shown, all other sample results analyses were below the laboratory reporting limits
1 - New Hampshire Department of Environmental Services, DRAFT Evaluation of Sediment Quality Guidance Document, April 2005
NE - not established
ND<0.2 - Results were below the laboratory reporting limits, laboratory reporting limit shown
ND - Results were below the laboratory reporting limits and reporting limits vary between compounds
Bold Exceeds laboratory reporting limit
White and not bold headings are historical samples collected during the prior Phase II ESA
Reporting limit exceeds regulatory criteria
Exceeds applicable TEC or PEC but is consistent with site-specific background sample SED-BKG
Exceeds applicable TEC but is below applicable PEC
Exceeds applicable TEC and PEC

From:
Credere Associates, LLC

PHOTOGRAPHS



Photograph 1 - Aerial view to the north of greenhouses circa 1958.

Photograph 2- Current view of former greenhouse area facing east.
(StoneHill, May 17, 2017)

Photograph 3 - View facing north of former packing building.
(StoneHill, October 11, 2017)

Photograph 4 - View of solid wastes and appliances in Former Boiler and Packing Buildings Area.
(StoneHill, May 17, 2017)

Photograph 5 - View facing east of concrete and solid wastes discarded on bank behind former packing building. (StoneHill, May 17, 2017)

Photograph 6- View facing south of solid wastes on bank behind former boiler building. (StoneHill, September 26, 2016)

Photograph 7 - View west of 12-inch pipe behind former packing building.
(StoneHill, September 26, 2016)

Photograph 8 - View looking east of interior of former packing building.
(StoneHill, September 26, 2016)

Photograph 9 - View of trench in GH #3.
(StoneHill, September 26, 2016)

Photograph 10- View looking west of Basin #4.
(StoneHill, October 11, 2017)

Photograph 11 - View looking west of 12-inch culvert in Basin #4.
(StoneHill, October 11, 2017)

Photograph 12 - View looking west of 12-inch culvert in Wetland H.
(StoneHill, October 11, 2017)

Photograph 13- View of concrete in GH Area.
(StoneHill, October 11, 2017)

Photograph 14 - View of concrete in GH Area.
(StoneHill, October 11, 2017)

APPENDIX A

GEOLOGIC LOG

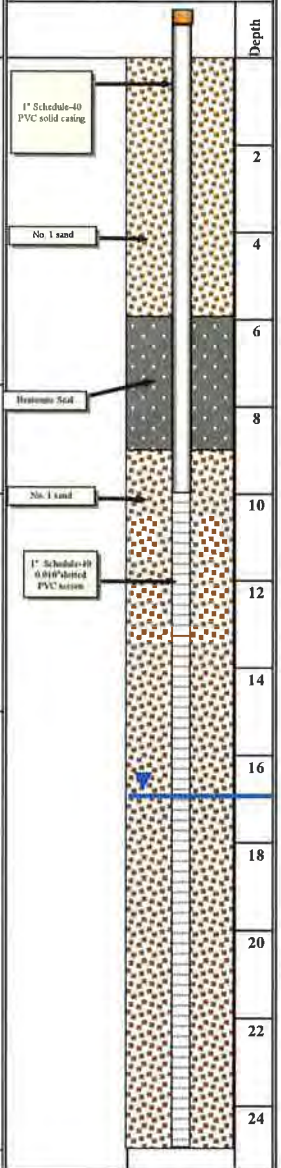
Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-1/ CA-MW-1

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** 25
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** 15
Date Start/Finish: 12/11/2012	**TOC Elevation:** -
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** 1" PVC; 0.010" Slot Screen; No. 1 Sand; standpipe
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RD-10	Soil Description and Classification	Strata	USCS Code
	S-1	0-5	5/4	NA	ND	Moist, brown fine to medium SAND, little coarse SAND, Silt, and Concrete, trace Asphalt	Fill Materials	SW
2								
					0.4			
4								
	S-2	5-10	5/5	NA				
6					0.8*	Same as above		
8					0.7	Moist, tan fine SAND	Glaciomarine Deposits	SP
10	S-3	10-15	5/5	NA	ND	Moist, gray SILT, trace fine Sand		SM
12					ND			
14								
	S-4	15-20	5/5	NA				ML
16					ND	Moist to wet, gray SILT		
18					ND			
20	S-5	20-25	5/5	NA	ND	Same as above		
22					ND			
24						End of exploration at 25' bgs		

Equipment Installed



Remarks: Groundwater was encountered at approxiately 17' bgs in this boring

bgs - below ground surface

▼ Approximate groundwater level

*indicates that this sample interval was sent to laboratory for offsite analysis

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other

Boring No: CA-SB-1/CA-MW-1

GEOLOGIC LOG

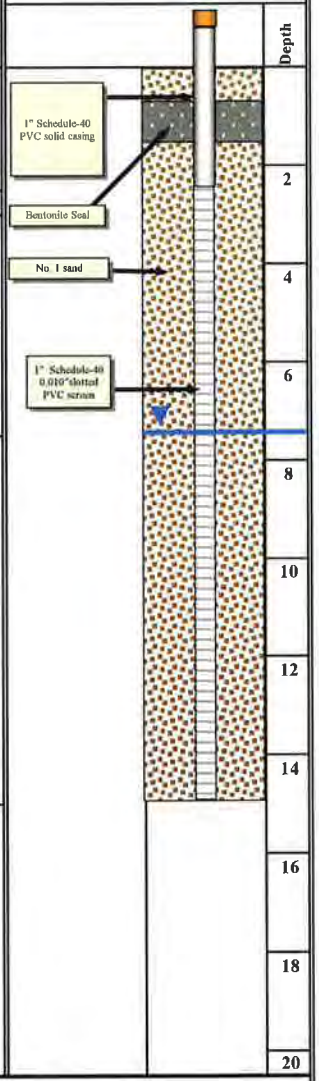
Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-2/ CA-MW-2

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** 15
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** 12.5
Date Start/Finish: 12/11/2012	**TOC Elevation:** -
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** 1" PVC; 0.010" Slot Screen; No. 1 Sand; standpipe
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RF=1.0	Soil Description and Classification	Strata	USCS Code
	S-1	0-5	5/4	NA	ND*	Dry, brown fine to medium SAND and CLINKER, trace fine Gravel	Fill Materials	SP
2						3" Moist, gray fine SAND and SILT	Glaciomarine Deposits	SM
4					ND	Moist, tan fine to medium SAND		SP
	S-2	5-10	5/5	NA				
6					ND	Same as above		
8					ND	Wet, light gray fine SAND and SILT		
10	S-3	10-15	5/5	NA	ND	Same as above		SM
12					0.5*	Wet, tan fine SAND and SILT		
14								
						End of exploration at 15' bgs		
16								
18								
20								

Equipment Installed



Remarks: Groundwater was encountered at approxiately 7.5' bgs in this boring

bgs - below ground surface

▼ Approximate groundwater level

*indicates that this sample interval was sent to laboratory for offsite analysis.

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No: CA-SB-2/CA-MW-2

GEOLOGIC LOG

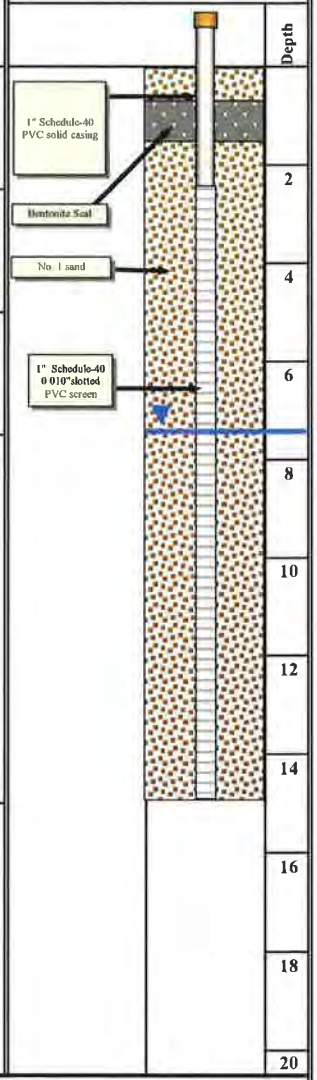
Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-3/ CA-MW-3

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** 15
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** 12.5
Date Start/Finish: 12/11/2012	**TOC Elevation:** -
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** 1" PVC; 0.010" Slot Screen; No. 1 Sand; standpipe
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RF=1.0	Soil Description and Classification	Strata	USCS Code
	S-1	0-5	5/3.5	NA	1.0*	Moist, brown fine to coarse SAND, little Concrete and Brick	Fill Materials	SP
2					0.8	Moist, tan fine SAND	Glaciomarine Deposits	SP
4	S-2	5-10	5/5	NA	0.8	Moist to wet, light gray fine SAND and SILT		SM
6					0.6*	Wet, tan fine to medium SAND		
8								
10	S-3	10-15	5/5	NA	0.2			SP
12					ND	Same as above		
14								
						End of exploration at 15' bgs		
16								
18								
20								

Equipment Installed



Remarks: Groundwater was encountered at approxiately 7.5' bgs in this boring.

bgs - below ground surface

Approximate groundwater level

*indicates that this sample interval was sent to laboratory for offsite analysis.

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No: CA-SB-3/CA-MW-3

GEOLOGIC LOG

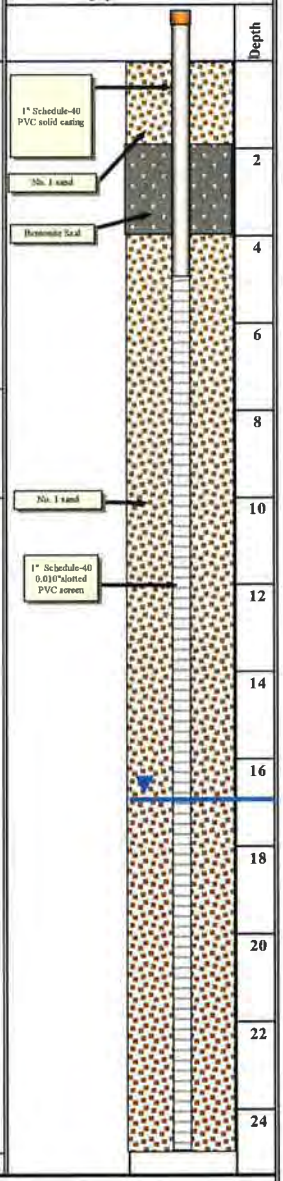
Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-4/ CA-MW-4

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** 25
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** 20
Date Start/Finish: 12/11/2012	**TOC Elevation:** -
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** 1" PVC; 0.010" Slot Screen; No. 1 Sand; standpipe
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RE-10	Soil Description and Classification	Strata	USCS Code
	S-1	0-5	5/3	NA	ND*	Moist, brown fine to medium SAND, little Silt and fine Gravel, trace asphalt	Fill Materials	SW/Fill
2					0.3	Dry, black medium to coarse SAND, COAL, CLINKER, and fine GRAVEL		
4	S-2	5-10	5/5	NA	0.6	Same as above		
6					1.2*	Wet, tan fine SAND and SILT		SM
8	S-3	10-15	5/5	NA	0.9	Moist, gray SILT	Glaciomarine Deposits	ML
10					0.3			
12	S-4	15-20	5/5	NA	ND	Moist to wet, same as above		
14					ND			
16	S-5	20-25	5/5	NA	ND	Wet, same as above		
18					ND			
20						End of exploration at 25' bgs		
22								
24								

Equipment Installed



Remarks: Groundwater was encountered at approximately 17' bgs in this boring.

bgs - below ground surface

Approximate groundwater level

*indicates that this sample interval was sent to laboratory for offsite analysis

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other

Boring No: CA-SB-4/CA-MW-4

GEOLOGIC LOG

Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-5

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** NA
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** NA
Date Start/Finish: 12/11/2012	**TOC Elevation:** NA
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** NA
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical, Inc	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) HS=1.0	Soil Description and Classification	Strata	USCS Code	Equipment Installed	Depth
	S-1	0-5	5/3	NA	ND	Dry, gray fine to coarse SAND, fine GRAVEL, COAL, and CINDERS	Fill Materials	SW/Fill	No Monitoring Well Installed	
2					0.7	Moist, gray fine to medium SAND and SILT trace Ash, Brick, and Concrete		SM		2
4	S-2	5-9	4/2	NA	1.9*	Moist, gray fine to coarse GRAVEL, little Coal, Clinker, and Cinders		GW		4
6					0.8	Moist gray, fine to coarse SAND, CONCRETE, and BRICK		SW/Fill		6
8						Refusals on suspected boulder fill material at 7, 8, and 9 feet bgs				8
10										10
12										12
14										14
16										16
18										18
20										20

Remarks: Groundwater was not encountered in this boring

bgs - below ground surface

*indicates that this sample interval was sent to laboratory for offsite analysis.

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No: CA-SB-5

GEOLOGIC LOG

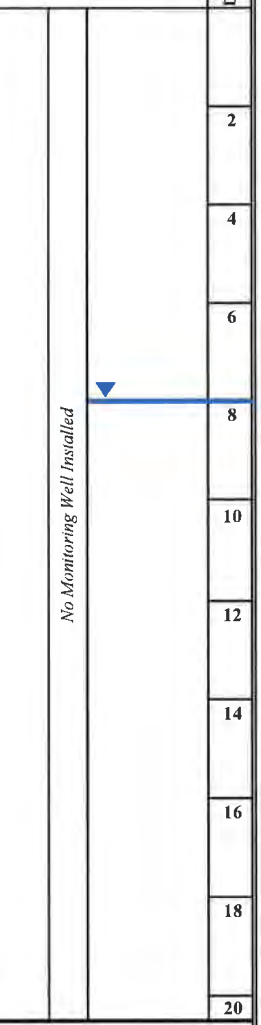
Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-6

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** NA
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** NA
Date Start/Finish: 12/11/2012	**TOC Elevation:** NA
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** NA
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical, Inc.	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RS=1.0	Soil Description and Classification	Strata	USCS Code
	S-1	0-5	5/3.5	NA	ND	2" Grass and Loam 2" Asphalt Dry, orangish-tan fine to medium SAND	Fill Materials	Fill
2					ND	Dry, tan fine to medium SAND	Glaciomarine Deposits	SP
4								
	S-2	5-10	5/5	NA	ND	Moist, same as above		
6								
8					ND*	Wet, tan fine to medium SAND, little Silt		
10	S-3	10-15	5/4	NA	ND	Wet, gray fine SAND and SILT		SM
12					ND	Wet, organish-tan fine to medium SAND		SP
14								
						End of exploration at 15' bgs.		
16								
18								
20								

Equipment Installed



Depth

Remarks: Groundwater was encountered at approxiately 8' bgs in this boring

bgs - below ground surface

▼ Approximate groundwater level

*indicates that this sample interval was sent to laboratory for offsite analysis

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No: CA-SB-6

GEOLOGIC LOG

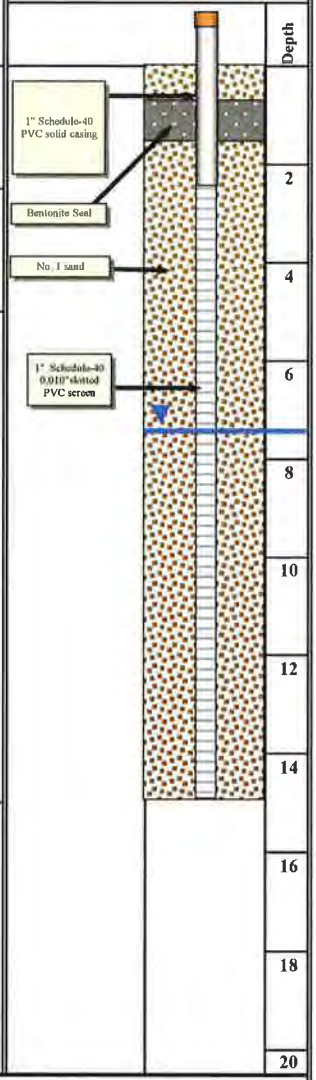
Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-7/ CA-MW-5

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** 15
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** 12.5
Date Start/Finish: 12/11/2012	**TOC Elevation:** -
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** 1" PVC; 0.010" Slot Screen; No. 1 Sand; standpipe
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RF=1.0	Soil Description and Classification	Strata	USCS Code
	S-1	0-5	5/4	NA	ND*	Moist, tan fine to medium SAND	Glaciomarine Deposits	SP
2					0.3	Wet, tan fine SAND and SILT		SM
4								
	S-2	5-10	5/5	NA	0.5	Moist, gray SILT		ML
6								
8					0.6	Wet, tan fine SAND and SILT		
10	S-3	10-15	5/5	NA	0.8*			SM
12					0.4	Same as above		
14								
						End of exploration at 15' bgs		
16								
18								
20								

Equipment Installed



Remarks: Groundwater was encountered at approxiately 7.5' bgs in this boring.

bgs - below ground surface

▼ Approximate groundwater level

*indicates that this sample interval was sent to laboratory for offsite analysis.

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No: CA-SB-7/CA-MW-5

GEOLOGIC LOG

Credere Associates, LLC
776 Main Street
Westbrook, ME 04092

CA-SB-8

SITE INFORMATION	WELL SPECIFICATIONS
Project Number/Client: 11001122	**Well Depth (feet):** NA
Site Location: Dagostino Rose Farm Property	**Screen Length (feet):** NA
Date Start/Finish: 12/11/2012	**TOC Elevation:** NA
Credere, LLC Representative: Judd R. Newcomb, CG, PG	**Well Material** NA
CONTRACTOR	**DRILLING EQUIPMENT**
Drilling Contractor: Eastern Analytical, Inc.	**Equipment:** Track-mounted Geoprobe
Foreman: David Nevison	**Casing Diameter:** NA
Drilling Method: Direct-Push	**Casing Material:** NA

Depth	Sample Information: Sample No.	Depth (Ft.)	Pen/Rec (Feet)	Blows (/0.5')	PID (ppm) RF=1.0	Soil Description and Classification	Strata	USCS Code	Equipment Installed	Depth
	S-1	0-5	5/3.5	NA	ND*	5" Loam and Brick Wet, tan fine SAND and SILT	Fill Glaciomarine Deposits	Fill SM	*No Monitoring Well Installed*	
2										2
					ND*	Wet, gray SILT		ML		
4										4
						End of exploration at 5' bgs Additional sampling was not possible due to darkness and time constraints				
6										6
8										8
10										10
12										12
14										14
16										16
18										18
20										20

Remarks: Groundwater was not encountered in this boring

bgs - below ground surface

*indicates that this sample interval was sent to laboratory for offsite analysis.

The modified Burmeister system was used to describe soils observed at the Site. Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No: CA-SB-8

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

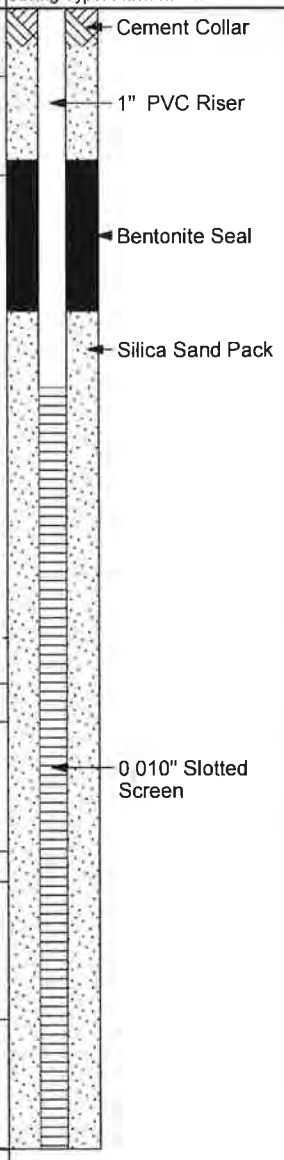
Soil Boring Log

CA-SB-100/CA-MW-100

CLIENT Rockingham Planning Commission
PROJECT NAME Dagostino Rose Farm
PROJECT # 15001275
PROJECT LOCATION Oak Street Extension, Exeter, NH
DATE STARTED 7/23/15 **LOGGED BY** M. Kennedy
DEPTH TO WATER 11.0 **DIAMETER** 1
CONTRACTOR Geosearch, Inc./Brian Houle
WELL MATERIALS PVC, 0.010" slotted screen, solid riser
DRILLING METHOD Direct Push
ANNULUS MATERIALS #2 Silica Sand, Bentonite Chips
DRILLING EQUIPMENT Geoprobe 6610 Track Rig
TOC ELEVATION **GROUND ELEVATION**
NOTES Collected CA-SB-100(0-0.5) and CA-SB-100(0.5-2) for VOCs, SVOCs, Pesticides, and RCRA 8 Metals analyses

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY
0.0	60/55		0.7	CA-SB-100 (0-0.5)		0-10" Topsoil
			0.8	CA-SB-100 (0.5-2)		10-24" Dry, light brown fine-medium SAND
			0.4			24-55" Dry, light brown SILT
2.5			0.4			
			0.0			
5.0	60/60		0.0			0-40" Dry, light brown SILT
			0.0			
			0.0			
7.5			0.0			
			0.0			40-47" Wet, light brown SILT
						47-53" Wet, light brown fine-medium SAND
						53-60" Wet, light brown SILT
10.0	60/60		0.0			0-13" Wet, light brown SILT
			0.0			13-18" Wet, light brown fine-medium SAND
						18-40" Wet, light brown SILT and CLAY
			0.0			
12.5			0.0			
			0.0			40-60" Wet, blue-gray CLAY
15.0						End of Boring @ 15' bgs

WELL DIAGRAM



Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

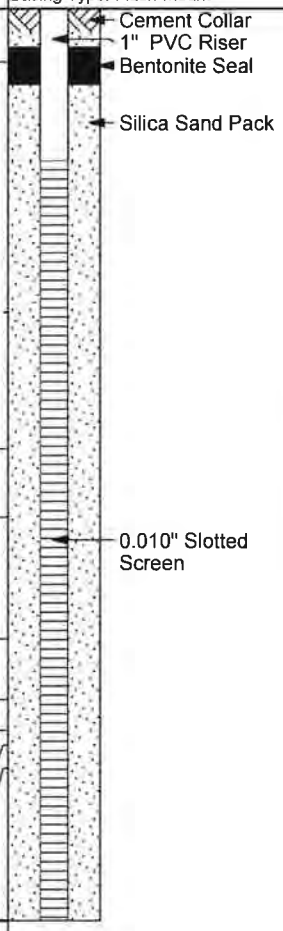
CA-SB-101/CA-MW-101

CLIENT Rockingham Planning Commission
PROJECT NAME Dagostino Rose Farm
PROJECT # 15001275
PROJECT LOCATION Oak Street Extension, Exeter, NH
DATE STARTED 7/23/15 **LOGGED BY** M. Kennedy
DEPTH TO WATER 4.55 **DIAMETER** 1
CONTRACTOR Geosearch, Inc./Brian Houle
WELL MATERIALS PVC, 0.010" slotted screen, solid riser
DRILLING METHOD Direct Push
ANNULUS MATERIALS #2 Silica Sand, Bentonite Chips
DRILLING EQUIPMENT Geoprobe 6610 Track Rig
TOC ELEVATION **GROUND ELEVATION**
NOTES Collected CA-SB-101(0-0.5) and CA-SB-101(0.5-2) for VOCs, SVOCs, Pesticides, and RCRA 8 Metals analyses

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY
0.0	60/44		0.0	CA-SB-101 (0-0.5)		0-6" Topsoil
			0.0	CA-SB-101 (0.5-2)		6-20" Dry, light brown fine-medium SAND
			0.0			
2.5			0.0			20-35" Moist, light brown fine-medium SAND
			0.0			
			0.0			35-44" Wet, light brown fine-coarse SAND
5.0	60/54		0.0			0-9" Wet, light brown fine-coarse SAND
			0.0			9-18" Wet, light gray SILT
			0.0			18-36" Wet, light brown fine-medium SAND
7.5			0.0			36-44" Wet, light gray SILT
			0.0			44-49" Wet, orange/red/brown fine-coarse SAND
						49-51" Wet, light gray SILT
10.0			0.0			51-54", Wet, light brown fine-coarse SAND
						Drilled to 12' to set well
			0.0			
						End of Boring @ 12' bgs
12.5						
15.0						

WELL DIAGRAM

Casing Type: Flush-mount



Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

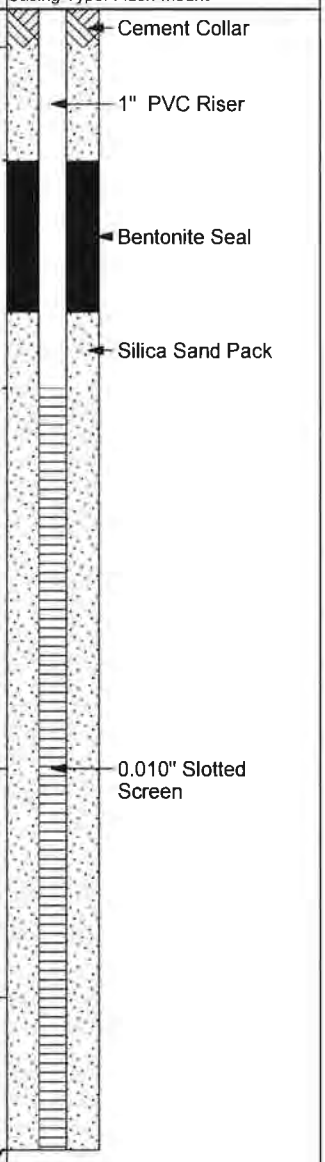
Soil Boring Log

CA-SB-102/CA-MW-102

CLIENT Rockingham Planning Commission
PROJECT NAME Dagostino Rose Farm
PROJECT # 15001275
PROJECT LOCATION Oak Street Extension, Exeter, NH
DATE STARTED 7/23/15 **LOGGED BY** M. Kennedy
DEPTH TO WATER 9.45 **DIAMETER** 1
CONTRACTOR Geosearch, Inc./Brian Houle
WELL MATERIALS PVC, 0.010" slotted screen, solid riser
DRILLING METHOD Direct Push
ANNULUS MATERIALS #2 Silica Sand, Bentonite Chips
DRILLING EQUIPMENT Geoprobe 6610 Track Rig
TOC ELEVATION **GROUND ELEVATION**
NOTES Collected CA-SB-102(0-0.5) and CA-SB-102(0.5-2) for VOCs, SVOCs, Pesticides, and RCRA 8 Metals analyses

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY
0.0	60/53		0.0	CA-SB-102 (0-0.5)		0-5" Topsoil
			0.0	CA-SB-102 (0.5-2)		5-21" Dry, light brown SILT
			0.0			21-53" Dry, brown SILT
2.5			0.0			
			0.0			
5.0	60/42		0.0			0-42", Dry, light gray SILT
			0.0			
			0.0			
7.5			0.0			
			0.0			
10.0	36/33		0.0			0-33, Dry, SILT and fine-coarse SAND, some GRAVEL
			0.0			
			0.0			
12.5						Refusal @ 13' bgs
						(Attempted to set well at four other nearby locations and encountered refusal at 2', 5', 6', and 11'. Well was set in location where soil consisted of light gray SILT and CLAY, groundwater was encountered at 9.5'. Well was set at 15'.)
15.0						

WELL DIAGRAM



Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
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Soil Boring Log

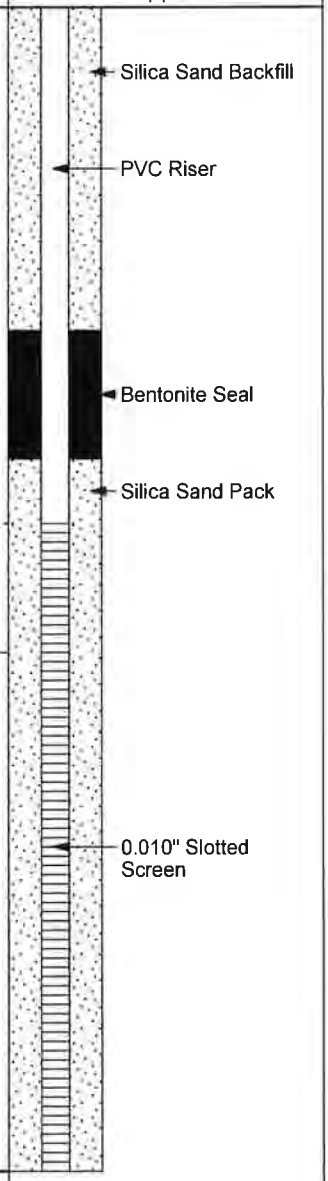
CA-SB-103/CA-MW-103

CLIENT Rockingham Planning Commission
PROJECT NAME Dagostino Rose Farm
PROJECT # 15001275
PROJECT LOCATION Oak Street Extension, Exeter, NH
DATE STARTED 4/8/16 **LOGGED BY** J. Newcomb
DEPTH TO WATER 10 **DIAMETER** 2 inch
CONTRACTOR Northern Test Boring/Mike Nedeau
WELL MATERIALS PVC, 0.010" slotted screen, solid riser
DRILLING METHOD Hollow Stem Auger
ANNULUS MATERIALS #2 Silica Sand, Bentonite Chips
DRILLING EQUIPMENT Diedrich Track Mount
TOC ELEVATION **GROUND ELEVATION**
NOTES Collected CA-SB-103 (10-12) for VOCs, pesticides, and PAHs

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY
0	24/10	3 4 4 3				0-10" Gray-brown fine SAND and fine to coarse GRAVEL and CONCRETE and ASPHALT [FILL].
	24/8	2 2 3 4	0.0			0-8" Gray-brown fine SAND and fine to coarse GRAVEL and CONCRETE and ASPHALT, with Brick [FILL].
	24/13	2 3 2 3	1.0			0-13" Gray, moist, fine to medium SAND, some Coal fragments or Asphalt.
5	24/4	2 3 15 5	1.4			0-4" Gray, moist, fine SAND, fine GRAVEL, WOOD and PLASTIC, 1 inch chunk of concrete.
	24/0	3 2 1 1	NA			No recovery
10	24/20	1 1 1 1	0.0	CA-SB-103 (10-12)		0-20" Brown, wet, fine SAND.
	24/24	1 2 3 4	0.0			0-24" Gray, wet, fine SAND.
	24/16	1 2 2 3	0.0			0-16" Gray, wet, fine SAND.
15	24/24	3 3 3 3	0.0			0-24" Light-gray, wet, fine SAND transitioning to gray clay
						End of Boring @ 18 feet

WELL DIAGRAM

Well Finish: Standpipe



CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015
PROJECT NUMBER: 15001275
LOCATION ACTIVITY
SAMPLE LOCATION ID: **CA-TP-100**
START: 0840
END: 1230
CREDERE REPRESENTATIVE: Allison Drouin
CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA	CA-TP-100 (0-2/1)	Dry	0.0	0-2' Brown very fine SAND, some Silt, some Gravel.
1					
2	NA		Moist	0.0	2-4' Orange-brown fine to medium SAND, some Silt, some Clay.
3					
4			Moist	0.0	4-5' Brown-gray SILT and CLAY.
5					End of Test Pit at 5 feet bgs
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015

PROJECT NUMBER: 15001275
LOCATION ACTIVITY

SAMPLE LOCATION ID: **CA-TP-100A**
START: 0855
END: 1250

CREDERE REPRESENTATIVE: Allison Drouin

CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA			0.0	0-9' Solid waste FILL (washing machine, car batteries, fabric, foundations stones, bricks), bitter odor, white milky substance dripping down sidewall at 5 feet bgs.
1					
2	NA			0.0	
3					
4	NA			0.0	
5					
6	NA			0.0	
7					
8	NA			0.0	
9		CA-TP-100A (9-10/9)			9-10' Gray SILT and CLAY, some leaf matter partings.
10					End of Test Pit at 10 feet bgs
11					
12					
13					
14					
15					
16					
17					

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CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015
PROJECT NUMBER: 15001275
LOCATION ACTIVITY
SAMPLE LOCATION ID: **CA-TP-100B**
START: 1130
END: 1145
CREDERE REPRESENTATIVE: Allison Drouin
CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA		Dry	0.0	0-1' Brown TOPSOIL.
1					1-4' Orange-brown fine to medium SAND.
2	NA		Dry-moist	0.0	
3					
4					End of Test Pit at 4 feet bgs
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015
PROJECT NUMBER: 15001275
LOCATION ACTIVITY
SAMPLE LOCATION ID: **CA-TP-101**
START: 1100
END: 1130
CREDERE REPRESENTATIVE: Allison Drouin
CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:
CA-TP-101 (0-2)S collected from native surface soil west of CA-TP-101 across stream. Clinker appeared to extend to stream.

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA		Dry	0.0	0-3' Dark-brown fine to medium SAND and ASH.
1					
2	NA		Dry	0.0	
3			Moist		3-5' Red, white and black CLINKER and ASH.
4	NA	CA-TP-101 (5-6)	Moist	0.0	
5					5-6' Brown very fine SAND and SILT.
6					End of Test Pit at 6 feet bgs
7					Extended edge of test pit northwest to find edge of clinker
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015
PROJECT NUMBER: 15001275
LOCATION ACTIVITY
SAMPLE LOCATION ID: **CA-TP-102**
START: 1310
END: 1330
CREDERE REPRESENTATIVE: Allison Drouin
CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA		Dry	0.0	0-1' Brown TOPSOIL
1			Dry		1-4' Black COAL, COAl ASH, and CLINKER.
2	NA		Dry	0.0	
3					
4	NA	CA-TP-102 (4-5)	Moist	0.0	4-7' Orange fine to medium SAND, some Clay, some Silt.
5					
6			Moist	0.0	
7					End of Test Pit at 7 feet bgs
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015

PROJECT NUMBER: 15001275
LOCATION ACTIVITY

SAMPLE LOCATION ID: **CA-TP-103**
START: 1400
END: 1430

CREDERE REPRESENTATIVE: Allison Drouin

CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA		Dry	0.0	0-12' Brown fine to medium SAND, some silt, little solid waste intermixed (modern waste such as cans, plastic sheeting, and plastic containers).
1					
2	NA		Dry	0.0	
3					
4	NA		Moist	0.0	
5					
6	NA		Moist	0.0	
7					
8	NA		Moist	0.0	
9					
10	NA		Moist	0.0	
11					
12			Moist	0.0	12-13' Solid Waste FILL (clinker, coal ash, bottles, metal scraps).
13					End of Test Pit at 13 feet bgs
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015

PROJECT NUMBER: 15001275
LOCATION ACTIVITY

SAMPLE LOCATION ID: **CA-TP-104**
START: 0905
END: 1010

CREDERE REPRESENTATIVE: Allison Drouin

CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

CA-TP-104 (0-2)S collected from native surface soil northwest of CA-TP-101 across stream. Solid waste debris including drums and other waste were observed to extend to the stream.

Solid waste at surface surrounding test pit included a car frame, AST, grill, buckets, bottles, and other household debris.

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA		Dry	0.0	0-3' Light-brown TOPSOIL and solid waste FILL intermixed (bottles, fabric, plastic sheeting, hoses, car parts).
1					
2	NA		Moist	0.0	
3					3-5' Roots and dark-brown fine to medium SAND.
4	NA		Moist	0.0	
5					5-8' Brown to gray SILT and CLAY.
6	NA			0.0	
7					
8					End of Test Pit at 8 feet bgs
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015

PROJECT NUMBER: 15001275
LOCATION ACTIVITY

SAMPLE LOCATION ID: **CA-TP-105**
START: 1010
END: 1050

CREDERE REPRESENTATIVE: Allison Drouin

CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:
CA-TP-105 (0-2)S collected from native surface soil west of CA-TP-105 across stream. Solid waste debris including clay pots and bottles and other waste were observed to extend to the stream.

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA		Dry	0.0	0-5' Cultivation related FILL (miticide containers, clay pots, red clinker, bricks, ash, bottles, red powder).
1					
2	NA		Dry	0.0	
3					
4	NA		Moist	0.0	
5		CA-TP-105 (5-6)			5-6' Gray-brown SILT and CLAY, native.
6					End of Test Pit at 6 feet bgs
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

CREDERE ASSOCIATES, LLC
TEST PIT SAMPLING LOG
Credere Associates, LLC - 776 Main Street, Westbrook, Main 04092 - (207) 828-1272

TEST PIT DATA:

PROJECT NAME: Dagostino Rose Farm
DATE: 8/6/2015
PROJECT NUMBER: 15001275
LOCATION ACTIVITY
SAMPLE LOCATION ID: **CA-TP-106**
START: 1300
END: 1315
CREDERE REPRESENTATIVE: Allison Drouin
CONTRACTOR/FOREMAN: Geosearch, Inc./Roger Jarry

NOTES:

FIELD ANALYSIS DATA:

DEPTH (FT)	SAMPLE DEPTH (FT)	SAMPLE NUMBER	MOISTURE	PID (ppm)	SOIL DESCRIPTION / NOTES
0	NA	CA-TP-106 (0-2/1.5)	Dry	0.0	0-1' Brown TOPSOIL.
1			Moist		1-5' Orange-brown SILT and CLAY becoming gray towards bottom.
2	NA		Moist	0.0	
3					
4			Moist	0.0	
5					End of Test Pit at 5 feet bgs
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

* - Submitted for laboratory analysis

APPENDIX B

AQUARIAN ANALYTICAL LAB

A Division of Nelson Analytical, LLC

153 West Road
Canterbury, NH 03224
www.aquarianlabs.com
(603) 783-9097

14 June 2017

Mr. Allen Wyman
Stonehill Environmental, Inc.
600 State Street, Suite #2
Portsmouth, NH 03801

RE: Rose Farm - Exeter, NH

Dear Mr. Wyman:

Enclosed are the results of analytical testing performed on the following samples, which were received at 2.5 degrees C.

Laboratory ID	Sample ID	Sample matrix	Date sampled	Date received
1706102-01	**F20**	Soil	18-May-17 00:00	09-Jun-17 00:00
1706102-02	**F24**	Soil	18-May-17 00:00	09-Jun-17 00:00
1706102-03	**F63**	Soil	18-May-17 00:00	09-Jun-17 00:00
1706102-04	**Glaze**	Glaze	09-Jun-17 00:00	09-Jun-17 00:00

The results in this report relate only to the submitted samples. Please refer to our website listed above for a complete list of accredited parameters. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James R. Sherburne

James R. Sherburne
Laboratory Director

AQUARIAN ANALYTICAL LAB

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153 West Road
Canterbury, NH 03224
www.aquarianlabs.com

National Environmental Lab Accreditation Program
NELAP Accreditation #NH1004, VT1004, NH00035(ME)
MADEP Accreditation #M-NH035

(603) 783-9097
frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	14-Jun-17 17:49

F20
1706102-01 (Soil)

Sampled: 18-May-2017 0:00

Polychlorinated biphenyls

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Aroclor 1016	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	
Aroclor 1221	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	
Aroclor 1232	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	
Aroclor 1242	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	
Aroclor 1248	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	
Aroclor 1254	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	
Aroclor 1260	BD	0.0720	mg/Kg	12-Jun-17 14:58	8082	mwb	

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Arsenic	**7.16**	1.00	mg/kg	14-Jun-17	EPA 200.8	SUBL	Sub
Barium	**106**	10.0	mg/kg	14-Jun-17	EPA 200.8	SUBL	Sub
Cadmium	BD	1.00	mg/kg	14-Jun-17	200.8	SUBL	Sub
Chromium	**22.6**	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub
Lead	**755**	1.00	mg/kg	14-Jun-17	200.8	SUBL	Sub
Mercury	BD	0.40	mg/kg	14-Jun-17	200.8	SUBL	Sub
Selenium	BD	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub
Silver	BD	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub

TCLP Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**0.448**	0.001	mg/L	13-Jun-17	200.8	SUBL	Sub

% Solids, dry weight

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
% Solids	**68.9**	0.1	[blank]	13-Jun-17 12:18	SM 2540G	ADH	

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MADEP Accreditation #M-NH035

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frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	14-Jun-17 17:49

F24
1706102-02 (Soil)

Sampled: 18-May-2017 0:00

Polychlorinated biphenyls

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Aroclor 1016	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	
Aroclor 1221	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	
Aroclor 1232	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	
Aroclor 1242	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	
Aroclor 1248	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	
Aroclor 1254	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	
Aroclor 1260	BD	0.0618	mg/Kg	12-Jun-17 16:02	8082	mwb	

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Arsenic	**5.94**	1.00	mg/kg	14-Jun-17	EPA 200.8	SUBL	Sub
Barium	**65.7**	10.0	mg/kg	14-Jun-17	EPA 200.8	SUBL	Sub
Cadmium	BD	1.00	mg/kg	14-Jun-17	200.8	SUBL	Sub
Chromium	**18.3**	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub
Lead	**289**	1.00	mg/kg	14-Jun-17	200.8	SUBL	Sub
Mercury	BD	0.40	mg/kg	14-Jun-17	200.8	SUBL	Sub
Selenium	BD	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub
Silver	BD	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub

TCLP Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**0.132**	0.001	mg/L	13-Jun-17	200.8	SUBL	Sub

% Solids, dry weight

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
% Solids	**80.2**	0.1	[blank]	13-Jun-17 12:18	SM 2540G	ADH	

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MADEP Accreditation #M-NH035

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frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	14-Jun-17 17:49

F63
1706102-03 (Soil)

Sampled: 18-May-2017 0:00

Polychlorinated biphenyls

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Aroclor 1016	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	
Aroclor 1221	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	
Aroclor 1232	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	
Aroclor 1242	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	
Aroclor 1248	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	
Aroclor 1254	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	
Aroclor 1260	BD	0.0860	mg/Kg	12-Jun-17 16:33	8082	mwb	

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Arsenic	**7.38**	1.00	mg/kg	14-Jun-17	EPA 200.8	SUBL	Sub
Barium	**222**	10.0	mg/kg	14-Jun-17	EPA 200.8	SUBL	Sub
Cadmium	BD	1.00	mg/kg	14-Jun-17	200.8	SUBL	Sub
Chromium	**30.8**	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub
Lead	**1570**	1.00	mg/kg	14-Jun-17	200.8	SUBL	Sub
Mercury	BD	0.40	mg/kg	14-Jun-17	200.8	SUBL	Sub
Selenium	BD	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub
Silver	BD	10.0	mg/kg	14-Jun-17	200.8	SUBL	Sub

TCLP Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**1.51**	0.001	mg/L	14-Jun-17	200.8	SUBL	Sub

% Solids, dry weight

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
% Solids	**57.7**	0.1	[blank]	13-Jun-17 12:18	SM 2540G	ADH	

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MADEP Accreditation #M-NH035

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frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	14-Jun-17 17:49

Glaze
1706102-04 (Glaze)

Sampled: 09-Jun-2017 0:00

Polychlorinated biphenyls

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Aroclor 1016	BD	0.0518	mg/Kg	12-Jun-17 17:05	8082	mwb	
Aroclor 1221	BD	0.0518	mg/Kg	12-Jun-17 17:05	8082	mwb	
Aroclor 1232	BD	0.0518	mg/Kg	12-Jun-17 17:05	8082	mwb	
Aroclor 1242	BD	0.0518	mg/Kg	12-Jun-17 17:05	8082	mwb	
Aroclor 1248	BD	0.0518	mg/Kg	12-Jun-17 17:05	8082	mwb	
Aroclor 1254	**0.224**	0.0518	mg/Kg	13-Jun-17 10:09	8082	mwb	
Aroclor 1260	BD	0.0518	mg/Kg	12-Jun-17 17:05	8082	mwb	

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**5600**	1.00	mg/kg	13-Jun-17	200.8	SUBL	Sub

% Solids, dry weight

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
% Solids	**96.4**	0.1	[blank]	13-Jun-17 12:18	SM 2540G	ADH	

Notes and Definitions

Sub Analysis subcontracted to Nelson Analytical, Manchester, NH.

BD - Analyte result is below the method reporting limit.

NR - Not reported.

Soil sample results are reported on a dry weight basis.

The reporting limit is the lowest value at which reliable quantitation has been demonstrated and verified.

Analytes in **bold** are values above the reporting limit.

AQUARIAN ANALYTICAL LAB

1706102

153 West Road
Canterbury, NH 03224
Phone: (603) 793-9097
E-mail: frontdesk@aquarianlabs.com

A Division of Nelson Analytical, LLC

Turnaround Requirements (check one)	
Please inquire about rush service. If we are able to meet your rush needs with reasonable effort, we will not charge a rush fee. Please call ahead.	Rush Samples Need Prior Approval
	☐ Same Day Turnaround
	☐ One Day Turnaround
	☒ Two Day Turnaround
	~~☒ Three Day Turnaround~~
	☐ Normal Turnaround

Project Information

Project #:		Project Manager:	Allen Wyman
Project Name:	Rose Farm	Report To:	Allen Wyman
Town/Site:	Exeter	Invoice To:	Allen Wyman
Sampler:	Allen Wyman	Phone:	603.~~323~~ 433.1935
Company:	Stone Hill	E-mail:	awyman@stonehillenvironmental.com
Bid Reference:			

Sample Information

Sample ID	Collection Date/Time	Sample Matrix	# of Containers	VOCs: VOCs EPA 8260B/8260C Select Parameter only	VOCs: VOCs EPA 524.2 Drinking Water Select Parameter only	VOCs: 1,4-dioxane / EDB 8260B SIM low level	SVOCs: SVOCs EPA 8270C/8270D Full list / PAH only	SVOCs: PCB Aroclors EPA 8082A / 608	SVOCs: Pesticides EPA 8081B / 608	SVOCs: Herbicides EPA 8151A	SVOCs: Drinking Water SOCs (circle) 525.2 / 504.1 / 508 / 515.1	Petroleum: TPH Fuel Oil 8100M Diesel Range Organics	Petroleum: TPH Gasoline 8015B Gasoline Range Organics	Petroleum: MADEP EPH	Petroleum: MADEP VPH	Petroleum: Petroleum Fingerprint Analysis	Metals: RCRA8 metals (circle) Total / Dissolved	Metals: Ni / Cu / Zn / Fe / Mn (circle) Total / Dissolved	Metals: Sodium / Calcium / Magnesium Total / Dissolved	Metals: Additional Metals (Total / Dissolved): Total Pb	Wet Chemistry / Inorganics: EPA 300.0: Chloride / Sulfate Bromide / Nitrate / Nitrite / Fluoride	Wet Chemistry / Inorganics: pH / Spec Con / Alkalinity (circle analysis requested)	Wet Chemistry / Inorganics: EPA SW846 Chapter 7 Reactivity (Sulfide and Cyanide)	Wet Chemistry / Inorganics: EPA 314.0: Perchlorate	Wet Chemistry / Inorganics: Closed-Cup Flashpoint / EPA 1010A Ignitability	Wet Chemistry / Inorganics: EPA 1664A HEM Oil and Grease	Wet Chemistry / Inorganics: Total Dissolved Solids (TDS) / Total Suspended Solids (TSS)	Wet Chemistry / Inorganics: TCLP (Please also check off the required analyses) Pb	Aquarian ID
F20	5/18		1					X									X											X	1706102-01
F24	↓		1					X									X											X	-02
F63	↓		1					X									X											X	-03
Glaze	June 9		1					X												X									-04

Relinquished by: [signature]	Date/Time: 6/9/17	Received by: Chloe Schall	Receipt Conditions (laboratory use only):
Relinquished by:	Date/Time:	Received by:	Laboratory Supplied Containers?: Yes / No
Relinquished by:	Date/Time:	Received by:	Containers Intact/Properly Labeled?: Yes / No
			Were samples delivered on ice?: Yes / No
			Receipt Temperature: 2.5 °C

PROJECT REQUIREMENTS (Please complete):

- ISO 17025 accreditation required? ____ Yes ____ No
- EDD required? ____ Yes ____ No
- MCP Compliance required? ____ Yes ____ No
- Is this NH "Oed Fund" related? ____ Yes ____ No
- Does a price quote apply? ____ Yes ____ No

FRM-AQ-SAMPLESUBMISSIONFORM 916

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

A. Wyman
Stonehill Environmental
600 State St
Suite 2
Portsmouth, NH 03801

PO Number: None
Job ID: 40355
Date Received: 5/24/17

Project: Rose Farm 15046

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Sue Sylvester
Principal, General Manager

Date of Approval: 6/13/2017
Total number of pages: 7

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Rose Farm 15046
Job ID: 40355

Sample#: 40355-001
Sample ID: F-6
Matrix: Solid Percent Dry: 85% Results expressed on a dry weight basis.
Sampled: 5/18/17 13:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.8**	2.4	ug/g	20	AM	5/31/17	9720	5/31/17	14:28	SW3051A6020A
Lead	**630**	12	ug/g	20	AM	5/31/17	9720	5/31/17	14:28	SW3051A6020A

Sample#: 40355-002
Sample ID: F-7
Matrix: Solid Percent Dry: 86.8% Results expressed on a dry weight basis.
Sampled: 5/18/17 13:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**12**	2.3	ug/g	20	AM	5/31/17	9720	5/31/17	14:53	SW3051A6020A
Lead	**1700**	12	ug/g	20	AM	5/31/17	9720	5/31/17	14:53	SW3051A6020A

Sample#: 40355-003
Sample ID: F-14
Matrix: Solid Percent Dry: 67.6% Results expressed on a dry weight basis.
Sampled: 5/18/17 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**9.9**	3.0	ug/g	20	AM	5/31/17	9720	5/31/17	14:59	SW3051A6020A
Lead	**670**	15	ug/g	20	AM	5/31/17	9720	5/31/17	14:59	SW3051A6020A

Sample#: 40355-004
Sample ID: F-23
Matrix: Solid Percent Dry: 60.5% Results expressed on a dry weight basis.
Sampled: 5/18/17 13:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**12**	3.2	ug/g	20	AM	5/31/17	9720	5/31/17	15:05	SW3051A6020A
Lead	**4400**	16	ug/g	20	AM	5/31/17	9720	5/31/17	15:05	SW3051A6020A

Sample#: 40355-005
Sample ID: F-24
Matrix: Solid Percent Dry: 86.4% Results expressed on a dry weight basis.
Sampled: 5/18/17 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**8.8**	2.3	ug/g	20	AM	5/31/17	9720	5/31/17	15:11	SW3051A6020A
Lead	**400**	12	ug/g	20	AM	5/31/17	9720	5/31/17	15:11	SW3051A6020A

Sample#: 40355-006
Sample ID: F-20
Matrix: Solid Percent Dry: 74.5% Results expressed on a dry weight basis.
Sampled: 5/18/17 13:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**9.9**	2.4	ug/g	20	AM	5/31/17	9720	5/31/17	15:17	SW3051A6020A
Lead	**810**	12	ug/g	20	AM	5/31/17	9720	5/31/17	15:17	SW3051A6020A

Absolute Resource associates

Project ID: Rose Farm 15046
Job ID: 40355

Sample#: 40355-007
Sample ID: F-34
Matrix: Solid Percent Dry: 80.1% Results expressed on a dry weight basis.
Sampled: 5/18/17 14:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	**14**	2.3	ug/g	20	AM	5/31/17	9720	5/31/17	15:23	SW3051A6020A
Lead	**2300**	11	ug/g	20	AM	5/31/17	9720	5/31/17	15:23	SW3051A6020A

Sample#: 40355-008
Sample ID: F-39
Matrix: Solid Percent Dry: 72.7% Results expressed on a dry weight basis.
Sampled: 5/18/17 14:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	**7.3**	2.6	ug/g	20	AM	5/31/17	9720	5/31/17	15:29	SW3051A6020A
Lead	**490**	13	ug/g	20	AM	5/31/17	9720	5/31/17	15:29	SW3051A6020A

Sample#: 40355-009
Sample ID: F-43
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 5/18/17 14:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	**8.0**	2.2	ug/g	20	AM	5/31/17	9720	5/31/17	15:36	SW3051A6020A
Lead	**300**	11	ug/g	20	AM	5/31/17	9720	5/31/17	15:36	SW3051A6020A

Sample#: 40355-010
Sample ID: F-53
Matrix: Solid Percent Dry: 76.6% Results expressed on a dry weight basis.
Sampled: 5/18/17 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	**13**	2.4	ug/g	20	AM	5/31/17	9720	5/31/17	15:42	SW3051A6020A
Lead	**920**	12	ug/g	20	AM	5/31/17	9720	5/31/17	15:42	SW3051A6020A

Sample#: 40355-011
Sample ID: F-54
Matrix: Solid Percent Dry: 77.9% Results expressed on a dry weight basis.
Sampled: 5/18/17 14:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	**10**	2.3	ug/g	20	AM	5/31/17	9720	5/31/17	15:48	SW3051A6020A
Lead	**540**	12	ug/g	20	AM	5/31/17	9720	5/31/17	15:48	SW3051A6020A

Sample#: 40355-012
Sample ID: F-63
Matrix: Solid Percent Dry: 67.2% Results expressed on a dry weight basis.
Sampled: 5/18/17 14:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Arsenic	**6.7**	2.9	ug/g	20	AM	5/31/17	9720	5/31/17	16:12	SW3051A6020A
Lead	**2000**	15	ug/g	20	AM	5/31/17	9720	5/31/17	16:12	SW3051A6020A

Absolute Resource associates

Project ID: Rose Farm 15046
Job ID: 40355

Sample#: 40355-013
Sample ID: F-65
Matrix: Solid Percent Dry: 72.9% Results expressed on a dry weight basis.
Sampled: 5/18/17 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**10.0**	2.6	ug/g	20	AM	5/31/17	9720	5/31/17	16:18	SW3051A6020A
Lead	**410**	13	ug/g	20	AM	5/31/17	9720	5/31/17	16:18	SW3051A6020A

Sample#: 40355-014
Sample ID: F-70
Matrix: Solid Percent Dry: 80.2% Results expressed on a dry weight basis.
Sampled: 5/18/17 15:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**13**	2.4	ug/g	20	AM	5/31/17	9720	5/31/17	16:24	SW3051A6020A
Lead	**670**	12	ug/g	20	AM	5/31/17	9720	5/31/17	16:24	SW3051A6020A

Sample#: 40355-015
Sample ID: F-74
Matrix: Solid Percent Dry: 44% Results expressed on a dry weight basis.
Sampled: 5/18/17 15:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**20**	4.3	ug/g	20	AM	5/31/17	9721	5/31/17	16:49	SW3051A6020A
Lead	**4800**	21	ug/g	20	AM	5/31/17	9721	5/31/17	16:49	SW3051A6020A

Sample#: 40355-016
Sample ID: F-86
Matrix: Solid Percent Dry: 66.8% Results expressed on a dry weight basis.
Sampled: 5/18/17 15:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**13**	2.9	ug/g	20	AM	5/31/17	9721	5/31/17	16:55	SW3051A6020A
Lead	**4900**	14	ug/g	20	AM	5/31/17	9721	5/31/17	16:55	SW3051A6020A

Sample#: 40355-017
Sample ID: F-88
Matrix: Solid Percent Dry: 86% Results expressed on a dry weight basis.
Sampled: 5/18/17 15:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**10**	2.3	ug/g	20	AM	5/31/17	9721	5/31/17	17:01	SW3051A6020A
Lead	**610**	11	ug/g	20	AM	5/31/17	9721	5/31/17	17:01	SW3051A6020A

Sample#: 40355-018
Sample ID: F-91
Matrix: Solid Percent Dry: 89% Results expressed on a dry weight basis.
Sampled: 5/18/17 15:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**17**	2.1	ug/g	20	AM	5/31/17	9721	5/31/17	17:07	SW3051A6020A
Lead	**190**	10	ug/g	20	AM	5/31/17	9721	5/31/17	17:07	SW3051A6020A

Absolute Resource associates

Project ID: Rose Farm 15046
Job ID: 40355

Sample#: 40355-019
Sample ID: F-95
Matrix: Solid Percent Dry: 74.9% Results expressed on a dry weight basis.
Sampled: 5/18/17 16:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.6**	2.5	ug/g	20	AM	5/31/17	9721	5/31/17	17:31	SW3051A6020A
Lead	**430**	13	ug/g	20	AM	5/31/17	9721	5/31/17	17:31	SW3051A6020A

Sample#: 40355-020
Sample ID: F-98
Matrix: Solid Percent Dry: 74.4% Results expressed on a dry weight basis.
Sampled: 5/18/17 16:10

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**12**	2.5	ug/g	20	AM	5/31/17	9721	5/31/17	17:37	SW3051A6020A
Lead	**730**	12	ug/g	20	AM	5/31/17	9721	5/31/17	17:37	SW3051A6020A

Absolute Resource associates

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

40355

Company Name: StoneHill Environmental Inc.
Company Address: 600 State St. Portsmouth NH 03801
Report To: A. Wyman
Phone #: 603-433-1935
Invoice to: A. Wyman
Email: awyman@stonehillenvironmental.com
☐ Hard Copy Invoice Required ☐ PO #

Project Name: Rose Farm
Project #: 15046
Project Location: (NH) MA ME VT
Accreditation Required? N/Y:
Protocol: RCRA MCP / SDWA (NHDES) / NPDES DOD
Reporting Limits: QAPP EPA DW / GW-1 (S-1) / Other
Quote #
☐ NH Reimbursement Pricing

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP ☐ VOC 624 ☐ VOC BTEX MtBE only ☐ VOC 8021VT ☐ VPH MADEP ☐ GRO 8015 ☐ 1,4-Dioxane ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List ☐ TPH ☐ DRO 8015 ☐ EPH MADEP ☐ TPH Fingerprint ☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB ☒ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB ☐ O&G 1664 ☐ Mineral O&G SM5520F ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ Apparent Color ☐ TSS ☐ TDS ☐ TVS ☐ Alkalinity ☐ Acidity ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness ☒ Total Metals-list: Lead (Pb) ☐ Dissolved Metals-list: ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde ☐ PFC Arsenic (As)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Grab (G) or Composite (C)
40355-01	F-6	1		X							5-18-17	1:00	AW	
-02	F-7	1		X							5-18-17	1:10	AW	
-03	F-14	1		X							5-18-17	1:20	AW	
-04	F-23	1		X							5-18-17	1:30	AW	
-05	F-24	1		X							5-18-17	1:40	AW	
-06	F-20	1		X							5-18-17	1:50	AW	
-07	F-34	1		X							5-18-17	2:00	AW	
-08	F-39	1		X							5-18-17	2:10	AW	
-09	F-43	1		X							5-18-17	2:20	AW	
-10	F-53	1		X							5-18-17	2:30	AW	
-11	F-54	1		X							5-18-17	2:40	AW	

X hold

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard ☐ (10 Business Days)
*Date Needed

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Samples may contain glass shards & high levels of Pb, As, & Hg. Just a heads up. Sampled by A. Wyman 5-18-17 time

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) Awyman@stonehillenvironmental.com
☐ HARD COPY REQUIRED ☐ EDD

RECEIVED ON ICE ☑ YES ☐ NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 12/22/16

	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
	A. Wyman	5/24	943am		5/24/17	0943
	Relinquished by:	Date	Time	Received by:	Date	Time
	Relinquished by:	Date	Time	Received by Laboratory:	Date	Time

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Company Name: Stonehill Environmental Inc.
Company Address: 600 State St. Portsmouth NH 03501
Report To: A. Wyman
Phone #: 603-433-1935
Invoice to: A. Wyman
X Email: Awyman@stonehillenvironmental.com
☐ Hard Copy Invoice Required ☐ PO #

Project Name: Rose Farm
Project #: 15046
Project Location: (NH) MA ME VT
Accreditation Required? N/Y:
Protocol: RCRA SDWA NPDES; MCP (NHDES) DOD
Reporting Limits: QAPP GW-1 (S-1); EPA DW Other
Quote #
☐ NH Reimbursement Pricing

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
X 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ Apparent Color
☐ TSS ☐ TDS ☐ TVS ☐ Alkalinity ☐ Acidity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
X Total Metals list: Lead (Pb)
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract ☐ Grain Size ☐ Herbicides ☐ Formaldehyde ☐ PFC
Arsenic (As)
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO	H SO	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	8082 PCB	Total Metals list: Lead (Pb)	Arsenic (As)
40855-12	F-63	1		X							5-18-17	2:50	AW		X	X
-13	F-65	1		X							5-18-17	3:00	AW		X	X
-14	F-70	1		X							5-18-17	3:10	AW		X	X
-15	F-74	1		X							5-18-17	3:20	AW		X	X
-16	F-86	1		X							5-18-17	3:30	AW	X hold	X	X
-17	F-88	1		X							5-18-17	3:40	AW		X	X
-18	F-91	1		X							5-18-17	3:50	AW		X	X
-19	F-95	1		X							5-18-17	4:00	AW		X	X
-20	F-98	1		X							5-18-17	4:10	AW		X	X

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard ☐ (10 Business Days)
*Date Needed

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS: See page 1 of 2.
Sampled by: A. Wyman & C. Lane

REPORTING INSTRUCTIONS X PDF (e-mail address) Awyman@stonehillenvironmental.com
☐ HARD COPY REQUIRED ☐ EDD

RECEIVED ON ICE ☐YES ☐NO
TEMPERATURE 0 °C

CUSTODY RECORD
QSD-01 Revision 12/22/16

	Date	Time		Date	Time
Relinquished by Sampler: A. Wyman	5/24	9:43am	Received by:	5/24/17	09:43
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by Laboratory:	Date	Time

AQUARIAN ANALYTICAL LAB

A Division of Nelson Analytical, LLC

153 West Road
Canterbury, NH 03224
www.aquarianlabs.com
(603) 783-9097

08 June 2017

Mr. Allen Wyman

Stonehill Environmental, Inc.

600 State Street, Suite #2

Portsmouth, NH 03801

RE: Rose Farm - Exeter, NH

Dear Mr. Wyman:

Enclosed are the results of analytical testing performed on the following samples, which were received at 7.0 degrees C.

Laboratory ID	Sample ID	Sample matrix	Date sampled	Date received
1706048-01	**1**	Soil	02-Jun-17 00:00	06-Jun-17 09:10
1706048-02	**2**	Soil	02-Jun-17 00:00	06-Jun-17 09:10
1706048-03	**3**	Soil	02-Jun-17 00:00	06-Jun-17 09:10
1706048-04	**4**	Soil	02-Jun-17 00:00	06-Jun-17 09:10

The results in this report relate only to the submitted samples. Please refer to our website listed above for a complete list of accredited parameters. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James R. Sherburne

James R. Sherburne

Laboratory Director

AQUARIAN ANALYTICAL LAB

A Division of Nelson Analytical, LLC

153 West Road
Canterbury, NH 03224
www.aquarianlabs.com

National Environmental Lab Accreditation Program
NELAP Accreditation #NH1004, VT1004, NH00035(ME)
MADEP Accreditation #M-NH035

(603) 783-9097
frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	08-Jun-17 11:21

1
1706048-01 (Soil)

Sampled: 02-Jun-2017 0:00

A-01

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**20.1**	0.001	mg/kg	06-Jun-17	200.8	SUBL	Sub

AQUARIAN ANALYTICAL LAB

A Division of Nelson Analytical, LLC

153 West Road
Canterbury, NH 03224
www.aquarianlabs.com

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NELAP Accreditation #NH1004, VT1004, NH00035(ME)
MADEP Accreditation #M-NH035

(603) 783-9097
frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	08-Jun-17 11:21

2
1706048-02 (Soil)

Sampled: 02-Jun-2017 0:00

A-01

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**4.99**	0.001	mg/kg	06-Jun-17	200.8	SUBL	Sub

AQUARIAN ANALYTICAL LAB

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National Environmental Lab Accreditation Program
NELAP Accreditation #NH1004, VT1004, NH00035(ME)
MADEP Accreditation #M-NH035

(603) 783-9097
frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	08-Jun-17 11:21

3
1706048-03 (Soil)

Sampled: 02-Jun-2017 0:00

A-01

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**10.0**	0.001	mg/kg	06-Jun-17	200.8	SUBL	Sub

AQUARIAN ANALYTICAL LAB

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153 West Road
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National Environmental Lab Accreditation Program
NELAP Accreditation #NH1004, VT1004, NH00035(ME)
MADEP Accreditation #M-NH035

(603) 783-9097
frontdesk@aquarianlabs.com

Stonehill Environmental, Inc.	Project: Rose Farm - Exeter, NH	
600 State Street, Suite #2	Project Number: [none]	**Reported:**
Portsmouth NH, 03801	Project Manager: Mr. Allen Wyman	08-Jun-17 11:21

4
1706048-04 (Soil)

Sampled: 02-Jun-2017 0:00

A-01

Metals by ICPMS

Analyte	Result	Rpt Limit	Units	Analyzed	Method	Analyst	Notes
Lead	**10.6**	0.001	mg/kg	06-Jun-17	200.8	SUBL	Sub

Notes and Definitions

Sub Analysis subcontracted to Nelson Analytical, Manchester, NH.

A-01 Sample results reported as received; no dry weight correction made.

BD - Analyte result is below the method reporting limit.

NR - Not reported.

Soil sample results are reported on a dry weight basis.

The reporting limit is the lowest value at which reliable quantitation has been demonstrated and verified.

Analytes in **bold** are values above the reporting limit.

(R)

3706-457 AQUARIAN ANALYTICAL/1706-048

[redacted]

A Division of Nelson Analytical Labs

153 West Road
Canterbury, NH 03224
Phone: (603)783-9097
E-mail: frontdesk@aquarianlabs.com

Turnaround Requirements (check one) | **Client & Project Information**

Rush Samples Need Prior Approval

Please inquire about rush service. If we are able to meet your rush needs with reasonable effort, we will not charge a rush fee. Please call ahead.

- [ ] Same Day Turnaround
- [ ] One Day Turnaround
- [x] Two Day Turnaround
- [ ] Three Day Turnaround
- [ ] Normal Turnaround

Project #:
Project Name: Hose Farm
Town/Site: Exeter
Sampler: Allan Wyman
Company: Stone Hill
Bid Reference: N/A

Project Manager: Allen Wyman
Report To: Allen Wyman
Invoice To: Allen Wyman
Phone: 603. 433. 1833
E-mail: awyman@stonehill[illegible].com

Sample Information

Analysis columns: VOCs EPA 8260B/8260C Select Parameter only; VOCs EPA 524.2 Drinking Water Select Parameter only; 1,4-dioxane / EDB 8260B SIM low level; SVOCs EPA 8270C/8270D Full list / PAH only; PCB Aroclors EPA 8082A / 608; Pesticides EPA 8081B / 608; Herbicides EPA 8151A; Drinking Water SOCs (circle) 525.2 / 504.1 / 508 / 515.1; TPH Fuel Oil 8100M Diesel Range Organics; TPH Gasoline 8015B Gasoline Range Organics; MADEP EPH; MADEP VPH; Petroleum Fingerprint Analysis; RCRA 8 metals (circle) Total / Dissolved; Al / Cu / Zn / Fe / Mn (circle) Total / Dissolved; Sodium / Calcium / Magnesium Total / Dissolved; Additional Metals (Total / Dissolved); EPA 300.0: Chloride / Sulfate Bromide / Nitrate / Nitrite / Fluoride; pH / Spec Con / Alkalinity (circle analysis requested); EPA SW846 Chapter 7 Reactivity (Sulfide and Cyanide); EPA 314.0: Perchlorate; Closed-Cup Flashpoint / EPA 1010A Ignitability; EPA 1664A HEM Oil and Grease; Total Dissolved Solids (TDS) / Total Suspended Solids (TSS); TCLP (please also check off the required analyses)

Sample ID	Collection Date/Time	Sample Matrix	# of Containers	Analysis	Aquarian ID
1	6/2	S	1	Total Lead only	1706048-01
2	↓	↓	↓	↓	-02
3	↓	↓	↓	↓	-03
4	↓	↓	↓	↓	-04

Relinquished by:	Date/Time:	Received by:
Allan Wyman	6/6/17 9:10	[signature]
Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

Receipt Conditions (laboratory use only)

Laboratory Supplied Containers?: (Yes) / No
Containers Intact/Properly Labeled?: (Yes) / No
Were samples delivered on ice?: (Yes) / No
Receipt Temperature: 7 °C

PROJECT REQUIREMENTS (Please complete):

ISO 17025 accreditation required? ___Yes ___No
EDD required? ___Yes ___No
MCP Compliance required? ___Yes ___No
Is this NH "Odd Form" related? ___Yes ___No
Does a trade secret apply? ___Yes ___No
[illegible]

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

July 17, 2018

Todd Baker
Exeter Rose Farm, LLC
953 Islington Street, Suite 23D
Portsmouth, NH 03801

Subject: **Exeter** – Former Dagostino Rose Farm, Oak Street Extension
DES Site **#201203003**, Project #27859

Supplemental Site Investigation and Remedial Action Plan, prepared by StoneHill Environmental, Inc., dated December 21, 2017

Dear Mr. Baker:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the *Supplemental Site Investigation and Remedial Action Plan* prepared for the site referenced above. This document was prepared by StoneHill Environmental, Inc. (StoneHill) on behalf of Exeter Rose Farm, LLC. Based on our review, the following comments must be addressed to the satisfaction of NHDES before an approval can be issued:

Former Greenhouse Area

- StoneHill indicates that the lead-impacted soil within the greenhouse area will be removed in 50 x 50 foot grids to approximately 2 feet below ground surface (bgs). The excavated soil from each grid will be stockpiled in approximately 200 ton piles. Representative composite soil samples will then be collected from each pile and analyzed for total lead. Soils with lead concentrations equal to or greater than the soil remediation standard (SRS) of 400 mg/kg will be shipped offsite for disposal. Soil with lead concentrations less than 400 mg/kg is proposed for reuse onsite.

  Based on the samples collected by both Credere Associates, Inc. and StoneHill, the greatest concentrations of lead appear to be in the first 6 inches below ground surface (bgs). A limited number of samples were also collected from 12 to 24 inches bgs – all of which had reported lead concentrations below SRS. It is not clear if StoneHill is proposing to conduct the soil excavation in multiple cuts (e.g., 0-1 foot and 1-2 feet) or in a single cut. NHDES is concerned that doing the excavation in a single cut down to 2 feet could result in the soil stockpiles being inappropriately diluted prior to sampling. Please clarify how the excavation work will be sequenced within the greenhouse area.

- The grids shown on Figure 9 do not appear to extend a sufficient distance beyond the limits of the former greenhouses to include all the locations with lead SRS exceedances as shown on Figure 6. Please modify the grid layout on Figure 9 as appropriate.

Former Boiler and Packing House Building Area

- NHDES concurs with StoneHill that the presence of arsenic at concentrations greater than SRS likely represents a background condition pursuant to Env-Or 602.03. Samples with SRS exceedances were collected from sand, silt and clay soils that are likely native materials while samples collected from coal ash impacted soil had no SRS exceedances for arsenic.

- NHDES does not believe that coal ash can be ruled out as a contributor to the polycyclic aromatic hydrocarbons (PAHs) reported at concentrations greater than SRS based on the available data. It is also probable that the coal clinkers would exhibit PAH concentrations greater than SRS if sampled directly. That said, this does not affect the appropriateness of the remedial action proposed for this area.

  Given the above, NHDES requests the implementation of an Activity and Use Restriction pursuant to Env-Or 608 for the ash/clinker consolidation area as shown on Figure 8.

- Any removal of materials from the wetland downgradient of the BPB Area shall be performed in accordance with all applicable federal, state, and local requirements.

- On page 18 of 20 it is indicated that "the westerly embankment of the BPB Area will be covered with a moisture barrier and 2 feet of clean fill..." Should that be a *marker* barrier?

- Any soil containing coal ash that is transported off-site shall be characterized and managed accordingly.

- For clarification, on page 18 of 20, please note that even if the presence of a constituent represents a background condition, that does not necessarily mean it does not pose a risk.

Retention Basin #4 and Wetland H

- Sediment removal from Retention Basin #4 and the filling of Wetland H shall be performed in accordance with all applicable federal, state, and local requirements.

Should you have any questions regarding the comments above, please contact me at NHDES' Waste Management Division.

Sincerely,

Michael McCluskey, P.E.
Hazardous Waste Remediation Bureau
Tel: (603) 271-2183
Fax: (603) 271-2181
Email: Michael.McCluskey@des.nh.gov

ec: Amy Doherty, P.G., State Sites Supervisor, HWRB
Timothy Stone, P.G., StoneHill Environmental, Inc.
Allen Wyman, StoneHill Environmental, Inc.
Attention Health Officer, Town of Exeter

DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

REPONSE TO NHDES COMMENTS ON RAP

Former Dagostino Rose Farm
Oak Street Extension
Exeter, NH

NHDES Site # 201203003
Project # 27859

Prepared for:
Exeter Rose Farm, LLC
953 Islington Street, Suite 23D
Portsmouth, NH 03801
Contact: Todd Baker
603-425-8598

Prepared By:
StoneHill Environmental, Inc.
600 State Street, Suite 2
Portsmouth, NH 03801
Contact: Timothy Stone
tstone@stonehillenvironmental.com
603-433-1935

Date of Letter: August 30, 2018
StoneHill Project No. 15046

StoneHill
Environmental
A Subsidiary of CEA

600 State Street, Suite 2
Portsmouth, NH 03801
tel 603-433-1935 fax 603-433-1942

August 30, 2018 Project No. 15046

Michael McCluskey, P.E.
NH Department of Environmental Services
Hazardous Waste Remediation Bureau
PO Box 95
Concord, NH 03302-0095

RE: Response to Comments
Supplemental Site Investigation and Remedial Action Plan,
Former Dagostino Rose Farm, Oak Street Extension
DES Site #201203003, Project #27859

Dear Mr. McCluskey;

StoneHill Environmental (StoneHill) has reviewed the New Hampshire Department of Environmental Services (NHDES) letter dated July 17, 2018, written by you in response to the *"Supplemental Site Investigation and Remedial Action Plan,"* prepared by StoneHill dated December 21, 2017. The following is StoneHill's response to the comments presented in your letter:

Former Greenhouse Area

NHDES Comment:
StoneHill indicates that the lead-impacted soil within the greenhouse area will be removed in 50 x 50 foot grids to approximately 2 feet below ground surface (bgs). The excavated soil from each grid will be stockpiled in approximately 200 ton piles. Representative composite soil samples will then be collected from each pile and analyzed for total lead. Soils with lead concentrations equal to or greater than the soil remediation standard (SRS) of 400 mg/kg will be shipped offsite for disposal. Soil with lead concentrations less than 400 mg/kg is proposed for reuse onsite. Based on the samples collected by both Credere Associates, Inc. and StoneHill, the greatest concentrations of lead appear to be in the first 6 inches below ground surface (bgs). A limited number of samples were also collected from 12 to 24 inches bgs – all of which had reported lead concentrations below SRS. It is not clear if StoneHill is proposing to conduct the soil excavation in multiple cuts (e.g., 0-1 foot and 1-2 feet) or in a single cut. NHDES is concerned that doing the excavation in a single cut down to 2 feet could result in the soil stockpiles being inappropriately diluted prior to sampling. Please clarify how the excavation work will be sequenced within the greenhouse area.

- Response: NHDES notes that the majority of the lead contamination appears to be within six inches of grade. Given this, the NHDES is concerned that by removing the upper two feet of overburden in one cut or one foot layers, the most heavily impacted soils found in the upper six inches would be diluted by the deeper soils with lesser concentrations of lead as soil is staged in piles. The concern is that due to this mixing, the waste characterization sampling of the piles would indicate that the lead concentrations in the staged soil piles would be less than the soil remediation standard (SRS) of 400 milligrams per kilogram (mg/kg) and the piles would not be transported off site for proper disposal. StoneHill understands this concern and intends to make every attempt to only initially remove and stage the top 6-inches of soil while focusing on areas known to contain lead concentrations in exceedance of the SRS. Indeed, the overall objective of the soil removal is to remove soils exceeding the lead SRS and minimize the removal of soil not exceeding the SRS to reduce the volume of soil requiring off-site disposal. Since it is anticipated the presence of buried debris throughout the former greenhouse area will likely complicate the simple removal of only the top 6-inches of impacted soil, the identification of soil volumes intended for off-site disposal will also be driven by the previously completed extensive pre-characterization soil analyses, as well as, field x-ray fluorescence (XRF) lead measurements to be conducted during the course of soil removal activities. In conclusion, soil from areas previously identified as containing lead concentrations above SRS and from areas with soil identified as containing lead concentrations above SRS based on XRF screening during the proposed excavation, will be stockpiled and designated for off-site disposal, regardless of waste characterization sampling results.

NHDES Comment:
The grids shown on Figure 9 do not appear to extend a sufficient distance beyond the limits of the former greenhouses to include all the locations with lead SRS exceedances as shown on Figure 6. Please modify the grid layout on Figure 9 as appropriate.

- Response: The NHDES noted that the remedial target area depicted on Figure 9 for the removal of lead contaminated soil did not encompass all the sample locations where elevated concentrations of lead in soil were shown on Figure 6. The intent of the Remedial Action Plan (RAP) is to remove lead contaminated soils in excess of the SRS, including locations of elevated lead contaminated soils noted outside of the immediate footprint of the former greenhouses. A revised Figure 9 with extended grid boundaries has been prepared and is attached.

Former Boiler Packing House Building Area

NHDES Comment:
NHDES concurs with StoneHill that the presence of arsenic at concentrations greater than SRS likely represents a background condition pursuant to Env-Or 602.03. Samples with SRS exceedances were collected from sand, silt and clay soils that are likely native

materials while samples collected from coal ash impacted soil had no SRS exceedances for arsenic.

- Response: None required.

NHDES Comment:
NHDES does not believe that coal ash can be ruled out as a contributor to the polycyclic aromatic hydrocarbons (PAHs) reported at concentrations greater than SRS based on the available data. It is also probable that the coal clinkers would exhibit PAH concentrations greater than SRS if sampled directly. That said, this does not affect the appropriateness of the remedial action proposed for this area. Given the above, NHDES requests the implementation of an Activity and Use Restriction pursuant to Env-Or 608 for the ash/clinker consolidation area as shown on Figure 8.

- Response: StoneHill concurs with NHDES that the origins of potential concentrations of PAH SRS exceedances does not affect the remedial action proposed for this area. As noted in the RAP it is planned that an Activity and Use Restriction (AUR) will be implemented in this area.

NHDES Comment:
Any removal of materials from the wetland downgradient of the BPB Area shall be performed in accordance with all applicable federal, state, and local requirements.

- Response: The removal of materials from the wetland in the Former Boiler Packing House Building Area will be done in accordance with applicable federal, state, and local requirements. Rose Farm LLC has retained the services of a New Hampshire Certified Wetland Scientist to oversee regulatory issues associated with wetlands on the site.

NHDES Comment:
On page 18 of 20 it is indicated that "the westerly embankment of the BPB Area will be covered with a moisture barrier and 2 feet of clean fill..." Should that be a marker barrier?

- Response: StoneHill proposes that a marker layer/barrier be placed over the AUR area. The reference to moisture barrier was a typographic error.

NHDES Comment: Any soil containing coal ash that is transported off-site shall be characterized and managed accordingly.

- Response: StoneHill concurs with the NHDES comment. Soil containing apparent coal ash that is designated for off-site disposal will be adequately characterized and disposed of at an appropriate location.

NHDES Comment: For clarification, on page 18 of 20, please note that even if the presence of a constituent represents a background condition, that does not necessarily mean it does not pose a risk.

- Response: StoneHill understands that the presence of a constituent of concern that represents a background condition may pose a risk, and if so, appropriate risk reduction measures will be implemented to minimized environmental exposure.

Retention Basin #4 and Wetland H

NHDES Comment:
Retention Basin #4 and Wetland H - Sediment removal from Retention Basin #4 and the filling of Wetland H shall be performed in accordance with all applicable federal, state, and local requirements.

- Response: Any materials removed from wetlands in Retention Basin #4, and filling/grading of Wetland H, will be done in accordance with applicable federal, state, and local requirements. As indicated above, Rose Farm LLC has retained the services of a New Hampshire Certified Wetland Scientist to oversee regulatory issues associated with wetlands and water bodies on the site.

We trust the above responses address your comments regarding the RAP and if not, please contact either of the undersigned if you require any additional clarification or have any questions. As this project is currently proceeding through the Exeter Planning Board process, on behalf of Rose Farm, LLC, we request NHDES approval of the RAP at your earliest convenience.

Sincerely,

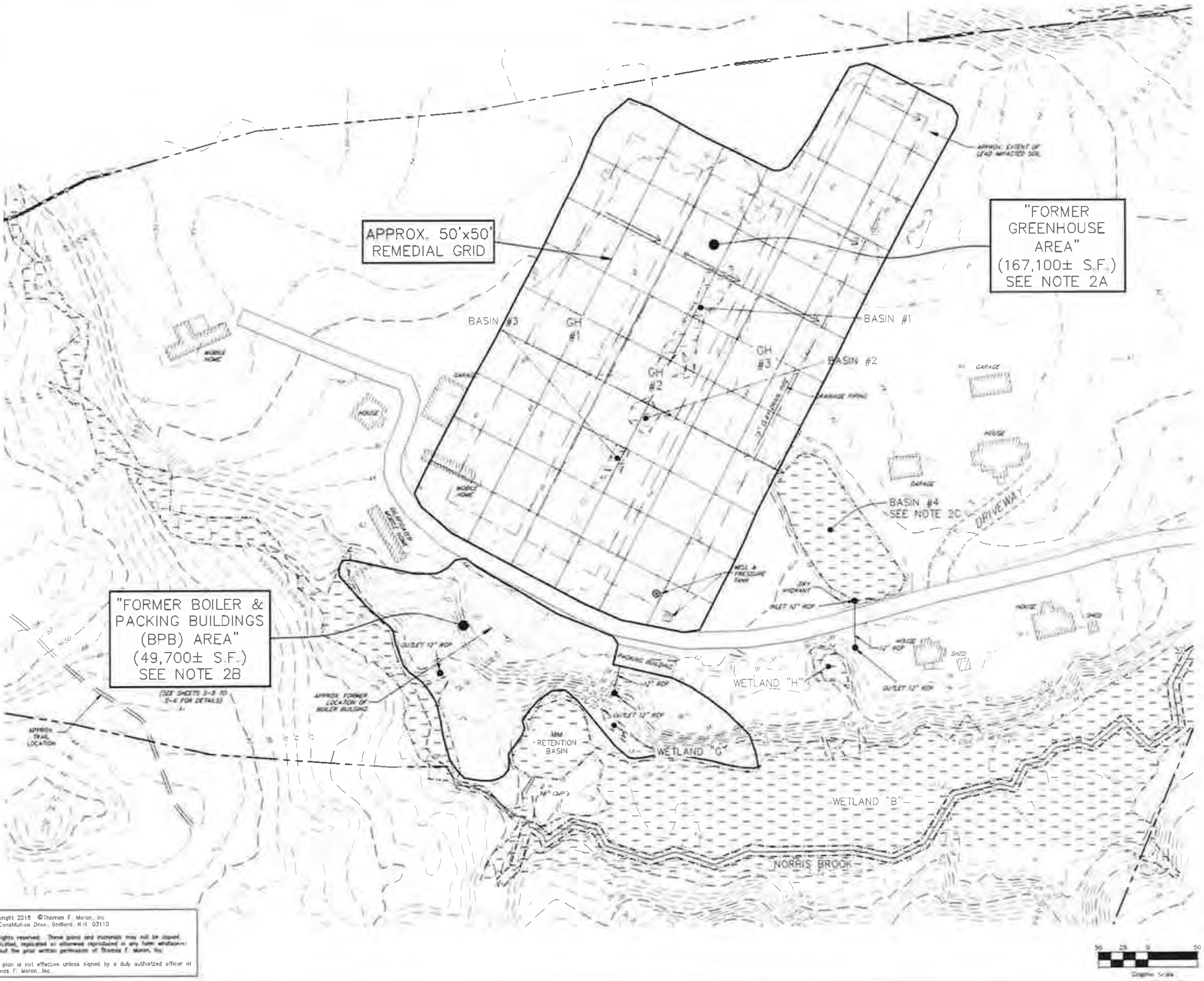
StoneHill Environmental, Inc.

Timothy Stone, PG
Principal

Allen Wyman
Project Manager

Enclosure: Figure 9 – Remediation Areas

FIGURE 9



ENVIRONMENTAL NOTES:

1. THIS SITE IS NHDES SITE #201203003 AND IS KNOWN AS THE "FORMER DAGOSTINO ROSE FARM" IN EXETER NH

2. REMEDIAL ACTION PLAN:

   A. FORMER GREENHOUSE AREA – SHALLOW SOIL CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES STANDARD APPLICABLE TO RESIDENTIAL PROPERTIES WILL BE REMOVED AND PROPERLY DISPOSED AT AN OFF-SITE DISPOSAL FACILITY

   B. FORMER BOILER & PACKING BUILDING AREA – SOLID WASTES WILL BE IDENTIFIED REMOVED AND PROPERLY DISPOSED OF. CONCRETE AND BRICK REMOVED FROM THE SOLID WASTE AREA MAY BE CRUSHED AND USED AS ROAD BASE. COAL ASH/CLINKER WILL BE CONSOLIDATED IN THE FORMER PACKING HOUSE AREA. CAPPED AND COVERED

   C. MANMADE RETENTION BASIN #4 – SEDIMENTS CONTAINING LEAD CONCENTRATIONS EXCEEDING THE NHDES ECOLOGICAL STANDARDS WILL BE REMOVED AND PROPERLY DISPOSED OF AT AN OFF-SITE LOCATION

3. DESCRIPTIONS:

   BASIN #1 – MANMADE RETENTION BASIN – 2,633± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS

   BASIN #2 – MANMADE RETENTION BASIN – 761± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS

   BASIN #3 – MANMADE RETENTION BASIN – 392± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS

   BASIN #4 – MANMADE RETENTION BASIN – 10,206± S.F. TO BE REMEDIATED AND RESTORED IN PLACE

   WETLAND "G" – MANMADE WETLAND – 276± S.F. TO BE FILLED AS A RESULT OF THE REMEDIATION PROCESS

(SEE SHEET S-1 FOR SURVEY NOTES AND SHEETS S-2 TO S-6 FOR DETAILS)

LEGEND:

CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
MM	MANMADE
S.F.	SQUARE FEET
GH	GREENHOUSE
	STONE WALL
	BROOK
	PERENNIAL STREAM
	INTERMITTENT STREAM
	EDGE OF WETLANDS AND SURFACE WATER
	PROPERTY BOUNDARY
	EXISTING PAVEMENT
	FORMER GREENHOUSE/BOILER & PACKING BUILDINGS AREA
	WETLANDS

TAX MAP 54 LOTS 5, 6 & 7

REMEDIATION AREAS

"FORMER DAGOSTINO ROSE FARM"

STREET EXTENSION

EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

OWNED BY

EXETER ROSE FARM, LLC

PREPARED FOR

EXETER ROSE FARM, LLC

SCALE: 1"=50' **OCTOBER 23, 2017**

TFM MSC — Civil Engineers, Structural Engineers, Traffic Engineers, Land Surveyors, Landscape Architects, Scientists — 170 Commerce Way, Suite 102, Portsmouth, NH 03801, Phone (603) 431-2222, Fax (603) 431-0910, www.mscengineers.com

47175.00 | DR BMK | FB – | CK JCC | CADFILE 47175.00_ENV | S-4

Aug 29 2018 10:04am F:\MSC Projects\47175 Oak Street Extension Exeter\47175.00 Baker Properties\47175.00 C3D\Survey\Drawings\ENVIRONMENTAL\47175.00_Site.dwg

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

September 21, 2018

Todd Baker
Exeter Rose Farm, LLC
953 Islington Street, Suite 23D
Portsmouth, NH 03801

Subject: **Exeter** – Former Dagostino Rose Farm, Oak Street Extension
DES Site **#201203003**, Project #27859

Response to Comments - Supplemental Site Investigation and Remedial Action Plan, prepared by StoneHill Environmental, Inc., dated August 30, 2018

Dear Mr. Baker:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the *Response to Comments - Supplemental Site Investigation and Remedial Action Plan* prepared by StoneHill Environmental, Inc. (StoneHill) on behalf of Exeter Rose Farm, LLC. Based on our review, NHDES finds StoneHill's responses to our comments to be acceptable and has determined that the Remedial Action Plan (RAP) meets the criteria for approval pursuant to Env-Or 606.13. Accordingly, NHDES hereby approves the RAP and requests that Exeter Rose Farm, LLC proceed with development of remedial design plans and construction specifications pursuant to Env-Or 606.15(b).

Should you have any questions regarding the comments above, please contact me at NHDES' Waste Management Division.

Sincerely,

Michael McCluskey, P.E.
Hazardous Waste Remediation Bureau
Tel: (603) 271-2183
Fax: (603) 271-2181
Email: Michael.McCluskey@des.nh.gov

ec: Attention Health Officer, Town of Exeter
Timothy Stone, P.G., StoneHill Environmental, Inc.
Allen Wyman, StoneHill Environmental, Inc.
Amy Doherty, P.G., State Sites Supervisor, HWRB