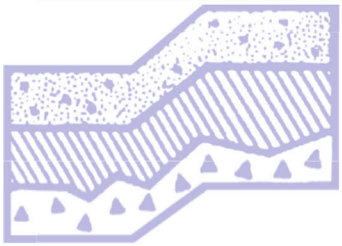
GEOTECHNICAL REPORT

Arlington CIC
Arlington and Marysville, Washington

Project No. T-8340



Terra Associates, Inc.

Prepared for:

NorthPoint Development
Riverside, Missouri

January 20, 2021

TERRA ASSOCIATES, Inc.
Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

January 20, 2021
Project No. T-8340

Mr. Josh Wills
NorthPoint Development
4825 NW 41st Street, Suite 500
Riverside, Missouri 64150

Subject: Geotechnical Report
Arlington CIC
Arlington and Marysville, Washington

Dear Mr. Wills:

As requested, we have conducted a geotechnical engineering study for the subject project. The attached report presents our findings and preliminary recommendations for the geotechnical aspects of project design and construction.

The soils observed in our subsurface explorations are glacial outwash deposits consisting primarily of medium dense, fine- to medium-grained sand and fine- to coarse-grained sand and gravel that are typically overlain by 2 to 4 feet of fine- to medium-grained silty sand or silt. Peat soils were observed in one test pit to depths greater than 12 feet below current site grades. Groundwater was encountered in all but two of the 153 test pits below depths typically ranging between about 4 and 6 feet.

In our opinion, there are no geotechnical considerations that would preclude development of the site, as currently planned. The buildings can be supported on conventional spread footings bearing on competent inorganic native soils, on structural fill placed and compacted on a competent native soil subgrade. Pavement and floor slabs can be similarly supported.

Detailed recommendations addressing these issues and other geotechnical design considerations are presented in the attached report. We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

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1-20-21

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1.0 PROJECT DESCRIPTION

The proposed project is an industrial development consisting of 9 warehouse-style buildings, 16 stormwater detention ponds, and associated paved access, parking, and utility improvements. A conceptual site development plan by Sitepoint, dated August 10, 2020 indicates the proposed buildings will have footprint areas ranging from approximately 137,000 square feet (sf) (Building 4) to approximately 952,000 sf (Building 3). Paved parking, loading dock areas, and access drives are adjacent to the building perimeters. Grading to achieve building lot and roadway elevations will consist of fills ranging from 1 to 15 feet. Grade transitions will be support with 2:1 (horizontal: vertical) slopes or retaining walls. We would note the retaining walls are predominately in the northern portion of the site near Building 7.

Site stormwater will be collected and directed to 1 of 16 stormwater detention facilities located throughout the development. Due to the shallow groundwater at the site, the stormwater facilities will be constructed using fill with the bottom of pond elevations near existing grade. The stormwater facilities will ultimately discharge to the relocated Edgecombe creek and Ditch X which will be located on the eastern portion of the property.

We expect the buildings will be constructed using precast concrete tilt-up perimeter wall panels with interior columns spaced at 30 to 50 feet. Structural loading is expected to be light, with isolated columns carrying loads of 80 to 150 kips, and bearing walls carrying 4 to 8 kips per foot. Uniform floor slab loading up to a maximum of 350 pounds per square foot is also expected.

The recommendations in the following sections of this report are based on our understanding of the design features outlined above. We should review design drawings as they become available to verify that our recommendations have been properly interpreted and to supplement them, if required.

2.0 SCOPE OF WORK

We explored subsurface conditions at the site by excavating 153 test pits to maximum depths of about 6 to 12 feet using a track-mounted excavator. In-Situ Engineering, under subcontract with Terra Associates, Inc., performed 20 cone penetration tests (CPTs) to a maximum depths of 60 and 100 feet below current site grades. Using the results of our subsurface exploration and laboratory testing, analyses were undertaken to develop geotechnical recommendations for project design and construction. Specifically, this report addresses the following:

- Soil and groundwater conditions.
- Geologic hazards per the Arlington and Marysville Municipal Codes.
- Seismic design parameters per the current International Building Code (IBC).
- Site preparation and grading.

- Excavations
- Foundations
- Slab-on-grade floors.
- Lateral earth pressures for wall design.
- Stormwater facilities
- Infiltration feasibility.
- Drainage.
- Utilities
- Pavements

It should be noted that the recommendations outlined in this report regarding drainage are associated with soil strength, design earth pressures, erosion, and stability. Design and performance issues with respect to moisture as it relates to the structure environment are beyond Terra Associates' purview. A building envelope specialist or contactor should be consulted to address these issues, as needed.

3.0 SITE CONDITIONS

3.1 Surface

The site is an approximately 426-acre assemblage of 19 parcels located between 272nd Street NE and the approximate right-of-way for 146th Street NE. The vast majority of the site is located between 51st Avenue NE and the BNSF Railroad right-of-way (ROW). Three parcels totaling approximately 38.7 acres are located on the east side of the BNSF ROW in the southeastern portion of the site. The northernmost 89.47-acre parcel of the assemblage is located within the city limits of Arlington, Washington. The remaining 18 parcels are located within the Marysville, Washington city limits. The approximate site location is shown on Figure 1.

Site topography is relatively flat. Elevation contours shown on the USGS Topographic Map of the Arlington West 7.5-minute Quadrangle, Snohomish County, Washington (2017) shows a site relief of about 30 feet from northeast to southwest.

Existing site improvements include a residential farm that occupies the western part a 20-acre parcel in the west-central portion of the site, a vacant residence and several outbuildings on the southeast corner of the intersection of 51st Avenue NE and 152nd Street NE, and a metal barn located on the north side of 152nd Street NE approximately 1,100 feet east of 51st Avenue NE. The remaining portions of the site are undeveloped. The vast majority of the undeveloped site areas are farmed agricultural fields. Exceptions to this include the northwestern and northeastern portions of the site adjacent to 272nd Street NE and an existing stormwater pond located in the west-central portion of the northern parcel. The pond is rectangular in area with its bottom established only a few feet below adjacent grade. The bottom of the pond appears to be surfaced with a layer of quarry spalls. Broad areas of shallow water covered much of the pond bottom at the time of our fieldwork. The perimeter of the pond is vegetated with thick brush and younger deciduous trees. Brush and scattered younger deciduous trees are growing within the pond interior.

Edgecombe Creek flows northeast to southwest across the site within a shallow excavated ditch. The ditch generally bisects the northern 89.47-acre parcel in the east-west direction then runs north-south and east-west along parcel boundaries before transitioning to a culvert beneath 152nd Street NE and then continuing to the south before exiting the site. A moderate volume of water was flowing within the trench at the time of our April 2020 fieldwork. We did not observe any water in the ditch during our August 2020 fieldwork. The ditch is generally vegetated with grasses, brush, and scattered deciduous trees. The conceptual site development plan shows Edgecombe Creek relocated to the eastern margin of the planned development area adjacent to the BNSF ROW.

An Olympic Pipeline liquified petroleum pipeline corridor crosses the southern portion of the site from a point on the east side of 51st Avenue NE about 775 feet north of 152nd Street NE to a point about 1,350 feet south of 152nd Street NE and 600 feet east of the BNSF ROW. A fenced pipeline block-valve facility is located on site on the north side of 152nd Street NE approximately 300 feet east of 51st Avenue NE.

3.2 Soils

The soils observed in the test pits are generally native glacial outwash deposits consisting of medium dense, fine- to medium-grained sand and medium dense, fine- to coarse-grained sand with gravel to gravel with sand. The sand and gravel deposits typically caved or experienced sloughing due to heavy groundwater seepage when the test pits were allowed to remain open for more than a few minutes.

Fine-grained alluvium consisting primarily of silty sand to sandy silt overlies the granular outwash deposits to depths of about 2 to 4 feet in 135 of the 153 test pits. The fine grained deposits are generally medium dense and moist with occasional mottling and scattered areas of significant iron oxide staining.

All but one of the test pits terminated in the granular outwash deposits. The soils observed in Test Pit TP-3 near the north-central site margin consist of several feet of moist to wet silt overlying soft, wet peat to the test pit termination depth of 12 feet. Peat soils were not observed at any other site location. Organic topsoil thicknesses observed in the test pits generally range between about 3 and 12 inches with scattered localized areas a thick as 18 inches.

The soil types and strengths indicated on the shallow depth portions of the CPT logs generally correlate with the test pits. At greater depths, the CPT logs indicate sands that are generally medium dense to dense, with scattered dense to very dense gravelly sand horizons noted at variable depths to the CPT termination depths of approximately 60 feet and 100 feet.

The *Geologic Map of the Arlington West 7.5-Minute Quadrangle, Snohomish County, Washington* by J.P. Minard (1985) shows the site mapped as the Marysville Sand Member (Qvrm) of Vashon glacial recessional outwash deposits described as well-drained stratified to massive outwash sand, some fine gravel, and some areas of silts and clays. The vast majority of the soils encountered in the test pits are consistent with this geologic map unit.

Detailed descriptions of the subsurface conditions we observed in our site explorations are presented on the Test Pit Logs. The Test Pit Logs and CPT logs are attached in Appendix A. The approximate Test Pit and CPT locations are shown on Figures 2A and 2B.

3.3 Groundwater

Groundwater seepage was observed all of the test pits except Test Pit TP-25 and Test Pit TP-237. The observed groundwater seepage was typically heavy and generally emanated from the fine- to coarse-grained sand and gravel deposits with light to moderate seepage typically occurring from the overlying fine- to medium-grained sand to silty sand. The observed seepage levels ranged between about 3 feet and 9 feet but typically occurred between about 4 and 6 feet.

Our observations in the test pits and experience with groundwater conditions in the area indicate the observed groundwater seepage levels generally correspond with the local groundwater table. It should be noted that the groundwater seepage levels observed in our April 2020 test pits were not significantly different from those observed in our August 2020 subsurface explorations when groundwater is expected to be at seasonal low levels.

The groundwater levels indicated by seepage in the test pits do not appear to be an accurate representation of actual groundwater depths beneath the site. As indicated on the following table, groundwater levels measured on June 12, 2020 in 2-inch diameter perforated PVC standpipes installed in several of the test pits were all higher than those indicated by seepage observations during test pit excavation.

Test Pit	Groundwater Seepage Level April 2020 (Ft Below Ground Surface)	Measured Groundwater Level June 2020 (Ft Below Ground Surface)	Measured Groundwater Level November 2020 (Ft Below Ground Surface)
TP-4	6.5	2.34	2.57
TP-12	4.0	1.50	0.09
TP-31	6.0	1.80	0.79
TP-56	6.0	4.18	2.50
TP-58	6.0	3.87	1.55
TP-61	5.5	2.26	0.84
TP-64	6.0	2.95	
TP-66	7.0	2.50	
TP-67	4.0	1.30	

The higher groundwater levels measured in the standpipes are generally consistent with the results of pore pressure dissipation testing conducted in six of the CPTs, which all indicated hydrostatic levels within 2 feet of the ground surface. The groundwater observed in November 2020 likely represents the seasonal high for the site.

3.4 Geologic Hazards

We evaluated current site conditions for the presence of geologic hazards as designated by the Arlington Municipal Code (AMC) and Marysville Municipal Code (MMC). Chapter 20.93.600(a) of the AMC defines geologically hazardous areas as areas susceptible to erosion, sliding, earthquakes, liquefaction, or other geological events. Per Chapter 22A.020 of the MMC, geologic hazard areas mean lands or areas characterized by geologic, hydrologic, and topographic conditions that render them susceptible to potentially significant or severe risk of landslides, erosion, or seismic activity.

Site conditions do not meet the criteria defining erosion hazards or landslide/steep slope hazards given in the AMC or the MMC. In our opinion, the site conditions are not susceptible to these geologic hazards.

3.4.1 Seismic Hazard Areas

Seismic hazard areas in Arlington as defined by Chapter 20.93.600(b)(4) of the AMC are described as including "…areas subject to severe risk of earthquake damage as a result of seismic induced settlement, shaking, slope failure or soil liquefaction. These conditions occur in areas underlain by cohesion less soils of low density usually in association with a shallow groundwater table."

Chapter 22A.020 (Definitions) of the MMC defines seismic hazard areas as "…areas that, due to a combination of soil and groundwater conditions, are subject to severe risk of ground shaking, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium), have a shallow groundwater table, and are typically located on the floors of river valleys. Seismic hazard areas are classified as follows:

(1) Low Hazard. Areas underlain by dense soils or bedrock.

(2) High Hazard. Areas underlain by soft or loose saturated soils."

Liquefaction is a phenomenon where there is a reduction or complete loss of soil strength due to an increase in water pressure induced by vibrations. Liquefaction mainly affects geologically recent deposits of fine-grained sands underlying the groundwater table. Soils of this nature derive their strength from intergranular friction. The generated water pressure or pore pressure essentially separates the soil grains and eliminates this intergranular friction; thus, eliminating the soil's strength.

We completed a liquefaction analysis using the computer program LiquefyPro published by CivilTech Corporation. The analysis was completed using a ground acceleration value of 0.541g, which is the ASCE 7-16 site-modified peak ground acceleration value (PGA_M). The results of the liquefaction analysis are attached in Appendix B.

The results of our analysis indicate soil liquefaction could occur during the design earthquake event. Analysis indicates that liquefaction of the sand layers could result in total settlements between one inch and three inches, half of which could be differential. If unmitigated, these settlements could result in some cracking of building walls and floor slabs, as well as distortion of doors and windows, but in our opinion would not structurally impair the building's use. If the owner is not willing to accept the risk associated with the potential settlements due to liquefaction of the site soils, the buildings should be supported on densified aggregate piers. Raising site grades with structural fill would also reduce the potential for adverse impacts to the buildings resulting from liquefaction-induced settlement.

Accordingly, per the seismic hazard area criteria given above, it is our opinion that in Arlington, site conditions are consistent with a seismic hazard area. Based on the results of our liquefaction analyses and our interpretation of the MMC criteria, it is our opinion the site conditions warrant classification as a "high hazard" seismic hazard area. However, as discussed above, it is our opinion that potential for structural damage resulting from soil liquefaction at the site can be adequately mitigated and that design in accordance with local building codes for determining seismic forces would adequately mitigate life safety impacts associated with ground shaking.

3.5 Seismic Site Class

Based on the soil conditions encountered and the local geology, the current International Building Code (IBC) indicates that Site Class "D" should be used in structural design.

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 General

Based on our study, in our opinion, there are no geotechnical constraints that would preclude development, as planned. The structures can be supported on conventional spread footings bearing on competent native soils or on structural fill placed above these native soils. Floor slabs and pavements can be similarly supported.

The exception to this is in the vicinity of Test Pit TP-3 where we observed greater than 12 feet of peat. This material would not be suitable for support of building elements and would need to be removed and replaced with new structural fill. The lateral extent of the over excavation and removal would need to be determined in the field during grading.

Deep excavations, such as may be required for utility construction, that extend below the groundwater table will be subject to ground loss due to saturation and loss of shear strength within the site's cohesionless sand and gravel soils. Dewatering that consists of installing regularly spaced well points, adjacent to the excavation may be required in order to maintain relatively dry working conditions and increase the stability of the granular soils.

Design of a stormwater detention facilities will need to consider the relatively shallow groundwater table at the site. For pond design and construction, the potential impacts from the shallow groundwater table to constructability and design water surface elevations will need to be considered. In our opinion, a groundwater table one foot below existing ground surface should be used for design purposes. Design and construction of deeper structures such as manholes and vaults will need to include buoyancy effects and hydrostatic pressures acting on the vault structure. Dewatering for construction of these structures would also likely be required.

Most of the near-surface soils at the site contain a sufficient amount of fines (silt- and clay-sized particles) that will make them difficult to compact as structural fill when too wet. Accordingly, the ability to use the soils from site excavations as structural fill will depend on their moisture content and the prevailing weather conditions at the time of construction. If grading activities will take place during the winter season, the owner should be prepared to import free-draining granular material for use as structural fill and backfill.

Detailed recommendations regarding these issues and other geotechnical design considerations are provided in the following sections of this report. These recommendations should be incorporated into the final design drawings and construction specifications.

4.2 Site Preparation and Grading

In general, it will not be necessary to strip the organic surface layer where structural fill thicknesses above existing grade are a minimum of six feet and four feet in building and pavement areas, respectively. However, existing surface vegetation should be mowed close to the ground with the cut debris removed from the site. Clearing of trees should include removal of the entire tree root ball.

Where structural fill thicknesses are less than the recommended minimums, both the organic surface soil and vegetation should be stripped from below building and pavement areas. Stripping depths between about 3 and 18 inches should be expected. Topsoil and other organic soils will not be suitable for use as structural fill but may be used for limited depths in non-structural areas. We recommend removing existing building foundations and slabs and abandoning underground septic systems and other buried utilities from the planned development area. Abandoned utility pipes that fall outside of new building areas can be left in place provided they are sealed to prevent intrusion of groundwater seepage and soil.

Excavation depths of more than 12 feet should be expected within the vicinity of Test Pit TP-3 to remove the peat soils. The grade can be restored using new structural fill placed and compacted as outlined below. The lateral extent of the removal should be determined in the field during grading.

Once clearing and stripping operations are complete, cut and fill operations can be initiated to establish desired grades. Prior to placing fill, all exposed surfaces should be compacted using a large, heavy, vibratory roller to densify the loose upper soils and determine if any isolated soft and yielding areas are present. We recommend that a Terra Associates, Inc. representative be on-site to observe proofrolling and verify suitable subgrade conditions in pavement and building areas. If excessively yielding areas are observed and cannot be stabilized in place by compaction, the affected soils should be excavated and removed to firm bearing soil and grade restored with new structural fill. If the depth of excavation to remove unstable soils is excessive, use of a geotextile reinforcing/separation fabric, such as Mirafi 500X or equivalent, can be considered in conjunction with structural fill. Our experience has shown that, in general, a minimum of 18 inches of a clean, granular structural fill over the geotextile fabric should establish a stable bearing surface.

Our study indicates that most of the near-surface soils are fine grained or contain a sufficient percentage of fines (silt and clay size particles) that will make them difficult to compact as structural fill if they are too wet or too dry. Accordingly, the ability to use these native soils from site excavations as structural fill will depend on their moisture content and the prevailing weather conditions when site grading activities take place. The use of the silt soils as structural fill would likely require extensive efforts to properly moisture condition the soil to facilitate proper compaction.

If grading activities are planned during the wet winter months, or if they are initiated during the summer and extend into fall and winter, the owner should be prepared to import wet weather structural fill. For this purpose, we recommend importing a granular soil that meets the following grading requirements.

U.S. Sieve Size	Percent Passing
6 inches	100
No. 4	75 maximum
No. 200	5 maximum*

*Based on the 3/4-inch fraction.

Prior to use, Terra Associates, Inc., should examine and test all materials imported to the site for use as structural fill.

Structural fill should be placed in uniform loose layers not exceeding 12 inches and compacted to a minimum of 95 percent of the soil's maximum dry density, as determined by American Society for Testing and Materials (ASTM) Test Designation D-698 (Standard Proctor). The moisture content of the soil at the time of compaction should be within two percent of its optimum, as determined by this ASTM standard. In non-structural areas, the degree of compaction can be reduced to 90 percent. Structural fill placed in rights of way should conform to material and compaction specifications set forth by the applicable jurisdiction.

4.3 Excavations

All excavations at the site associated with confined spaces, such as utility trenches, must be completed in accordance with local, state, or federal requirements. Based on current Washington Industrial Safety and Health Act (WISHA) regulations, the medium dense native soils would be classified as Type C soils.

Temporary excavations in Type C soils should be sloped at an inclination of 1.5:1 (Horizontal:Vertical) or flatter. As discussed above, excavations into sand and gravel deposits below the water table will likely require dewatering using regularly spaced well points in order to stabilize the soils.

The preceding information is provided solely for the benefit of the owner and other design consultants and should not be construed to imply that Terra Associates, Inc., assumes responsibility for job site safety. It is understood that job site safety is the sole responsibility of the project contractor.

4.4 Foundations

The structures may be supported on conventional spread footing foundations bearing on competent native soils or on structural fill placed on a competent native soil subgrade. Foundation subgrades should be prepared, as recommended in Section 4.2 of this report.

As noted above, the peat soils observed in Test Pit TP-3 will need to be removed from below all building elements. The lateral extent of the removal should be determined in the field during site grading.

Perimeter foundations exposed to the weather should bear at a minimum depth of 1.5 feet below final exterior grades for frost protection. Interior foundations can be constructed at any convenient depth below the floor slab. We recommend designing foundations bearing on competent soils for a net allowable bearing capacity of 3,000 pounds per square foot (psf). For short-term loads, such as wind and seismic, a one-third increase in this allowable capacity can be used. With the anticipated loads and this bearing stress applied, building settlements should be less than one-half inch total and one-fourth inch differential.

A base friction coefficient of 0.35 can be used for designing foundations to resist lateral loads. Passive earth pressures acting on the sides of the footings can also be considered to resist lateral design loads. We recommend calculating this lateral resistance using an equivalent fluid weight of 300 pounds per cubic foot (pcf). We recommend not including the upper 12 inches of soil in this computation because this zone can be affected by weather or disturbed by future grading activity. This value assumes the foundations will be constructed neat against competent soil and backfilled with structural fill, as described in Section 4.2 of this report. The recommended values include a safety factor of 1.5.

4.5 Slab-on-Grade Floors

Slab-on-grade floors may be supported on subgrades prepared as recommended in Section 4.2 of this report. Immediately below the floor slabs, we recommend placing a four-inch-thick capillary break layer of clean, free-draining, coarse sand or fine gravel that has less than three percent passing the No. 200 sieve. This material will reduce the potential for upward capillary movement of water through the underlying soil and subsequent wetting of the floor slabs.

The capillary break layer will not prevent moisture intrusion through the slab caused by water vapor transmission. Where moisture by vapor transmission is undesirable, such as covered floor areas, a common practice is to place a durable plastic membrane on the capillary break layer and then cover the membrane with a layer of clean sand or fine gravel to protect it from damage during construction, and aid in uniform curing of the concrete slab. It should be noted that if the sand or gravel layer overlying the membrane is saturated prior to pouring the slab, it will be ineffective in assisting in uniform curing of the slab and can actually serve as a water supply for moisture transmission through the slab and affecting floor coverings. Therefore, in our opinion, covering the membrane with a layer of sand or gravel should be avoided if floor slab construction occurs during the wet winter months and the layer cannot be effectively drained. We recommend floor designers and contractors refer to the current American Concrete Institute (ACI) Manual of Concrete Practice for further information regarding vapor barrier installation below slab-on-grade floors.

4.6 Lateral Earth Pressures for Wall Design

The magnitude of earth pressure development on retaining walls will partly depend on the quality and compaction of the wall backfill. We recommend placing and compacting wall backfill as structural fill, as described in Section 4.2. To prevent overstressing the walls during backfilling, heavy construction machinery should not be operated within five feet of the wall. Wall backfill in this zone should be compacted with hand-operated equipment. To prevent hydrostatic pressure development, wall drainage must also be installed. A typical wall drainage detail is shown on Figure 3. All drains should be routed to the storm sewer system or other approved point of controlled discharge.

With drainage properly installed, we recommend designing unrestrained walls for an active earth pressure equivalent to a fluid weighing 35 pounds per cubic foot (pcf). For restrained walls, an additional uniform load of 100 psf should be added to the 35 pcf. To account for typical traffic surcharge loading, the walls can be designed for an additional imaginary height of 2 feet (2-foot soil surcharge). For evaluation of wall performance under seismic loading, a uniform pressure equivalent to 8H psf, where H is the height of the below-grade portion of the wall, should be applied in addition to the static lateral earth pressure. These values assume a horizontal backfill condition and that no other surcharge loading, sloping embankments, or adjacent buildings will act on the wall. If such conditions exist, then the imposed loading must be included in the wall design. Friction at the base of foundations and passive earth pressure will provide resistance to these lateral loads. Values for these parameters are provided in Section 4.4.

4.7 Stormwater Detention Ponds

As noted above, site stormwater will be collected and directed to 1 of 16 detention ponds located throughout the site. Pond construction consists predominately of constructing fill berms with the bottom of pond elevations at or near existing surface grades. The berm locations should be stripped of topsoil and soils containing organic material prior to the placement of fill. The fill berms should be constructed by placing structural fill in layers no more than 12 inches thick, compacting each layer to a minimum of 95 percent relative compaction, as determined by ASTM Test Designation D-1557 (Modified Proctor). Material used to construct pond berms should consist predominately of granular soils with a maximum size of 3 inches and a minimum of 20 percent fines. The results of laboratory testing indicate that some of the site soils would meet this gradational requirement. Terra Associates, Inc. should examine and test all on-site or imported materials proposed for use as berm fill prior to their use.

Because of exposure to fluctuating stored water levels, soils exposed above the dead storage elevation on the interior side slopes of the ponds may be subject to some risk of periodic shallow instability or sloughing. In our opinion, establishing interior slopes at a 3:1 (Horizontal: Vertical) gradient will significantly reduce or eliminate this potential. Finished slope faces should be thoroughly compacted and vegetated to guard against erosion.

4.8 Infiltration Feasibility

Due to the shallow depth of the site groundwater, it is our opinion that infiltration as a means for discharging stormwater will not be feasible at the site if the site grades remain near their current elevations. If site grades are raised to allow three to five feet of separation between the seasonal high groundwater elevation and the bottom of the infiltration facility, then infiltration could be feasible.

If site grades are raised to allow a minimum of five feet of separation between the bottom of the facility and the seasonal high groundwater level, then a long-term design rate of 1-inch per hour could be used. If the site grades are raised to allow the code minimum three-foot separation, then the infiltration rate should be reduced to 0.8 inches per hour.

We would note that for any areas where the site grades are raised, the infiltration facilities will need to be hydraulically connected to the sand soils observed two to four feet below current site grades. The areas can be connected using a clean gravel backfill.

The ability of these facilities to function as intended should be evaluated as the stormwater plans are developed. We should work with the civil engineer to ensure the proposed plan will allow any infiltration facilities to function as intended. Additional testing and modeling for the site will be necessary in accordance with the Snohomish County Stormwater Manual and the Department of Ecology Stormwater Management Manual for Western Washington.

4.9 Drainage

Surface

Final exterior grades should promote free and positive drainage away from the buildings at all times. Water must not be allowed to pond or collect adjacent to foundations or within the immediate building areas. We recommend providing a positive drainage gradient away from the building perimeters. If this gradient cannot be provided, surface water should be collected adjacent to the structures and disposed to appropriate storm facilities.

Subsurface

We recommend installing a continuous drain along the outside lower edge of the perimeter building foundations. The foundation drains should be tightlined to an approved point of controlled discharge independent of the roof drain system. Subsurface drains must be laid with a gradient sufficient to promote positive flow to the point of discharge. All drains should be provided with cleanouts at easily accessible locations. These cleanouts should be serviced at least once every year.

4.10 Utilities

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA) or local jurisdictional specifications. As a minimum, trench backfill should be placed and compacted as structural fill, as described in Section 4.2 of this report. As noted, successful use of on-site soils as fill will require close moisture control. When moisture cannot be controlled to facilitate proper compaction, trench backfill should consist of an imported granular soil that meets the grading requirements presented in Section 4.2 of this report.

4.11 Pavements

Pavements should be constructed on subgrades prepared as recommended in Section 4.2 of this report. Regardless of the degree of relative compaction achieved, the subgrade must be firm and relatively unyielding before paving. Proofrolling the subgrade with heavy construction equipment should be completed to verify this condition.

The pavement design section is dependent upon the supporting capability of the subgrade soils and the traffic conditions to which it will be subjected. We expect traffic at the facility will consist of cars and light trucks, along with heavy traffic in the form of tractor-trailer-rigs. For design considerations, we have assumed traffic in parking and in car/light truck access pavement areas can be represented by an 18-kip Equivalent Single Axle Loading (ESAL) of 50,000 over a 20-year design life. For heavy traffic pavement areas, we have assumed an ESAL of 300,000 would be representative of the expected loading. These ESALs represent loading approximately equivalent to 3 and 18, loaded (80,000 pound GVW) tractor-trailer rigs traversing the pavement daily in each area, respectively.

With a stable subgrade prepared as recommended for the design ESAL values, we recommend the following pavement sections:

Light Traffic/Car Access:

- 2 inches of hot mix asphalt (HMA) over 6 inches of crushed rock base (CRB)
- 4 inches full depth HMA

Heavy Traffic/Truck Access:

- 3 inches of HMA over 8 inches of CRB
- 5 – 1/2 inches full depth HMA

For exterior Portland cement concrete (PCC) pavement, we recommend the following:

- 6 inches of PCC over 4 inches of CRB
    - 28-day compressive strength – 4,000 psi
    - Control joints spaced at a maximum of 15 feet.

The paving materials used should conform to the Washington State Department of Transportation (WSDOT) specifications for ½-inch class HMA, PCC, and CRB.

Long-term pavement performance will depend on surface drainage. A poorly drained pavement section will be subject to premature failure resulting from surface water infiltrating the subgrade soils and reducing their supporting capability. For optimum performance, we recommend surface drainage gradients of at least two percent. Some degree of longitudinal and transverse cracking of the pavement surface should be expected over time. Regular maintenance should be planned to seal cracks as they occur.

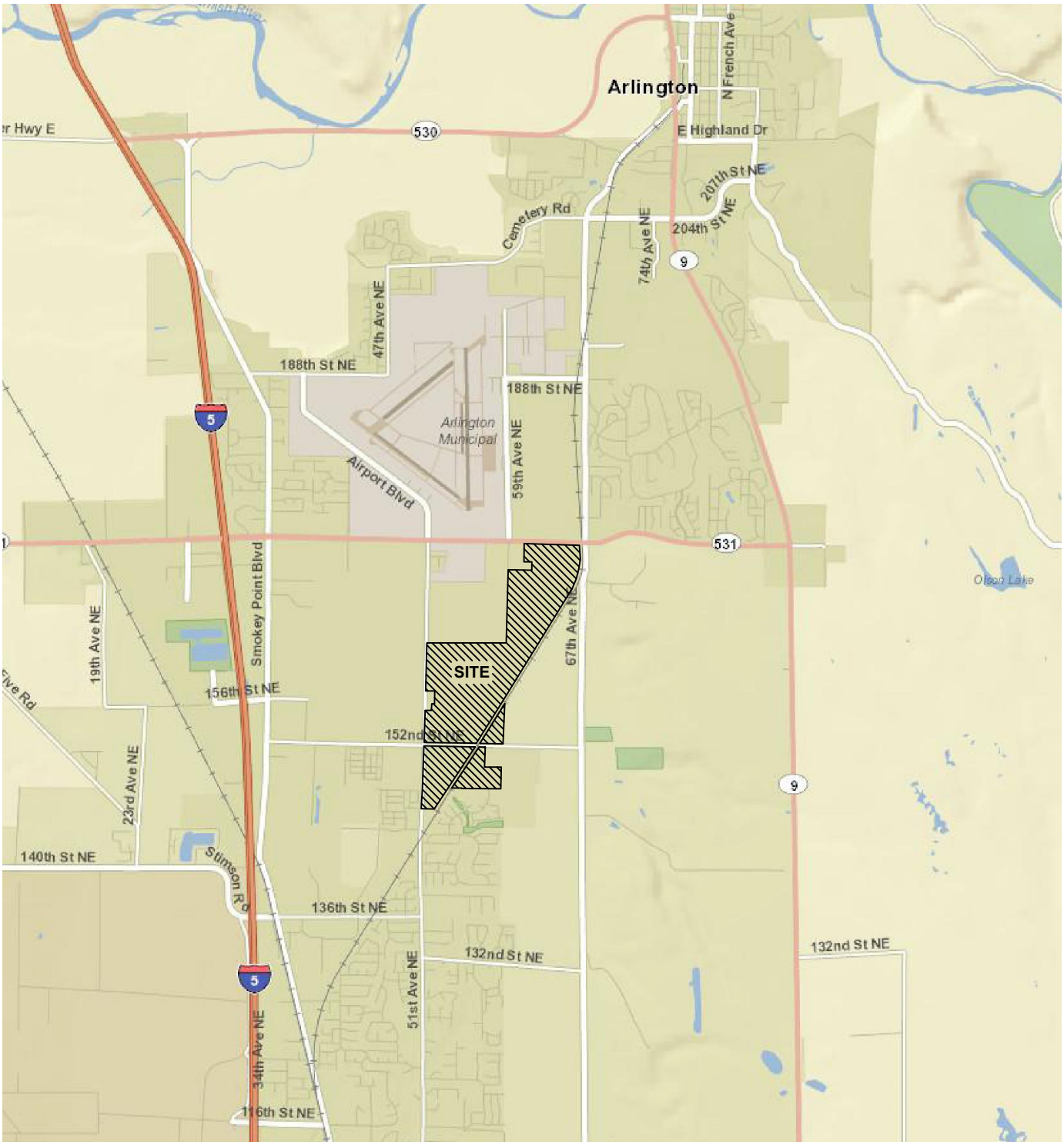
5.0 ADDITIONAL SERVICES

Terra Associates, Inc. should review project designs and specifications in order to verify that earthwork and foundation recommendations have been properly interpreted and incorporated into project design. We should also provide geotechnical services during construction to observe compliance with our design concepts, specifications, and recommendations. This will allow for expedient design changes if subsurface conditions differ from those anticipated prior to the start of construction.

6.0 LIMITATIONS

We prepared this report in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the Arlington CIC project in Arlington and Marysville, Washington. This report is for the exclusive use of the NorthPoint Development and their authorized representatives.

The analyses and recommendations presented in this report are preliminary and based on data obtained from the subsurface explorations completed on-site. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, Terra Associates, Inc. should be requested to reevaluate the recommendations in this report prior to proceeding with construction.



REFERENCE: WSDOT GEOPORTAL

NOT TO SCALE

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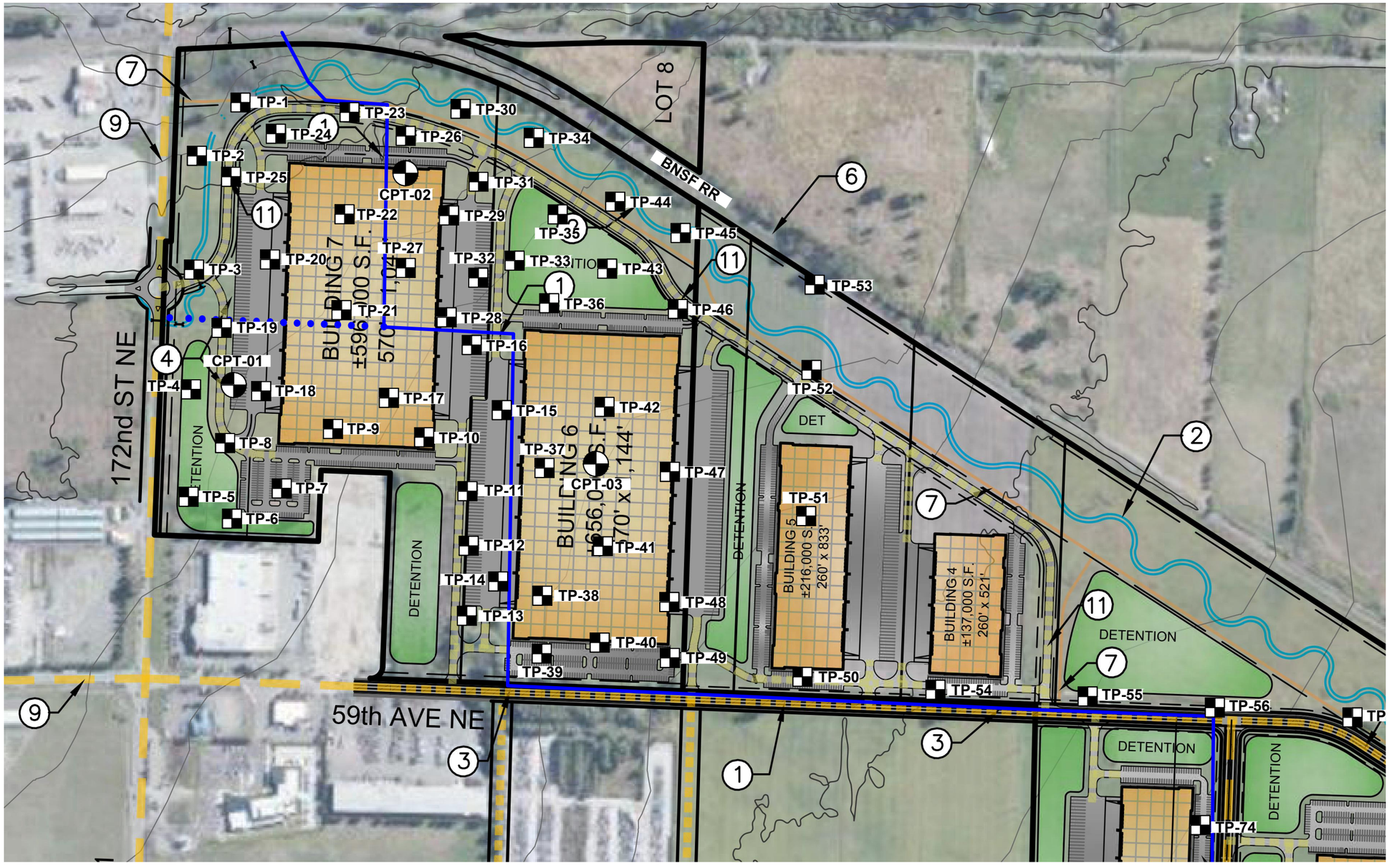
VICINITY MAP
ARLINGTON CIC
ARLINGTON & MARYSVILLE, WASHINGTON

Proj. No.T-8340	Date SEPT 2020	Figure 1



NOTE:

THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE:

SITEPOINT

LEGEND:

- APPROXIMATE TEST PIT LOCATION
- APPROXIMATE CPT LOCATION
- APPROXIMATE EDGECOMB CREEK LOCATION
- APPROXIMATE DRAINAGE DITCH LOCATION

0 400 800

APPROXIMATE SCALE IN FEET

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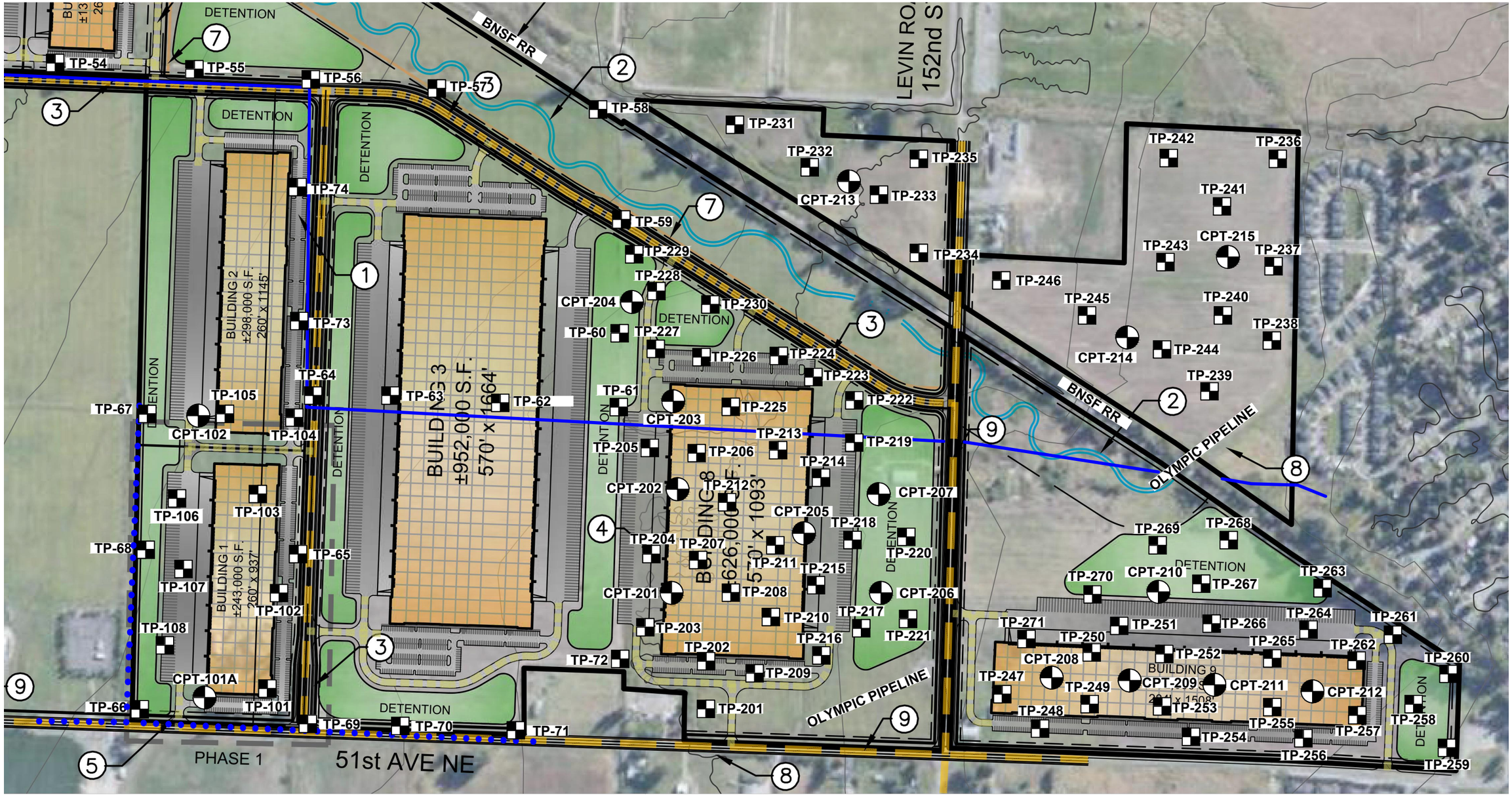
EXPLORATION LOCATION PLAN
ARLINGTON CIC
ARLINGTON & MARYSVILLE, WASHINGTON

Proj. No.T-8340	Date JAN 2021	Figure 2A

SEE FIG 2A



NOTE:

THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE:

SITEPOINT

LEGEND:

- APPROXIMATE TEST PIT LOCATION
- APPROXIMATE CPT LOCATION
- APPROXIMATE EDGECOMB CREEK LOCATION
- APPROXIMATE DRAINAGE DITCH LOCATION

0 400 800

APPROXIMATE SCALE IN FEET

Terra Associates, Inc.

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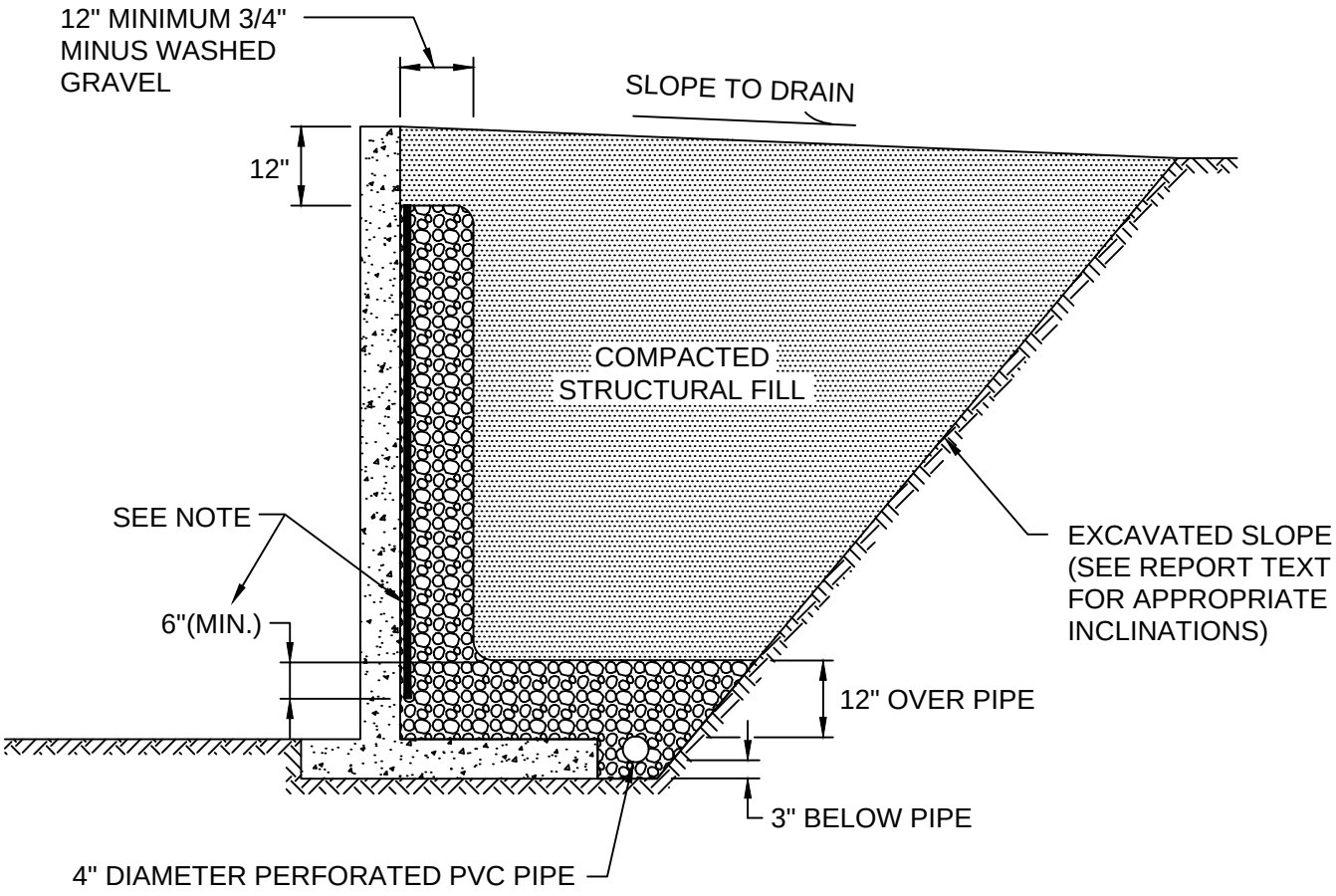
EXPLORATION LOCATION PLAN
ARLINGTON CIC
ARLINGTON & MARYSVILLE, WASHINGTON

Proj. No.T-8340	Date JAN 2021	Figure 2B



NOT TO SCALE

NOTE:

MIRADRAIN G100N PREFABRICATED DRAINAGE PANELS OR SIMILAR PRODUCT CAN BE SUBSTITUTED FOR THE 12-INCH WIDE GRAVEL DRAIN BEHIND WALL. DRAINAGE PANELS SHOULD EXTEND A MINIMUM OF SIX INCHES INTO 12-INCH THICK DRAINAGE GRAVEL LAYER OVER PERFORATED DRAIN PIPE.

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TYPICAL WALL DRAINAGE DETAIL
ARLINGTON CIC
ARLINGTON & MARYSVILLE, WASHINGTON

Proj. No.T-8340	Date JAN 2021	Figure 3

APPENDIX A

FIELD EXPLORATION AND LABORATORY TESTING

Arlington CIC
Arlington and Marysville, Washington

We explored subsurface conditions at the site by excavating 153 test pits to maximum depths of about 6 to 12 feet using a track-mounted excavator. The test pit locations were approximately determined in the field by pacing and sighting relative to existing surface features and using a hand-held GPS unit. The approximate test pit locations are shown on Figures 2A and 2B. The Test Pit Logs are attached as Figures A-2 through A-154.

An engineering geologist from our office conducted the field explorations, maintained test pit logs, classified soils, collected representative soil samples, and observed pertinent site features. All soil samples were visually classified in the field in accordance with the Unified Soil Classification System (USCS) described on Figure A-1.

Representative soil samples obtained from the test pits were placed in sealed containers and taken to our laboratory for further examination and testing. The moisture content of each sample was measured and is reported on the Test Pit Logs. Grain size analyses were performed on 23 samples. The results of the grain size analyses are attached as Figures A-155 through A-162.

In Situ Engineering, under subcontract with Terra Associates, Inc. conducted 17 60-foot-deep electric cone penetration tests (CPTs) and 3 100-foot deep CPTs for seismic shear wave velocity testing at locations selected by Terra Associates, Inc. The approximate CPT locations are shown on Figures 2A and 2B. The CPT is an instrumented approximately 1.5-inch diameter cone that is pushed into the ground at a constant rate. During advancement, continuous measurements are made of the resistance to penetration of the cone and the friction of the outer surface of a sleeve. The cone is also equipped with a porous filter and a pressure transducer for measuring groundwater or pore water pressure generated. Measurements of tip and sleeve frictional resistance, pore pressure, interpreted soil conditions, and seismic shear wave velocities are summarized in graphical form on the attached CPT Logs.

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTION
COARSE GRAINED SOILS More than 50% material larger than No. 200 sieve size	**GRAVELS** More than 50% of coarse fraction is larger than No. 4 sieve	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS More than 50% of coarse fraction is smaller than No. 4 sieve	Clean Sands (less than 5% fines)	SW	Well-graded sands, sands with gravel, little or no fines.
			SP	Poorly-graded sands, sands with gravel, little or no fines.
		Sands with fines	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS More than 50% material smaller than No. 200 sieve size	**SILTS AND CLAYS** Liquid Limit is less than 50%		ML	Inorganic silts, rock flour, clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity. (Lean clay)
			OL	Organic silts and organic clays of low plasticity.
	SILTS AND CLAYS Liquid Limit is greater than 50%		MH	Inorganic silts, elastic.
			CH	Inorganic clays of high plasticity. (Fat clay)
			OH	Organic clays of high plasticity.
HIGHLY ORGANIC SOILS			PT	Peat.

DEFINITION OF TERMS AND SYMBOLS

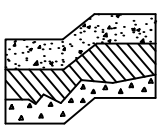
COHESIONLESS

Density	Standard Penetration Resistance in Blows/Foot
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	>50

COHESIVE

Consistancy	Standard Penetration Resistance in Blows/Foot
Very Soft	0-2
Soft	2-4
Medium Stiff	4-8
Stiff	8-16
Very Stiff	16-32
Hard	>32

I	2" OUTSIDE DIAMETER SPILT SPOON SAMPLER
‖	2.4" INSIDE DIAMETER RING SAMPLER OR SHELBY TUBE SAMPLER
▼	WATER LEVEL (Date)
Tr	TORVANE READINGS, tsf
Pp	PENETROMETER READING, tsf
DD	DRY DENSITY, pounds per cubic foot
LL	LIQUID LIMIT, percent
PI	PLASTIC INDEX
N	STANDARD PENETRATION, blows per foot



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UNIFIED SOIL CLASSIFICATION SYSTEM
ARLINGTON CIC
ARLINGTON & MARYSVILLE, WASHINGTON

Proj. No.T-8340	Date JAN 2021	Figure A-1

LOG OF TEST PIT NO. 1

FIGURE A-2

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 9 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		4 inches Sod and Topsoil.		
		Fill: Brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist. (SP)		
2		Gray silty SAND, fine grained, moist. (SM)		
3				
4				
5	1	Gray sandy SILT, fine sand, moist. (ML)	Medium Dense	16.0
6				
7	2	Gray-brown SAND, fine to medium grained, moist (wet below 9 feet). (SP)		20.7
8				
▼ 9				
10		Brown SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SP)		
11		Test pit terminated at 11 feet. Moderate groundwater seepage below 9 feet.		
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 2

FIGURE A-3

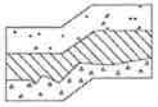
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6.5 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		6 inches Sod and Topsoil. Gray sandy SILT to silty SAND, fine sand, moist. (ML/SM)		
2				
3				
4				
5		Gray SAND to SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
6 ▼	1			20.8
7				
8				
9				
10				
11		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 6.5 feet. Moderate caving below 4 feet. Installed 2-inch diameter slotted PVC standpipe to 10 feet.		
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 3

FIGURE A-4

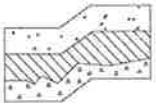
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	9 inches Sod and Topsoil. Gray SILT, moist to wet. (ML)		241.7
2				
3				
▼ 4		Brown PEAT, wet. (PT)	Soft	
5				
6				
7	2			395.1
8				
9				
10				
11				
12		Test pit terminated at 12 feet. Light groundwater seepage below 4 feet. Installed 2-inch diameter slotted PVC standpipe to about 11 feet.		
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 4

FIGURE A-5

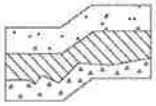
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6.5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, moist. (SM)		
2 ▽				
3		Gray SAND with gravel, fine to coarse sand (grades to fine to medium sand below 7 feet), fine to coarse gravel, wet. (SP)	Medium Dense	
4				
5				
6				
7 ▼				
8				
9				
10		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 6.5 feet. Moderate caving below 2 feet. Installed 2-inch diameter slotted PVC standpipe to 10 feet. Groundwater measured at 2.34 feet below ground surface on June 12, 2020.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 5

FIGURE A-6

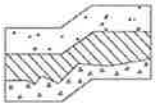
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	8 inches Sod and Topsoil. Brown silty SAND to SAND with silt, fine grained, moist. (SM/SP-SM)	Medium Dense	17.4
3		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, moist (wet below 5 feet). (SP)		
▼ 5				
6	2			22.1
10		Test pit terminated at 10 feet. Light groundwater seepage below about 5 feet. Moderate caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 6

FIGURE A-7

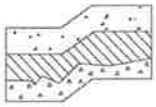
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 6 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		9 inches Sod and Topsoil. Brown silty SAND to SAND with silt, fine grained, moist. (SM/SP-SM)	Medium Dense	
4		Gray SAND with silt, fine grained, moist. (SP-SM)		
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
10		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 6 feet. Moderate caving below 6 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 7

FIGURE A-8

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 8 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		1 inch Sod and Topsoil.		
1		Dark brown organic silty SAND, fine grained, moist. (SM/OL). (Possible fill)		
2		Brown SAND to SAND with silt, fine grained, moist. (SP/SP-SM)		
3	1			13.7
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5			Medium Dense	
6				
7				
▼ 8				
9				
10		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 8 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 8

FIGURE A-9

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		1 inch Sod and Topsoil.		
1		Gray-brown SAND, fine grained, moist. (SP)		
2				
3				
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 5				
6				
7				
8		Test pit terminated at 8 feet. Light to moderate groundwater seepage below 5 feet. Moderate caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 9

FIGURE A-10

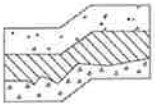
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
1		Gray silty SAND, fine grained, moist. (SM)		
2				
3		Gray-brown to gray SAND with gravel, fine to coarse sand, fine to coarse gravel, moist (wet below 6 feet). (SP)		
4	1			13.3
5			Medium Dense	
▼ 6				
7				
8				
9				
10		Test pit terminated at 10 feet. Light groundwater seepage below 6 feet. Moderate caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 10

FIGURE A-11

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		14 inches Sod and Topsoil.		
1		Brown SAND, fine grained, trace of fine to coarse gravel, moist. (SP)		
2				
3				
4		Gray SAND to SAND with gravel, fine to coarse sand, fine to coarse gravel, moist (wet below 6 feet). (SP)	Medium Dense	
5				
▼ 6				
7	1			16.5
8				
9				
10		Test pit terminated at 10 feet. Moderate to heavy groundwater seepage below 6 feet. Moderate caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 11

FIGURE A-12

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	14 inches Sod and Topsoil. Brown SAND, fine to coarse grained, trace of fine to coarse gravel, moist. (SP)		19.7
2				
3				
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6				
7				
8				
9				
10		Test pit terminated at 10 feet. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Moderate caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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Environmental Earth Sciences

LOG OF TEST PIT NO. 12

FIGURE A-13

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1 ▽		Brown SAND with silt to silty SAND, fine to medium grained, moist. (SP-SM/SM)		
2				
3		Brown SAND with gravel, fine to coarse grained, moist to wet. (SP)		
4 ▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5			Medium Dense	
6				
7				
8				
9				
10		Test pit terminated at 10 feet.		
11		Light groundwater seepage between 4 and 6 feet.		
12		Heavy groundwater seepage below 6 feet.		
13		Moderate caving below 2 feet.		
14		Installed 2-inch diameter slotted PVC standpipe to 10 feet.		
		Groundwater measured at 1.5 feet below ground surface on June 12, 2020.		

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 13

FIGURE A-14

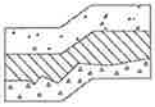
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		11 inches Sod and Topsoil.		
1		Brown SAND, fine to medium grained, moist. (SP)		
2				
3		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet. (SP)	Medium Dense	
▼ 4				
5				
6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 4 and 5.5 feet. Heavy groundwater seepage below 5.5 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 14

FIGURE A-15

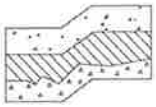
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	16 inches Sod and Topsoil. Orange-brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SM)	Medium Dense	27.8
2				
3				
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6				
7				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 4 and 5.5 feet. Heavy groundwater seepage below 5.5 feet. Significant caving below 3 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 15

FIGURE A-16

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	14 inches Sod and Topsoil. Gray sandy SILT to silty SAND, fine grained, moist, scattered iron oxide staining. (ML/SM)	Medium Dense	22.4
3		Gray SAND, fine to medium grained, wet. (SP)		
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
10		Test pit terminated at 10 feet. Light groundwater seepage between 5 and 6 feet. Heavy groundwater seepage below 6 feet. Moderate to significant caving below 3 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 16

FIGURE A-17

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		17 inches Sod and Topsoil. Gray silty SAND to sandy SILT, fine grained, moist. (SM/ML)		
3		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)		
▼ 4			Medium Dense	
6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
8	1			19.0
10		Test pit terminated at 10 feet. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Moderate to significant caving below 3 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 17

FIGURE A-18

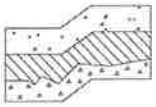
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		14 inches Sod and Topsoil.		
1		Brown SAND, fine to coarse grained, moist to wet, mottled. (SP)		
2				
3		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
4				
▼ 5				
6				
7				
8				
9		Test pit terminated at 9 feet due to caving. Moderate to heavy groundwater seepage below 5 feet. Significant caving below 3 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 18

FIGURE A-19

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	12 inches Sod and Topsoil. Gray-brown SAND, fine to medium grained, moist to wet. (SP)	Medium Dense	21.0
5 ▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
10		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 5 feet. Moderate caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 19

FIGURE A-20

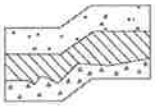
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 6 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		11 inches Sod and Topsoil.	Medium Dense	
1		Light gray ASH/SILT, moist. (ML)		
2				
3		Gray-brown SAND, fine to medium grained, moist to wet. (SP)		
4				
5				
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8				
9				
10				
11		Test pit terminated at 11 feet. Light to moderate groundwater seepage below 6 feet. Minor to moderate caving below 6 feet.		
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 20

FIGURE A-21

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	14 inches Sod and Topsoil. Light gray ASH/SILT, moist, mottled. (ML)		138.5
3		Blue-gray silty SAND to sandy SILT, fine grained, moist to wet. (SM/ML)		
▼ 4	2	Blue-gray SAND to SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	24.9
10		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 4 feet. Minor to moderate caving below 5 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 21

FIGURE A-22

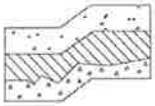
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Light gray sandy SILT, fine sand, moist. (ML)		
2				
3		Gray-brown SAND, fine to medium grained, moist. (SP)		
4				
5		Gray-brown to gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 6				
7				
8				
9				
10		Test pit terminated at 10 feet.		
11		Light to moderate groundwater seepage below 6 feet.		
12		Moderate caving below 3 feet.		
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 22

FIGURE A-23

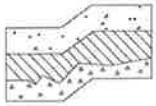
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 7 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray-brown to gray SILT with sand to silty SAND, fine sand, moist, mottled. (ML/SM)		
2				
3				
4		Blue-gray SAND, fine grained, wet. (SP)	Medium Dense	
5				
6				
▼ 7		Blue-gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
8				
9				
10		Test pit terminated at 10 feet. Light to moderate groundwater seepage below 7 feet. Moderate caving below 4 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 23

FIGURE A-24

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 8 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	12 inches Sod and Topsoil. Gray-brown silty SAND, fine grained, moist. (SM)	Medium Dense	17.6
3	2	Gray SAND, fine to medium sand, trace of fine to coarse gravel, moist to wet. (SP)		24.5
▼ 8		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
10		Test pit terminated at 10 feet. Moderate to heavy groundwater seepage below 8 feet. Moderate caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 24

FIGURE A-25

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		11 inches Sod and Topsoil.		
1		Light gray SILT to silty SAND, fine sand, moist. (ML/SM)		
2				
3		Gray SAND, fine to medium grained, moist to wet. (SP)	Medium Dense	
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
▼ 6				
7				
8		Test pit terminated at 8 feet due to caving.		
9		Heavy groundwater seepage below 6 feet.		
10		Significant caving below 4 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 25

FIGURE A-26

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 27, 2020 **DEPTH TO GROUNDWATER:** NA **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray to gray-brown silty SAND to sandy SILT, fine grained, moist, mottled. (SM/ML)		
2				
3		Gray-brown SAND, fine to medium grained, moist to wet. (SP)		
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5			Medium Dense	
6				
7				
8				
9				
10		Test pit terminated at 10 feet. No groundwater seepage. Moderate caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 26

FIGURE A-27

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	12 inches Sod and Topsoil. Gray-brown silty SAND, fine grained, moist, mottled. (SM)	Medium Dense	19.1
4		Gray-brown SAND, fine to coarse sand, trace of fine to coarse gravel, moist to wet. (SP)		
7		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
10		Test pit terminated at 10 feet. Light groundwater seepage below 6 feet. Moderate to significant caving below 2 feet.		
14				

▼ 8

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 27

FIGURE A-28

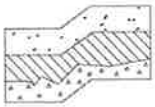
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		14 inches Sod and Topsoil.		
1		Light gray silty SAND, fine grained, moist. (SM)		
2		Gray SAND, fine to coarse grained, wet. (SP)		
3	1			20.8
4			Medium Dense	
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 5 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 28

FIGURE A-29

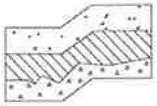
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Light gray sandy SILT, fine grained, moist, mottled. (ML)		
2				
3		Gray-brown SAND, fine to medium grained grading to fine to coarse grained, trace of fine to coarse gravel, wet. (SP)	Medium Dense	
4				
5				
▼ 6				
7				
8				
9				
10		Test pit terminated at 10 feet.		
11		Heavy groundwater seepage below 6 feet.		
12		Moderate to significant caving below 4 feet.		
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 29

FIGURE A-30

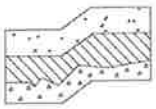
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
2	1			20.2
3	2			23.5
4		Gray SAND, fine to medium grained, wet. (SP)		
5	3	Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	15.9
▼ 6				
7				
8				
9				
10		Test pit terminated at 10 feet. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Significant caving below 4 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 30

FIGURE A-31

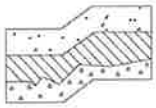
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
2				
3		Gray SAND, fine to medium grained, wet. (SP)		
4				
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
6				
7				
8				
9				
10		Test pit terminated at 10 feet. Light groundwater seepage below 5 feet. Moderate caving below 3 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 31

FIGURE A-32

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		9 inches Sod and Topsoil.		
1		Light gray silty SAND, fine grained, moist. (SM)		
2 ▽				
3		Brown to gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5			Medium Dense	
6 ▼				
7				
8				
9				
10				
11		Test pit terminated at 10 feet. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet. Installed 2-inch diamter slotted PVC standpipe to 10 feet. Groundwater measured at 1.8 feet below ground surface on June 12, 2020.		
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 32

FIGURE A-33

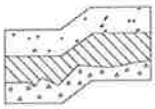
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		13 inches Sod and Topsoil.		
1		Light gray silty SAND to sandy SILT, fine grained, moist, mottled. (SM/ML)		
2		Gray SAND, fine to medium grained, wet. (SP)		
3				
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6				
7				
8				
9		Test pit terminated at 9 feet.		
10		Heavy goundwater seepage below 4 feet.		
11		Significant caving below 2 feet.		
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 33

FIGURE A-34

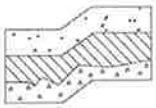
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		9 inches Sod and Topsoil.		
1		Light gray silty SAND to sandy SILT, fine grained, moist, mottled. (SM/ML)		
2				
3		Gray SAND, fine to medium grained, moist to wet. (SP)		
4		Gray-brown SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 6				
7		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel. wet. (SP)		
8				
9		Test pit terminated at 9 feet due to caving.		
10		Heavy goundwater seepage below 6 feet. Significant caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 34

FIGURE A-35

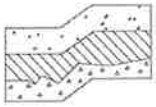
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	12 inches Sod and Topsoil. Light gray SILT, moist, mottled. (ML)	Medium Dense	17.7
2		Gray SAND, fine to medium grained, moist. (SP)		
3		Brown SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SP)		
4				
5		Gray SAND, fine to coarse grained, trace of fine to coarse gravel, wet. (SP)		
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 35

FIGURE A-36

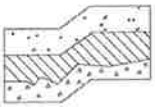
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		14 inches Sod and Topsoil.	Medium Dense	
1		Light gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2		Gray-brown SAND, fine to medium grained, wet. (SP)		
3				
4				
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 6				
7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 36

FIGURE A-37

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 1.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		12 inches Sod and Topsoil.		
		Light gray silty SAND, moist, mottled. (SM)		
2	1	Gray SAND, fine to medium grained, wet. (SP)		15.9
3				
▼ 4			Medium Dense	
		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5	2			16.5
6				
7				
8				
		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Significant caving below 1.5 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 37

FIGURE A-38

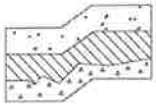
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		15 inches Sod and Topsoil.		
1		Gray-brown SAND, fine to medium grained, moist to wet. (SP)		
2				
3				
▼ 4			Medium Dense	
5				
6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 38

FIGURE A-39

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		10 inches Sod and Topsoil.	Medium Dense	
1		Light gray silty SAND, fine grained, moist. (SM)		
2		Brown SAND, fine to medium grained, moist to wet. (SP)		
3				
▼ 4		Brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7				
8				
9		Test pit terminated at 9 feet due to caving. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Significant caving below 3 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 39

FIGURE A-40

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Light gray silty SAND to SAND with silt, fine grained, moist. (SM/ML)		
2		Brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist to wet. (SP)		
3				
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6				
7				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Significant caving below 3 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 40

FIGURE A-41

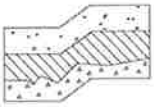
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 3.5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		10 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, moist. (SM)		
2	1	Gray-brown SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		20.3
3				
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6	2			18.5
7				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 3.5 and 5 feet. Heavy groundwater seepage below 5 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 41

FIGURE A-42

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 3 ft **DEPTH TO CAVING:** > 1 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Brown SAND, fine to medium grained, moist. (SP)		
2				
▼ 3				
4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8				
9		Test pit terminated at 9 feet due to caving. Light groundwater seepage between 3 and 5 feet. Heavy groundwater seepage below 5 feet. Significant caving below 1 foot.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 42

FIGURE A-43

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 7 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	12 inches Sod and Topsoil. Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)	Medium Dense	15.9
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 7		Gray SAND, fine to medium grained, wet. (SP)		
9		Test pit terminated at 9 feet due to caving. Moderate to heavy groundwater seepage below 7 feet. Significant caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 43

FIGURE A-44

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Light gray SILT, moist, mottled. (ML)		
2				
3	1	Brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	16.0
4		Gray SAND, fine to medium grained, wet. (SP)		
5				
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7		Test pit terminated at 7 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
8				
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 44

FIGURE A-45

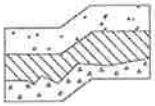
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0	1	12 inches Sod and Topsoil.	Medium Dense	17.6
1		Light gray SILT to sandy SILT, fine grained, moist, mottled. (ML)		
2		Brown SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)		
3				
4		Gray SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)		
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 6				
7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 45

FIGURE A-46

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil.		
1		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist (wet below 4 feet). (SP)		
2				
3				
4			Medium Dense	
▼ 5				
6				
7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 5 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 46

FIGURE A-47

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray silty SAND, fine grained, moist, mottled. (SM)		
2				
3		Gray-brown SAND, fine to medium grained, moist to wet, mottled. (SP)		
4		Gray SAND, fine to medium grained, wet. (SP)		
5	1	Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	13.5
▼ 6		Gray SAND, fine to medium grained, scattered fine to coarse gravel, wet. (SP)		
7				
8				
9				
10		Test pit terminated at 10 feet. Moderate to heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 47

FIGURE A-48

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		12 inches Sod and Topsoil.		
		Brown SAND, fine to medium grained, moist. (SP)		
2	1			20.3
3	2	Gray SAND, fine grained, moist. (SP)		25.8
4		Gray SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)	Medium Dense	
5				
▼ 6				
7		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
8				
9		Test pit terminated at 9 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 48

FIGURE A-49

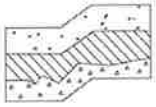
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Brown silty SAND, fine grained, wet. (SM)		
2				
3		Brown SAND, fine to medium grained, wet, mottled. (SP)		
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6				
7				
8		Test pit terminated at 8 feet due to caving. Light to moderate groundwater seepage between 4 and 6 feet. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 49

FIGURE A-50

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 28, 2020 **DEPTH TO GROUNDWATER:** 3.5 ft **DEPTH TO CAVING:** > 1.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		13 inches Sod and Topsoil.		
1		Brown silty SAND, fine to medium grained, moist. (SM)		
2		Brown SAND, fine to medium grained, moist to wet. (SM)	Medium Dense	
3 ▼				
4				
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 3.5 and 5 feet. Heavy groundwater seeapge below 5 feet. Significant caving below 1.5 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 50

FIGURE A-51

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Tilled soil **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		12 inches Topsoil. Gray silty SAND, fine grained, moist. (SM)	Medium Dense	
2	1	Brown SAND, fine to medium grained, moist, mottled. (SP)		14.3
3				
▼ 4		Gray-brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist to wet. (SP)		
5	2			17.9
6				
7		Gray SAND with gravel to GRAVEL with sand, fine to coarse sand, fine to coarse gravel, wet. (SP/GP)		
8				
9	3			10.9
10		Test pit terminated at 9 feet. Light groundwater seepage between 4 and 7 feet. Heavy groundwater seepage below 7 feet. Moderate caving below 4 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 51

FIGURE A-52

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Tilled soil **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Topsoil Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist. (SP)		
2	1	Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet. (SP)	Medium Dense	12.0
▼ 4				
8		Test pit terminated at 8 feet due to caving. Light groundwater seepage between 4 and 5 feet. Heavy groundwater seepage below 5 feet. Significant caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 52

FIGURE A-53

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Tilled soil **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0–1		12 inches Topsoil. Gray-brown silty SAND to SAND with silt, fine grained, moist, mottled. (SM/SP-SM)	Medium Dense	
2–4		Brown SAND, fine to medium grained, scattered fine to coarse gravel, moist to wet, scattered mottling. (SP)		
▼ 5–7		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
8–14		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 5 feet. Significant caving below 4 feet.		

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 53

FIGURE A-54

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Tilled soil **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 7 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		7 inches Topsoil. Tan silty SAND, fine grained, moist, mottled. (SM)		
2	1	Red-brown SAND, fine to medium grained, scattered fine to coarse gravel, moist. (SP)		8.5
3		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet. (SP)		
4				
5			Medium Dense	
6				
▼ 7	2			8.8
8				
9				
10		Test pit terminated at 10 feet. Heavy groundwater seepage below 7 feet. Minor to moderate caving below 3 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 54

FIGURE A-55

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Bare **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0–2	1	12 inches Topsoil. Red-brown silty SAND to SAND with silt, fine grained, trace of fine to coarse gravel, moist to wet. (SM/SP-SM)	Medium Dense	30.5
3–4		Gray-brown SAND with silt to silty SAND, fine to medium grained, wet. (SP/SP-SM)		
▼ 5–6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7–14		Test pit terminated at 7 feet due to groundwater. Heavy groundwater seepage below 5 feet.		

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 55

FIGURE A-56

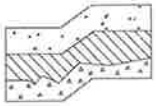
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Bare **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 4.5 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1		8 inches Topsoil.		
2	1	Gray-brown SAND, fine to medium grained, moist. (SP)		14.0
3	2	Orange-brown silty SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	34.3
4				
▼				
5	3	Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		12.6
6				
7		Test pit terminated at 7 feet due to groundwater.		
8		Heavy groundwater seepage below 4.5 feet.		
9		Signficant caving below 4 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 56

FIGURE A-57

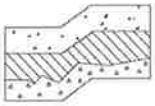
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
1		Fill: Brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist. (SP)		
2		Dark brown organic silty SAND, fine grained, moist. (SM/OL) (Old topsoil horizon)		
3				
▽ 4	1	Gray silty SAND to sandy SILT, fine grained, moist, mottled. (SM/ML)		23.7
5		Gray SAND, fine to medium grained, moist to wet. (SP)	Medium Dense	
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8				
9				
10		Test pit terminated at 9 feet. Heavy groundwater seepage below 6 feet. Moderate caving below 5 feet. Installed 2-inch diameter slotted PVC standpipe to 9 feet. Groundwater measured at 4.18 feet below ground surface on June 12, 2020.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 57

FIGURE A-58

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 7 ft **DEPTH TO CAVING:** > 5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil.		
1		Gray SAND, fine to medium grained, moist. (SP)	Medium Dense	
2		Gray-brown SAND, fine to medium grained, wet. (SP)		
3		Gray SILT, wet, mottled. (ML)		
4				
5		Gray SAND, fine to medium grained, wet. (SP)		
6				
▼ 7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 7 feet. Significant caving below 5 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 58

FIGURE A-59

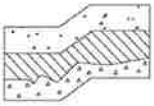
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
1		Gray-brown SAND with silt, fine to medium grained, moist. (SP-SM)		
2				
3	1			16.7
▽ 4		Gray SAND with silt, fine to medium grained, wet. (SP-SM)		
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 6				
7				
8				
9				
10		Test pit terminated at 9 feet. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet. Installed 2-inch diameter slotted PVC standpipe to 9 feet. Groundwater measured at 3.87 feet below ground surface on June 12, 2020.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 59

FIGURE A-60

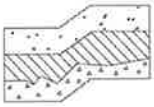
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	6 inches Sod and Topsoil. Gray-brown silty SAND, fine to medium grained, wet, significant mottling. (SM)	Medium Dense	28.6
3	2	Gray silty SAND, fine to medium grained, wet. (SM)		35.9
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel,wet. (SP)		
6	3			18.2
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 4 feet. Significant caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 60

FIGURE A-61

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 29, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 1 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Red-brown silty SAND, fine to medium grained, moist to wet. (SM)		
2				
3				
4		Gray-brown SAND, fine to medium grained, wet. (SP)	Medium Dense	
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7				
8		Test pit terminated at 8 feet due to caving.		
9		Heavy groundwater seepage below 5 feet. Significant caving below 1 foot.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 61

FIGURE A-62

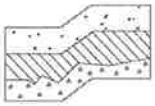
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 5.5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil.		
1		Gray-brown SILT, moist, mottled. (ML)		
2 ▽		Gray-brown to gray SAND, fine to medium grained, wet, mottled above 3.5 feet. (SP)	Medium Dense	
3				
4				
5 ▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7				
8				
9		Test pit terminated at 8.5 feet due to caving. Moderate to heavy groundwater seepge below 5.5 feet. Significant caving below 2 feet. Installed 2-inch diameter slotted PVC standpipe to 8.5 feet. Groundwater measured at 2.26 feet below ground surface on June 12, 2020.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 62

FIGURE A-63

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	12 inches Sod and Topsoil. Gray sandy SILT to silty SAND, fine grained, moist, mottled. (ML/SM)	Medium Dense	34.2
3	2	Gray-brown silty SAND to SAND with silt, fine to medium grained, moist to wet, mottled. (SM/SP-SM)		18.9
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 6				
8		Test pit terminated at 8 feet due to caving. Heeavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 63

FIGURE A-64

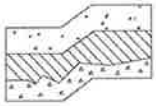
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		11 inches Sod and Topsoil.		
1		Gray-brown to gray silty SAND to SAND with silt, fine to medium grained, moist, mottled. (SM/SP-SM)		
2				
3		Gray SAND, fine to medium grained, moist to wet. (SP)	Medium Dense	
4				
5				
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 3 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 64

FIGURE A-65

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		10 inches Sod and Topsoil.		
1		Tan to gray-brown silty SAND to SAND with silt, fine to medium grained, moist. (SM/SP-SM)		
2				
▽ 3		Gray-brown SAND, fine to medium grained, moist to wet, scattered mottling. (SP)		
4			Medium Dense	
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 6				
7				
8				
9				
10		Test pit terminated at 9.5 feet. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet. Installed 2-inch diameter slotted PVC standpipe to 9.5 feet. Groundwater measured at 2.95 feet below ground surface on June 12, 2020.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 65

FIGURE A-66

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 4.5 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		18 inches Sod and Topsoil.		
1		Brown to orange-brown silty SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet, mottled. (SM)		
2				
3	1			24.8
4			Medium Dense	
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5	2			18.3
6				
7				
8		Test pit terminated at 8 feet due to caving.		
9		Heavy groundwater seepage below 4.5 feet.		
10		Significant caving below 2 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 66

FIGURE A-67

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 7 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		13 inches Sod and Topsoil.		
1		Gray-brown SAND, fine to medium grained, moist to wet, mottled above 3 feet. (SP)		
2 ▽				
3				
4	1		Medium Dense	21.0
5				
6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7 ▼				
8				
9		Test pit terminated at 9 feet. Heavy groundwater seepage below 7 feet. Moderate caving below 4 feet. Installed 2-inch diameter slotted PVC standpipe to 9 feet. Groundwater measured at 2.5 feet below ground surface on June 12, 2020.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 67

FIGURE A-68

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		16 inches Sod and Topsoil.		
▽ 1		Gray-brown silty SAND, fine grained, moist to wet, mottled. (SM)		
2	1			23.6
3				
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
5				
6				
7	2			18.0
8				
9		Test pit terminated at 9 feet. Heavy groundwater seepage below 4 feet. Significant caving below 4 feet. Installed 2-inch diameter slotted PVC standpipe to 9 feet. Groundwater measured at 1.3 feet below ground surface on June 12, 2020.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 68

FIGURE A-69

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		15 inches Sod and Topsoil.		
1		Orange-brown silty SAND, fine to coarse grained, wet. (SM)		
2				
3				
4		Gray-brown SAND with silt to silty SAND, fine to medium grained, wet, mottled. (SP-SM/SM)	Medium Dense	
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 6				
7				
8		Test pit terminated at 8 feet due to groundwater.		
9		Heavy groundwater seepage below 6 feet.		
10		Significant caving below 3 feet.		
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 69

FIGURE A-70

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 7 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil.		
1		Dark brown silty SAND, fine grained, moist. (SM)		
2		Red-brown SAND with silt, fine grained, moist. (SP-SM)		
3				
4		Gray-brown SAND, fine to medium grained, moist. (SP)	Medium Dense	
5				
6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 7				
8				
9		Test pit terminated at 9 feet. Heavy groundwater seepage below 7 feet. Significant caving below 3 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 70

FIGURE A-71

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 5 ft **DEPTH TO CAVING:** > 3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2		Brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist, mottled. (SP)	Medium Dense	
3				
4		Brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7		Test pit terminated at 7 feet due to caving. Heavy groundwater seepage below 5 feet. Significant caving below 3 feet.		
8				
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 71

FIGURE A-72

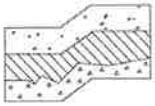
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod.		
1		Fill: Dark brown silty SAND, fine grained, moist. (SM)		
2		Dark brown organic silty SAND, fine grained, moist. (SM/OL) (Old topsoil horizon)		
3		Gray-brown SAND, fine to medium grained, moist, mottled. (SP)		
4		Gray SAND, fine to medium grained, moist to wet. (SP)	Medium Dense	
5				
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8		Test pit terminated at 8 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
9				
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 72

FIGURE A-73

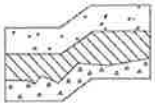
PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 4 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.	Medium Dense	
1		Gray-brown silty SAND, fine to medium grained, moist to wet, mottled. (SM)		
2		Gray SAND to SAND with silt, fine grained, moist to wet. (SP/SP-SM)		
3		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 4				
5				
6				
7				
8				
9		Test pit terminated at 8.5 feet due to caving and groundwater. Heavy groundwater seepage below 4 feet. Significant caving below 2 feet. Installed 2-inch diameter slotted PVC standpipe to 8.5 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 73

FIGURE A-74

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	16 inches Sod and Topsoil. Gray SAND, fine grained, moist, mottled. (SP)	Medium Dense	12.6
4	2	Gray-brown to brown SAND, fine to medium grained, moist to wet, mottled. (SP)		17.1
6 ▼	3	Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		12.9
9		Test pit terminated at 9 feet due to caving. Heavy groundwater seepage below 6 feet. Significant caving below 2 feet.		
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 74

FIGURE A-75

PROJECT NAME: Arlington MIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Arlington, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: April 30, 2020 **DEPTH TO GROUNDWATER:** 6 ft **DEPTH TO CAVING:** > 4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0				
1	1	17 inches Sod and Topsoil. Red-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet, mottled. (SM)	Medium Dense	25.0
2		Gray-brown silty SAND, fine to medium grained, scattered fine to coarse gravel, moist, mottled. (SM)		
3				
4		Blue-green to gray silty SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SM)		
5				
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7				
8				
9		Test pit terminated at 9 feet. Heavy groundwater seepage below 6 feet. Significant caving below 4 feet.		
10				
11				
12				
13				
14				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 101

FIGURE A-76

PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >7 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
1	1	Brown silty SAND, fine grained, scattered fine to coarse gravel, moist. (SM)		22.3
		Light brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist, mottled. (SP)		
3		Gray-brown to gray SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet. (SP)	Medium Dense	
▼ 7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 7 feet. Moderate caving below 3 feet.		
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 102

FIGURE A-77

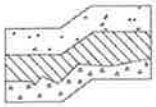
PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >5.5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1	1	Brown silty SAND, fine grained, moist, mottled. (SM)		15.8
2				
3	2	Gray-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SM)	Medium Dense	21.2
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5	3			16.0
▼				
6				
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 5.5 feet. Moderate caving below 4 feet.		
8				
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 103

FIGURE A-78

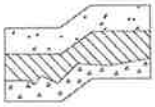
PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0	1	12 inches Sod and Topsoil. Gray-brown silty SAND, fine grained, trace of coarse sand to fine gravel, moist, mottled, scattered iron-oxide stained root casts. (SM)		18.1
3	2	Gray-brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, numerous iron-oxide stained pockets. (SM)	Medium Dense	22.1
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet. Moderate caving below 3.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 104

FIGURE A-79

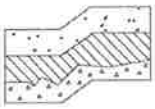
PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0	1	12 inches Sod and Topsoil. Brown silty SAND, fine grained, moist. (SM)	Medium Dense	31.3
2		Gray-brown SAND, fine to medium grained, moist to wet, mottled. (SP)		
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet. Sidewall sloughing below 5 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 105

FIGURE A-80

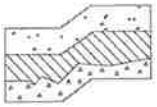
PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil.		
1	1	Gray-brown silty SAND, fine grained, moist, mottled. (SM)		15.3
2	2	Red-brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, significant iron oxide staining. (SM)		54.1
3		Gray-brown SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)	Medium Dense	
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Sidewall sloughing below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 106

FIGURE A-81

PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0	1	8 inches Sod and Topsoil. Brown silty SAND, fine grained, moist. (SM)	Medium Dense	33.1
1				
2		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
3		Gray silty SAND to SAND with silt, fine to medium grained, moist. (SM/SP-SM)		
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
4				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Sidewall sloughing below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 107

FIGURE A-82

PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
		Red-brown silty SAND, fine to medium grained, moist. (SM)		
3	1	Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	14.2
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Sidewall sloughing below 4.5 feet.		

▼ Groundwater seepage at 4.5 feet

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 108

FIGURE A-83

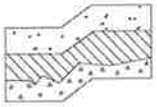
PROJECT NAME: Cascade Commerce Center **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 3, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0	1	12 inches Sod and Topsoil. Fill: Gray silty SAND to SAND with silt, fine grained, moist. (SM/SP-SM)	Medium Dense	22.2
2		Gray-brown SAND with silt to silty SAND, fine grained, moist. (SP-SM/SM) (Possible fill)		
3		Gray silty SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SM)		
▼ 5		Gray to gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet. Sidewall sloughing below 5 feet. 6-inch diameter corrugated plastic drain pipe at approximately 3 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 201

FIGURE A-84

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >5.5 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		2 inches Sod and Topsoil.		
1		Brown silty SAND, fine grained, dry to moist. (SM)		
2	1	Gray-brown silty SAND, fine grained, moist to wet, significant mottling and numerous iron-oxide stained pockets. (SM)	Medium Dense	49.2
3				
4	2	Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		19.1
5				
▼				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5.5 feet. Caving below 3.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 202

FIGURE A-85

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		2 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry to moist. (SM)		
1				
		Gray-brown silty SAND, fine grained, moist to wet, significant mottling and numerous iron-oxide stained pockets. (SM)		
2				
3			Medium Dense	
		Gray SAND, fine to medium grained, moist to wet. (SP)		
4				
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5	1			20.0
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 203

FIGURE A-86

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Gray-brown silty SAND, fine grained, moist to wet, significant mottling and numerous iron-oxide stained pockets. (SM)		
3		Gray SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 204

FIGURE A-87

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry to moist. (SM)		
1		Red-brown silty SAND, fine grained, moist. (SM)		
2		Black silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist. (SM)		
3	1		Medium Dense	41.9
▼ 4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 205

FIGURE A-88

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry to moist. (SM)	Medium Dense	
1				
2		Red-brown silty SAND, fine grained, moist to wet. (SM)		
3		Gray-brown SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)		
▼ 4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 206

FIGURE A-89

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry to moist. (SM)		
1		Gray-brown silty SAND, fine grained, dry to moist, mottled. (SM)		
2		Gray-brown SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)	Medium Dense	
3				
▼ 4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 207

FIGURE A-90

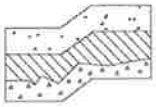
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		3 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, dry. (SM)		
2	1	Red-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist. (SM)		9.8
3		Blue-gray to blue silty SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SM)	Medium Dense	
4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼				
5	2			12.5
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 208

FIGURE A-91

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		3 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, dry. (SM)		
2	1	Red-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist. (SM)		19.7
3		Blue-gray to blue silty SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SM)	Medium Dense	
4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4.5 feet. Clay drain tile severed at 3.5 feet.		
7				
8				

▼ Groundwater seepage at 4.5 feet

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 209

FIGURE A-92

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2				
3		Gray-brown SAND with silt, fine to medium grained, trace of fine to coarse gravel, moist to wet, mottled. (SP-SM)	Medium Dense	
▼ 4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 210

FIGURE A-93

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, dry to moist, mottled. (SM)		
2		Gray-brown SAND, fine to medium grained, moist to wet, mottled. (SP) - Scattered fine to coarse gravel and iron-oxide stained pockets below 2.5 feet.	Medium Dense	
3				
4		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 211

FIGURE A-94

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		5 inches Sod and Topsoil.		
		Gray brown silty SAND, fine grained, dry to moist, mottled. (SM)		
1	1	Gray-brown SAND with silt to silty SAND, fine grained, moist, significant iron oxide staining. (SP-SM/SM)		44.7
2		Gray-brown SAND, fine to medium grained, moist to wet. (SP)		
3		Gray SAND, fine to medium grained, scattered fine to coarse gravel, wet. (SP)	Medium Dense	
4				
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 212

FIGURE A-95

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:**

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		3 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Gray-brown silty SAND, fine grained, dry to moist, mottled. (SM)		
2				
3		Gray-brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist to wet. (SP)		
4				
▼		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

Terra Associates, Inc.
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LOG OF TEST PIT NO. 213

FIGURE A-96

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:**

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Red-brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, weakly cemented, significant iron oxide staining. (SM)		
2	1			41.2
		- Becomes blue-gray below 2.5 feet.		
3		Gray-brown SAND with gravel, fine to medium sand, fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 4				
		- Grades to fine to coarse sand below 4.5 feet.		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 214

FIGURE A-97

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:**

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Gray-brown SAND, fine to medium grained, moist, mottled. (SP)		
2				
3		Gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, moist (wet below 4 feet). (SP)		
4				
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 215

FIGURE A-98

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:**

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1				
2		Gray-brown silty SAND, fine grained, moist, mottled. (SM) - Trace of fine to coarse gravel below 2.5 feet.		
3		Gray-brown SAND, fine to medium grained, moist. (SP)		
▼ 4		- Wet below 4 feet.		
5		Gray-brown SAND, fine to medium grained, scattered fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 216

FIGURE A-99

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		3 inches Sod and Topsoil. Light brown to brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Gray-brown SAND with silt, fine to medium grained, trace of fine to coarse gravel, moist, mottled. (SP-SM)		
2		Gray-brown silty SAND, fine to coarse grained, scattered fine to coarse gravel, moist to wet, mottled, significant iron-oxide staining. (SM)		
3				
▼ 4		Gray to gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 217

FIGURE A-100

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, trace of fine to coarse gravel, dry to moist, mottled. (SM)		
2		Tan to red-brown silty SAND, fine to medium grained, scattered fine to coarse gravel, moist to wet, significant iron-oxide staining. (SM)		
3		- Becomes blue-gray below 3 feet.	Medium Dense	
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5	1			14.1
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 218

FIGURE A-101

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, trace of fine to coarse gravel, dry to moist, mottled. (SM)		
2		Tan to gray-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist, mottled. (SM)		
3		Gray-brown SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)	Medium Dense	
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 3.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 219

FIGURE A-102

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Tan to gray-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist, mottled. (SM)		
2				
3		Dark blue-gray silty SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SM)		
▼ 4		Gray SAND to SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 220

FIGURE A-103

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown to tan silty SAND, fine grained, moist, mottled. (SM)		
2				
3	1		Medium Dense	47.2
		Red-brown silty SAND to sandy SILT, fine to coarse grained, wet, mottled, significant iron oxide staining. (SM/ML)		
		Gray SAND, fine to medium grained, moist to wet. (SP)		
4				
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 221

FIGURE A-104

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >6 ft **DEPTH TO CAVING:** >6 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Brown to dark gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2		Gray-brown silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, scattered iron-oxide stained pockets. (SM)		
3				
4		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)		
5				
▼ 6		Gray to brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet., (SP)		
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 6 feet. Caving below 6 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 222

FIGURE A-105

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		2 inches Sod and Topsoil.		
1		Fill: Gray-brown silty SAND with gravel, fine sand, fine to coarse gravel, dry. (SM)	Medium Dense to Dense	
2		Orange-brown to gray-brown silty SAND, fine to medium grained, scattered fine to coarse gravel, moist to wet, weakly cemented, significant iron oxide staining. (SM)		
3	1			53.4
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 223

FIGURE A-106

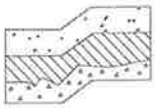
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Light brown to gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2				
		Gray SAND, fine to medium grained, wet. (SP)		
3	1		Medium Dense	19.3
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 224

FIGURE A-107

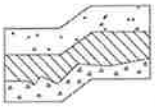
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1				
		Red-brown silty SAND to sandy SILT, fine to medium grained, moist to wet, significant iron oxide staining. (SM/ML)		
2				
		Gray-brown silty SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SM)	Medium Dense	
3				
		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
4				
▼ 5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 225

FIGURE A-108

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil. Gray-brown silty SAND, fine to medium grained, moist to wet, mottled. (SM)	Medium Dense	
3		Gray-brown SAND, fine grained, wet. (SP)		
▼ 4		Gray to gray-brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 226

FIGURE A-109

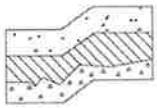
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Orange-brown silty SAND, fine grained, moist. (SM)		
		Gray-brown SAND, fine grained, moist. (SP)		
2				
3		Brown to orange-brown SAND with silt and gravel to silty SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet, weakly cemented, significant iron oxide staining. (SP-SM/SM)		
		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
4				
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 3 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 227

FIGURE A-110

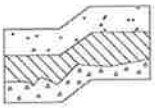
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1				
		Orange-brown silty SAND, fine to medium grained, scattered fine to coarse gravel, moist, weakly cemented, significant iron oxide staining. (SM)		
2				
3			Medium Dense	
	1	Dark gray SAND to SAND with gravel, fine to medium sand, fine to coarse gravel, moist to wet, weakly cemented. (SP)		16.3
▼ 4				
		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6				
		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 228

FIGURE A-111

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Orange-brown to brown silty SAND, fine grained, moist, mottled, numerous iron-oxide stained pockets. (SM)		
2				
3			Medium Dense	
	1	Gray silty SAND, fine to medium grained, wet. (SM)		47.0
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 229

FIGURE A-112

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		2 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Orange-brown to brown silty SAND, fine grained, moist, mottled, numerous iron-oxide stained pockets. (SM)		
2				
3				
4		Gray silty SAND, fine to medium grained, wet. (SM)		
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 230

FIGURE A-113

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 13, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0	1	3 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	26.1
1		Light brown SAND, fine grained, moist, mottled. (SP)		
2		Orange-brown silty SAND, fine to medium grained, moist, significant iron oxide staining. (SM)		
3		Gray silty SAND, fine to medium grained, wet. (SM)		
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 231

FIGURE A-114

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1	1	Gray-brown silty SAND, fine grained, moist, mottled. (SM)	Medium Dense	20.1
2		Gray-brown SAND, fine grained, wet, mottled. (SP)		
3				
4	2	Gray sandy SILT, fine grained, wet. (ML)		35.1
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5	3			16.8
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 232

FIGURE A-115

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		3 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2		Gray SAND, fine grained, moist. (SP)		
3				
4		Brown SAND with gravel, fine to medium sand, fine to coarse gravel, moist to wet. (SP)		
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 5 feet. Caving below 5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 233

FIGURE A-116

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil. Gray-brown to orange-brown silty SAND, fine to medium grained, scattered fine to coarse gravel above 2 feet, moist, mottled. (SM)	Medium Dense	
3		Gray-brown SAND with silt, fine to medium grained, moist to wet, scattered mottling. (SP-SM)		
4 ▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 234

FIGURE A-117

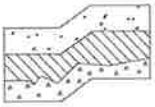
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		9 inches Sod and Topsoil.		
1	1	Gray-brown silty SAND, fine grained, moist, mottled. (SM)		21.0
2		Brown SAND, fine to medium grained, moist, scattered mottling. (SP)	Medium Dense	
3		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)		
4				
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 235

FIGURE A-118

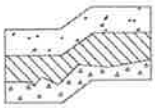
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil. Gray-brown silty SAND, fine grained, moist, mottled. (SM)	Medium Dense	
3		Gray SAND with silt to silty SAND, fine to medium grained, wet. (SP-SM/SM)		
▼ 4				
5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6		Test pit terminated at 6 feet. Light groundwater seepage between 4.5 and 5 feet. Heavy groundwater seepage below 5 feet. Caving below 5 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 236

FIGURE A-119

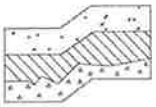
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
1	1	Gray-brown silty SAND, fine grained, moist, mottled. (SM)		9.3
2		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)		
3	2		Medium Dense	10.3
▼ 4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. 4-inch diameter corrugated plastic drainpipe severed at 3.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 237

FIGURE A-120

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** NA **DEPTH TO CAVING:** >5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2		Gray-brown to gray SAND, fine to medium grained, trace to scattered fine to coarse gravel, moist. (SP)		
3				
4	1		Medium Dense	11.7
5				
6				
7				
8				
9		Test pit terminated at 9 feet. No groundwater seepage. Caving below 5 feet.		
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 238

FIGURE A-121

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >6 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
		Gray SAND, fine grained, moist. (SP)		
2				
3			Medium Dense	
4		Gray SAND, fine to coarse grained, trace of fine to coarse gravel, moist to wet. (SP)		
5				
▼ 6		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 6 feet. Caving below 4 feet.		
8				
9				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 239

FIGURE A-122

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >3.5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
	1	Orange-brown SILT to sandy SILT, fine to coarse sand, wet, significant iron oxide staining. (ML)		91.4
2		Gray to brown SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
3				
▼				
4				
5		Test pit terminated at 5 feet. Heavy groundwater seepage below 3.5 feet.		
6				
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 240

FIGURE A-123

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >6 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil. Gray-brown silty SAND, fine grained, moist, mottled. (SM)	Medium Dense	
2		Gray-brown SAND, fine to medium grained, moist. (SP)		
4		Gray-brown to gray SAND with gravel, fine to coarse sand, fine to coarse gravel, moist to wet. (SP)		
▼ 6				
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 6 feet. Caving below 3.5 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 241

FIGURE A-124

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil.		
		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2		Gray-brown SAND, fine to medium grained, moist. (SP)		
3	1		Medium Dense	9.2
		Gray-brown to gray SAND with silt and gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
4 ▼				
5	2			15.4
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 3 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 242

FIGURE A-125

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil.		
		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
1				
		Gray-brown SAND, fine grained, moist, mottled. (SP)		
2				
3		Gray-brown to gray SAND, fine to medium grained, moist. (SP)	Medium Dense	
4		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 243

FIGURE A-126

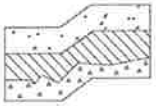
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil.		
1	1	Brown SAND, fine grained, dry to moist, faint mottling. (SM)		8.4
2	2	Gray silty SAND to sandy SILT, fine grained, moist. (SM/ML)		21.2
3		Gray-brown SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet, mottled, numerous iron-oxide stained pockets. (SP)	Medium Dense	
4				
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 3 feet. 4-inch diameter corrugated plastic drainpipe severed at 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 244

FIGURE A-127

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Gray-brown SAND, fine to medium grained, moist, mottled. (SP)		
2				
3		Gray SAND, fine to medium grained, moist. (SP)		
4		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
▼				
5		- Increasing gravel content below 5 feet.		
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 3.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 245

FIGURE A-128

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >3.5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
		Gray-brown to gray SAND, fine to medium grained, moist to wet. (SP)	Medium Dense	
2				
3				
▼		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
4	1			13.7
5		Test pit terminated at 5 feet. Heavy groundwater seepage below 3.5 feet. Caving below 3 feet.		
6				
7				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 246

FIGURE A-129

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >2.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND to SAND with silt, fine grained, moist, mottled. (SM/SP-SM)		
2				
		Gray-brown SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)	Medium Dense	
3				
▼ 4		Gray to gray-brown SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 2.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 247

FIGURE A-130

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >6 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1	1	Gray-brown silty SAND, fine grained, dry to moist, mottled. (SM)		21.0
2		Gray-brown to gray SAND with silt, fine grained, moist, mottled. (SP-SM)		
3	2		Medium Dense	18.9
4		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, moist to wet. (SP)		
5				
▼ 6	3			17.8
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 6 feet. Caving below 4 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 248

FIGURE A-131

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >6 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Gray-brown SAND with silt to SAND, fine grained, trace of fine to coarse gravel, dry to moist, mottled. (SP-SM/SP)		
2		Gray silty SAND to sandy SILT, fine grained, moist. (SM/ML)		
3		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP) - Grain size and gravel content increase with depth.		
4				
5				
▼ 6				
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 6 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 249

FIGURE A-132

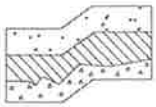
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2				
3		Gray SAND, fine to coarse grained, trace of fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 4				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 3 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 250

FIGURE A-133

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown to orange-brown silty SAND, fine grained, moist, mottled. (SM)		
2				
3			Medium Dense	
		Gray SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)		
▼ 4		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4 feet. Caving below 4 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 251

FIGURE A-134

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)	Medium Dense	
1		Orange-brown to gray-brown silty SAND, fine grained, moist, mottled. (SM)		
2	1			39.5
3		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
▼ 4	2			16.2
5		Test pit terminated at 5 feet. Heavy groundwater seepage below 4 feet. Caving below 3.5 feet.		
6				
7				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 252

FIGURE A-135

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil. Gray-brown to orange-brown silty SAND, fine grained, moist, mottled. (SM)	Medium Dense	
3		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
▼ 4.5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 253

FIGURE A-136

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil.		
		Gray-brown to orange-brown silty SAND, fine grained, moist, mottled. (SM)		
3		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)	Medium Dense	
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4 feet.		

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 254

FIGURE A-137

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		7 inches Sod and Topsoil. Gray-brown SAND, fine grained, moist, mottled. (SP)	Medium Dense	
3		Gray-brown to orange silty SAND, fine grained, moist, mottled, significant iron oxide staining. (SM)		
4		Gray to gray-brown SAND, fine to coarse grained, trace of fine to coarse gravel, wet. (SP)		
▼ 5				
7		Test pit terminated at 7 feet. Heavy groundwater seepage below 5 feet. Caving below 4 feet.		
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 255

FIGURE A-138

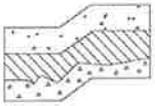
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 14, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** NA

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		12 inches Sod and Topsoil.		
1		Gray-brown silty SAND to SAND with silt, fine to medium grained, scattered coarse sand to fine gravel, moist, mottled. (SM/SP-SM)		
2	1			21.1
3		Gray SAND, fine to medium grained, scattered fine to coarse gravel, wet. (SP)	Medium Dense	
4				
▼				
5				
6		Test pit terminated at 6 feet. Heavy groundwater seepage below 4.5 feet.		
7				
8				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 256

FIGURE A-139

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND fine grained, dry. (SM)		
1		Gray-brown silty SAND to SAND with silt, fine grained, moist, mottled. (SM/SP-SM)		
2				
3		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
4			Medium Dense	
▼ 5				
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 5 feet. Caving below 3 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 257

FIGURE A-140

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >3.5 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND fine grained, dry. (SM)		
1		Gray-brown silty SAND to SAND with silt, fine grained, moist, mottled. (SM/SP-SM)		
2	1			31.5
3		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
4	2		Medium Dense	17.4
▼				
5				
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 4.5 feet. Caving below 3.5 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 258

FIGURE A-141

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1		Brown silty SAND fine grained, dry. (SM)		
2		Gray-brown silty SAND to SAND with silt, fine grained, moist, mottled. (SM/SP-SM)		
3		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)		
4				
▼				
5			Medium Dense	
6				
7				
8				
9				
10		Test pit terminated at 10 feet. Heavy groundwater seepage below 4.5 feet. Caving below 4 feet.		
11				
12				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 259

FIGURE A-142

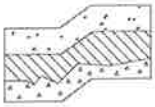
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND fine grained, dry. (SM)		
1		Red-brown SAND, fine to medium grained, dry to moist, weakly cemented, mottled. (SP)		
2	1			13.6
		Orange-brown silty SAND, fine to medium grained, wet, significant iron oxide staining. (SM)		
3				
4		Gray SAND, fine to coarse grained, trace of fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 5				
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 5 feet. Caving below 4 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 260

FIGURE A-143

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND fine grained, dry. (SM)		
1		Gray-brown silty SAND, fine grained, dry, mottled. (SM)		
2	1	Orange-brown to gray-brown silty SAND, fine grained, moist, mottled, significant iron oxide staining. (SM)		36.7
3				
4		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)	Medium Dense	
▼ 5				
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 5 feet. Caving below 4 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 261

FIGURE A-144

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >9 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1		Brown silty SAND, fine grained, dry. (SM)		
		Gray to gray-brown SAND with silt to silty SAND, fine grained, dry to moist, mottled. (SP-SM/SM)		
2		Gray SAND, fine grained, moist. (SP)		
3				
4		Gray SAND to SAND with silt, fine to medium grained, moist. (SP/SP-SM)		
5			Medium Dense	
6				
7				
8		- Becomes wet below about 8 feet.		
▼ 9				
10	1			24.7
11		Test pit terminated at 11 feet.		
		Heavy groundwater seepage below 9 feet.		
12		Caving below 3 feet.		
13				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 262

FIGURE A-145

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >7 ft **DEPTH TO CAVING:** >2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown SAND, fine grained, dry, mottled. (SP)		
2				
3		Gray SAND, fine to medium grained, moist, scattered coarse sand with gravel layers. (SP)		
4				
5			Medium Dense	
6		- Becomes wet below about 6 feet.		
▼ 7				
8				
9				
10		Test pit terminated at 10 feet. Heavy groundwater seepage below 7 feet. Caving below 2 feet.		
11				
12				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 263

FIGURE A-146

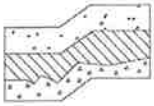
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		5 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown SAND with silt to silty SAND, fine grained, dry, mottled. (SP-SM/SM)		
2		Orange-brown sandy SILT, fine grained, moist to wet, mottled, significant iron oxide staining. (ML)		
3				
4		Gray SAND, fine to coarse grained, scattered fine to coarse gravel, wet. (SP)	Medium Dense	
▼				
5	1			18.0
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 4.5 feet. Caving below 2 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 264

FIGURE A-147

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >7 ft **DEPTH TO CAVING:** >2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1	1	Gray-brown silty SAND to SAND with silt, fine grained, dry to moist, mottled. (SM/SP-SM)		9.7
2		Gray SAND, fine grained, moist. (SP)		
3				
4		Gray SAND, fine to medium grained, scattered fine to coarse gravel, wet, scattered coarse sand with gravel layers. (SP)	Medium Dense	
5				
6				
▼ 7				
8				
9		Test pit terminated at 9 feet. Heavy groundwater seepage below 7 feet. Caving below 2 feet.		
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 265

FIGURE A-148

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >7 ft **DEPTH TO CAVING:** >4 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		5 inches Sod and Topsoil. Brown silty SAND, fine grained, dry. (SM)		
1		Gray-brown SAND with silt to silty SAND, fine grained, dry, mottled. (SP-SM/SM)		
2		Orange-brown sandy SILT, fine grained, moist to wet, mottled, significant iron oxide staining. (ML)		
3				
4		Gray SAND, fine to medium grained, scattered coarse sand to fine gravel, moist to wet. (SP)	Medium Dense	
5				
6				
▼ 7				
8				
9		Test pit terminated at 9 feet. Heavy groundwater seepage below 7 feet. Caving below 4 feet.		
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 266

FIGURE A-149

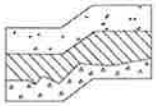
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Gray-brown silty SAND, fine grained, dry to moist, mottled. (SM)		
1		Orange-brown silty SAND to sandy SILT, moist, mottled, significant iron oxide staining. (SM/ML)		
2				
3	1			31.7
		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)	Medium Dense	
4				
▼ 5				
6				
7				
8				
		Test pit terminated at 8 feet. Heavy groundwater seepage below 5 feet. Caving below 2 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 267

FIGURE A-150

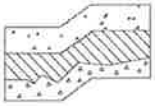
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >4.5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
1		Gray-brown silty SAND to SAND with silt, fine grained, dry to moist, mottled. (SM/SP-SM)		
2		Gray-brown sandy SILT, fine to medium sand, moist, mottled, significant iron oxide staining, scattered black-stained pockets. (ML)		
3		Gray SAND, fine to coarse grained, trace of fine to coarse gravel, wet. (SP)		
4			Medium Dense	
▼				
5				
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 4.5 feet. Caving below 3 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 268

FIGURE A-151

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >6 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		6 inches Sod and Topsoil. Gray-brown silty SAND, fine grained, moist, mottled. (SM)	Medium Dense	
3		Gray SAND, fine grained, moist to wet. (SP)		
4		Gray SAND with gravel, fine to coarse sand fine to coarse gravel, wet. (SP)		
5		Gray SAND, fine to medium grained, wet. (SP)		
▼ 6				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 6 feet. Caving below 3 feet.		
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 269

FIGURE A-152

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >4 ft **DEPTH TO CAVING:** >1 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		4 inches Sod and Topsoil.		
		Brown silty SAND, fine grained, dry. (SM)		
1		Light brown SAND, fine grained, trace of fine to coarse gravel, moist, mottled. (SP)		
2	1			10.8
3		Gray SAND, fine to medium grained, trace of fine to coarse gravel, wet. (SP)		
▼ 4			Medium Dense	
5				
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 4 feet. Caving below 1 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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LOG OF TEST PIT NO. 270

FIGURE A-153

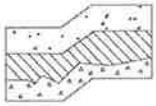
PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >5 ft **DEPTH TO CAVING:** >3 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		8 inches Sod and Topsoil.	Medium Dense	
1		Gray-brown silty SAND to SAND with silt, fine grained, dry to moist, mottled. (SM/SP-SM)		
2		Orange-brown silty SAND, fine to medium grained, moist, mottled, significant iron oxide staining. (SM)		
3		Gray-brown SAND, fine to medium grained, wet. (SP)		
4				
▼ 5		Gray SAND with gravel, fine to coarse sand, fine to coarse gravel, wet. (SP)		
6				
7				
8		Test pit terminated at 8 feet. Heavy groundwater seepage below 5 feet. Caving below 3 feet.		
9				
10				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. 271

FIGURE A-154

PROJECT NAME: Arlington CIC **PROJ. NO:** T-8340 **LOGGED BY:** JCS

LOCATION: Marysville, Washington **SURFACE CONDITIONS:** Grasses **APPROX. ELEV:** NA

DATE LOGGED: August 24, 2020 **DEPTH TO GROUNDWATER:** >9 ft **DEPTH TO CAVING:** >2 ft

Depth (ft)	Sample No.	Description	Consistency/ Relative Density	W (%)
0		5 inches Sod and Topsoil.		
1		Brown silty SAND, fine grained, dry. (SM)		
		Gray to gray-brown SAND, fine grained, dry, mottled. (SP)		
2		Gray SAND, fine grained, moist. (SP)		
3				
4		Gray SAND, fine to medium grained, trace of fine to coarse gravel, moist to wet. (SP)		
5			Medium Dense	
6				
7				
8				
▼ 9				
10				
11				
		Test pit terminated at 11 feet. Heavy groundwater seepage below 9 feet. Caving below 2 feet.		
12				
13				

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.

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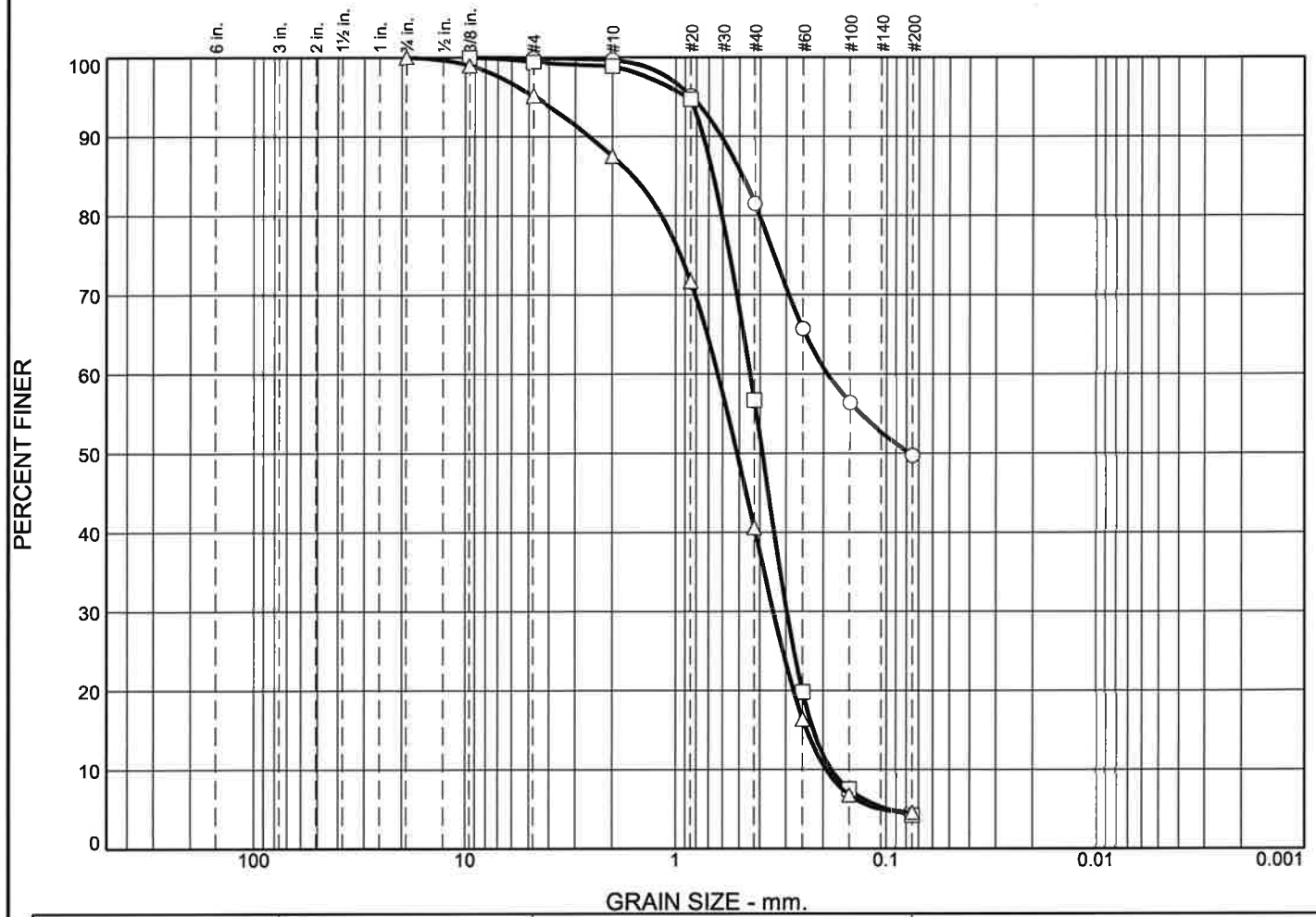
Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	0.2	18.2	31.8	49.7	
□	0.0	0.0	0.6	0.5	42.2	52.5	4.2	
△	0.0	0.0	4.9	7.6	46.9	36.0	4.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4851	0.1911	0.0778					
□			0.6649	0.4445	0.3891	0.2971	0.2227	0.1829	1.09	2.43
△			1.6003	0.6317	0.5116	0.3448	0.2391	0.1933	0.97	3.27

Material Description	USCS	AASHTO
○ silty SAND	SM	
□ SAND	SP	
△ SAND	SP	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-1 **Depth:** 5'

□ **Location:** TP-1 **Depth:** 7'

△ **Location:** TP-4 Building 1 **Depth:** 5'

Remarks:

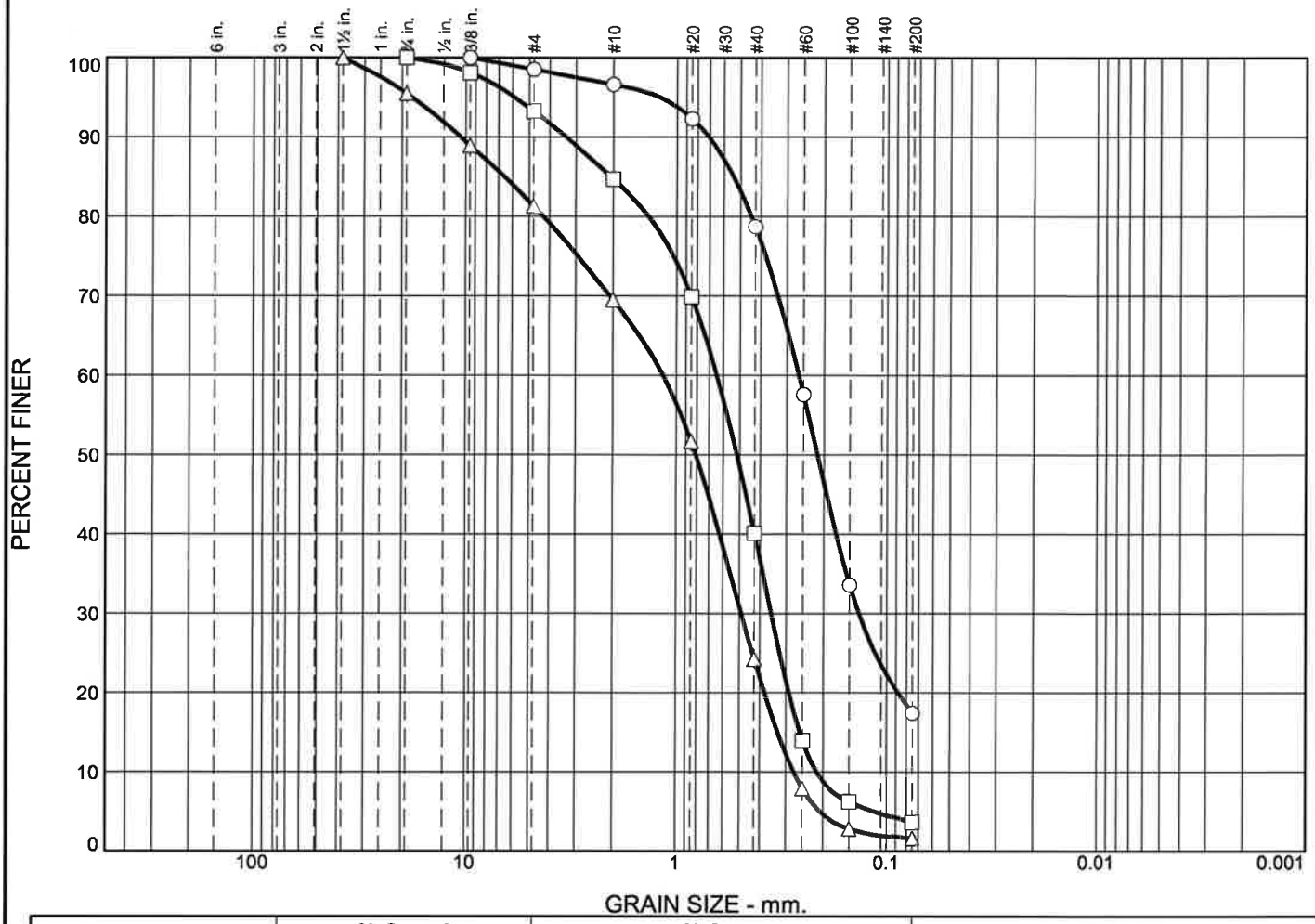
Terra Associates, Inc.

Kirkland, WA

Figure A-155

Tested By: FQ

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	1.5	1.9	17.9	61.3	17.4	
□	0.0	0.0	6.8	8.5	44.6	36.4	3.7	
△	0.0	4.5	14.2	11.8	45.2	22.6	1.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.5396	0.2630	0.2143	0.1354				
□			2.0572	0.6441	0.5155	0.3535	0.2573	0.2143	0.91	3.01
△			6.5710	1.1552	0.8080	0.4892	0.3281	0.2750	0.75	4.20

	Material Description	USCS	AASHTO
○	silty SAND	SM	
□	SAND	SP	
△	SAND with gravel	SP	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-5 **Depth:** 2'

□ **Location:** TP-5 **Depth:** 6'

△ **Location:** TP-10 **Depth:** 7'

Remarks:

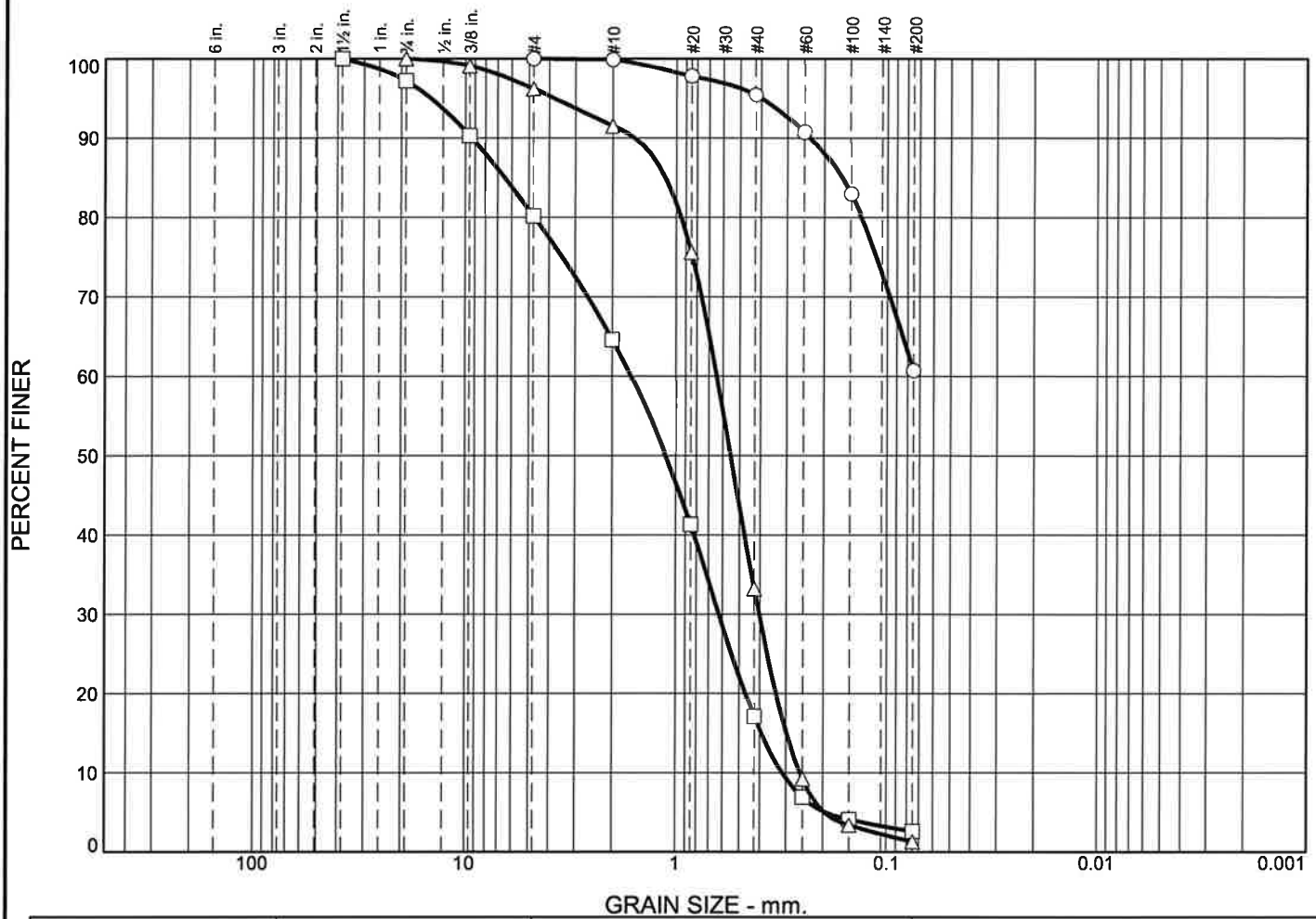
Terra Associates, Inc.

Kirkland, WA

Figure A-156

Tested By: FQ

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	4.5	34.7	60.7	
□	0.0	2.8	17.0	15.6	47.5	14.5	2.6	
△	0.0	0.0	3.8	4.7	58.3	31.9	1.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.1660							
□			6.4929	1.6302	1.1165	0.6231	0.3933	0.3118	0.76	5.23
△			1.1261	0.6417	0.5506	0.4028	0.2978	0.2574	0.98	2.49

	Material Description	USCS	AASHTO
○	sandy SILT	ML	
□	SAND with gravel	SP	
△	SAND	SP	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-20 **Depth:** 4'

□ **Location:** TP-29 **Depth:** 5'

△ **Location:** TP-50 **Depth:** 5'

Remarks:

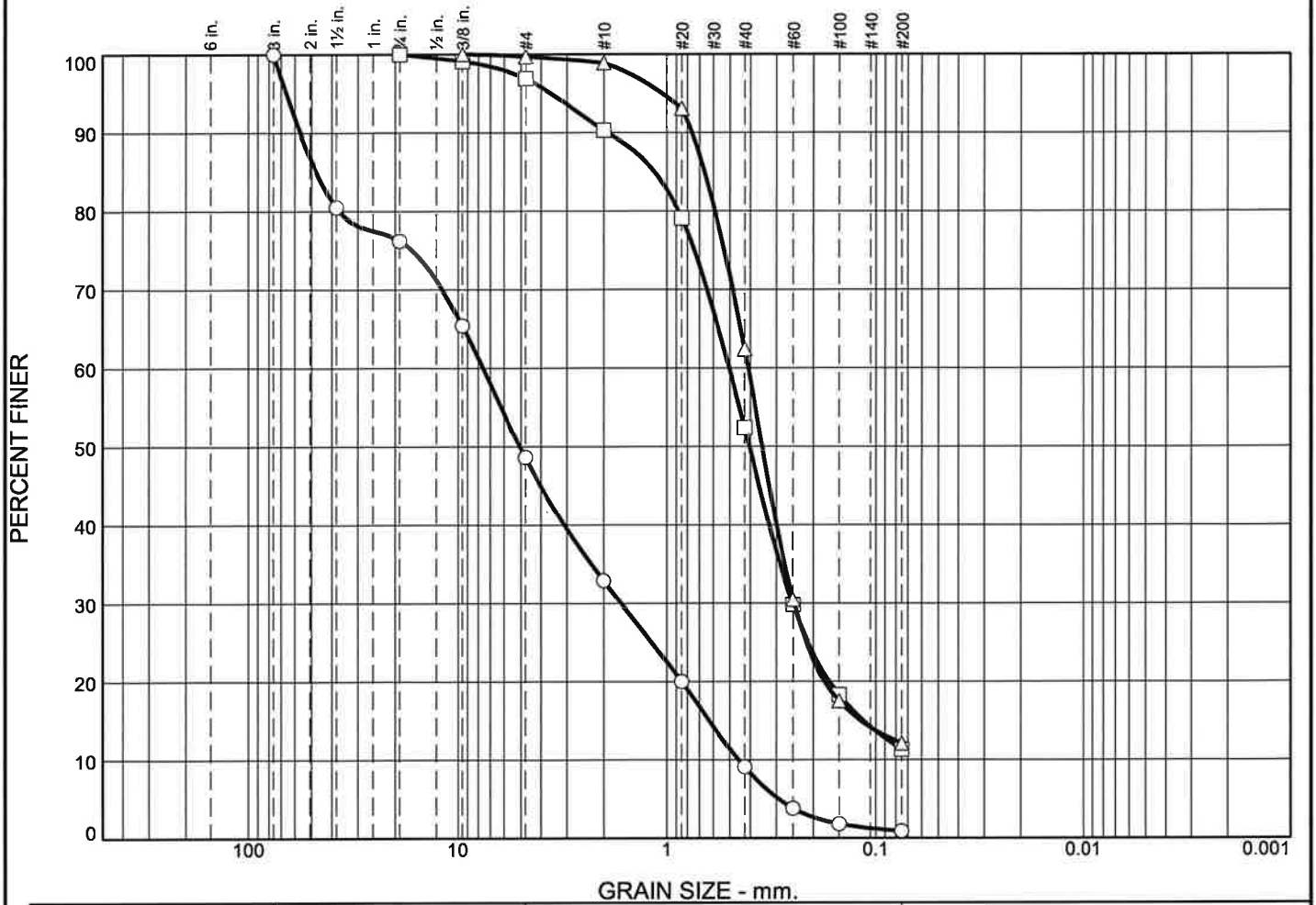
Terra Associates, Inc.

Kirkland, WA

Figure A-157

Tested By: FQ

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	23.8	27.6	15.7	23.8	8.2	0.9	
□	0.0	0.0	3.1	6.6	37.9	41.1	11.3	
△	0.0	0.0	0.3	0.8	36.5	50.3	12.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			47.3242	7.5847	5.0482	1.6488	0.6266	0.4537	0.79	16.72
□			1.1415	0.5031	0.4035	0.2515	0.1147			
△			0.6607	0.4090	0.3504	0.2472	0.1182			

	Material Description	USCS	AASHTO
○	GRAVEL with sand	GP	
□	SAND with silt	SP-SM	
△	silty SAND	SM	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-50 **Depth:** 9'

□ **Location:** TP-54 **Depth:** 2'

△ **Location:** TP-59 **Depth:** 3.5'

Remarks:

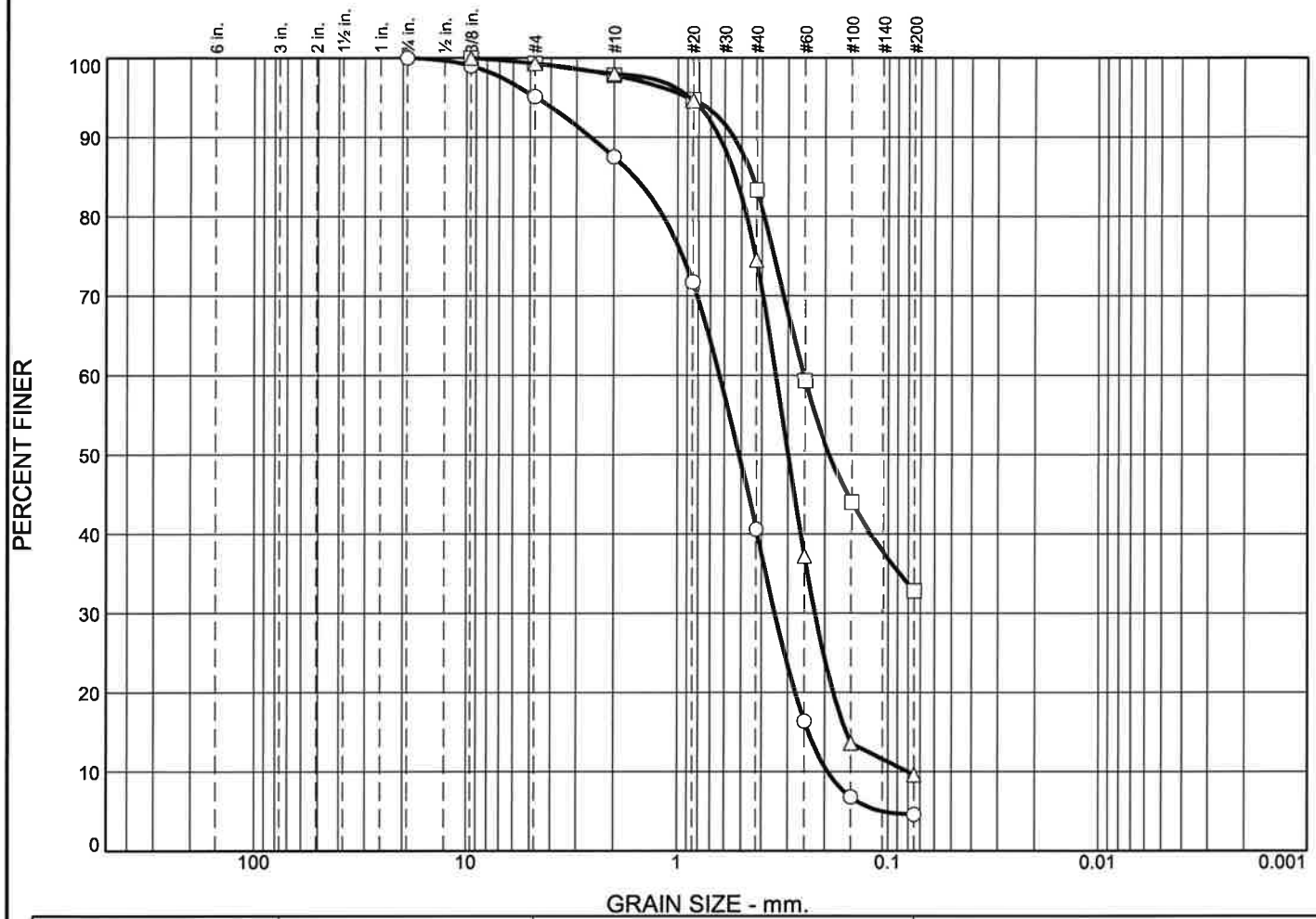
Terra Associates, Inc.

Kirkland, WA

Figure A-158

Tested By: FQ

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	4.9	7.6	46.9	36.0	4.6	
□	0.0	0.0	0.7	1.5	14.5	50.5	32.8	
△	0.0	0.0	0.7	1.3	23.5	64.9	9.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.6003	0.6317	0.5116	0.3448	0.2391	0.1933	0.97	3.27
□			0.4468	0.2542	0.1915					
△			0.5344	0.3420	0.2990	0.2226	0.1579	0.0804	1.80	4.25

Material Description	USCS	AASHTO
○ SAND	SP	
□ Silty SAND	SM	
△ SAND with silt	SP-SM	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-65 **Depth:** 5'

□ **Location:** TP-102 **Depth:** 1'

△ **Location:** TP-102 **Depth:** 3.5'

Terra Associates, Inc.

Kirkland, WA

Remarks:

□ Tested on August 12, 2020

△ Tested on August 12, 2020

Figure A-159

Tested By: FQ

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	15.5	12.2	48.3	22.1	1.9	
□	0.0	0.0	0.4	0.3	19.6	55.9	23.8	
△	0.0	0.0	12.1	8.2	26.2	49.3	4.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			4.9300	1.0659	0.7839	0.4910	0.3298	0.2746	0.82	3.88
□			0.4842	0.2957	0.2449	0.1251				
△			3.4966	0.5117	0.3927	0.2671	0.1880	0.1577	0.88	3.24

	Material Description	USCS	AASHTO
○	SAND with gravel	SP	
□	silty SAND	SM	
△	SAND	SP	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-102 **Depth:** 5'

□ **Location:** TP-201 **Depth:** 2.5'

△ **Location:** TP-201 **Depth:** 4.5'

Terra Associates, Inc.

Kirkland, WA

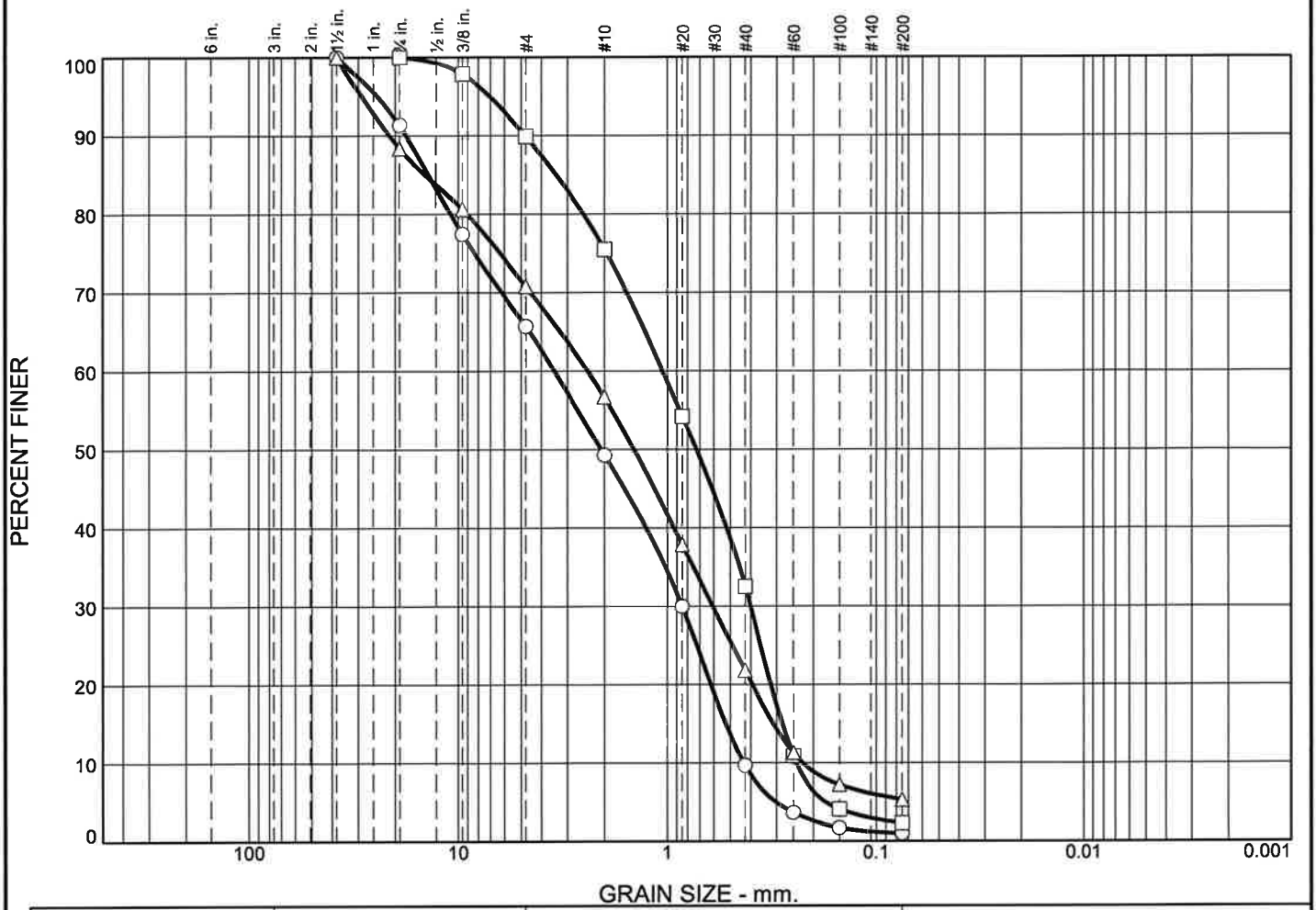
Remarks:

○ Tested on August 12, 2020

Figure A-160

Tested By: FQ

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	8.7	25.6	16.4	39.6	8.7	1.0	
□	0.0	0.0	10.1	14.4	43.0	30.2	2.3	
△	0.0	11.6	17.6	14.1	34.9	16.5	5.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			13.7782	3.4626	2.0728	0.8500	0.5248	0.4311	0.48	8.03
□			3.3943	1.0572	0.7268	0.4005	0.2824	0.2420	0.63	4.37
△			14.2971	2.3962	1.4432	0.6061	0.3107	0.2252	0.68	10.64

	Material Description	USCS	AASHTO
○	SAND with gravel	SP	
□	SAND	SP	
△	SAND with silt and gravel	SP-SM	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-207 **Depth:** 5'

□ **Location:** TP-227 **Depth:** 3.5'

△ **Location:** TP-241 **Depth:** 5'

Terra Associates, Inc.

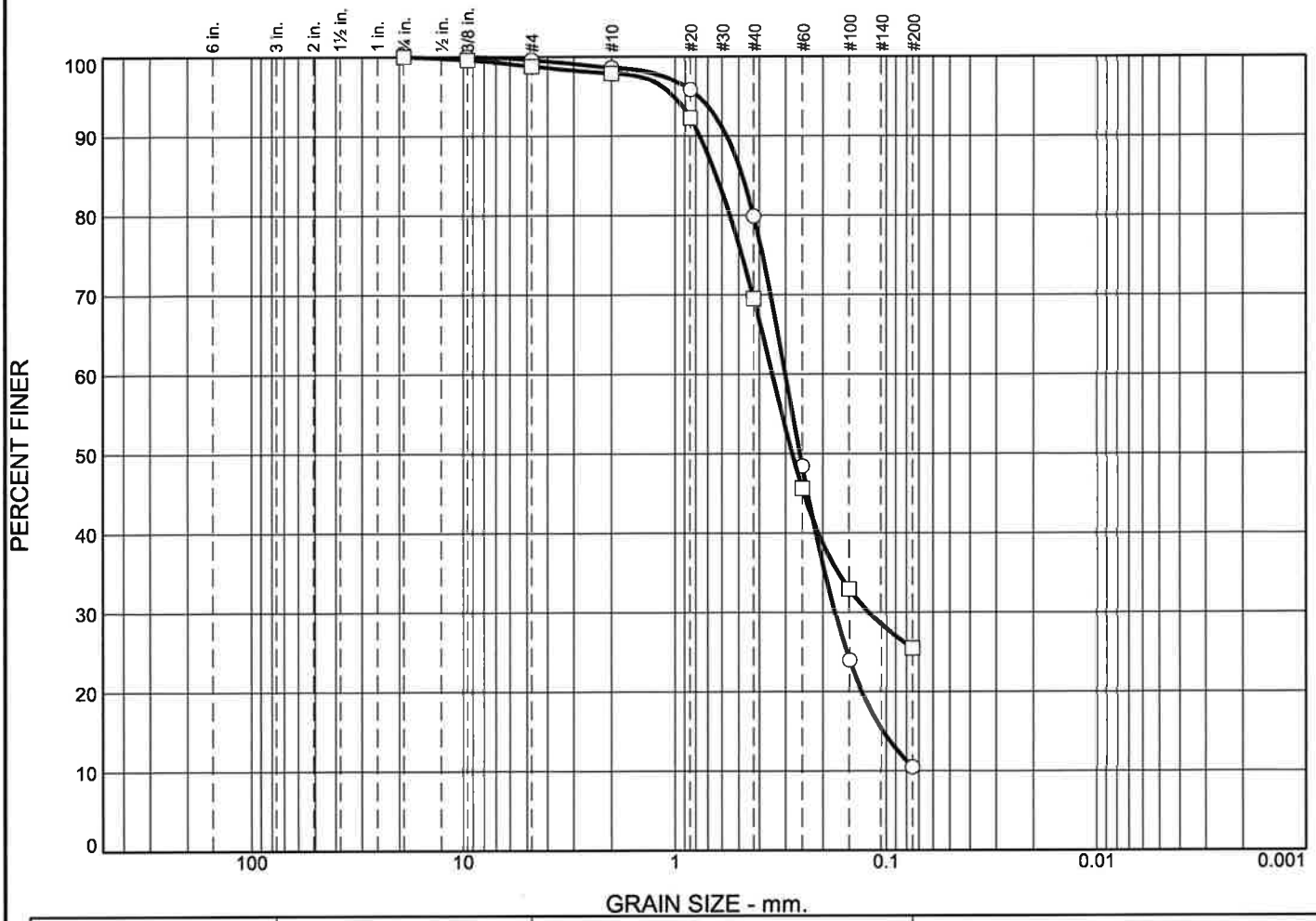
Kirkland, WA

Remarks:

Figure A-161

Tested By: FQ

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.4	1.0	18.7	69.4	10.5	
□	0.0	0.0	1.2	0.9	28.4	44.0	25.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4813	0.3009	0.2567	0.1754	0.1036			
□			0.6379	0.3470	0.2790	0.1215				

Material Description	USCS	AASHTO
○ SAND with silt	SP-SM	
□ silty SAND	SM	

Project No. T-8340 **Client:** NorthPoint Development

Project: Arlington CIC

○ **Location:** TP-261 **Depth:** 10'

□ **Location:** TP-266 **Depth:** 3'

Remarks:

Terra Associates, Inc.

Kirkland, WA

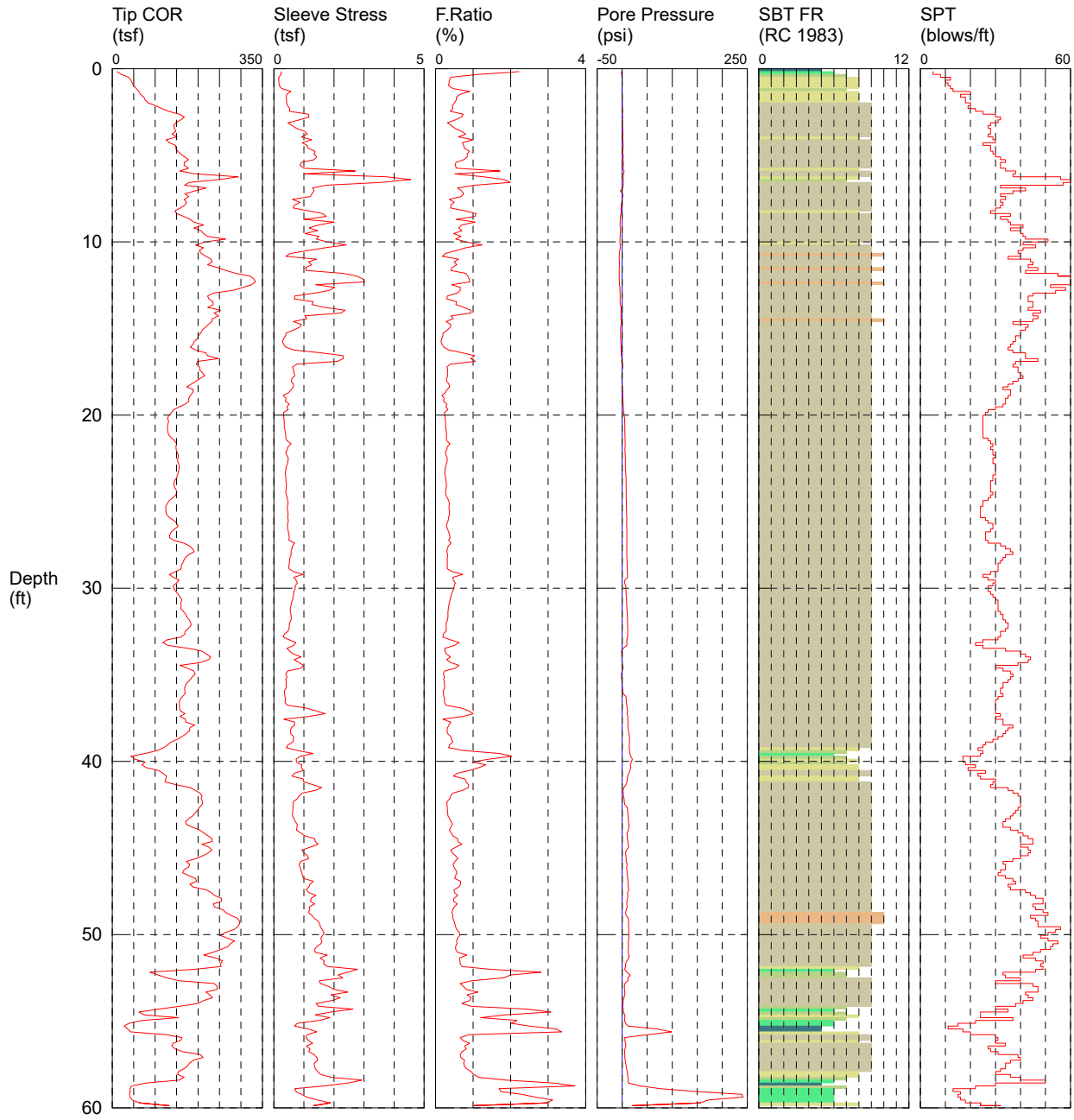
Figure A-162

Tested By: FQ

CPTu-01

CPT CONTRACTOR: In Situ Engineering
CUSTOMER: Terra Associates Inc
LOCATION: Arlington
JOB NUMBER: T-8340
COMMENT: Arlington MIC
COMMENT:

OPERATOR: OKBAY
CONE ID: DDG1369
TEST DATE: 6/8/2020 11:51:37 AM
PREDRILL : 0 ft
BACKFILL: Bentonite Chips
SURFACE PATCH: None



TOTAL DEPTH: 60.367 ft

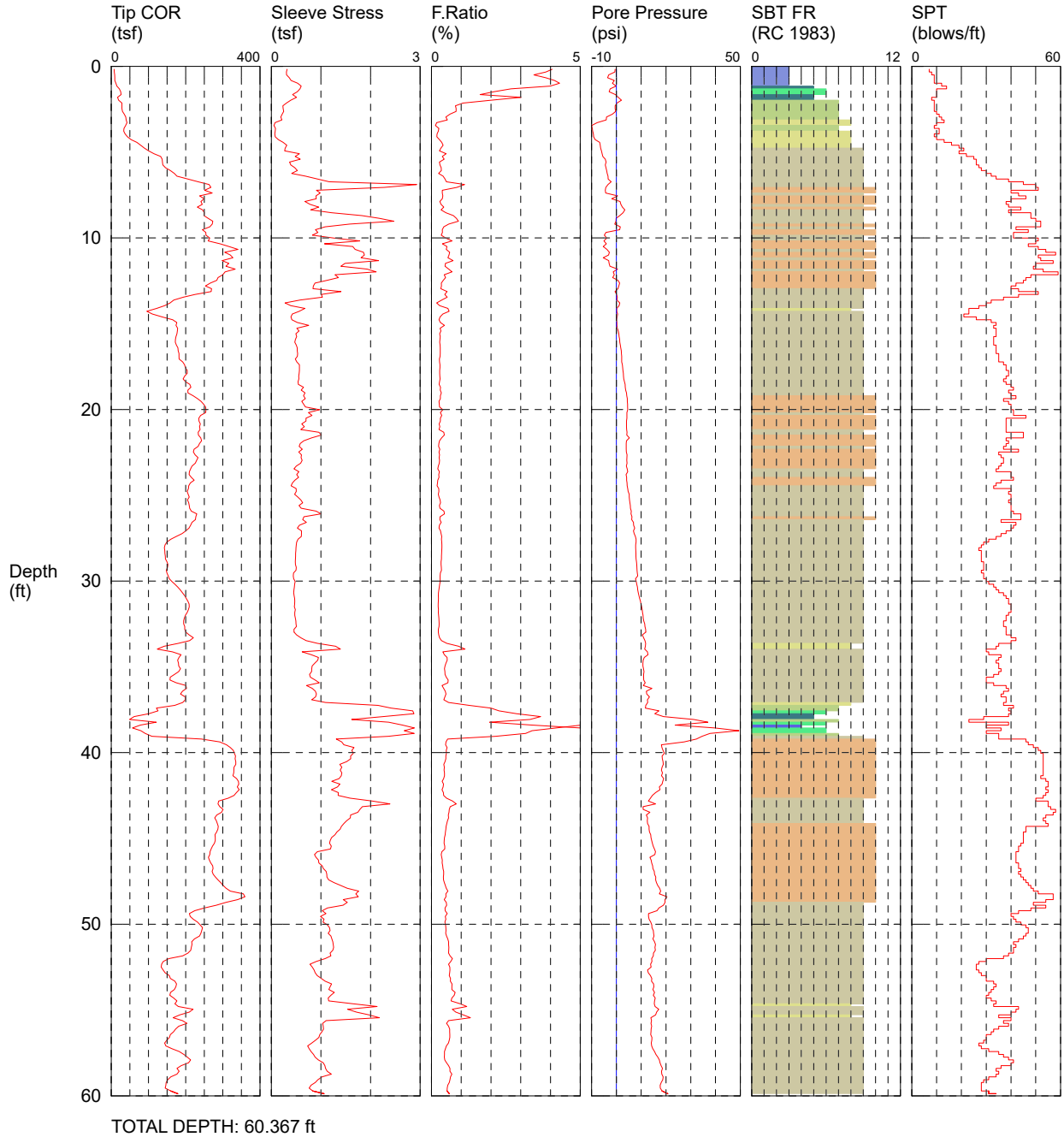
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPTu-02

CPT CONTRACTOR: In Situ Engineering
CUSTOMER: Terra Associates Inc
LOCATION: Arlington
JOB NUMBER: T-8340
COMMENT: Arlington MIC
COMMENT:

OPERATOR: OKBAY
CONE ID: DDG1369
TEST DATE: 6/8/2020 1:47:04 PM
PREDRILL : 0 ft
BACKFILL: Bentonite Chips
SURFACE PATCH: None



TOTAL DEPTH: 60.367 ft

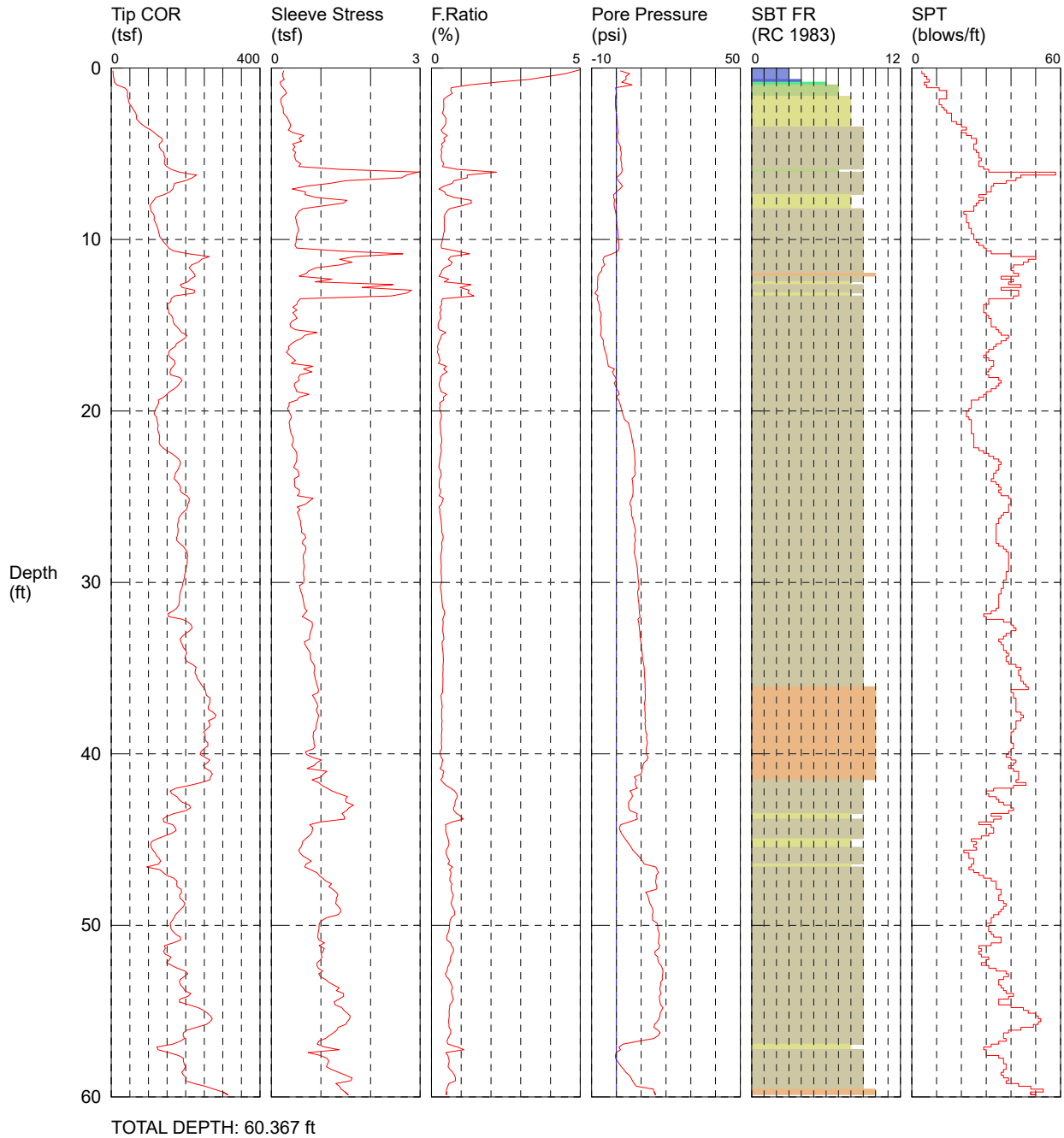
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPTu-03

CPT CONTRACTOR: In Situ Engineering
CUSTOMER: Terra Associates Inc
LOCATION: Arlington
JOB NUMBER: T-8340
COMMENT: Arlington MIC
COMMENT:

OPERATOR: OKBAY
CONE ID: DDG1369
TEST DATE: 6/8/2020 12:52:06 PM
PREDRILL : 0 ft
BACKFILL: Bentonite Chips
SURFACE PATCH: None



TOTAL DEPTH: 60.367 ft

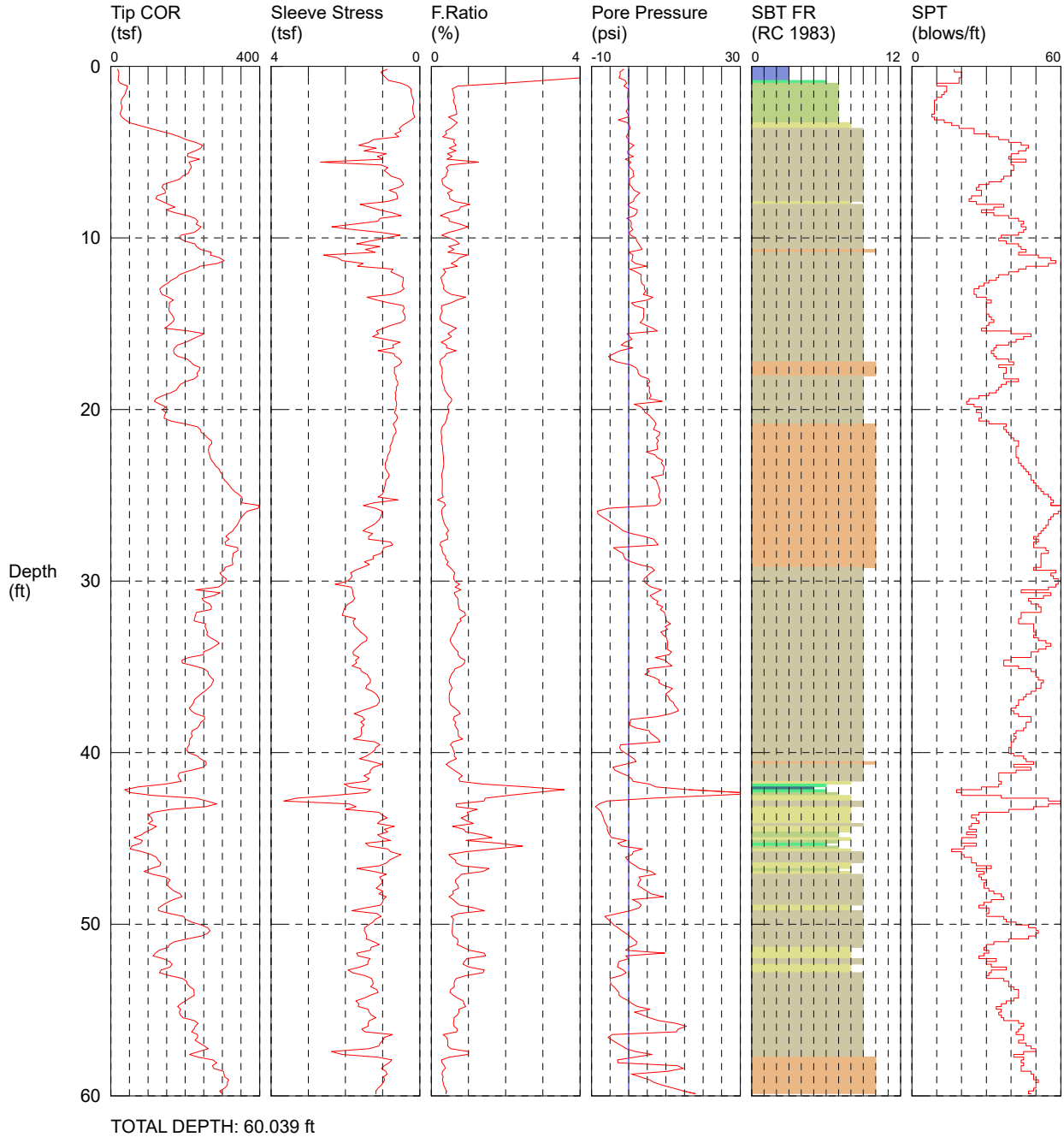
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-101A

CPT CONTRACTOR: In Situ Engineering
CUSTOMER: Terra Associates
LOCATION: Marysville
JOB NUMBER: T-8340
COMMENT: Arlington MIC
COMMENT: 13 ft South of Stake

OPERATOR: Okbay
CONE ID: DDG1394
TEST DATE: 8/4/2020 11:09:44 AM
PREDRILL: 0 ft
BACKFILL: 20% Grout & Bentonite Chips
SURFACE PATCH: None



TOTAL DEPTH: 60.039 ft

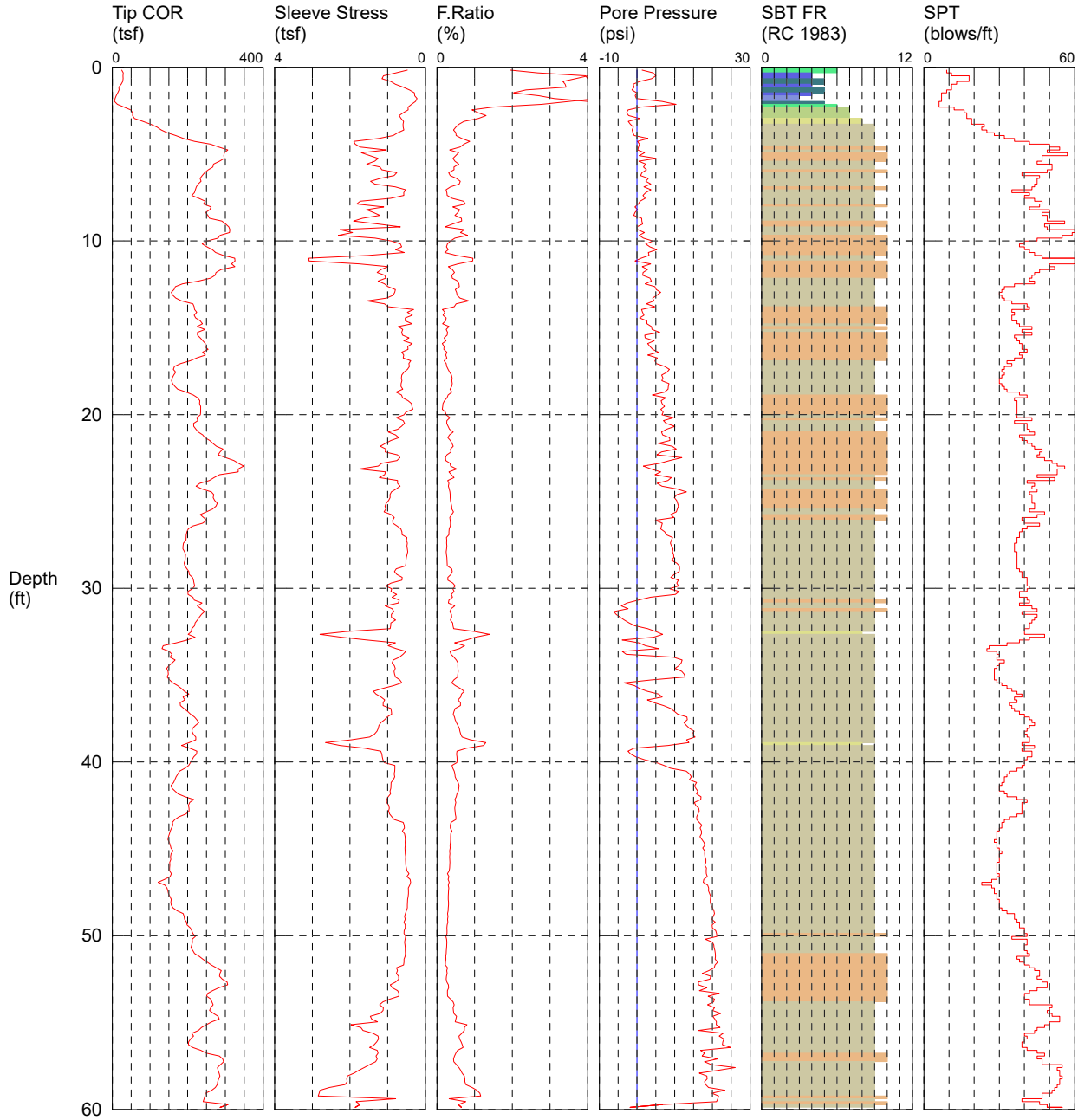
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-102

CPT CONTRACTOR: In Situ Engineering
CUSTOMER: Terra Associates
LOCATION: Marysville
JOB NUMBER: T-8340
COMMENT: Arlington MIC
COMMENT:

OPERATOR: Okbay
CONE ID: DDG1394
TEST DATE: 8/4/2020 9:37:36 AM
PREDRILL: 0 ft
BACKFILL: 20% Grout & Bentonite Chips
SURFACE PATCH: None



TOTAL DEPTH: 60.367 ft

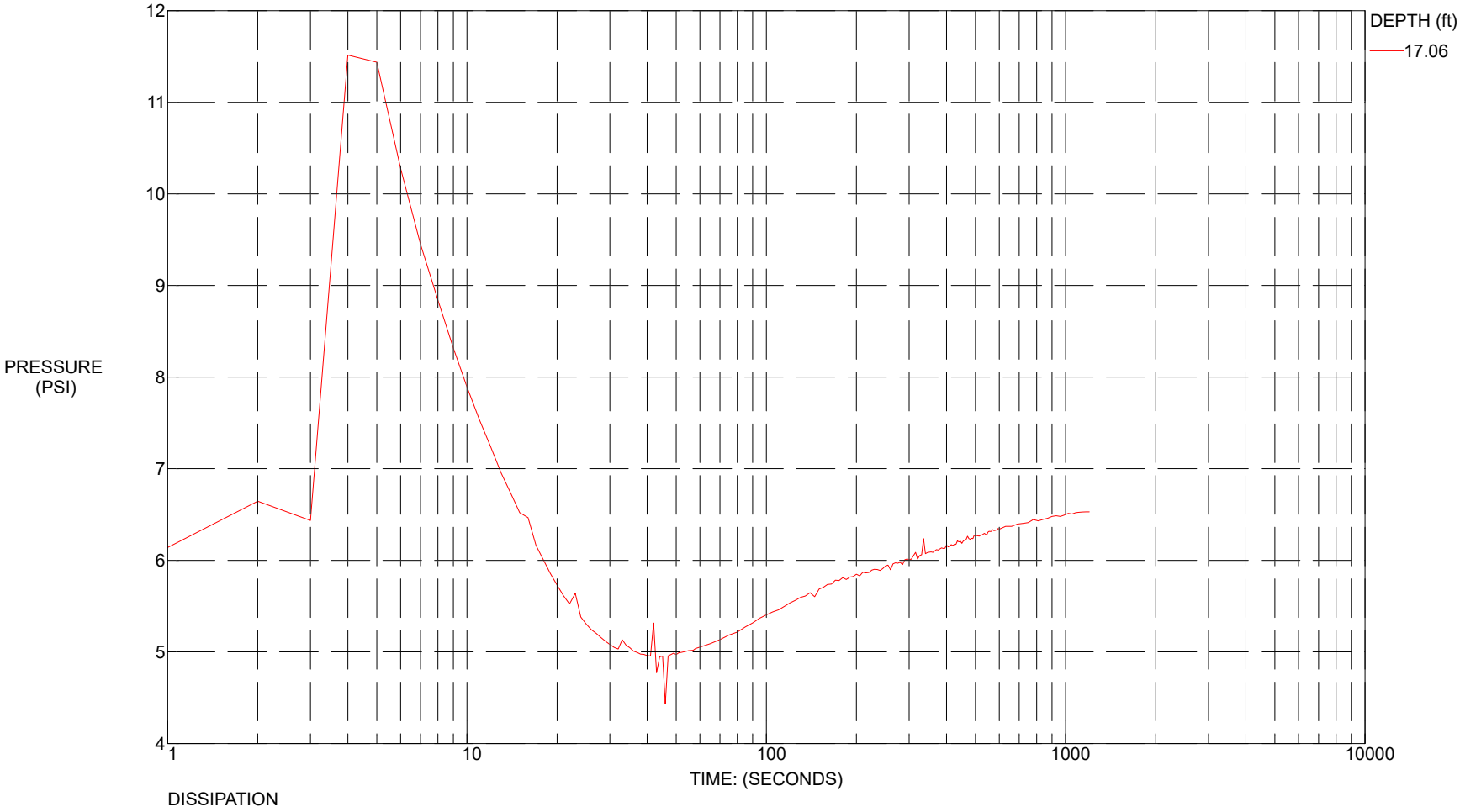
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT - 102 Dissipation

CPT CONTRACTOR: In Situ Engineering
CUSTOMER: Terra Associates
LOCATION: Marysville
JOB NUMBER: T-8340
COMMENT: Arlington MIC
COMMENT:

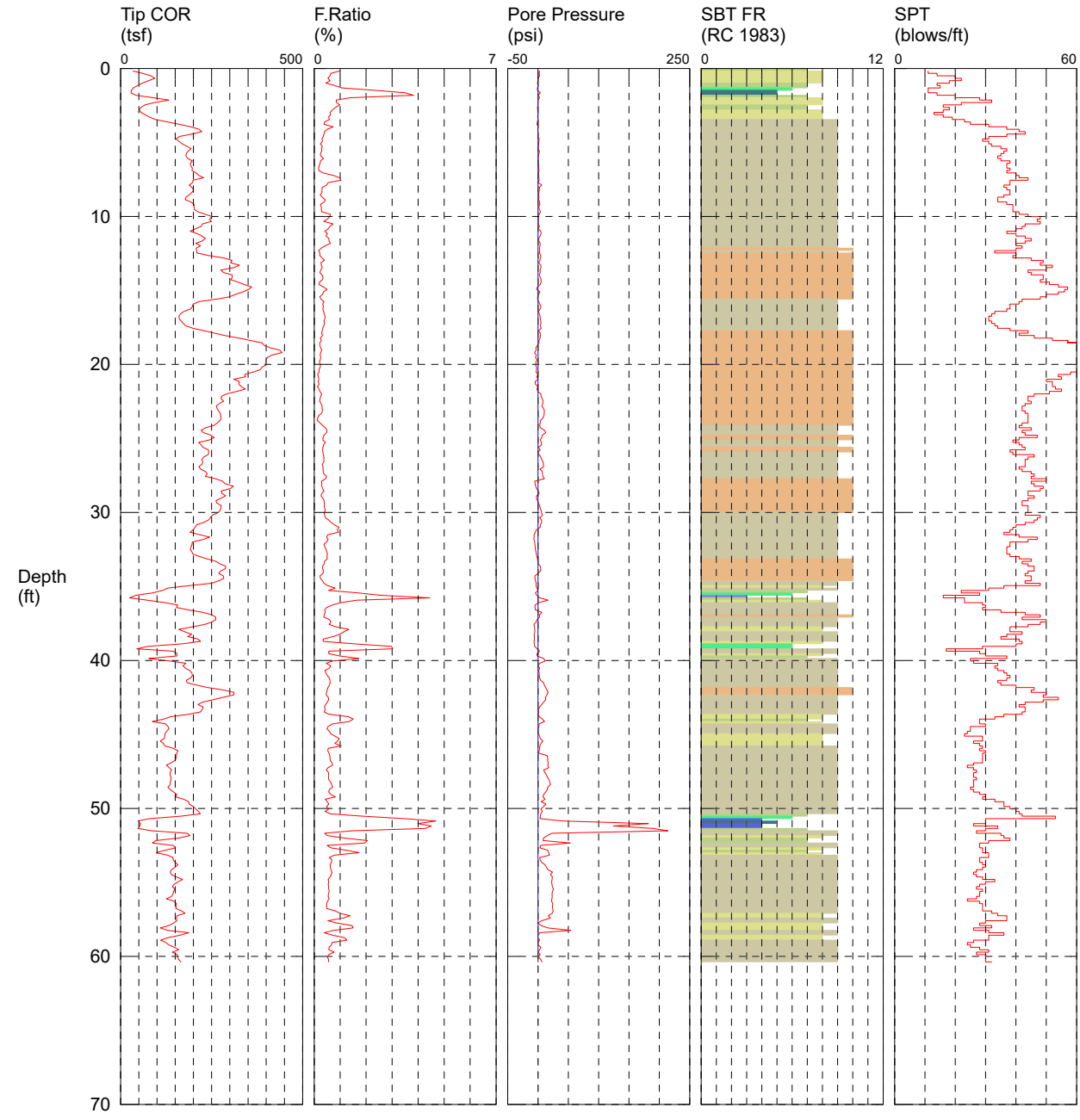
OPERATOR: Okbay
CONE ID: DDG1394
TEST DATE:
PREDRILL : 0 ft
BACKFILL: 20% Grout & Bentonite Chips
SURFACE PATCH: None



CPT-201

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/17/2020 3:23:44 PM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

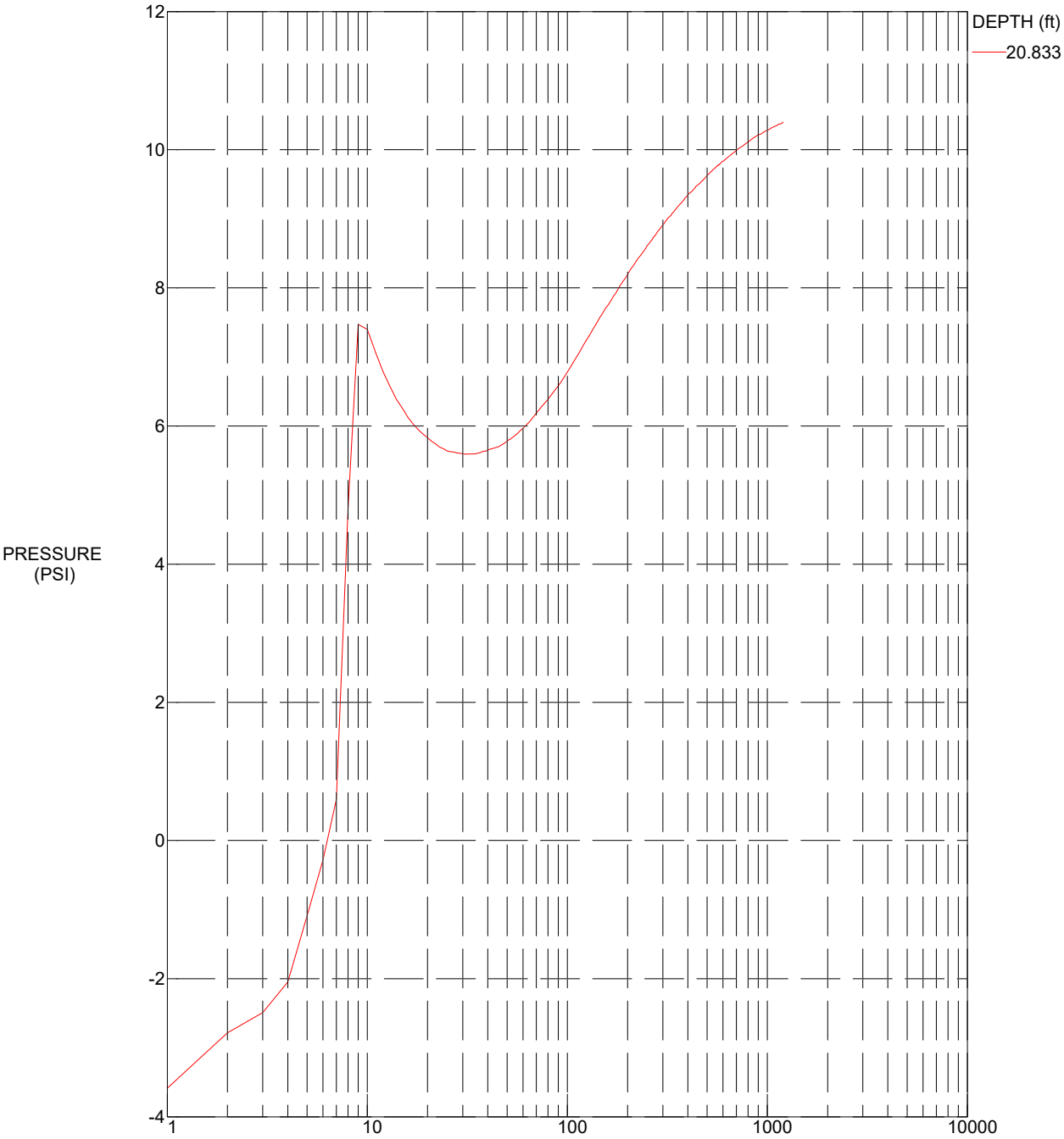
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-201

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/17/2020 11:12:31 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:

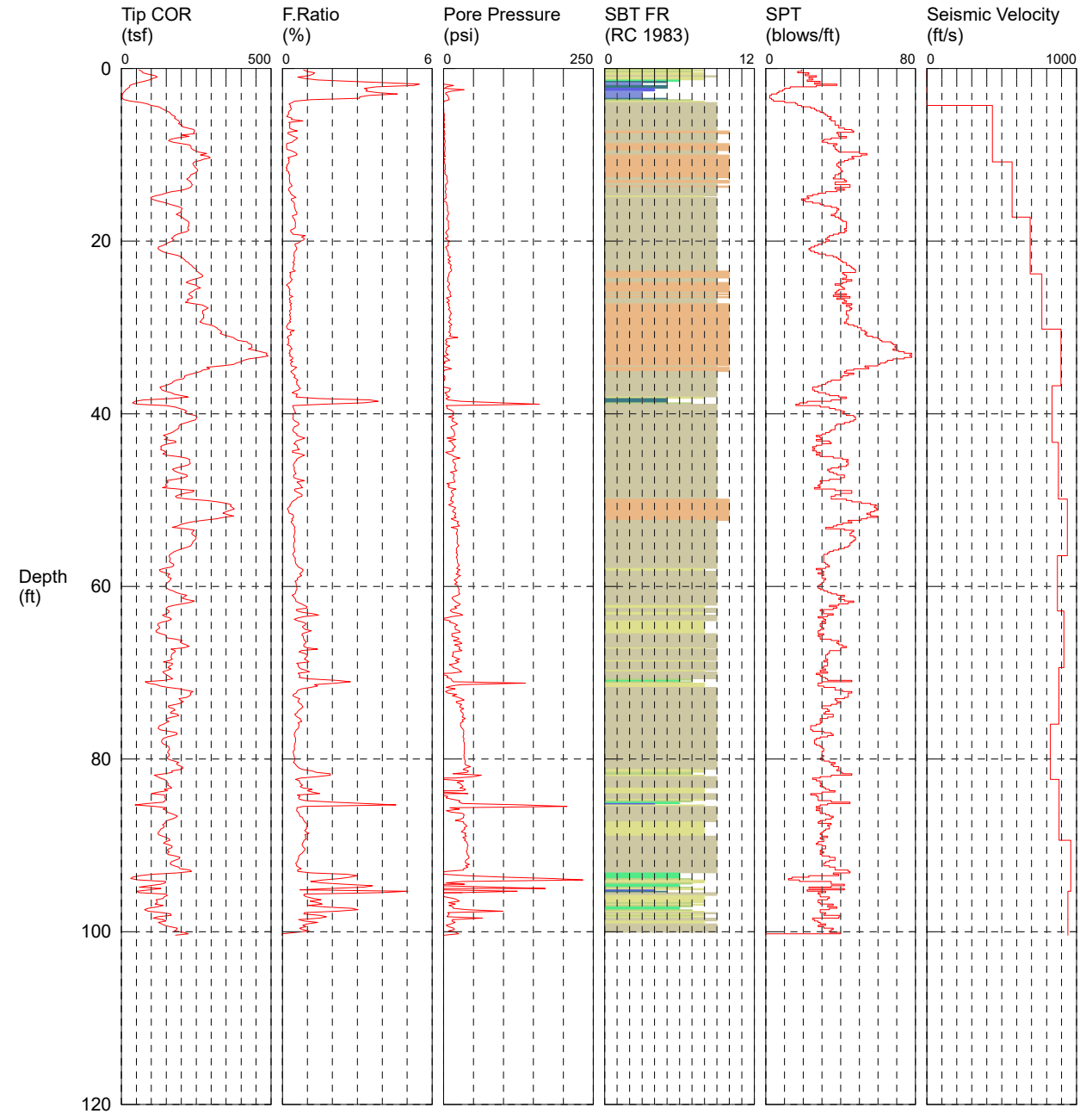


MAXIMUM PRESSURE = 10.4 (PSI) TIME: (SECONDS)
HYDROSTATIC PRESSURE = 9.029 (PSI), WATER TABLE: 0.00 ft
COMMENT:

CPT-202

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/17/2020 1:17:18 PM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

HOLE NUMBER: CPT-202

OPERATOR: Mayfield

CUSTOMER:

LOCATION: Arlington

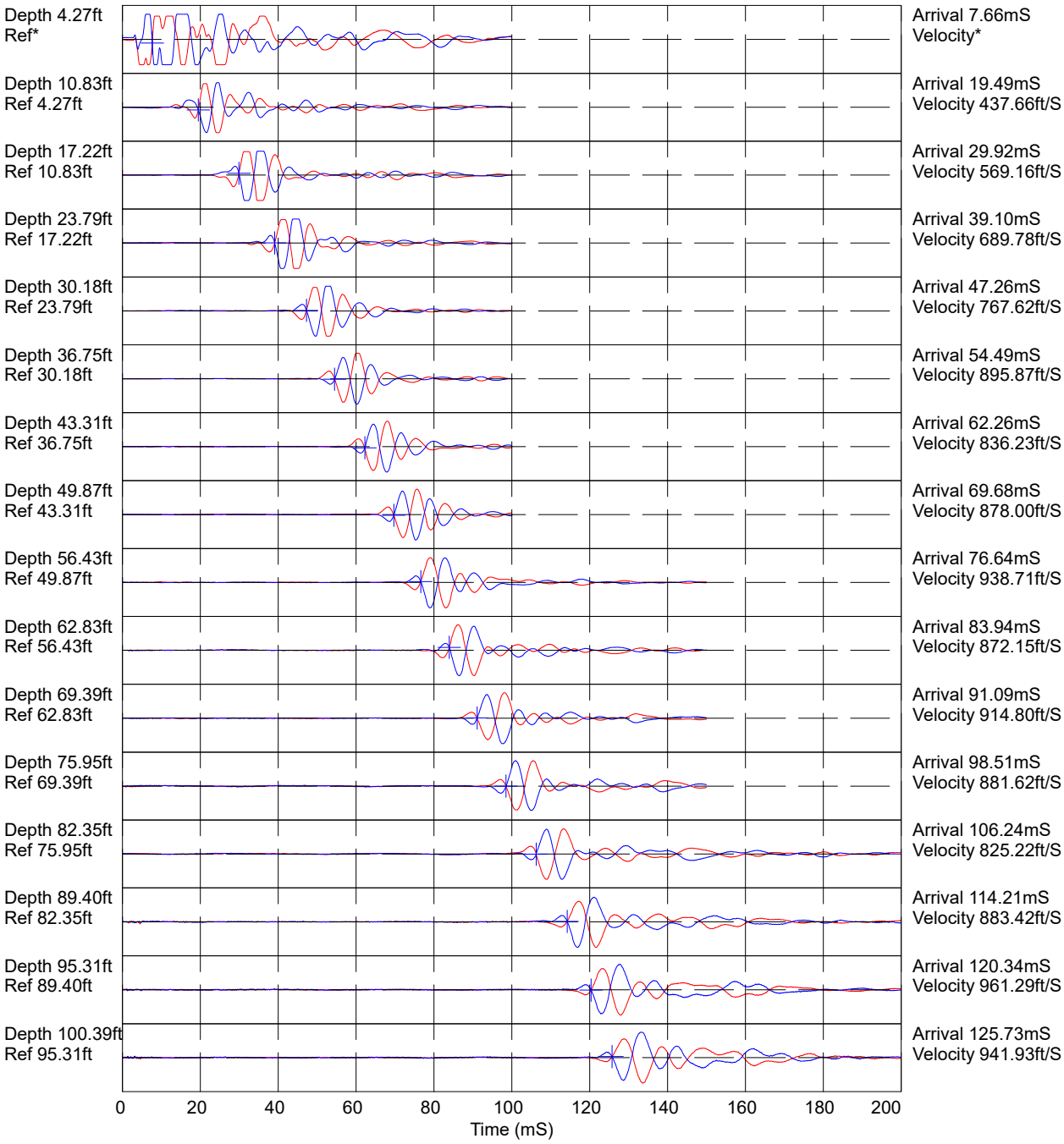
JOB NUMBER: T-8340

CPT Contractor: In Situ Engineering

CONE ID: DDG1263

TEST DATE: 8/17/2020 1:17:18 PM

HOLE NUMBER: CPT-202

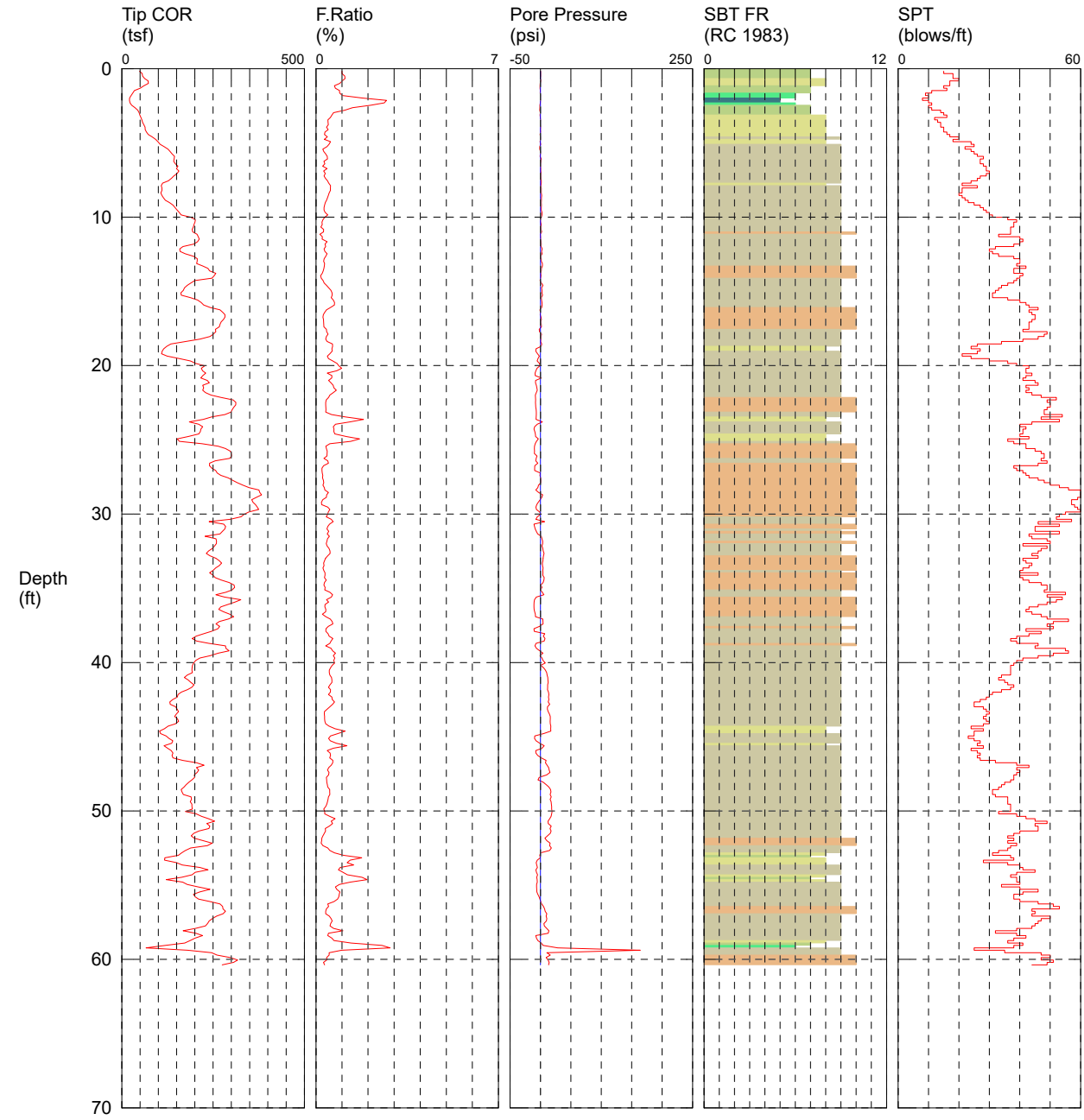


Hammer to Rod String Distance (ft): 5.51
* = Not Determined

CPT-203

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 9:57:26 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

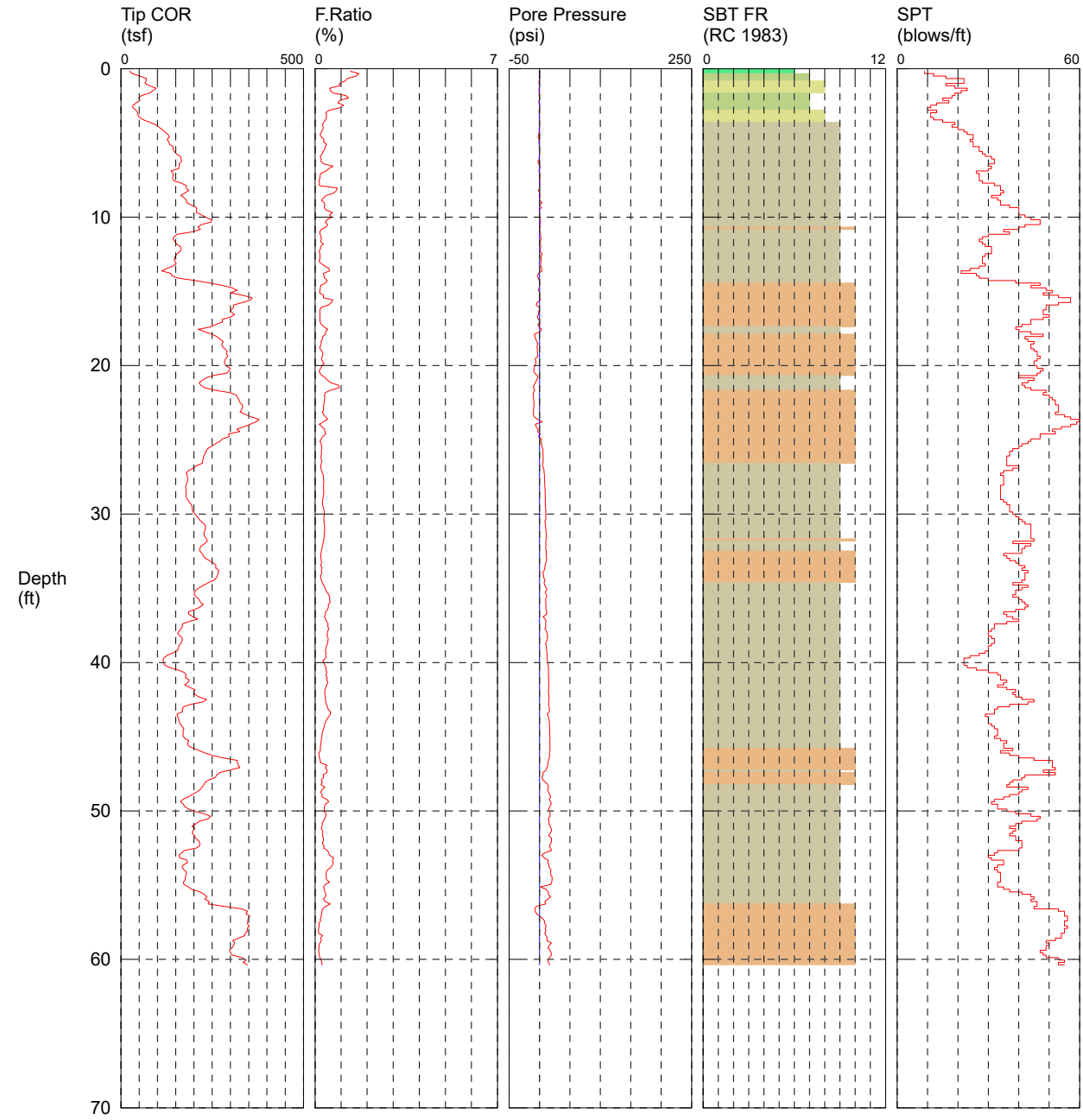
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-204

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 8:59:55 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

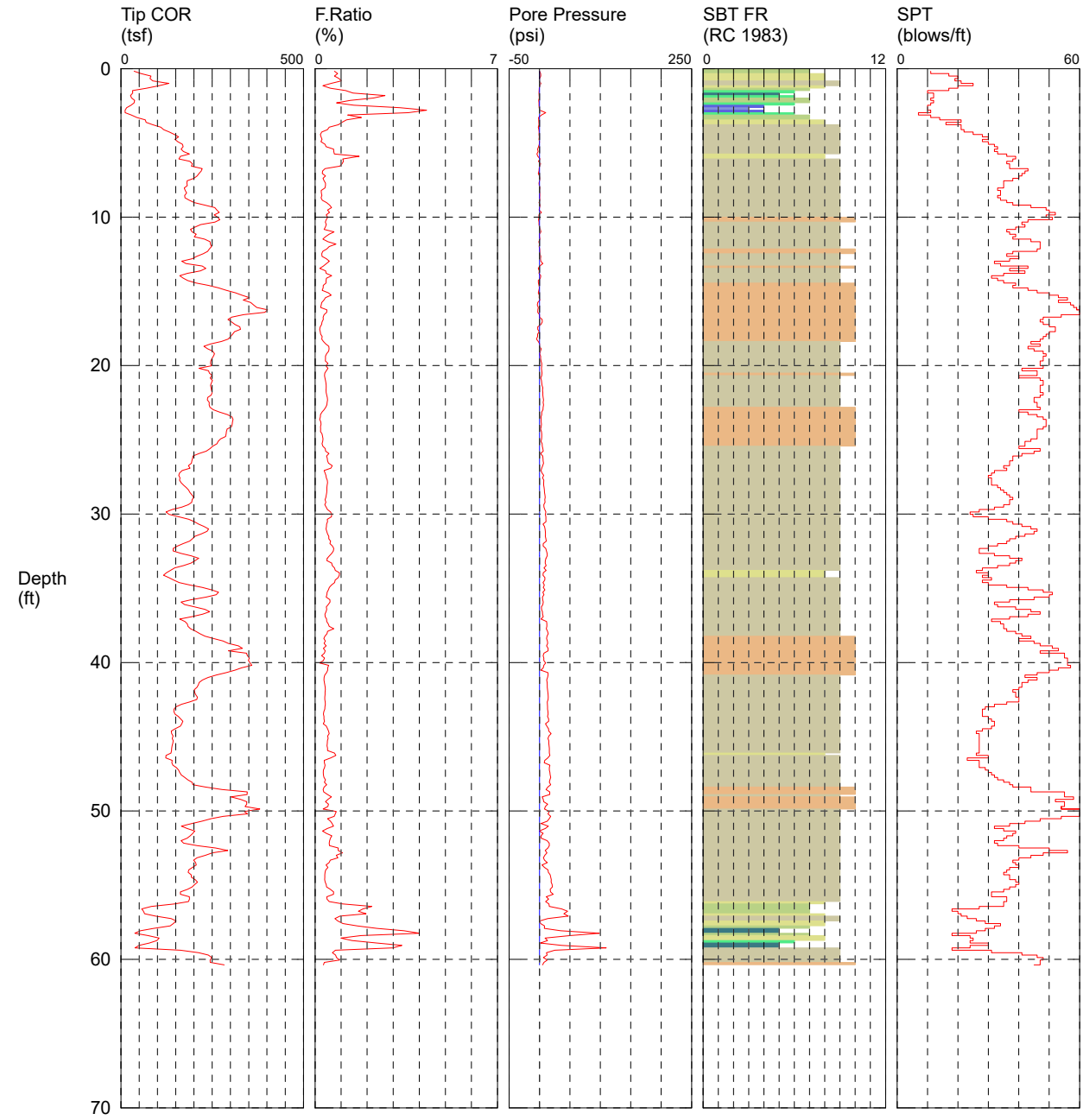
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-205

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/18/2020 8:15:37 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

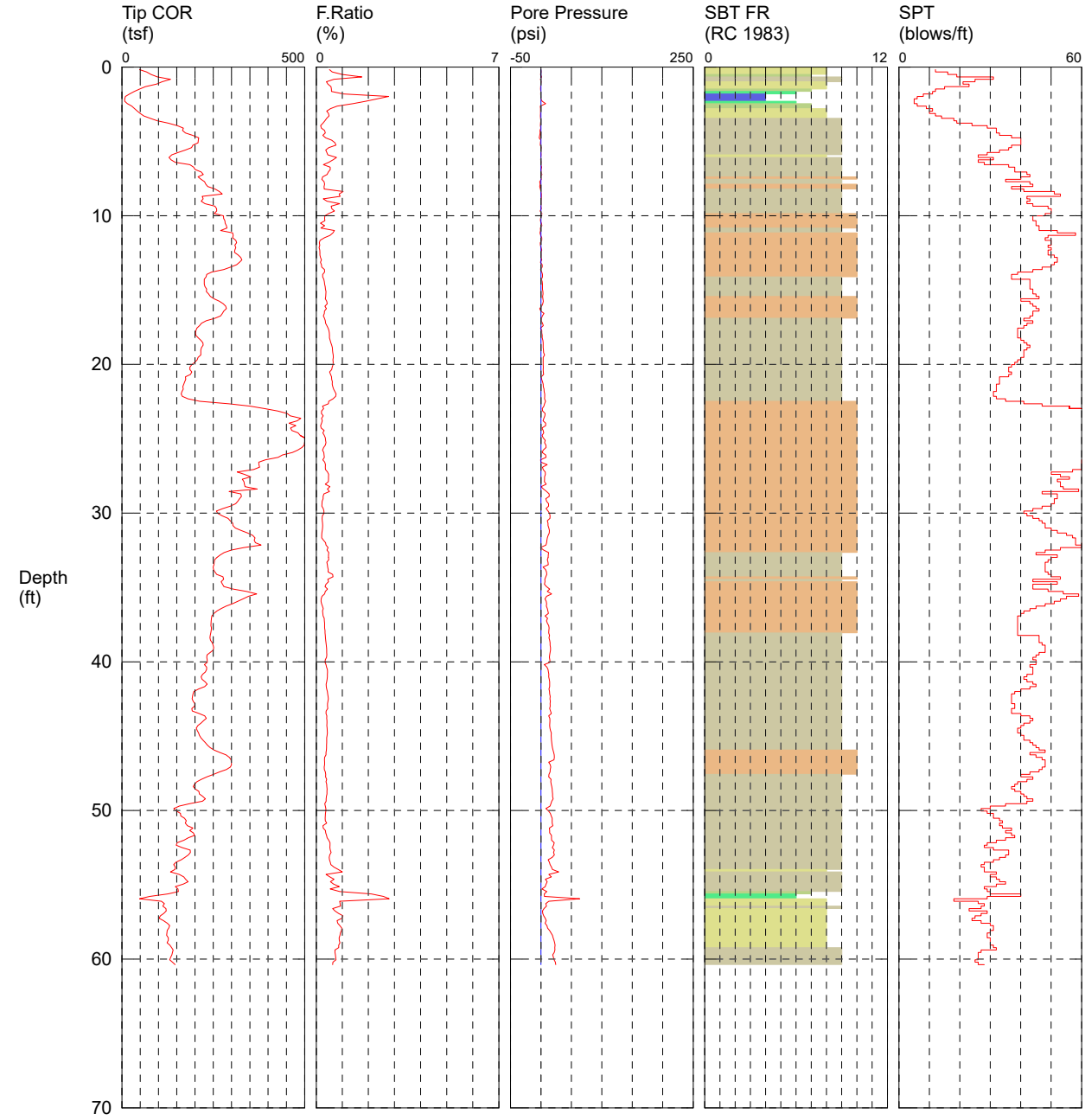
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-206

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/18/2020 6:57:03 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

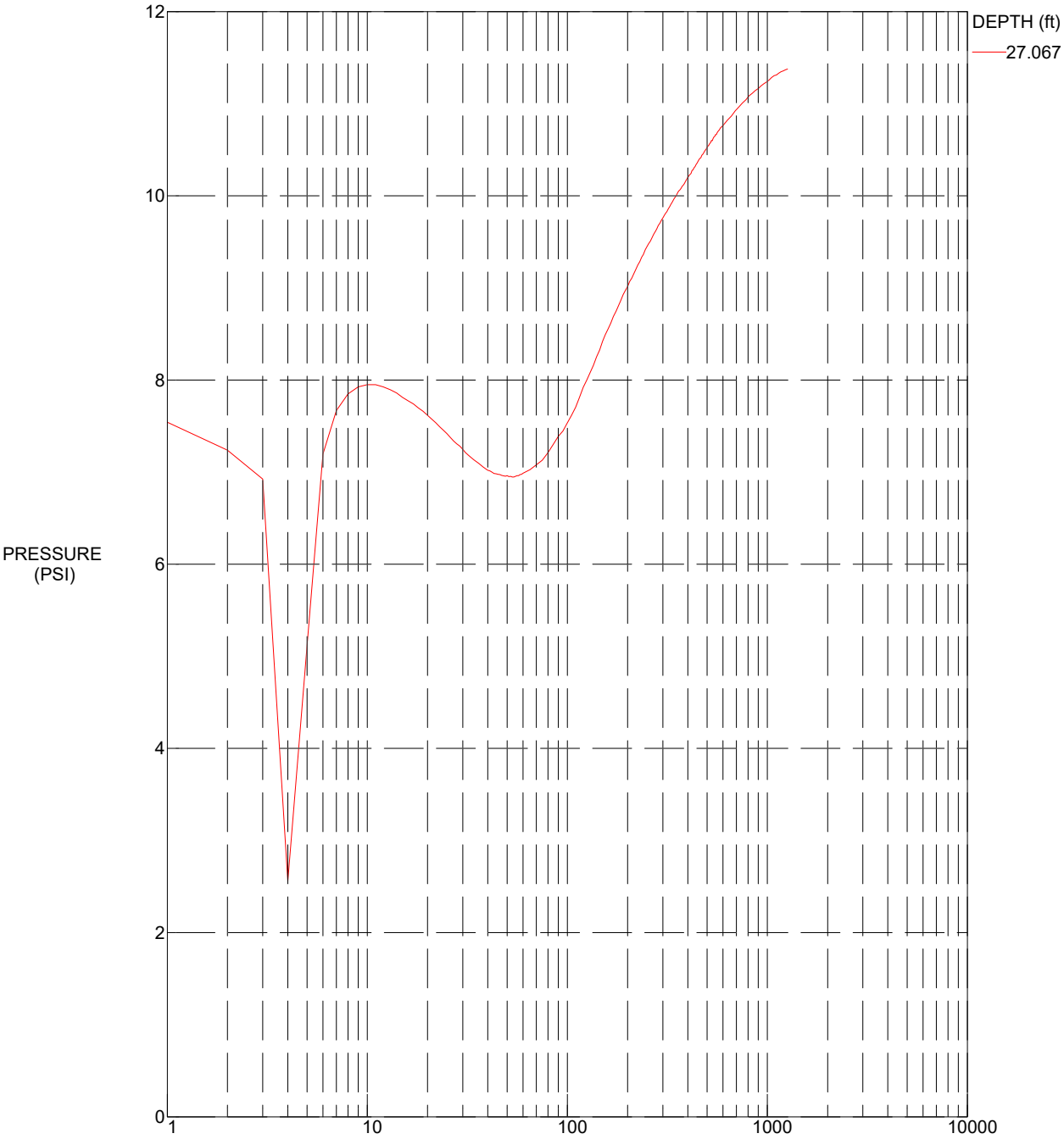
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-206

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 08/18/2020 06:57:03
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:

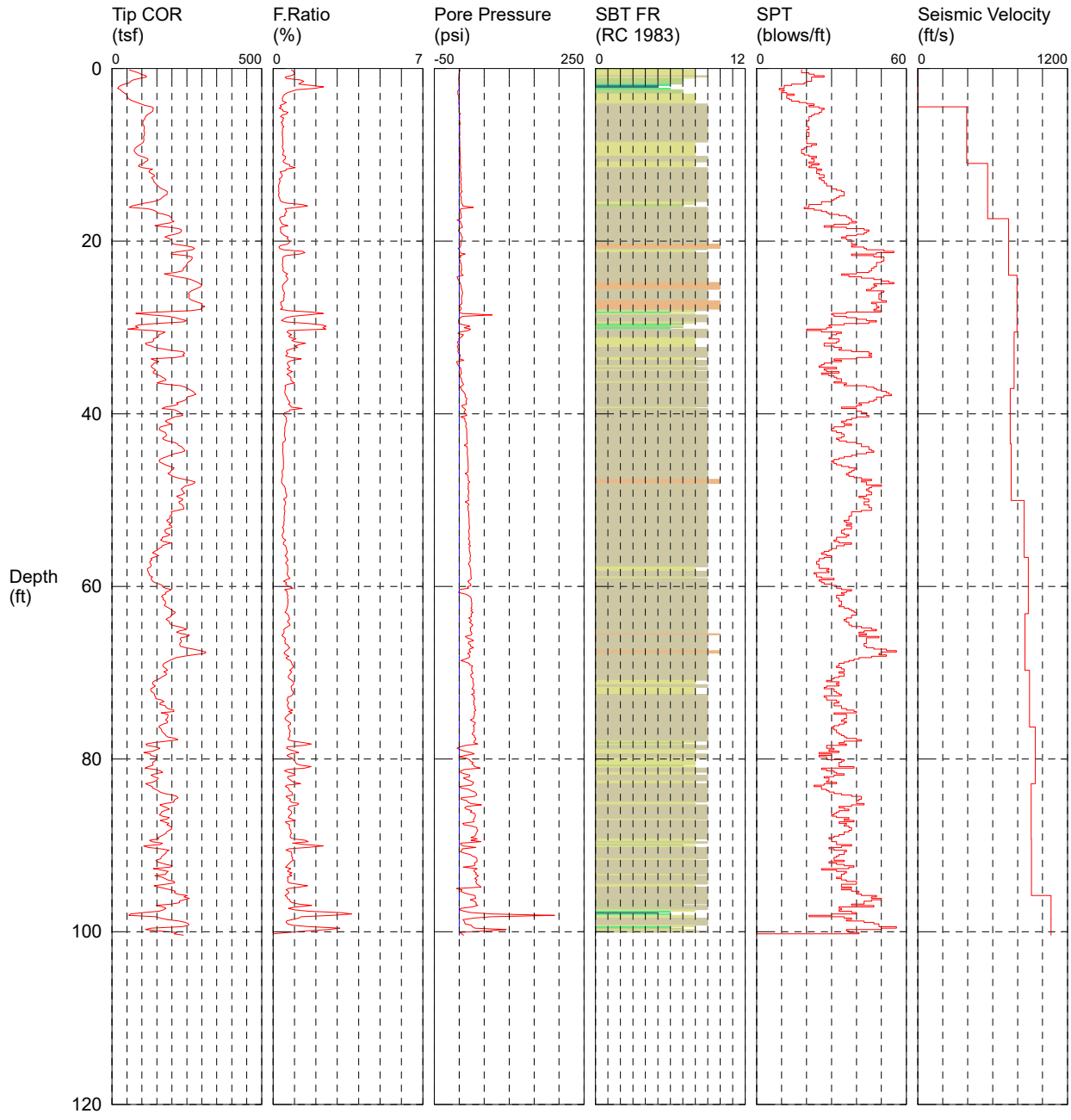


MAXIMUM PRESSURE = 11.376 (PSI) TIME: (SECONDS)
HYDROSTATIC PRESSURE = 11.731 (PSI), WATER TABLE: 0.00 ft
COMMENT:

CPT-207A

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/17/2020 11:12:31 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

HOLE NUMBER: CPT-207A

OPERATOR: Mayfield

CUSTOMER:

LOCATION: Arlington

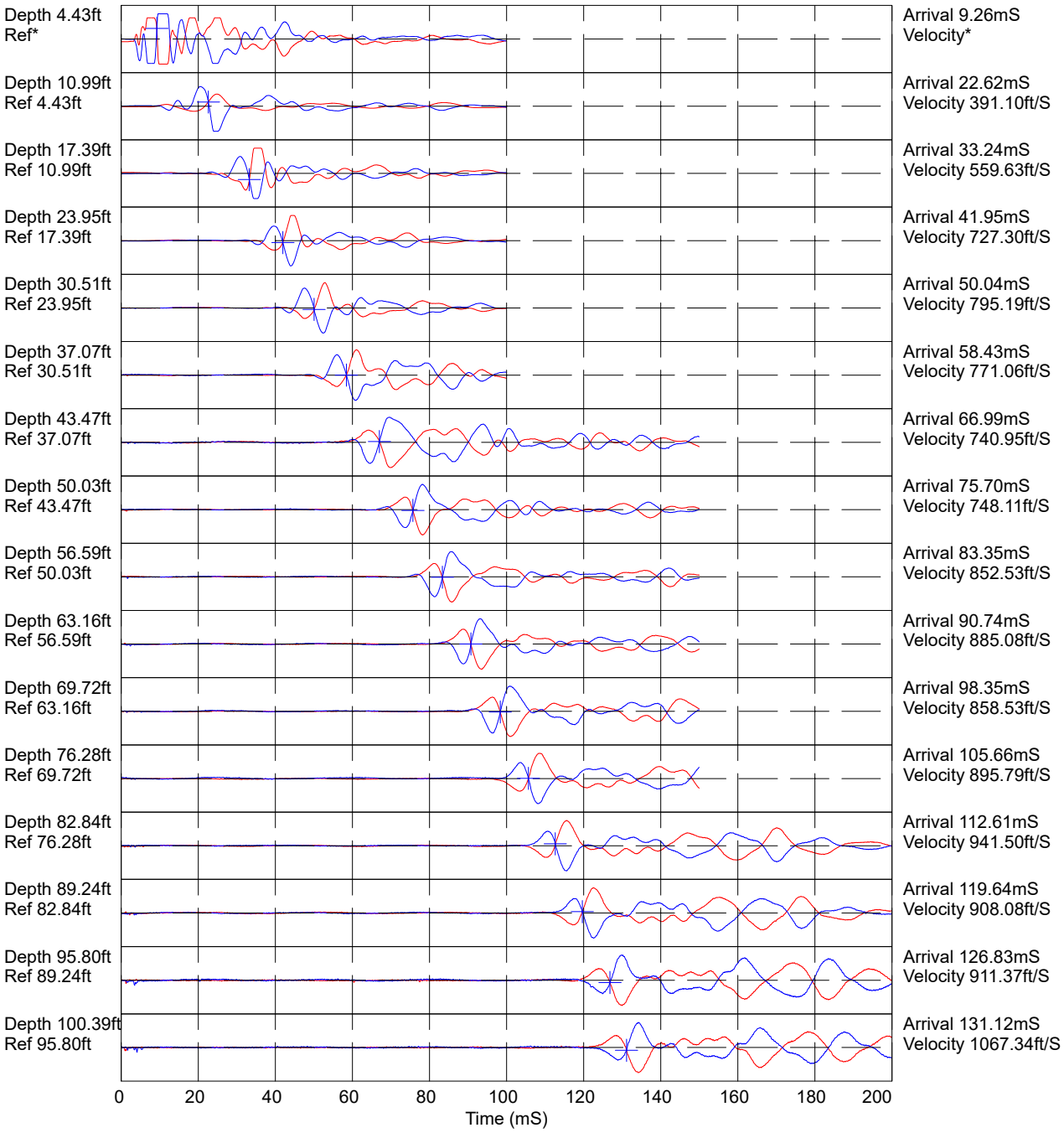
JOB NUMBER: T-8340

CPT Contractor: In Situ Engineering

CONE ID: DDG1263

TEST DATE: 8/17/2020 11:12:31 AM

HOLE NUMBER: CPT-207A

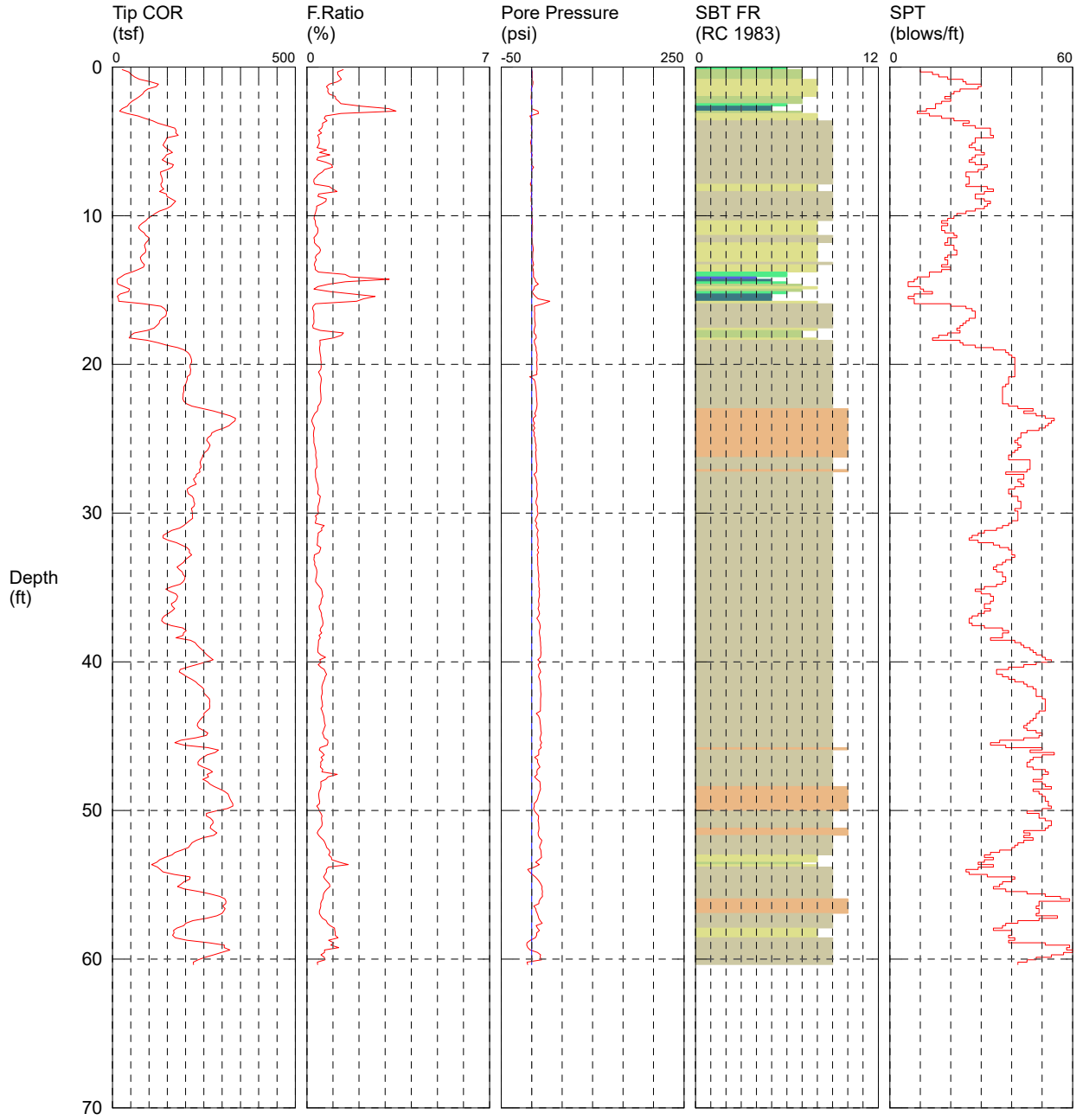


Hammer to Rod String Distance (ft): 5.51
* = Not Determined

CPT-208

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 7:53:30 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

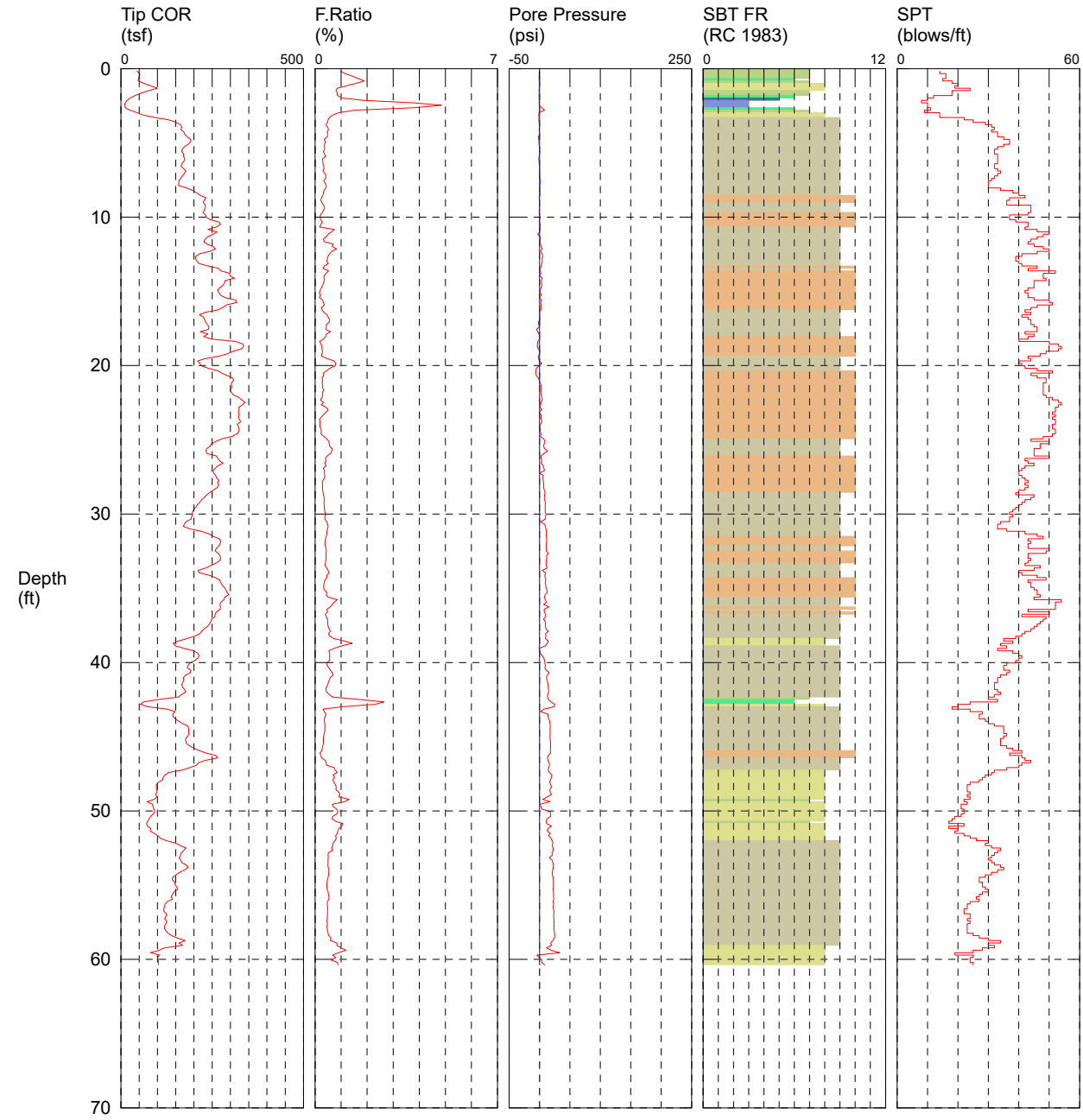
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-209

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/18/2020 1:07:44 PM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

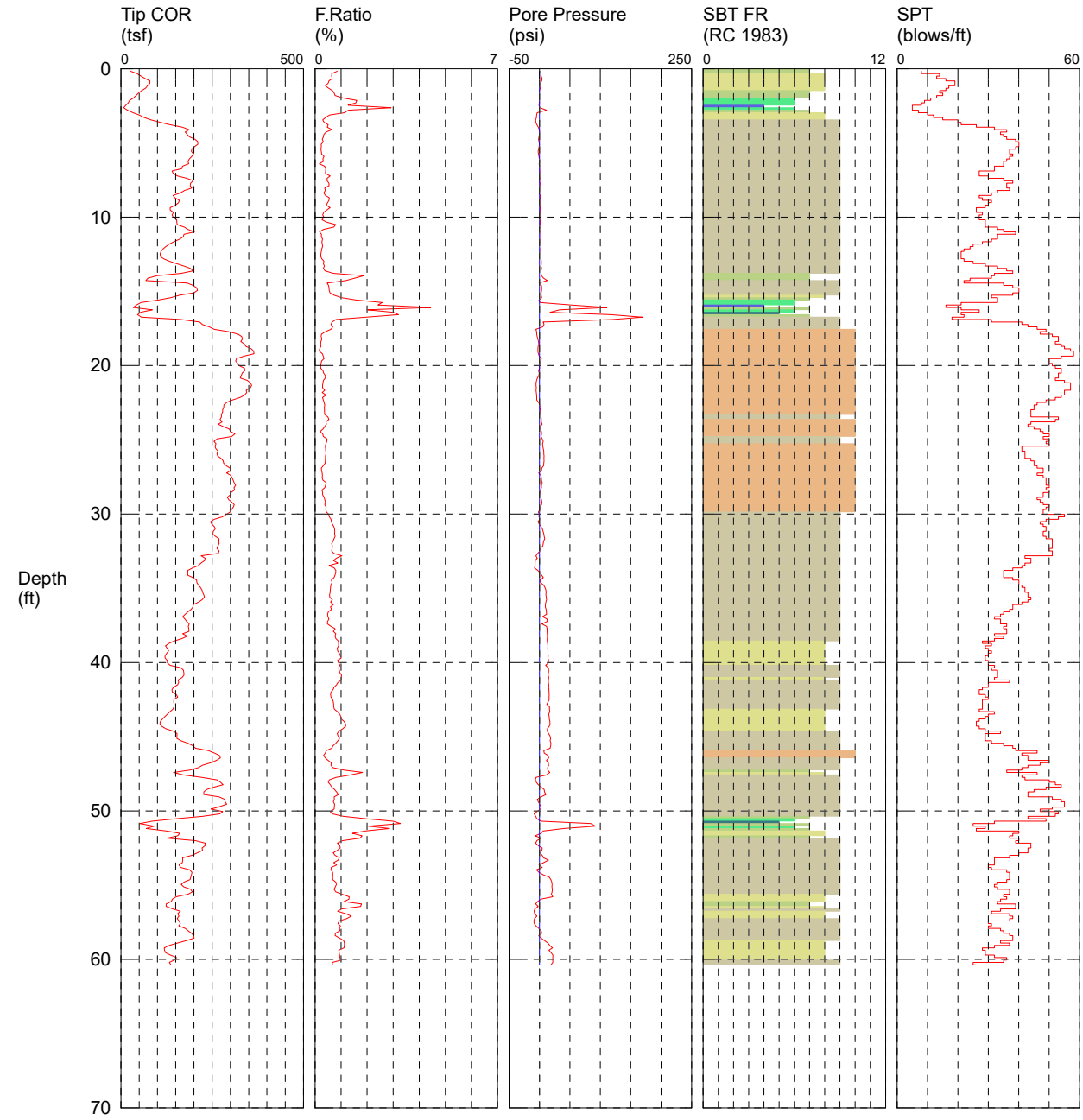
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-210

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 6:57:28 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

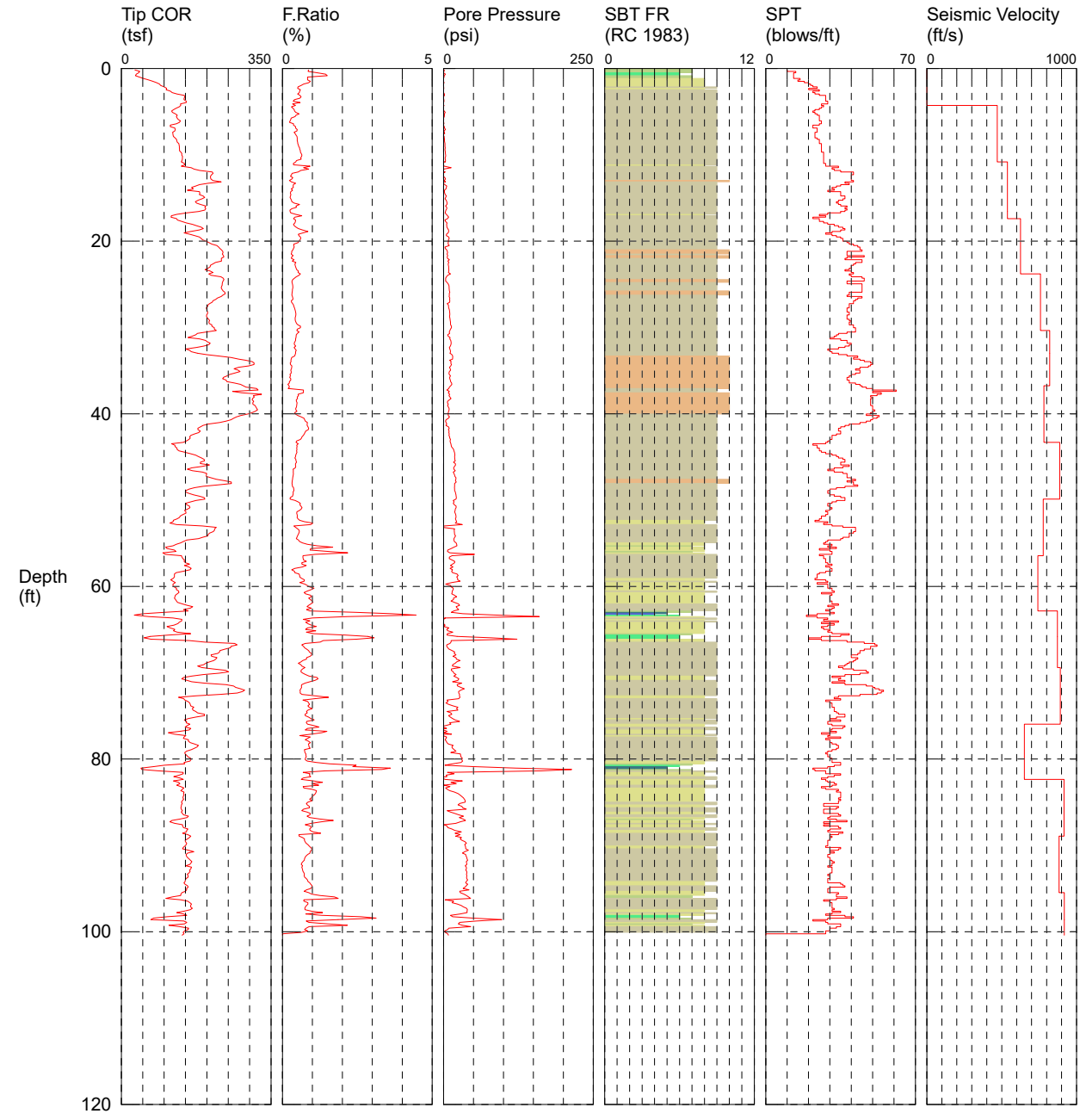
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-211

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/18/2020 9:46:34 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

HOLE NUMBER: CPT-211

OPERATOR: Mayfield

CUSTOMER:

LOCATION: Arlington

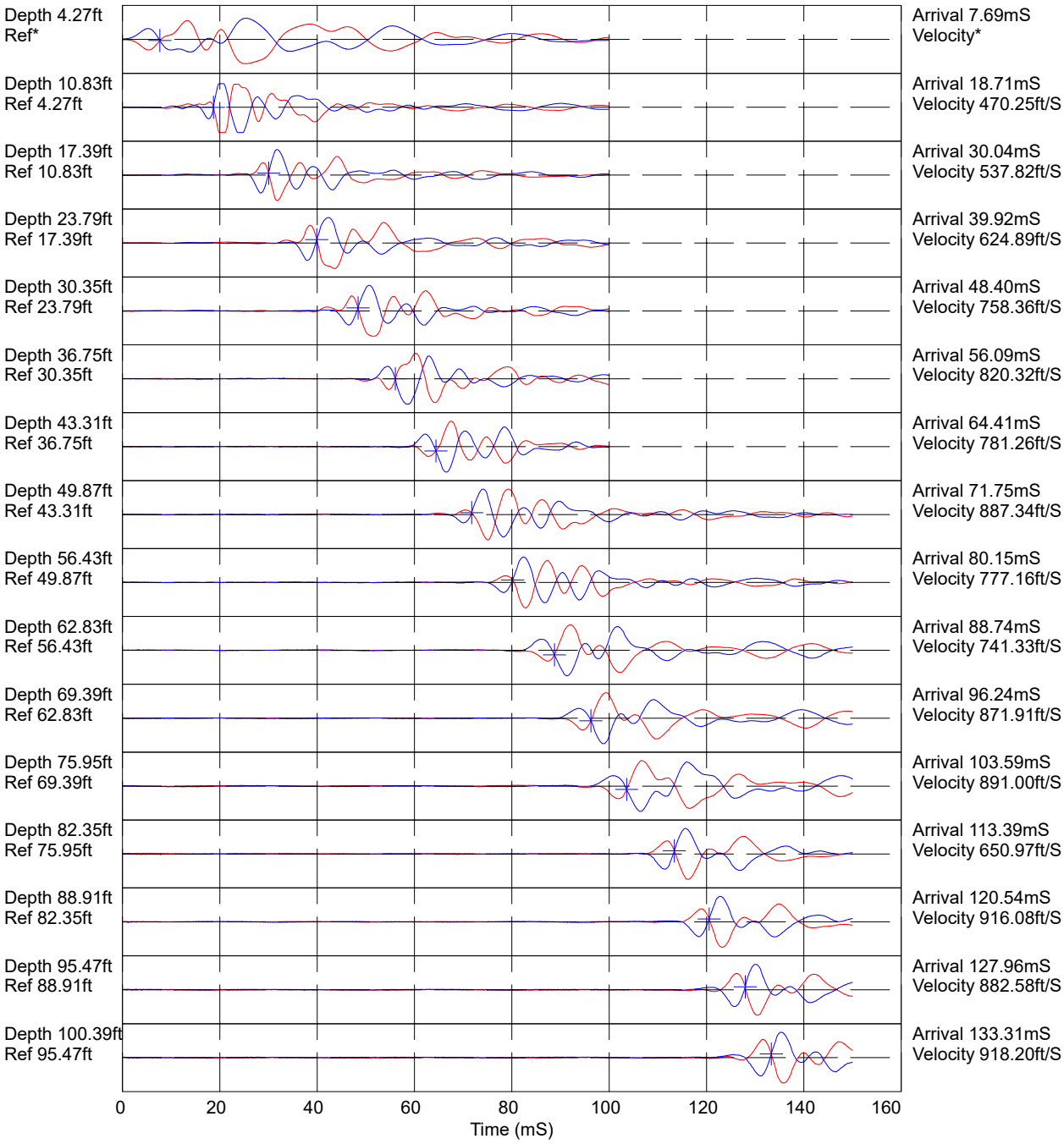
JOB NUMBER: T-8340

CPT Contractor: In Situ Engineering

CONE ID: DDG1263

TEST DATE: 8/18/2020 9:46:34 AM

HOLE NUMBER: CPT-211

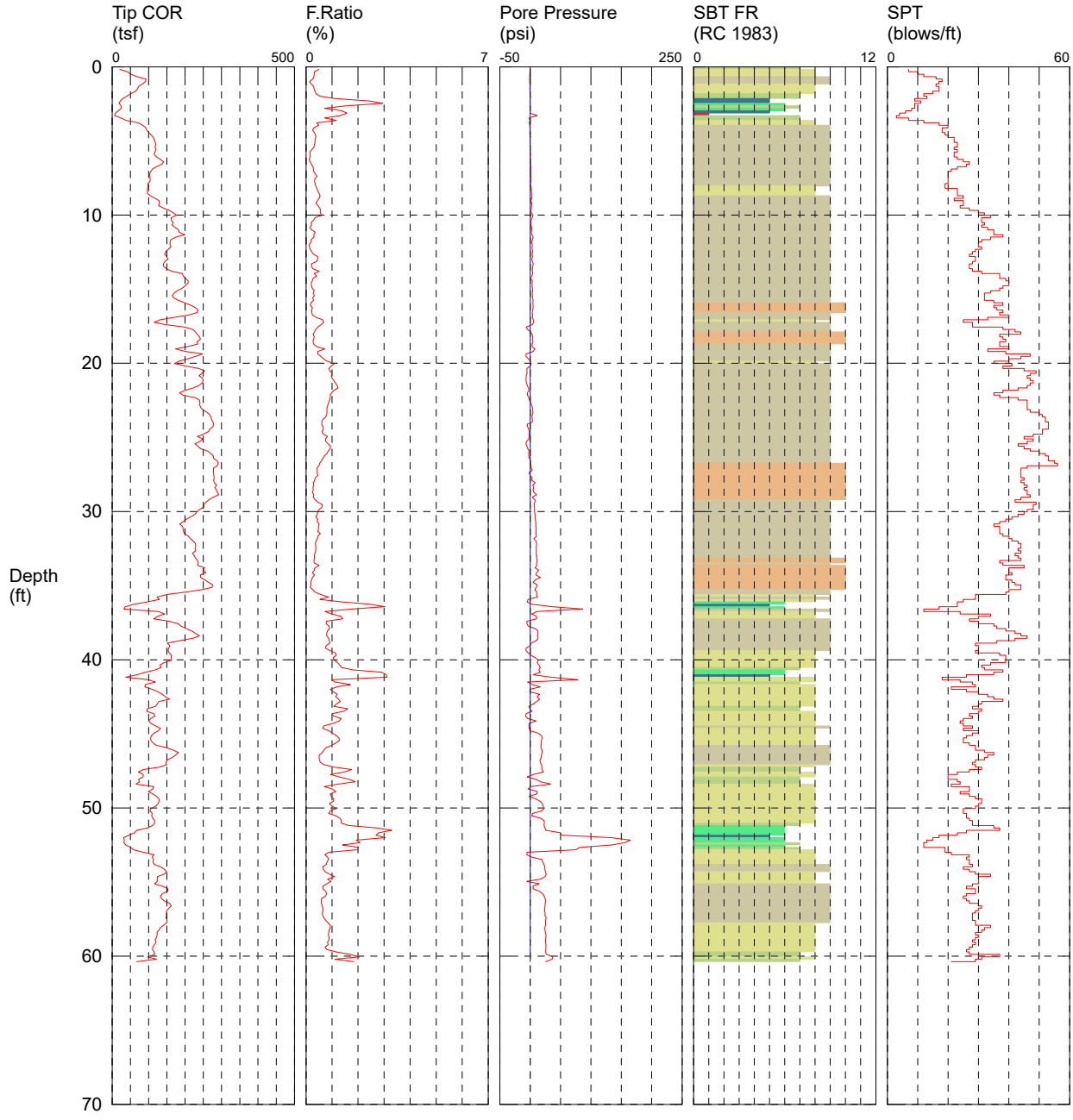


Hammer to Rod String Distance (ft): 5.51
* = Not Determined

CPT-212

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/18/2020 11:51:11 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

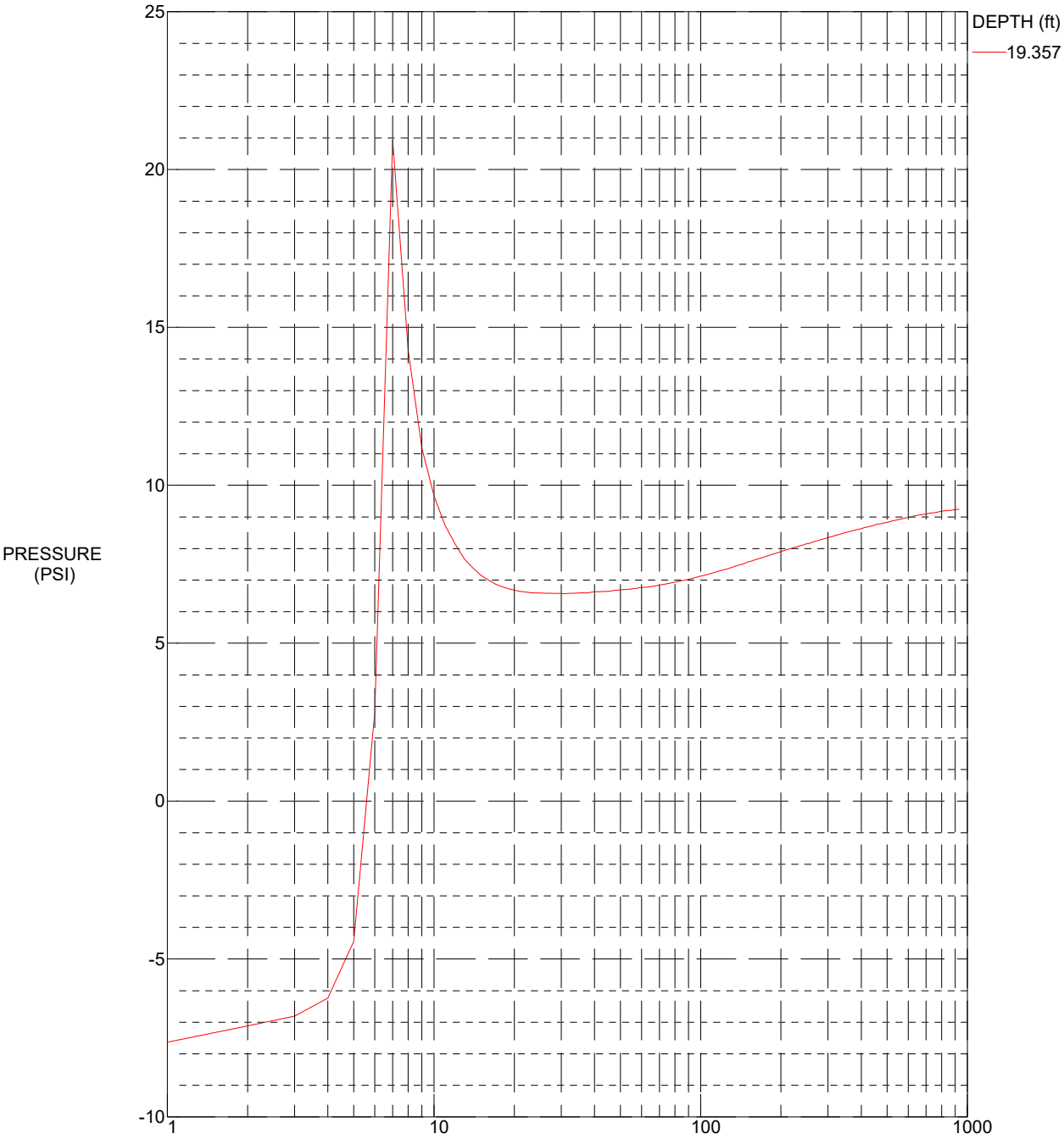
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-212

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 08/18/2020 11:53:11
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:

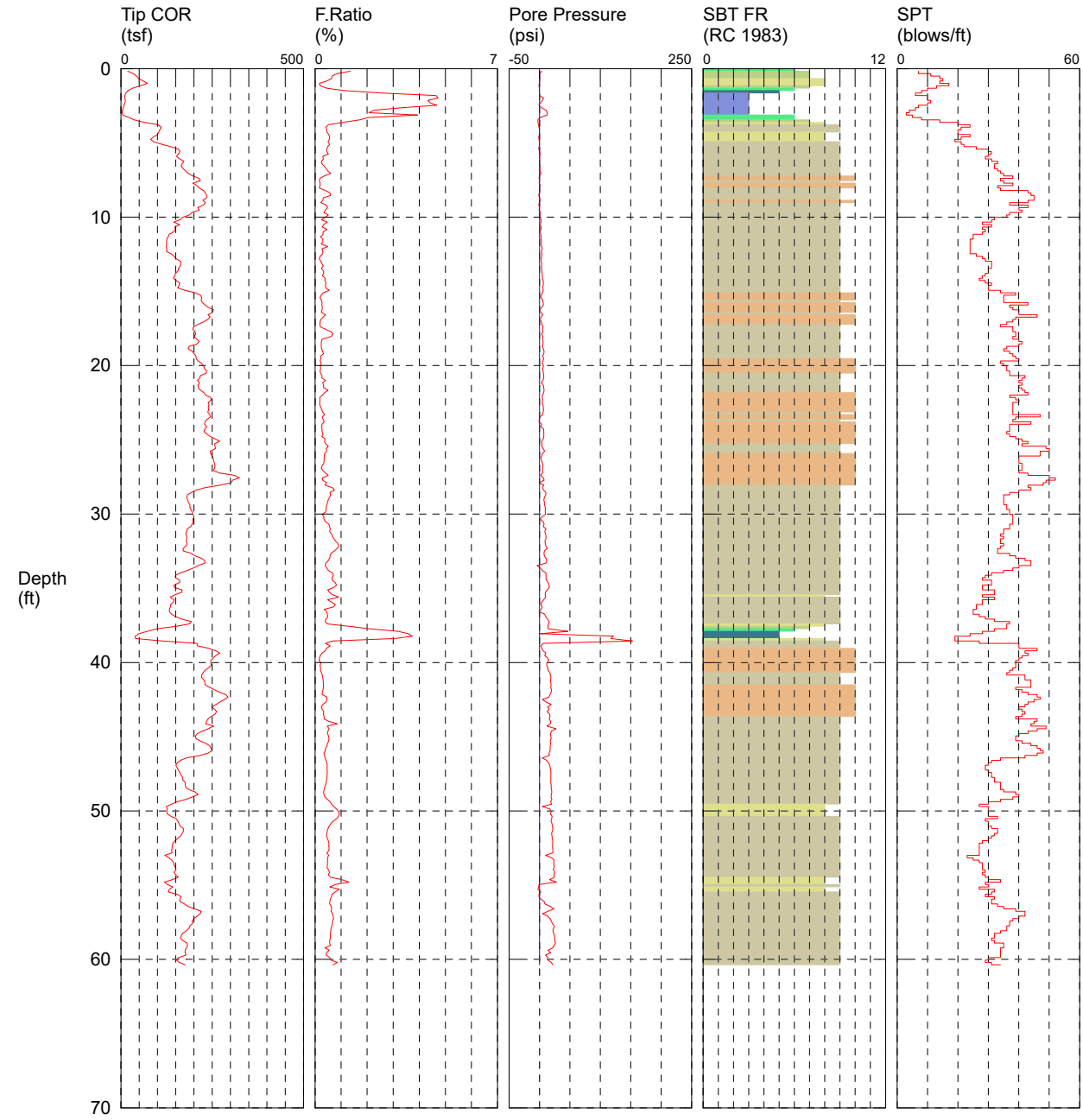


MAXIMUM PRESSURE = 20.932 (PSI) TIME: (SECONDS)
HYDROSTATIC PRESSURE = 8.389 (PSI), WATER TABLE: 0.00 ft
COMMENT:

CPT-213

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 1:15:49 PM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

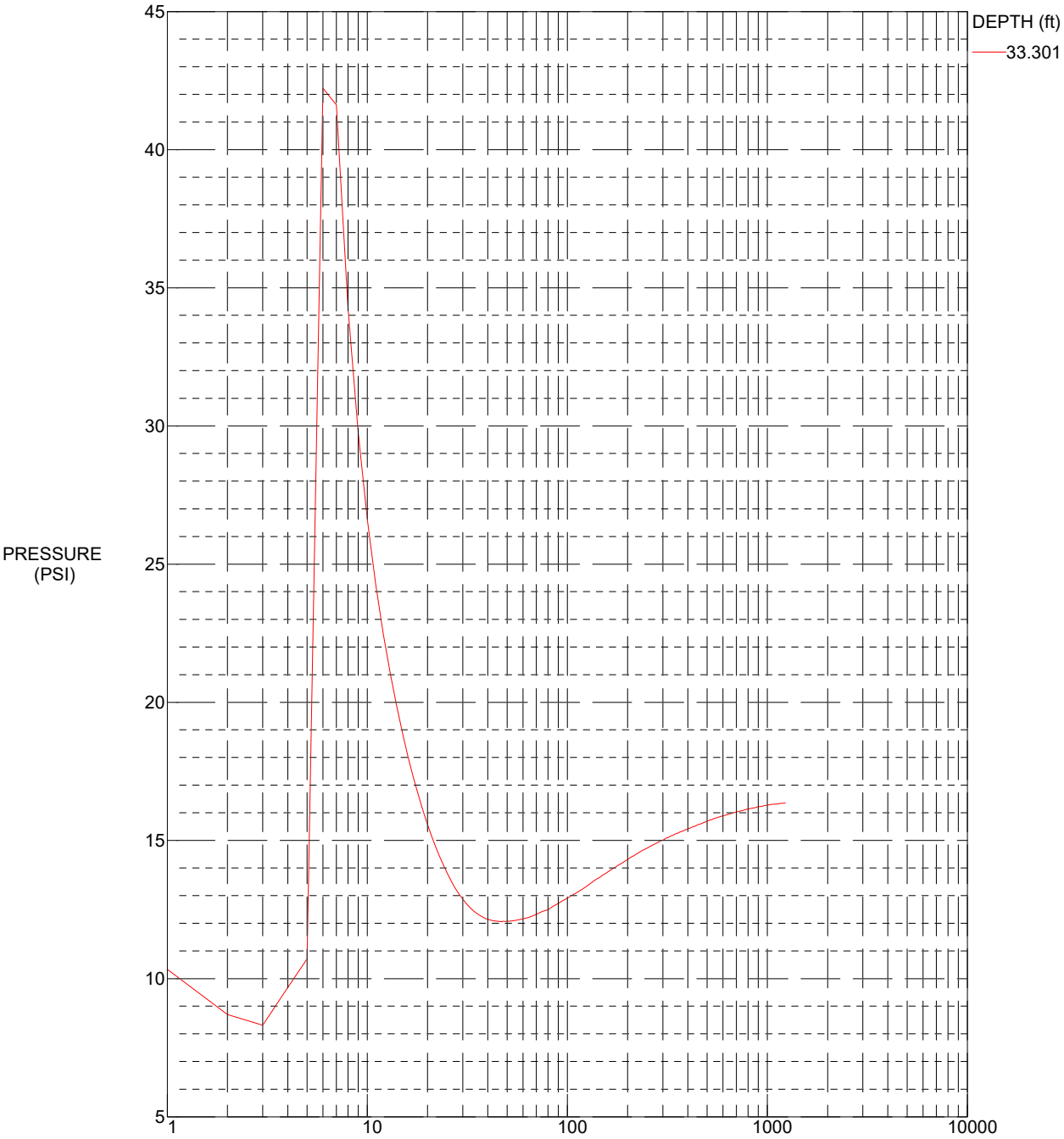
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-213

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 08/19/2020 13:15:49
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:

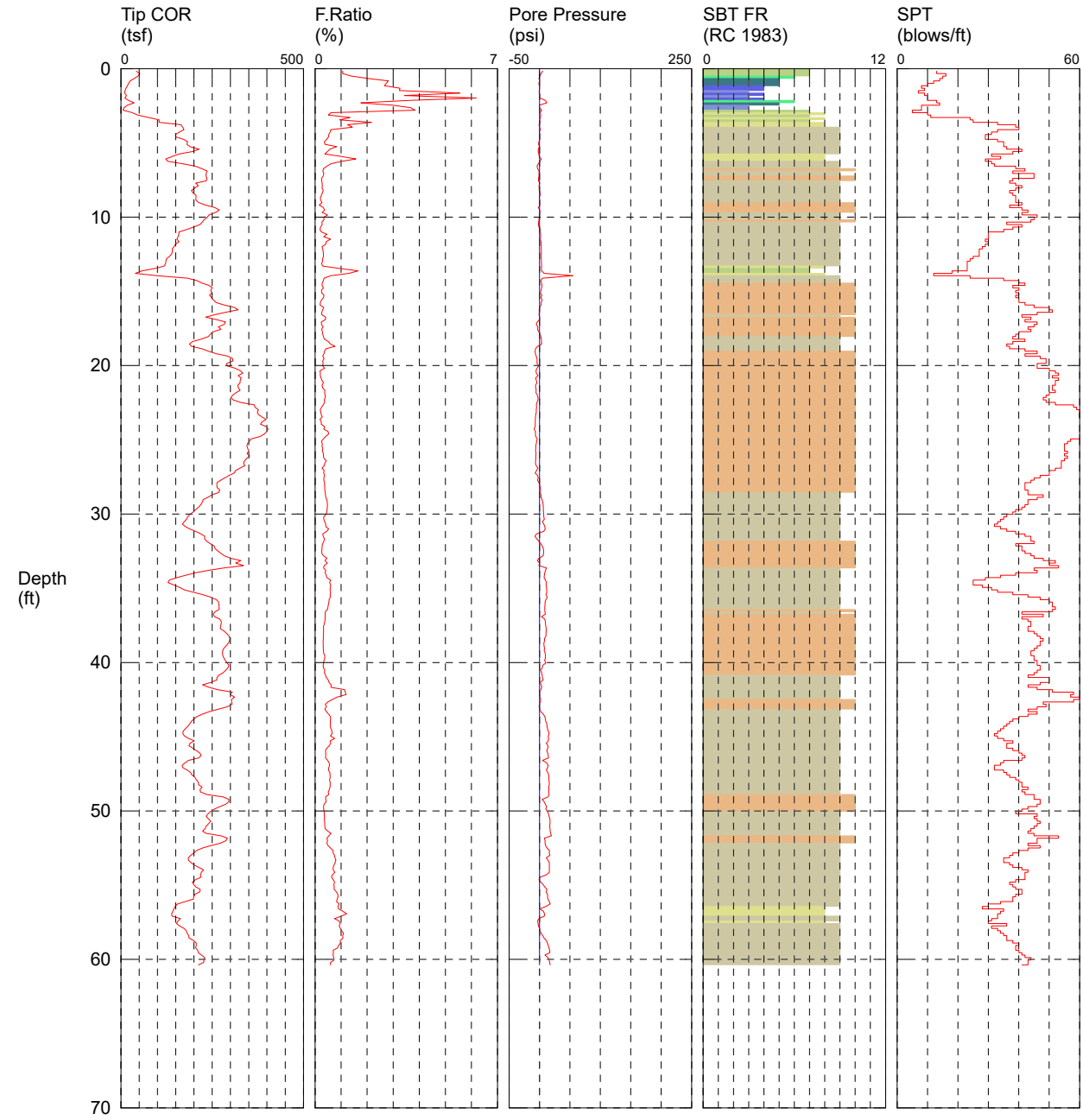


MAXIMUM PRESSURE = 42.226 (PSI) TIME: (SECONDS)
HYDROSTATIC PRESSURE = 14.432 (PSI), WATER TABLE: 0.00 ft
COMMENT:

CPT-214

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 11:00:14 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

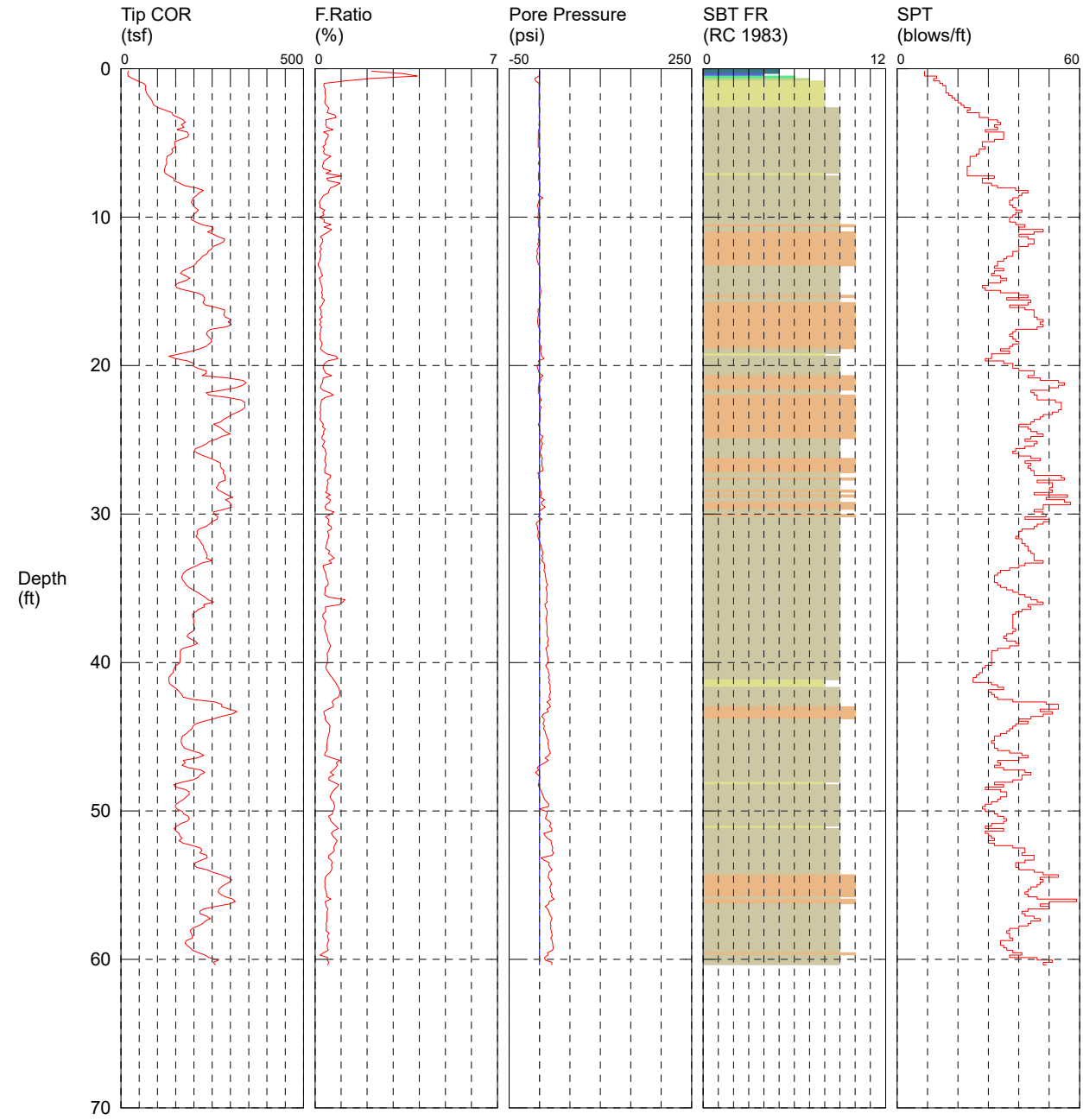
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-215

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 8/19/2020 11:52:48 AM
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



COMMENT:

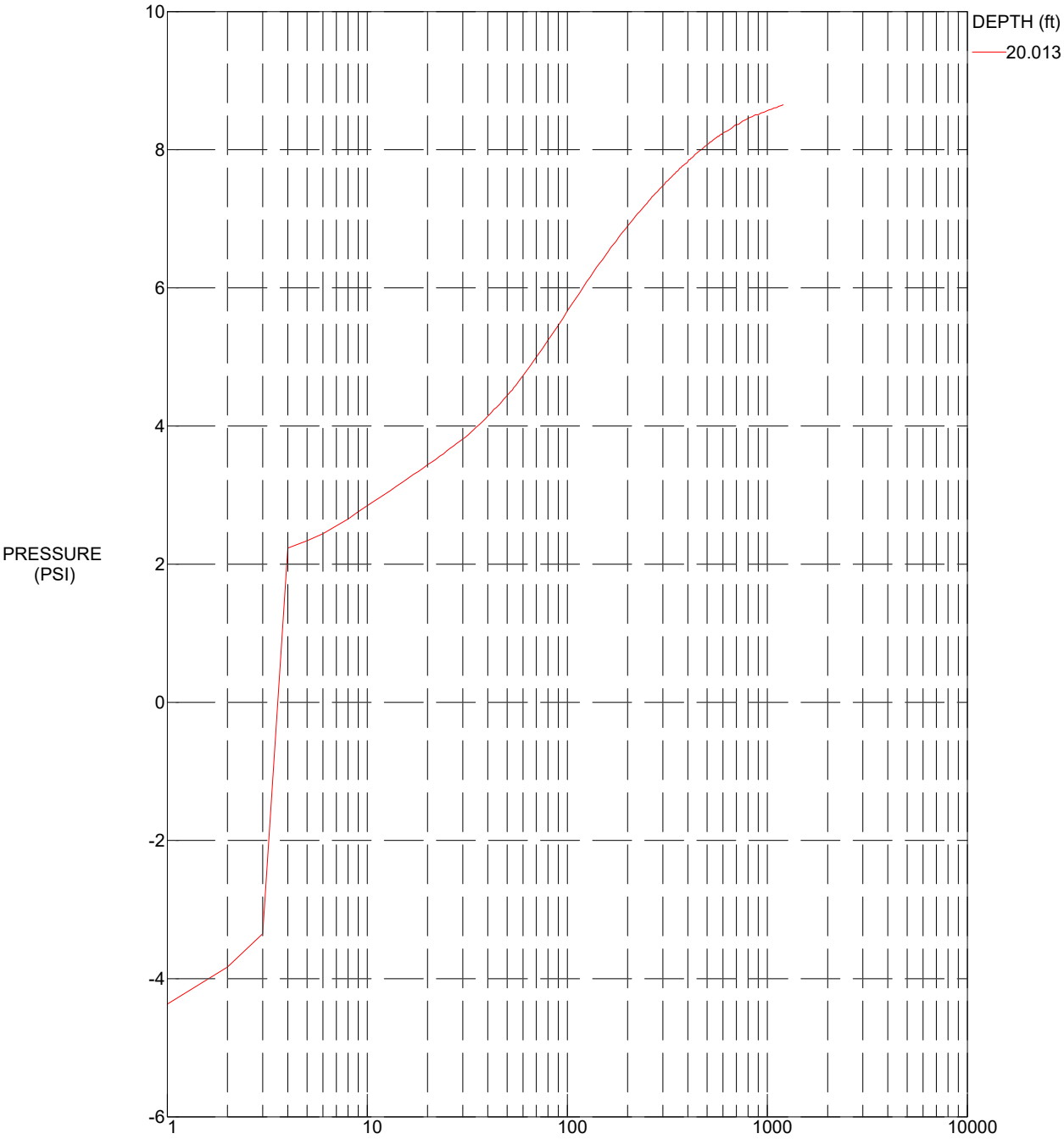
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

CPT-215

CPT Contractor: In Situ Engineering
CUSTOMER: Terra
LOCATION: Arlington
JOB NUMBER: T-8340

OPERATOR: Mayfield
CONE ID: DDG1263
TEST DATE: 08/19/2020 11:52:48
Predrill:
Backfill: 20% Bentonite Slurry
Surface Patch:



MAXIMUM PRESSURE = 8.652 (PSI) TIME: (SECONDS)
HYDROSTATIC PRESSURE = 8.674 (PSI), WATER TABLE: 0.00 ft
COMMENT:

APPENDIX B

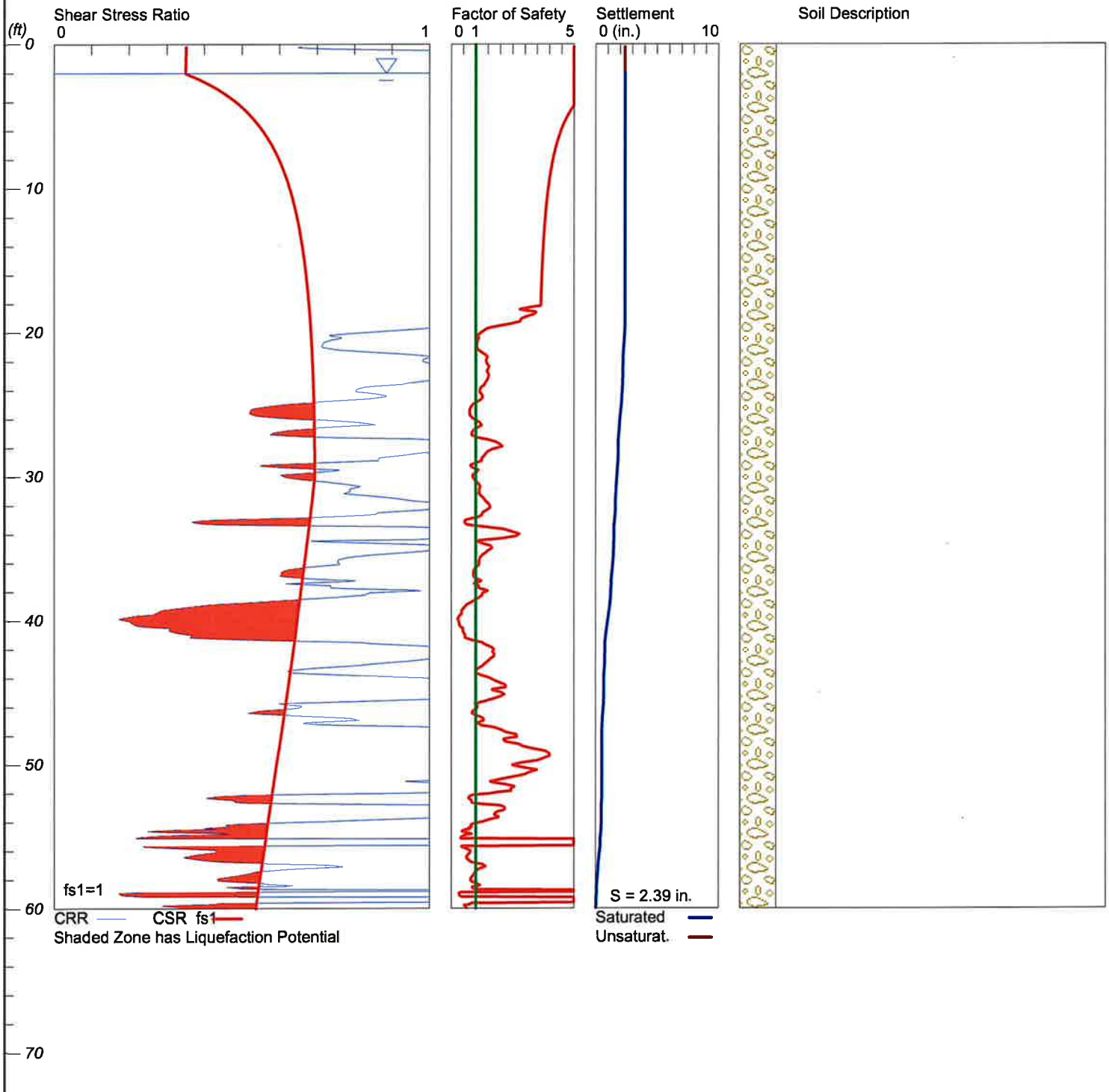
LIQUEFACTION ANALYSES RESULTS

LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-1 ***Water Depth=2 ft***

Magnitude=7
Acceleration=0.541g

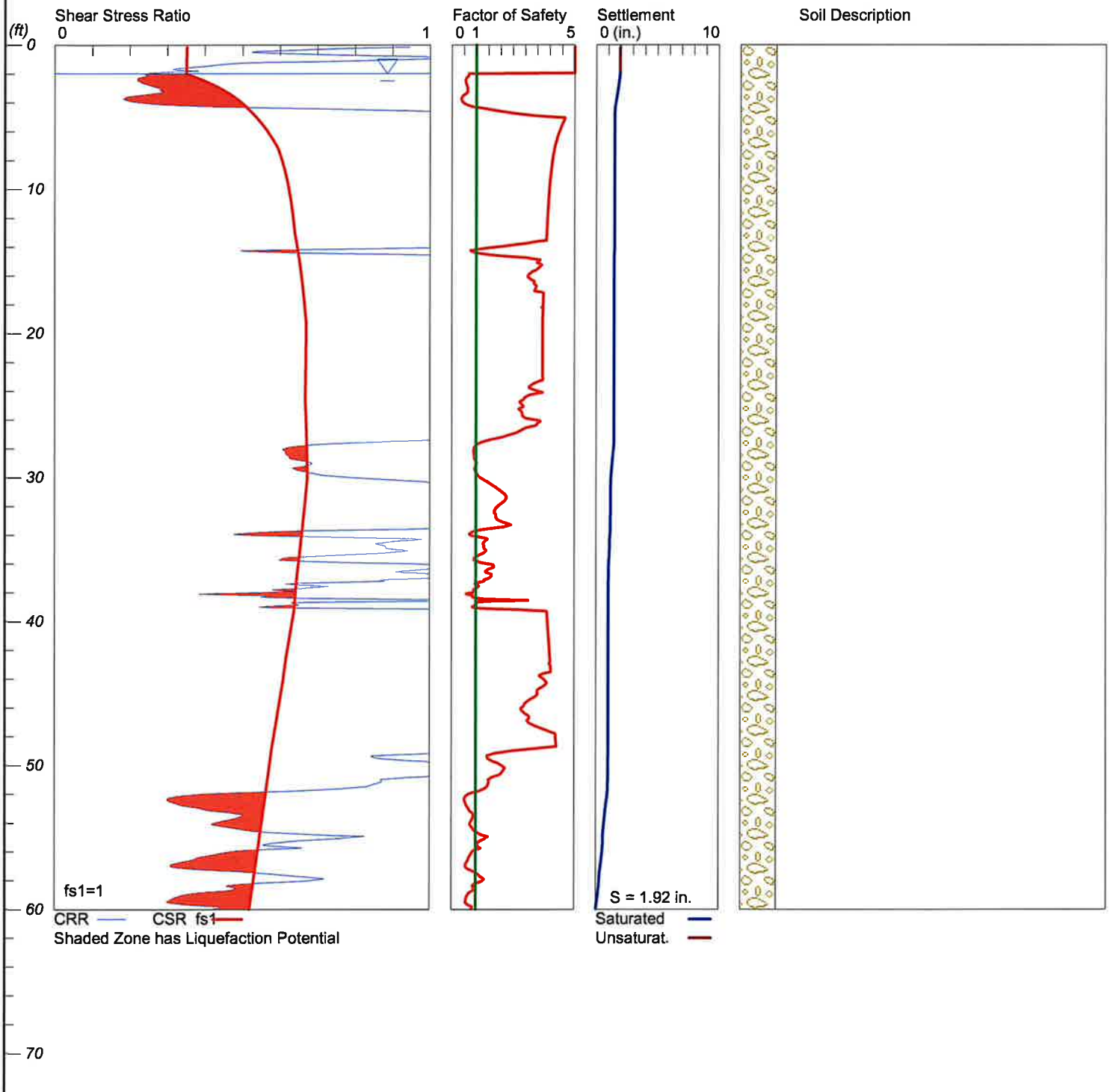


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-2 Water Depth=2 ft

Magnitude=7
Acceleration=0.541g

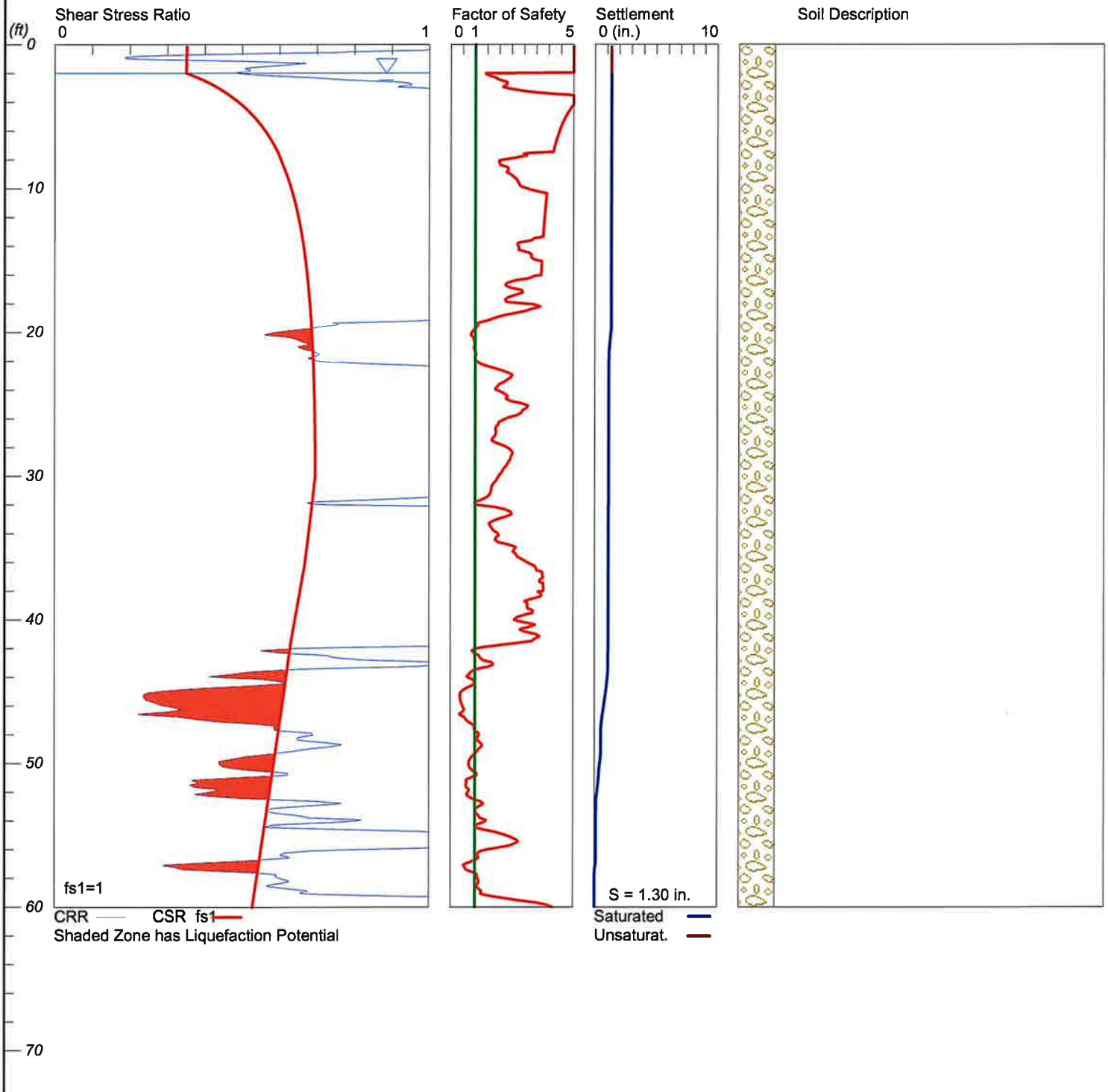


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-3 ***Water Depth=2 ft***

Magnitude=7
Acceleration=0.541g

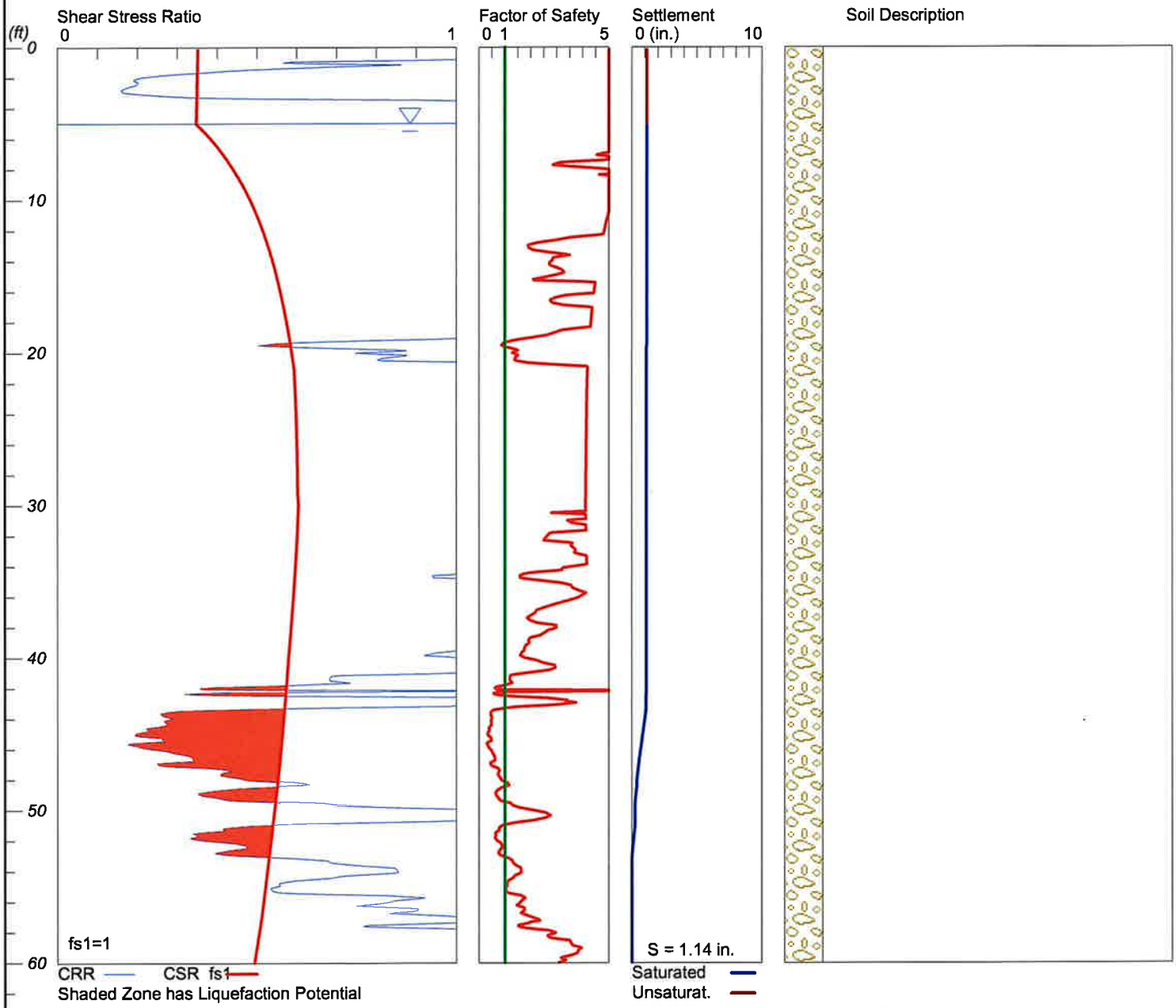


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-101A Water Depth=5 ft

Magnitude=7
Acceleration=0.541g

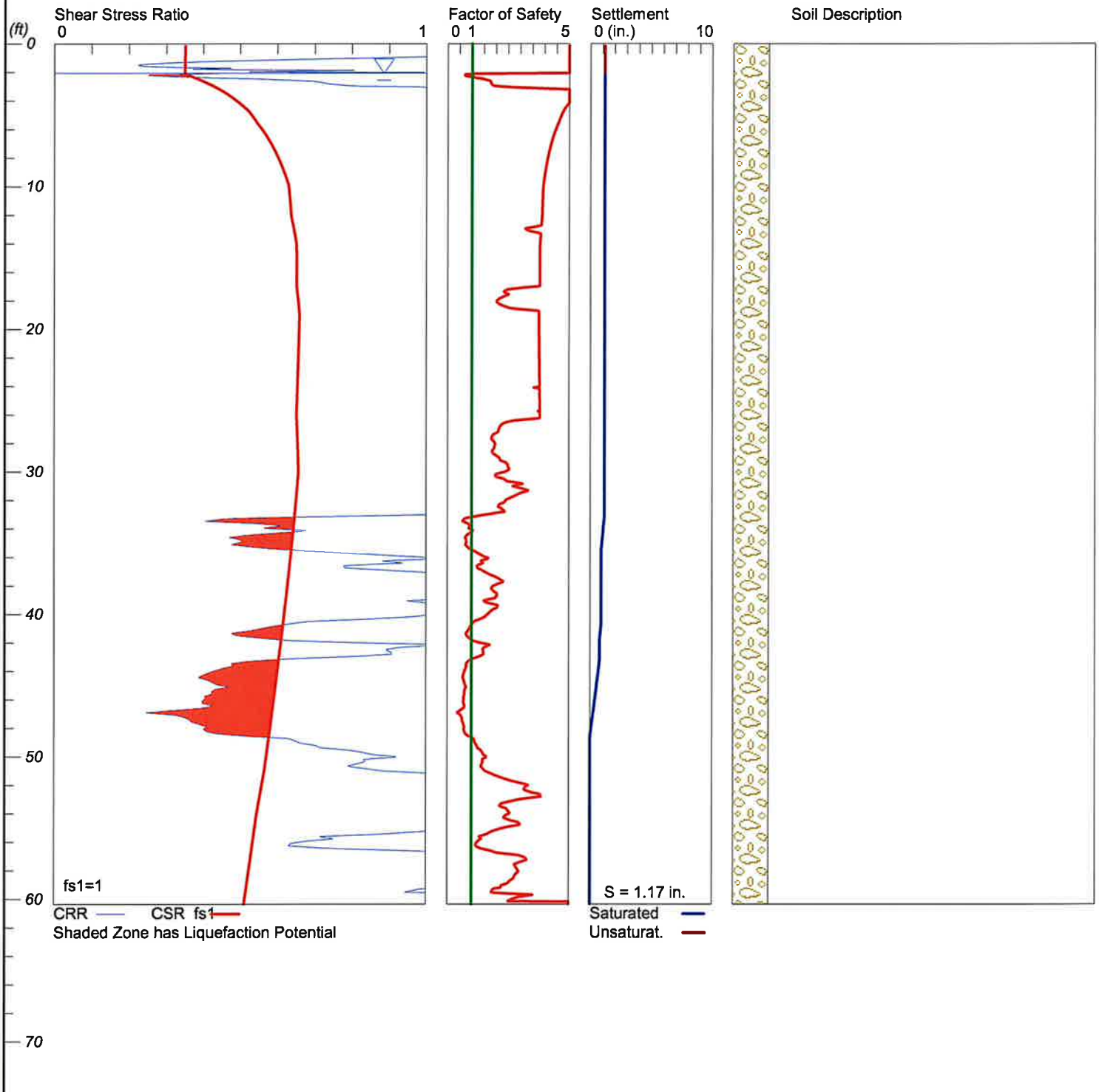


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-102 ***Water Depth=2.06 ft***

Magnitude=7
Acceleration=0.541g

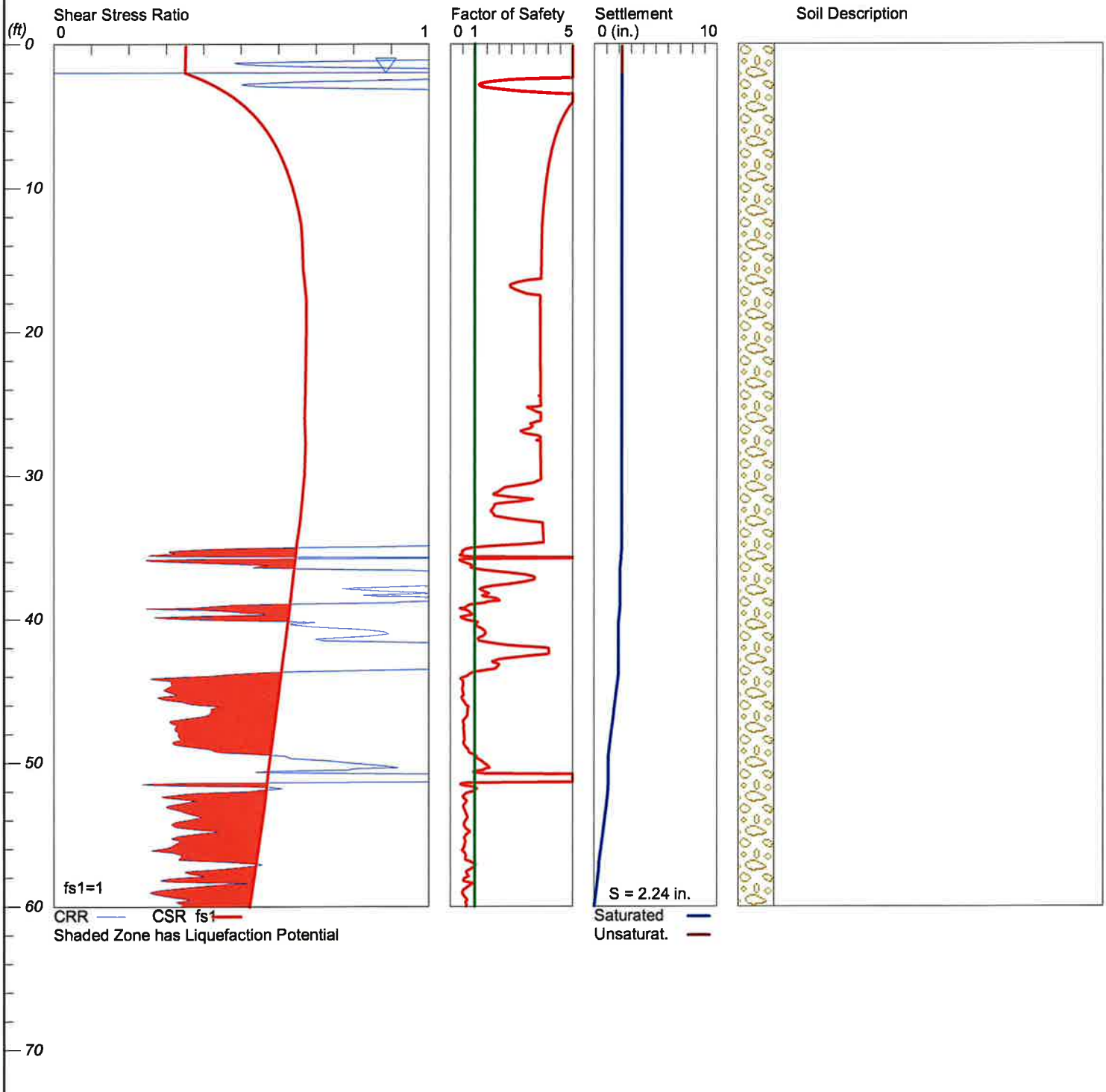


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-201 ***Water Depth=2 ft***

Magnitude=7
Acceleration=0.541g

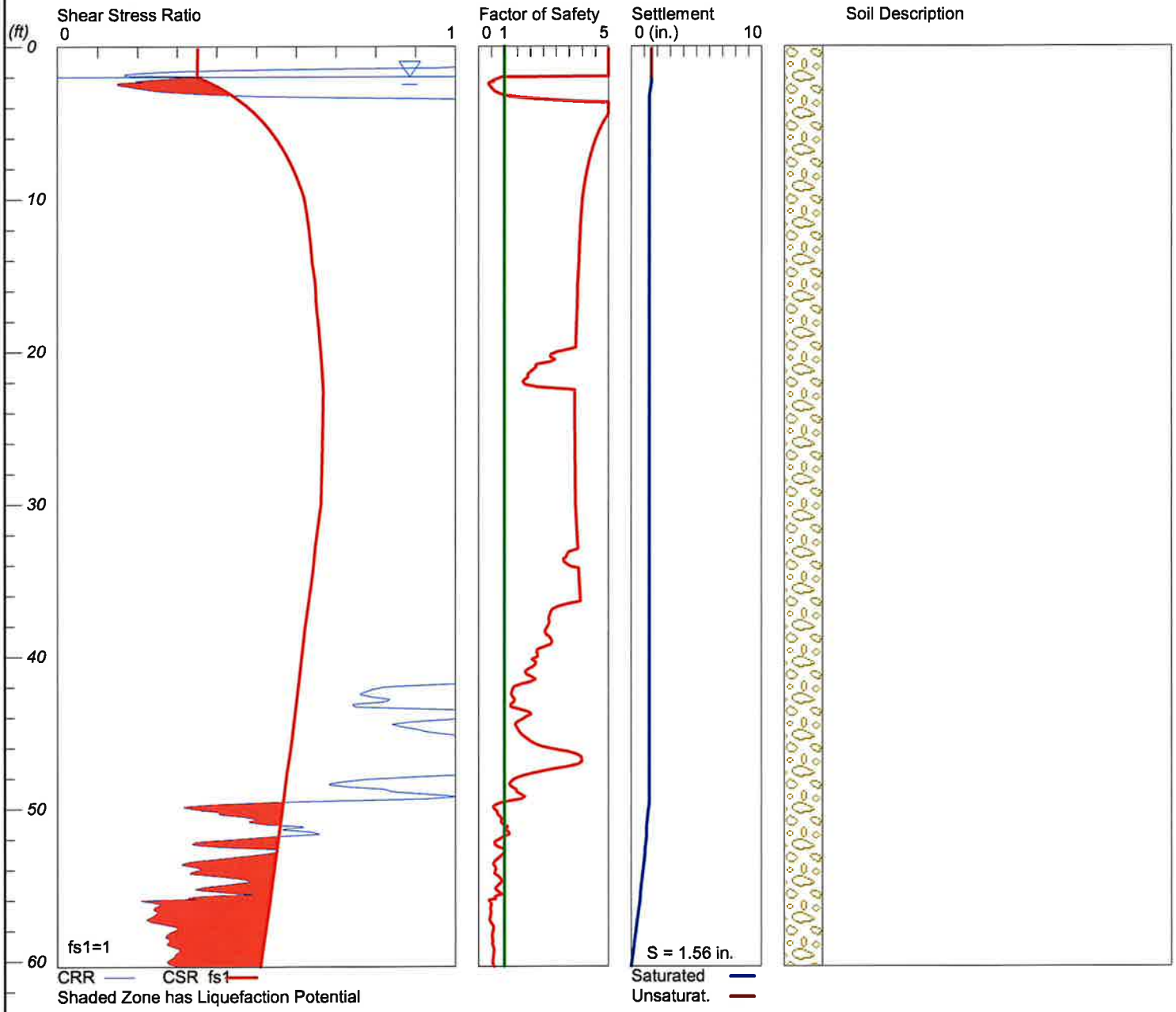


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-206 Water Depth=2 ft

Magnitude=7
Acceleration=0.541g

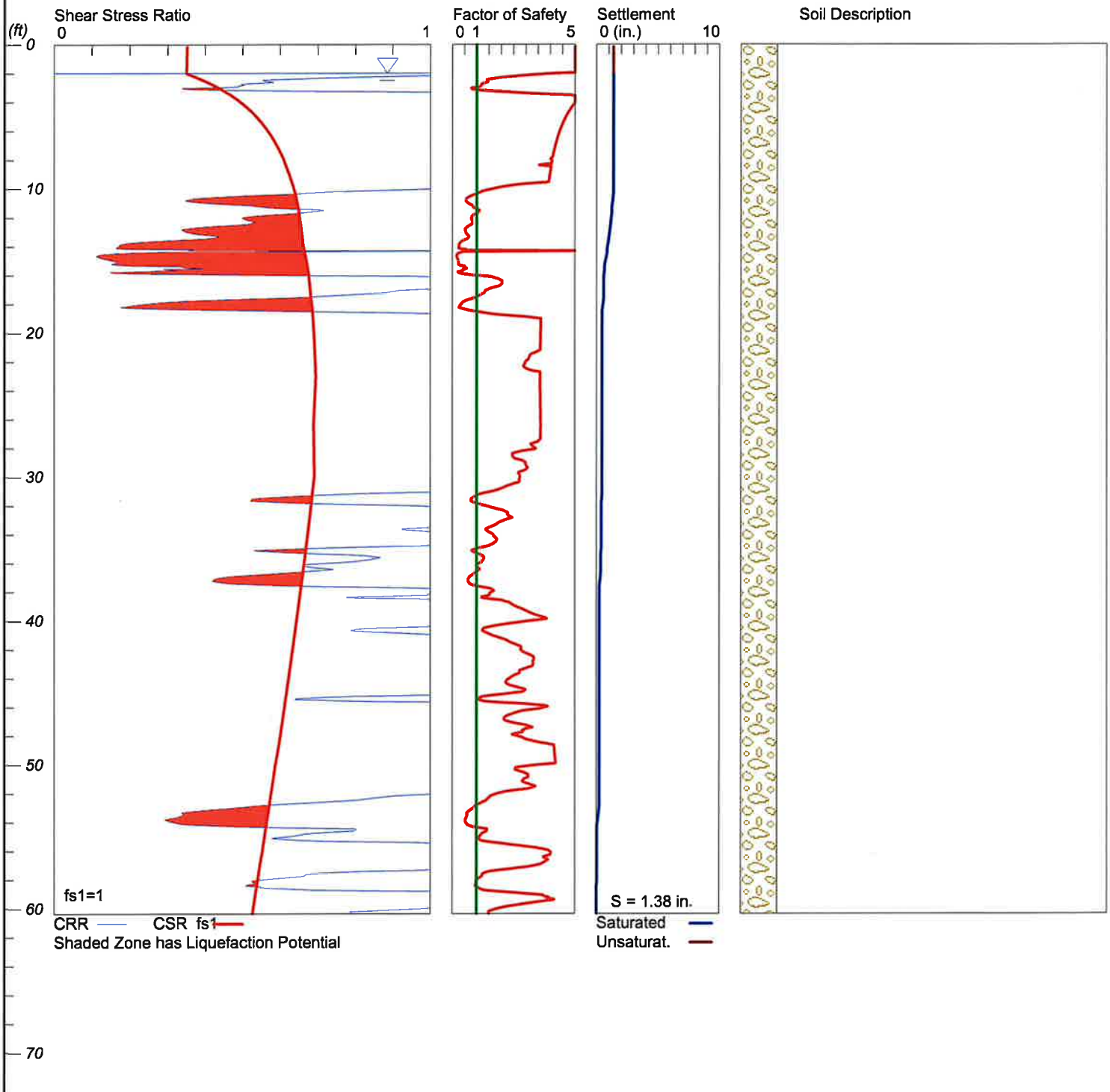


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-208 ***Water Depth=2 ft***

Magnitude=7
Acceleration=0.541g

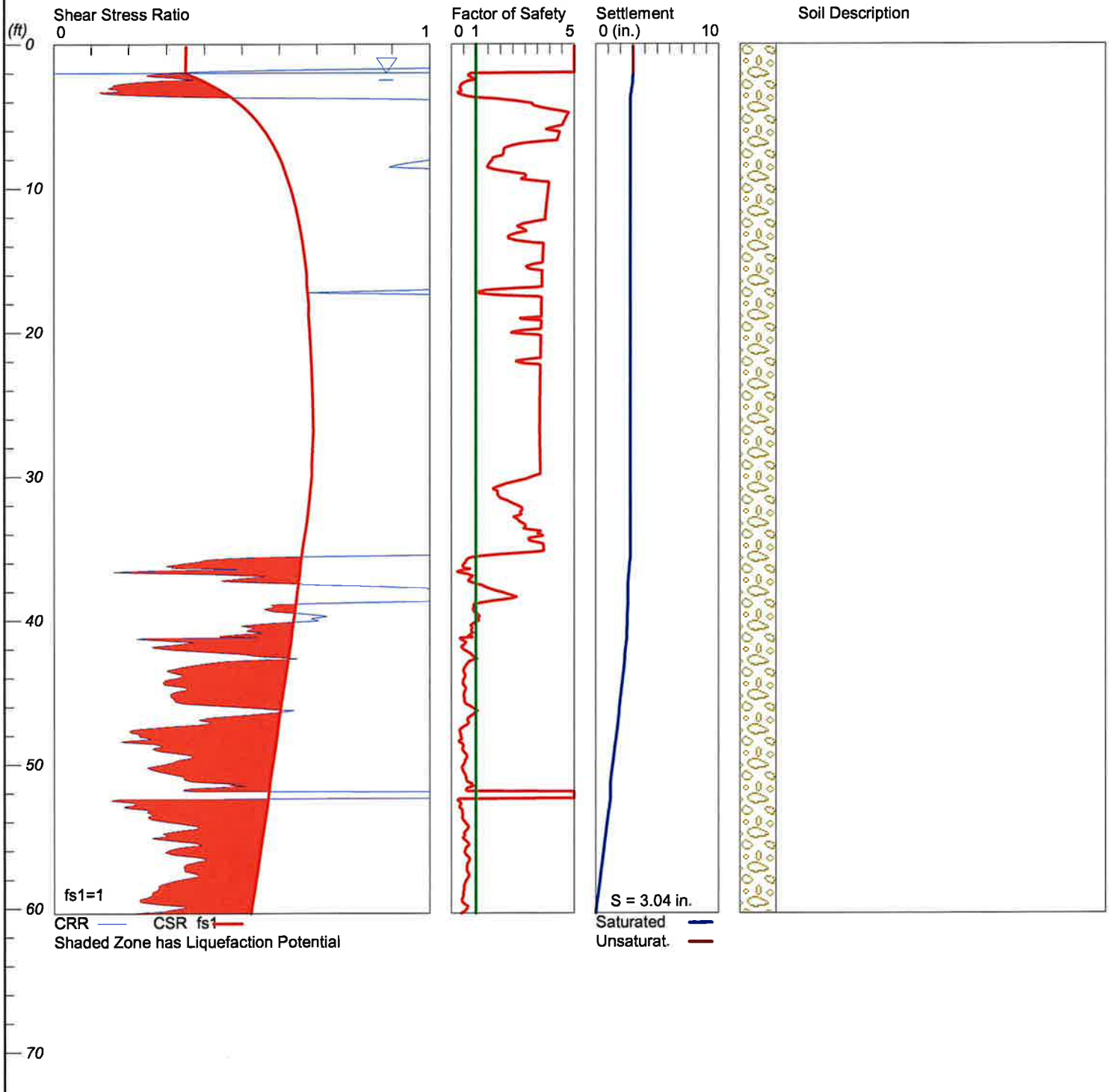


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-212 ***Water Depth=2 ft***

Magnitude=7
Acceleration=0.541g

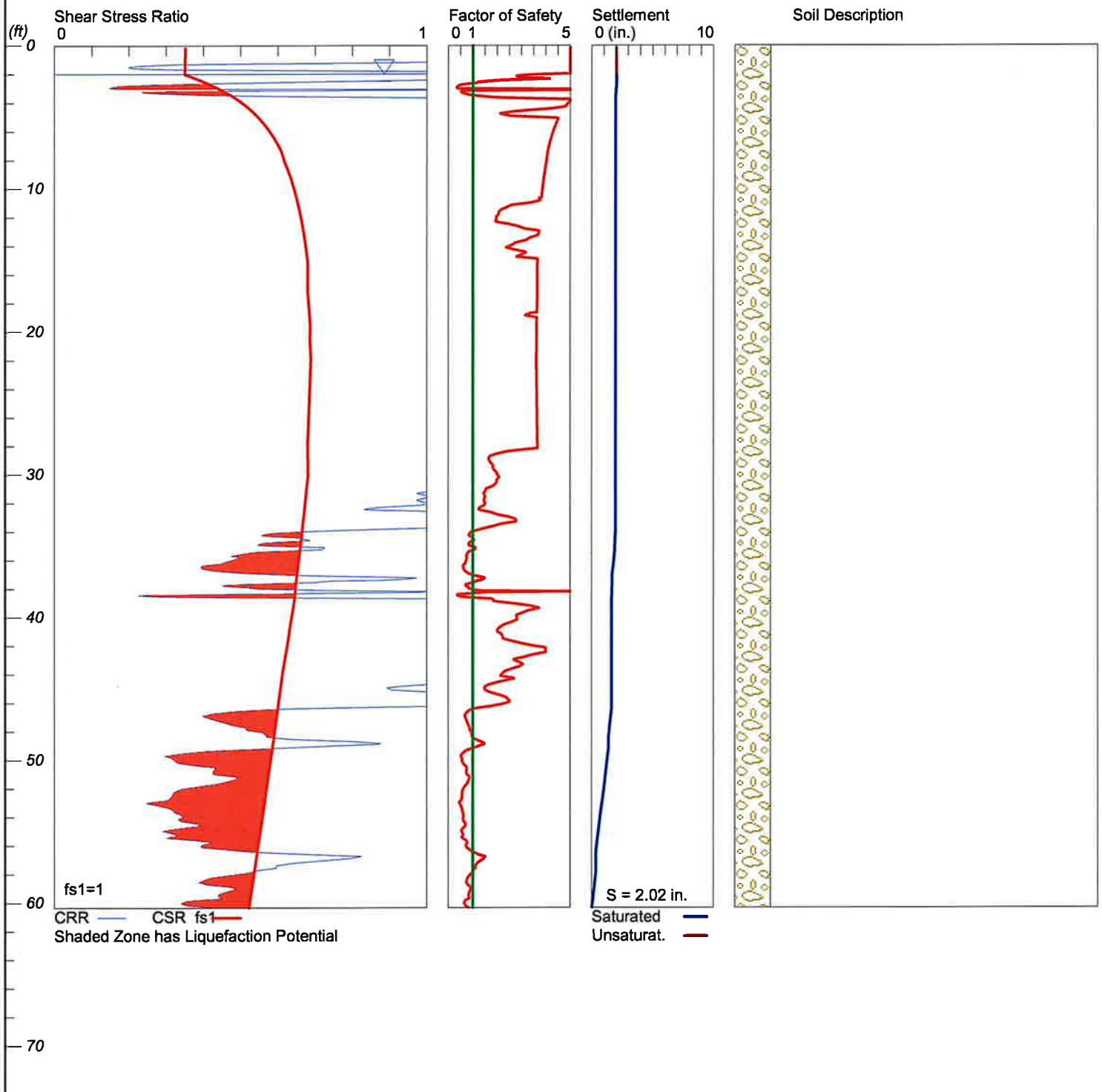


LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-213 ***Water Depth=2 ft***

Magnitude=7
Acceleration=0.541g



LIQUEFACTION ANALYSIS

Arlington CIC

Hole No.=CPT-215 Water Depth=2 ft

Magnitude=7
Acceleration=0.541g