Attachment C

MEG Consulting Laboratory Testing Report

CH2M HILL.
1100 112th Avenue, Suite 400
Bellevue, WA 98004
USA

August 29, 2012

Attention: Mark Thompson, Ph.D., P.E.

Dear Mr. Thompson

RE: Static and Dynamic Laboratory Tests on Samples from Port of Anchorage, Anchorage, US

MEG Consulting Limited (M+EG) was requested to provide both static and dynamic laboratory testing services to CH2M HILL on samples for the Port of Anchorage project. The test program proposed by CH2M HILL is presented on Table 1. The focus of the laboratory testing was constant rate of strain (CRS) consolidation tests, static direct simple shear tests (DSS), consolidated undrained (CU) triaxial, and cyclic DSS tests. Complimentary classification tests were performed on samples for indexing. The classification tests consisted of water content, unit weight, particle size distribution, specific gravity and Atterberg limits. Testing will be discussed later in the report.

Sample transport and Gamma Scans

The samples arrived at M+EG on May 23, 2012 via FEDEX. They arrived on two pallets and each pallet had four sample boxes containing nine 2.8-inch diameter Shelby tubes each, with the exception of one box that contained four 6-inch diameter Shelby tubes. The boxes were bolted down to the pallets and were strapped together (Figure 1). The inside of all the boxes was lined with Styrofoam padding creating a fairly snug fit for each Shelby tube (Figure 2) for protection during sample shipment.

CH2M HILL provided M+EG with a list of 19 samples for gamma scan imaging. The scans were performed and digital images of the negatives were provided to CH2M HILL to assess sample quality and determine the best locations for sample quality within each Shelby tube. Based on the scans, it was determined that sample quality varied from good quality to some highly disturbed sections. Due to these highly disturbed samples, an additional four Shelby tubes were scanned. The samples that were sent for gamma scans are indicated in Table 1 and the digital images of the gamma scans are presented in Appendix B1.

Sample Storage, Cutting and Extrusion

The samples that were scheduled for testing were placed in a controlled environment for storage. The samples were stored in a commercial fridge where the temperatures ranged from 3°C and 8°C. Not all the samples could be placed in the controlled environment due to the large volume of samples. The samples that were not scheduled for testing were placed in a temperature-controlled room and left in the shipping boxes.

Once the sections were determined where the samples were to be tested, the Shelby tubes were cut in order to extrude the sample for testing. The samples were placed into a cutting horse and slowly cut using a pipe cutter. The pipe cutter was rotated around the circumference of the Shelby tube while applying very little pressure to the blade. Once the Shelby tube was cut, the pipe cutter was removed and a wire saw was used to cut through the soil in order to isolate the sample. On average it took about 10 minutes to complete one cut. By inspection, a couple of the Shelby tubes were found to be slightly warped (Figure 3). The degree to which the samples were warped varied. The samples that were slightly warped could still be placed in the extruder, but the samples that were more warped would not fit into the extruder, and were unable to be extruded and tested.

During the cutting process it was also observed that some of the Shelby tubes had cutting edges that were bent and damaged. Depending on when this damage occurred during the in situ sampling process, the damaged/deformed section of the tube could have affected the condition of the sample as it passed into the tube during sampling (Figure 4 and Figure 5).

To extrude the sample, the cut section was placed in a vertically-aligned jack and the sample was extruded out of the Shelby tube in the same direction as the sampling push, in order to try to minimize possible disturbance. While the samples were being extruded, a couple samples were noted that were very disturbed and not possible to test (Figure 6). When samples of this type were encountered, CH2M HILL was notified and asked for instructions on how to proceed with each particular sample.

CLASSIFICATION/INDEX TESTS

Classification tests were performed to complement the more advanced tests. The water content and unit weight were determined for each specimen tested. The results are reported in Tables 3 and 4, which summarize sample details before and after testing, as well as the data for each individual test where multiple tests were performed.

One Atterberg limits and particle size distribution was performed on every sample scheduled for consolidation tests. For the particle size distribution, both sieve and hydrometer analyses were performed due to the fine grained nature of the samples. The results obtained from these tests were very consistent with each other and indicate that the majority of the samples tested consisted of material that classified between a silty CLAY with some sand and CLAY with some silt and sand. The results for the Atterberg limits are presented in Appendix B.3 and the grain size distribution results are in Appendix B.4. A specific gravity test was also performed on each sample. The specific gravity was used to calculate the void ratios for all the advanced tests.

CONSOLIDATION TESTS

A total of 26 consolidation tests were performed. Of the 26 tests, 24 were constant rate of strain tests (CRS) and 2 were load increment ratio tests (LIR). The two LIR consolidations were performed on samples that were also tested in the CRS equipment.

The LIR consolidations were used as a check for the CRS consolidations. Because of this and the length of performing a load – unload sequence on the LIR consolidometers, the samples were only consolidated to 3000 kPa. The load steps used for both LIR tests were 35 kPa, 70 kPa, 125 kPa, 250 kPa, 500 kPa, 1000 kPa, 1800 kPa and 3000 kPa. The results for the LIR tests are presented in Appendix B.6.

Throughout the project, a few loading schedules were used for the CRS consolidations. The first schedule required the sample to be consolidated to 1400 kPa, then unloaded to 1000 kPa, reloaded to 2800 kPa and, finally unloaded to 100 kPa. This loading sequence was used for the first two tests, at which time the loading sequence was changed to further define certain aspects of the consolidation curve. The second sequence used involved two steps; an initial load to 7000 kPa and unloading to 100 kPa. The increase of the consolidation pressure to 7000 kPa provided much better definition of the full consolidation curve, but was later modified to add an unload-reload sequence. The final schedule that was used on the majority of the samples was to consolidate the sample to 3000 kPa, unload to 100 kPa before finally loading to 7000 kPa. The results for the CRS consolidation tests are presented in Appendix B.7.

A maximum consolidation pressure of 7000 kPa was used as this was the limit that could be applied to the sample using a 5000 lb load cell. The loading stages were achieved at a strain rate of 0.8% per hour; a rate of 0.4% per hour was used for the unloading stages.

The sample preparation for both consolidation tests is the same. The soil sample is gradually trimmed to the correct diameter as the consolidation ring is slowly pushed into the sample. The final trimmed sample in the solid consolidation ring has a diameter of 2.5 inches, and is 1 inch high.

STATIC DIRECT SIMPLE SHEAR (DSS)

A total of 30 static DSS test were performed as part of the testing program. Two consolidation procedures were used for the DSS samples. The recompression technique was used to target specific over-consolidation ratios (OCR) while SHANSEP procedures also targeted a specific OCR and also helped reduce disturbance effects in the sample. A range of OCRs between 1 and 8.5 were tested.

A static DSS setup from GeoTAC in Houston was one of the pieces of equipment used to perform the required testing. The samples to be tested in this apparatus had to be trimmed slightly to a dimater of 66.5 mm in oder to fit into the shear rings. A sample height of 22.3 mm was used. The samples were placed in the DSS apparatus aand consolidated prior to shearing. Other tests were performed in a GDS setup, where the samples have an initial height of 23.6 mm and a diameter of 72.6 mm. Details of the static DSS tests performed and the results are presented in Appendix B.8.

CONSOLIDATED UNDRAINED TRIAXIAL

A total of 19 consolidated triaxial tests were performed. In order to avoid trimming the samples, CH2M HILL requested that the testing be performed on samples with a diameter of 2.8 inches. The first couple of samples were tested with the saturation and consolidation stages lasting over a week. Due to the tight scheduling, it was decided that a smaller diameter sample (1.4 inch) be tested. This greatly decreased the amount of time needed to saturate and consolidate the sample. In order to help speed up the process, samples were prepared and setup to saturate connected to a back-pressure panel.

The majority of the testing was performed using SHANSEP procedures for consolidation testing with OCRs ranging between 1 and 8.8. The reconsolidation stage was performed using a k value of 0.55. Once the sample had completed consolidation, the sample was unloaded at a different k value to the final vertical and horizontal pressures. The final k value ranged between 0.55 and 1.40.

For the first sample tested at a k value greater than 1, the sample was lost because the top cap became disconnected from the piston as the vertical stress unloaded to a state of extension. Modifications were made to the triaxial setup and all further testing with k values of 1.13 and lower were performed without any additional complications. Of the four samples that required a k greater than 1.13, only one test was possible. At this high k value, equipment modifications would have been required to manage the tensions in the vertical loading system. IN discussions with CH2M HILL, it was decided to reduce the k value to 1.1 for the four tests. The results are presented in Appendix B.8.

CYCLIC AND POST-CYCLIC DIRECT SIMPLE SHEAR (DSS)

Cyclic DSS tests were scheduled for four samples, and each was to be tested at 4 different cyclic stress ratios (CSR). The first set of tests was performed on sample BH-003-12 ST11 with an effective vertical stress of 1000 kPa. These were tested at CSR values of 0.10, 0.15, 0.20, and 0.25. After the cyclic test was completed for each stress level, a post-cyclic direct simple shear test was performed.

CH2M Hill then advised that they required bender element shear wave velocity measurements to be performed beginning on the next set of tests.

The second set was originally scheduled for BH-003-12 ST 14, but because the Shelby tube was warped, the testing was changed to BH-003-12 ST16 (this is the same sample as for the set 3 tests). The sample was consolidated to a confining pressure of 1000 kPa and then a static bias of 120 kPa was applied and left to consolidate until the measured horizontal displacement was constant. At this point, the sample was tested at CSR values of 0.05, 0.10, 0.10 and 0.20. After the cyclic DSS test was complete, a post-cyclic DSS test was performed ensuring the sample was taken to the initial static bias before static shearing was commenced. Bender element shear wave velocity measurements were taken prior to the application of the static bias in order ensure alignment of the elements.

Set 3 was consolidated to 1000 kPa and unloaded to 500 kPa creating an OCR of 2. As expected, by imposing an OCR, the sample reached a higher CSR at failure. CSR values of 0.20, 0.25, 0.35 and 0.40 were used and each test was also followed by a post-cyclic DSS. Bender element shear wave velocity measurements were takes once the sample had been unloaded to 500 kPa.

The testing parameters for the last set were identical to set one but each test was followed by a post-cyclic DSS. The results of the Cyclic DSS, post-cyclic DSS and bender element shear wave velocity measurements are presented in Appendices B10, B11 and B12, respectively.

CLOSURE

In providing the testing service, M+EG has followed generally accepted procedures defined by the ASTM standards and the existing state-of-practice, at the same time addressing specific conditions requested by the Client. The results obtained, however, will depend on the quality of the samples tested. The decision as to which samples to test is the sole responsibility of the Client. As such, M+EG is not able to provide any guarantees as to the representative nature of the results obtained.

M+EG has executed the laboratory tests in a manner consistent with a level of care and skill ordinarily exercised by members of the engineering and geosciences professions currently practicing in British Columbia, subject to the sample quality, time limits and physical constraints applicable to this project. No other warranty, expressed or implied is made.

Sincerely,
MEG Consulting Limited

Reviewed By:

Paul Sully
Laboratory Manager

John P. Sully, Ph.D., P. Eng.
Principal

FIGURES

Figure 1: sample shipping and packaging showing boxes bolted down to pallets and strapped together

Figure 2: padding and lining of sample boxes

Figure 3: Slightly warped Shelby tube

Figure 4: Possible disturbance caused by a bent cutting edge

Figure 5: Bent cutting edge

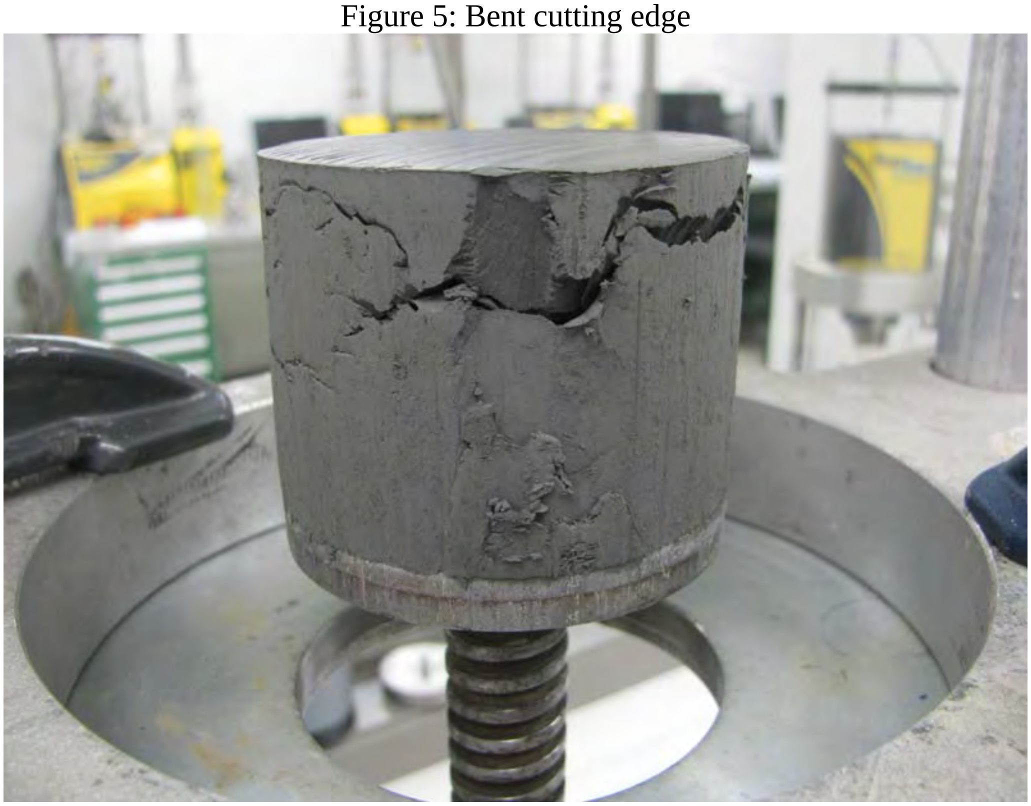


Figure 6: Disturbed sample after extrusion

TABLES

MEG Consulting Limited

Client:	CH2M Hill	Boring Nº:	Various	For week:	
Project Nº:	12-MTS-009	Site:	Port of Anchorage	Page:	1 of 1

Laboratory Test Schedule

SAMPLE				CLASSIFICATION										SHEAR STRENGTH							CONSOLIDATION			DYNAMIC TEST						
Sample Nº:	Soil Type	Sample Type	Bottom Depth (m)	Water Content	Unit Weight	Atterberg Limits	Sieve	% < # 200 sieve size	Hydrometer	Carbonate Content	Organic Content	Specific Gravity	Max / Min Density	Pocket Penetrometer	CU Triaxial	Direct Simple Shear	Direct Simple Shear	Direct Simple Shear	Direct Simple Shear	Direct Simple Shear	LIR Oedometer	CRS Oedometer	Pressure (kPa)	Bender Elements	Strain-Controlled DSS	Stress-Controlled DSS	Post-Cyclic DSS	Post-Cyclic Consolidation	X-ray	Comments
BH-003-12																														
ST-2		SH	28.35	X	X	X	X		X			X			X	X	X	X	X		X	X	2800 kPa						X	
ST-3		SH	29.26	X	X	X	X		X			X			X	X	X					X	2800 kPa						X	
ST-4		SH	29.87	X	X	X	X		X			X			X	X						X	2800 kPa						X	
ST-5		SH	30.78	X	X	X	X		X			X			~~X~~	X						X	7000 kPa						X	
ST-6		SH	31.39	X	X	X	X		X			X			~~X~~	X						X	7000 kPa			X X X	X X X		X	
ST-7		SH	35.33	X	X	X	X		X			X									X	X								
ST-9		SH	38.40	X	X	X	X		X			X			X	X						X	7000 kPa						X	
ST-10		SH	39.01	X	X	X	X		X			X			X	X						X	7000 kPa						X	
ST-11		SH	39.93	X	X							X														X X X	X X X	X X X	X	
ST-12		SH	40.54	X	X	X	X		X			X			X	X						X	7000 kPa						X	
ST-13		SH	41.45																				7000 kPa						X	
ST-14		SH	42.06																										X	
ST-15		SH	42.98	X	X	X						X			X	X						X	7000 kPa						X	
ST-16		SH	43.59	X	X	X	X		X			X										X	7000 kPa			~~X~~ ~~X~~ ~~X~~	~~X~~ ~~X~~ ~~X~~	~~X~~ ~~X~~ ~~X~~	X	
BH-001-12																														
ST-4		SH	21.95	X	X	X	X		X			X										X	7000 kPa							
ST-7		SH	23.77	X	X	X	X		X			X										X	7000 kPa							
ST-13		SH	29.26	X	X	X	X		X			X			X	X	X					X	7000 kPa						X	
ST-14		SH	29.87	X	X	X						X			X	X	X	X											X	
ST-15		SH	31.09	X	X	X	X		X			X			X	X						X	7000 kPa						X	
BH-004-12																														
ST-3		SH	19.81	X	X	X	X		X			X										X	7000 kPa							
ST-7		SH	24.69	X	X	X	X		X			X				X						X	7000 kPa							
ST-9		SH	27.74	X	X	X	X		X			X				X	X	X				X	7000 kPa						X	
ST-10		SH	28.65																										X	
ST-11		SH	29.26	X	X	X	X		X			X			~~X~~	X	X					X	7000 kPa						X	
ST-13		SH	30.78	X	X	X	X		X			X			X							X	7000 kPa							
BH-005-12																														
ST-3		SH	15.24	X	X	X	X		X			X				X	X					X	7000 kPa							
ST-8		SH	19.20	X	X	X	X		X			X										X	7000 kPa						X	
ST-10		SH	21.95																				7000 kPa						X	
ST-11		SH	22.86	X	X	X	X		X			X				X	X	X				X							X	
ST-12		SH	23.47																										X	
ST-13		SH	24.38	X	X	X						X										X	7000 kPa							
ST-16		SH	26.52			X						X											7000 kPa							

Proposed by: CH2M HILL

S Ordered   X Completed

APPENDIX A

GEOTECHNICAL LABORATORY

GENERAL TESTING PROCEDURES

A.1 Gamma-ray

Prior to testing CH2M Hill provide a list of 23 shelbey tube sample to scan. Photograph negatives and digital files were produced and provided to CH2M Hill to provide input on test locations and also to help asses sample conditions and disturbance. The digitized negatives are provided in Appendix B.1.

A.2 Moisture Content and Total Unit Weights

Water (or moisture) contents (*w*) are determined from measured total and dry weights of specimens taken from the soil samples. Measurements are performed in accordance with the procedures described in ASTM D 2216. Water content measurements are performed on all samples to be used for advanced tests.

The measurements of total (γ_t) and dry (γ_d) unit weight of the recovered soil samples are determined in accordance with BS 1377 (BSI, 1990 – no ASTM standard available). The unit weight values are reported in units of kN/m^3. The dry, total and submerged unit weights are used to calculate the different stress profiles in a soil mass that are used for engineering calculations. The values are inter-related as given by:

$$\gamma_d = \gamma_t / (1 + w)$$

$$\gamma' = \gamma_t - \gamma_w$$

where w is the water content expressed as a decimal.

A.3 Atterberg Limits and Moisture Content

The Atterberg limit tests are performed directly on the soil samples using the multipoint test. The liquid (LL%) and plastic (PL%) limits are determined using the test procedures described in ASTM D 4318. The plasticity (PI%) index is defined as:

$$PI\% = LL\% - PL\%$$

The liquidity index (LI) is defined as:

$$LI = (w\% - PL\%) / \text{Plasticity Index}\%$$

A.4 Grain Size Distribution (Sieve + Hydrometer)

Sieve analyses are performed in accordance with the procedures described in ASTM D 422. The proportion of fines (silt and clay) in a specimen is determined by washing the material through the #200 (75 μm) sieve, and computing the percentage passing. Results for grain size distribution analyses are presented on a semi-logarithmic plot with grain size (log) versus percentage passing by weight finer than the grain size.

The hydrometer test is used to determine the grain size distribution of fine-grained materials by a sedimentation method. The test procedures adopted are described in detail in ASTM D 422. The test allows the determination of silt and clay percentages of the fine grained portion of a sample. The results of the particle size and fines content determinations are combined with the results of the hydrometer tests to provide a profile of soil constituents.

A.5 Specific Gravity

Specific gravity (G_s) measurements of the soil particles are performed according to the procedure detailed in ASTM D 854. The specific gravity is used to calculate the void ratio of the soils based on the dry unit weights. The specific gravity is also necessary for interpreting the hydrometer test data.

A.6 One-Dimensional Consolidation Using Standard Load Increment (LIR)

One-dimensional consolidation (oedometer) tests have been performed on selected samples to investigate the compressibility characteristics and stress history of the soil. Once the sample is prepared, placed in the testing apparatus, and fully saturated, loads are applied incrementally. Loads are applied sequentially, the magnitude of which is doubled at each load step, or using specified load increments. Time, applied normal load, and vertical displacement readings are recorded and used to compute the void ratio-effective vertical pressure relationship. Detailed descriptions of the testing procedures are provided in ASTM D 2435.

A.7 One-Dimensional Consolidation Using Constant Rate of Strain Loading (CRS)

One-dimensional consolidation tests are also performed using constant rate of strain loading condition. The specimen is prepared, placed in the testing apparatus, flushed and saturated using de-aired water. Axial loads are applied to produce axial strain at a constant rate. Based on the sample characteristics, a strain rate of 0.8% per hour was used during the loading stages and 0.4% per hour was used for unloading. The constant strain rate is selected to target a maximum excess pore pressure of less than 10%, as recommended in the ASTM standard (ASTM D 4186). Applied load, vertical displacement and pore pressure are recorded and used to compute the void ratio-effective vertical pressure relationship, excess pore pressure (Δu) and coefficient of consolidation (c_v) plots. Detailed descriptions of the testing procedures are provided in ASTM D 4186.

A.8 Consolidated Undrained Triaxial

Consolidated-undrained (CU) triaxial compression tests provide undrained shear strength characteristics, stress-strain relationships and stress path for the soil specimens tested. A soil sample is prepared and placed in a rubber membrane inside the triaxial cell. The sample is then saturated under a back-pressure ranging between 345 kPa and 483 kPa.

The saturation is considered to be complete when the pore pressure coefficient (B) attains a minimum target value, which is dependent on the soil type.

After the saturation stage, the sample is consolidated anisotropically with a specified k_o provided by the client (i.e. $k_o = 0.5$). The specimen is then loaded uniaxially to failure at a constant rate of strain under undrained conditions. Detailed procedures for sample preparing, saturation, consolidation and shearing are described in ASTM D 4767.

The following plots are prepared for each test:

- Cell pressure versus pore water pressure during saturation.
- Volumetric strain versus time during consolidation.
- Shear stress (τ) versus axial strain (γ).
- Deviator stress versus axial strain (γ).
- Graph of stress paths.

For the Port of Achorage, consolidation was performed at 0.4% per hour for loading stages and 0.2 % per hour for unloading. Shear was performed at 0.4% per hour. Prior to placing in the load frame the samples were prepared and hooked up to a panel to allow for saturation under a backpressure of at least 345kPa with an effective stress of 20kPa. At least one pore volume of water was passed through the sample prior to backpressure saturation.

A.9 Static Direct Simple Shear (DSS) Tests

Direct simple shear (DSS) test is performed under constant volume conditions by deforming a specimen at a controlled strain after the specimen is consolidated to the estimated in situ effective vertical stress and OCR condition. Detailed testing procedures for the DSS tests are described in ASTM D 6528.

The following plots are prepared for each test:

- Shear stress (τ/σ'_{vc}) versus effective vertical stress (σ'_v).
- Shear stress (τ) versus shear strain (γ).
- Change of vertical stress ($\sigma_{vc} - \sigma_v$) versus shear strain (γ).

A.10 Stress-Controlled Cyclic DSS Tests

Stress-controlled cyclic direct simple shear (DSS) tests are performed under constant volume conditions according to the following general procedure:

a) Each test specimen is consolidated to an effective vertical consolidation stress (σ'_{vc}) equal to the targeted vertical stress condition (σ'_v). This consolidation process is allowed to continue for about one log cycle of time or 24 hours, whichever occurred first, past the time for the end of primary consolidation (t_{100}) to ensure that the K_0 condition is developed. If the soil in the field are overconsolidated, the sample can be unloaded to produce an identical overconsolidation ratio (OCR).

b) Following the consolidation process, cyclic horizontal shear stresses (τ_{cyc}) are applied sinusoidally at an amplitude providing an average cyclic stress ratio (τ_{cyc}/σ'_v). The τ_{cyc} is applied at constant volume with a specified frequency (i.e. 0.1 Hz) for 100 cycles or until about 5% single amplitude strain is reached, whichever occurs first. If after 100 loading cycles, neither 100% increase in pore pressure has occurred nor 5% single amplitude strain is reached, then the test is stopped. Since the test is performed at constant volume, the pore pressure in the sample is estimated by monitoring the changes in the vertical stress ($\Delta\sigma_v$) applied to the specimen during cycling.

The following plots are prepared for each test:

- Average cyclic stress ratio (τ_{cyc}/s_u) versus log number of cycles.
- Vertical stress ratio ($\Delta\sigma_v/\sigma'_{vc}$) versus log number of cycles.
- Shear stress versus shear strain (stress-strain loops).
- Shear stress versus effective vertical stress

The vertical displacements for each consolidation stage have been monitored and recorded and are available upon request.

A.11 Post-cyclic Monotonic DSS Tests

Once the sample has been tested under cyclic loading and without allowing any consolidation or dissipation of the final excess pore pressure condition, the sample is statically sheared at constant volume and at a constant strain rate (i.e. 5%/hour) in accordance with the general procedure described in ASTM D 6528.

The following plots are prepared for each test:

- Shear stress (τ/σ'_{vc}) versus effective vertical stress (σ'_v).
- Shear stress (τ) versus shear strain (γ).

A.12 Bender Element Velocity Measuring

Special end platens with embedded bender elements are used with the electro-mechanical DSS equipment to measure shear (S) wave velocities. The bender element array and data acquisition system were also designed and built by GDS.

The principle of the velocity measurement using bender elements is based on the time that a user-defined signal (sinusoidal, square, etc) is transmitted from one platen to the other. The signal is produced by the electrical excitation of a bender element (transmitter) which induces tangential (S-wave) vibrations that propagate through the soil sample. The receiver bender element is then submitted to tangential displacements which are inversely converted into an output (electrical) signal. The input and output signals are recorded by the data acquisition system for subsequent analysis.

The GDS bender element monitoring system (BEMS) is used to measure the shear wave velocity of the DSS samples immediately after initial consolidation to the in situ stress condition prior to shearing. The bender element signal generation and data acquisition is controlled by the GDS BEMS software package.

A plot of the transmitted and received signal with time is presented for each test performed. The shear wave velocity is calculated by using the travel time for the first arrival between the top and bottom of the sample. No data filtering / interpretation techniques are applied.

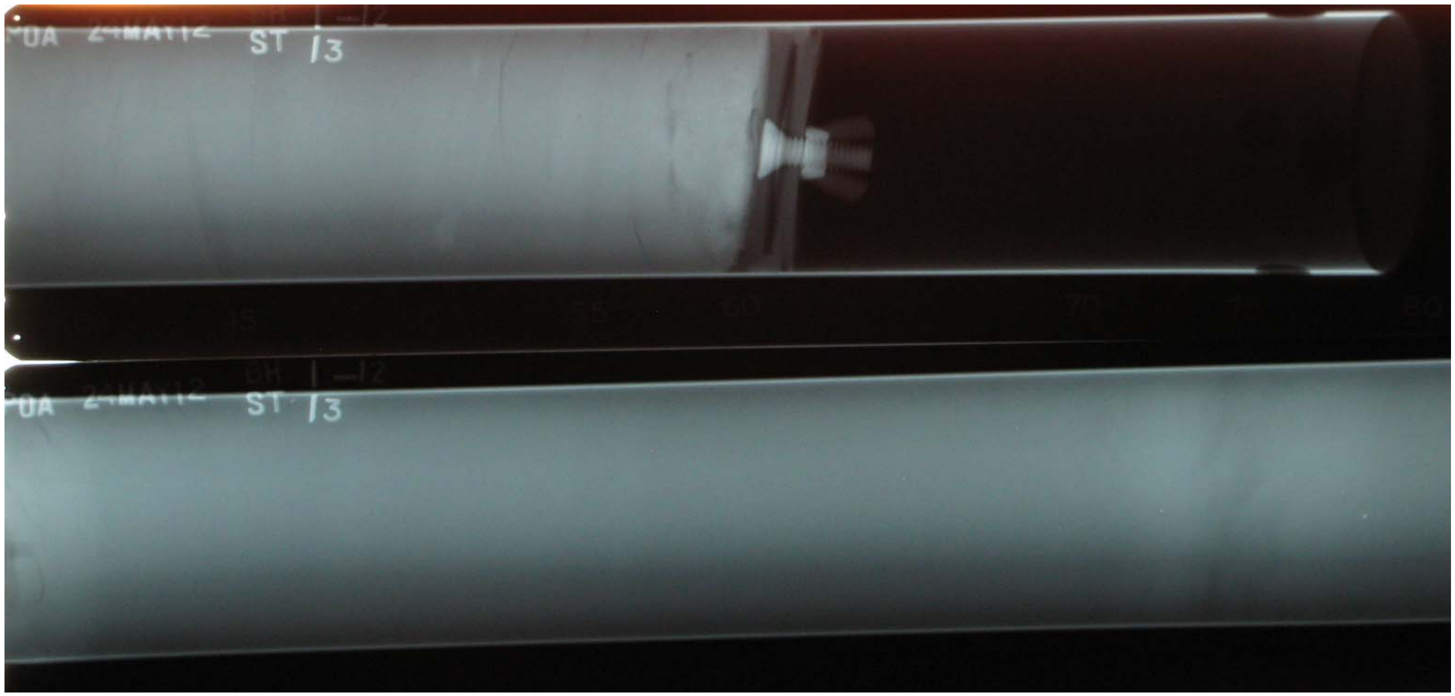
APPENDIX B.1

GAMMA-RAY RESULTS

Borehole: BH 001-12

Sample No. ST-13
(28.65-29.26m)
Top

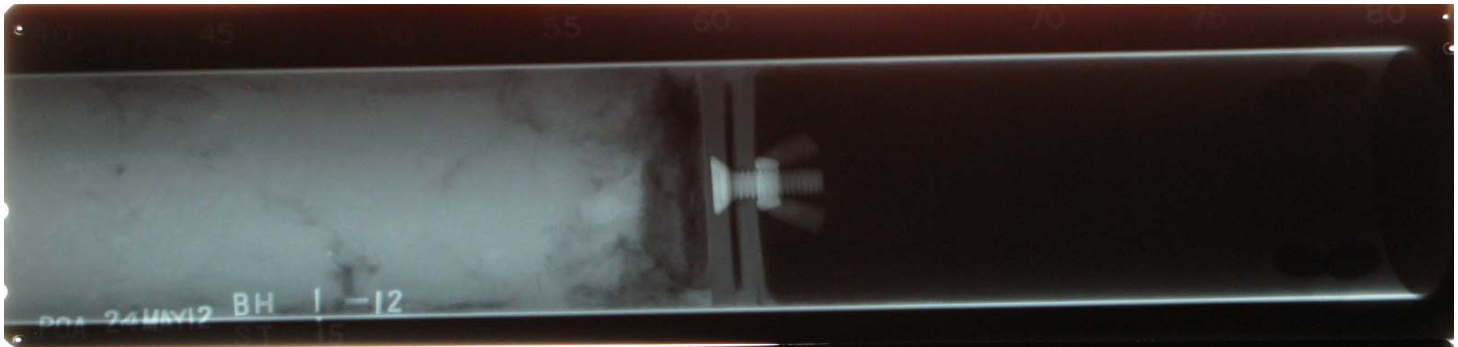
Sample No. ST-13
(28.65-29.26m)
Bottom



Marine + Earth MEG Geosciences

Borehole: BH 001-12

Sample No. ST-15
(30.48-31.09m)
Top



Sample No. ST-15
(30.48-31.09m)
Bottom

Marine + Earth Geosciences

Borehole: BH 003-12

Sample No. ST-2
(27.74-28.35m)
Bottom

Sample No. ST-2
(27.74 - 28.35m)
Top

Marine + Earth
MEG
Geosciences

Borehole: BH 003-12

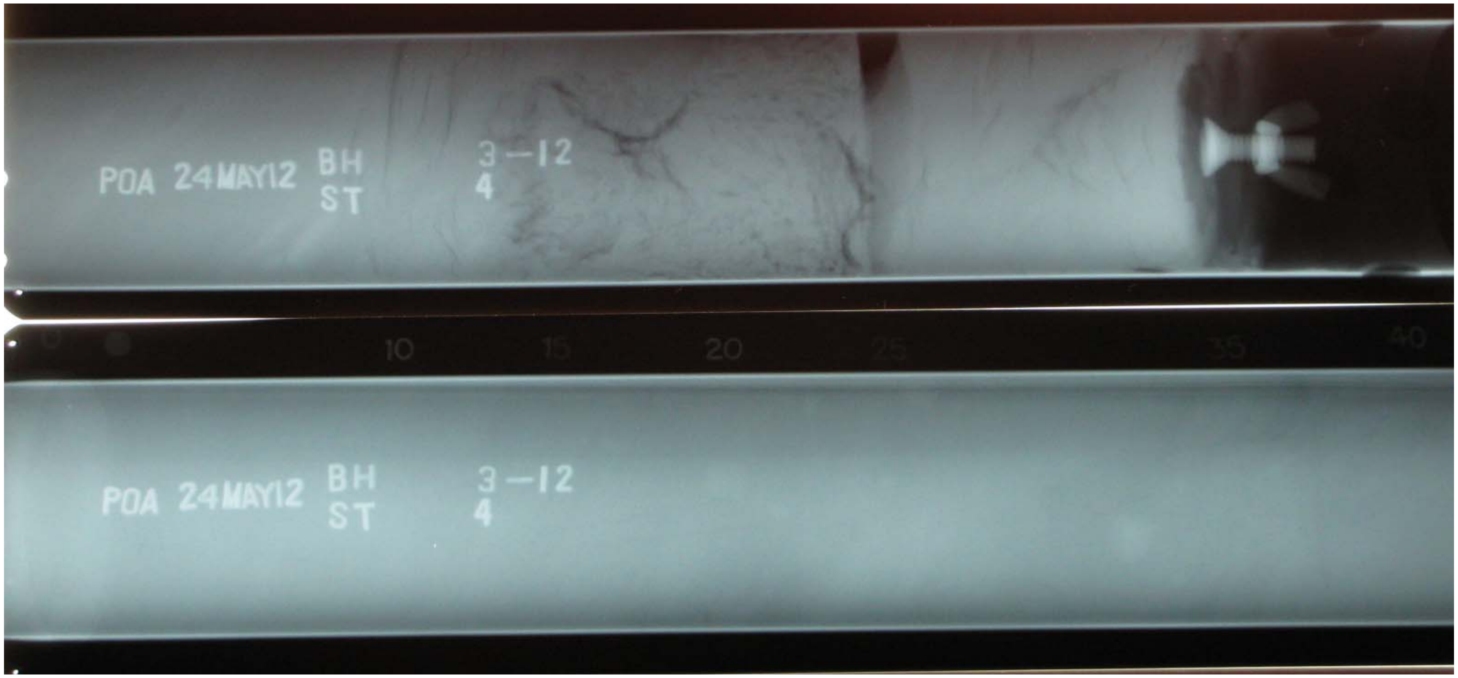
Sample No. ST-3
(28.65-29.26m)
top

Sample No. ST-3
(28.65-29.26m)
Bottom

Borehole: BH 003-12

Sample No. ST-4
(29.26-29.87m)
top

Sample No. ST-4
(29.26-29.87m)
Bottom



Borehole: BH 003-12

Sample No. ST-5
(30.18-30.79m)
Top

Sample No. ST-5
(30.18-30.79m)
Bottom

Borehole: BH 003-12

Sample No. ST-6
(30.79-31.39m)
Top

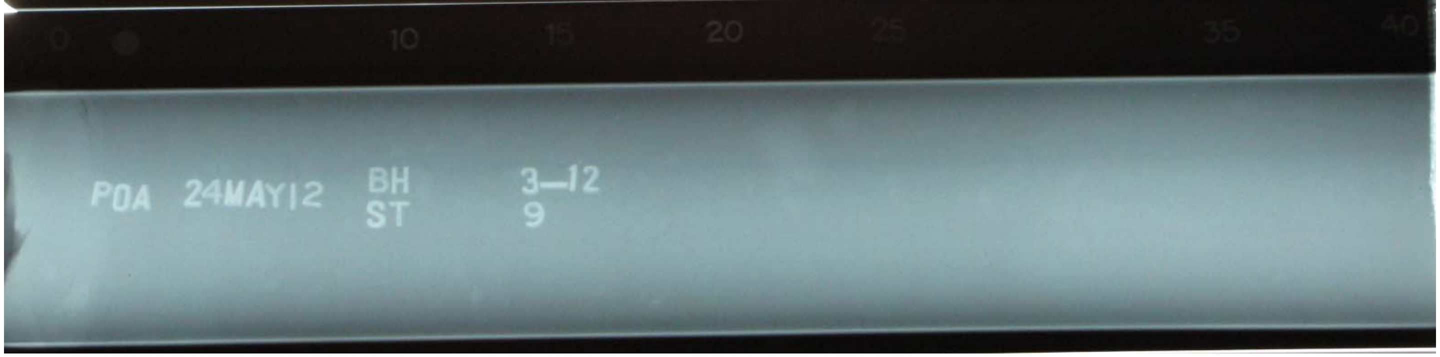
Sample No. ST-6
(30.79-31.39m)
Bottom

Marine + Earth
MEG
Geosciences

Borehole: BH 003-12

Sample No. ST-9
(37.8-38.41m)
Top

Sample No. ST-9
(37.8-38.41m)
Bottom



Borehole: BH 003-12

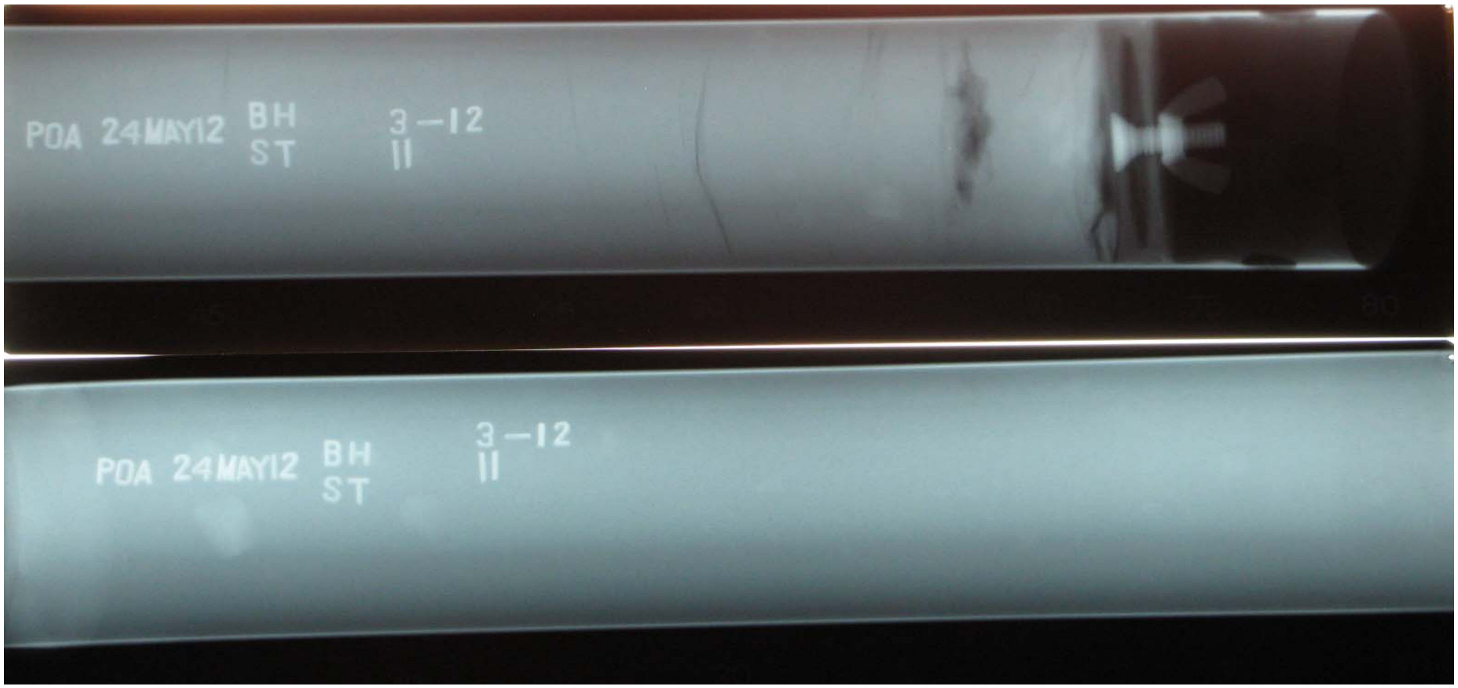
Sample No. ST-10
(38.41-39.01m)
Top

Sample No. ST-10
(38.41-39.01m)
Bottom

Borehole: BH 003-12

Sample No. ST-11
(39.32-39.93m)
Top

Sample No. ST-11
(39.32-39.93m)
Bottom



Marine + Earth
M | E | G
Geosciences

Borehole: BH 003-12

Sample No. ST-12
(39.93-40.54m)
Top

Sample No. ST-12
(39.93-40.54m)
Bottom

Borehole: BH 003-12

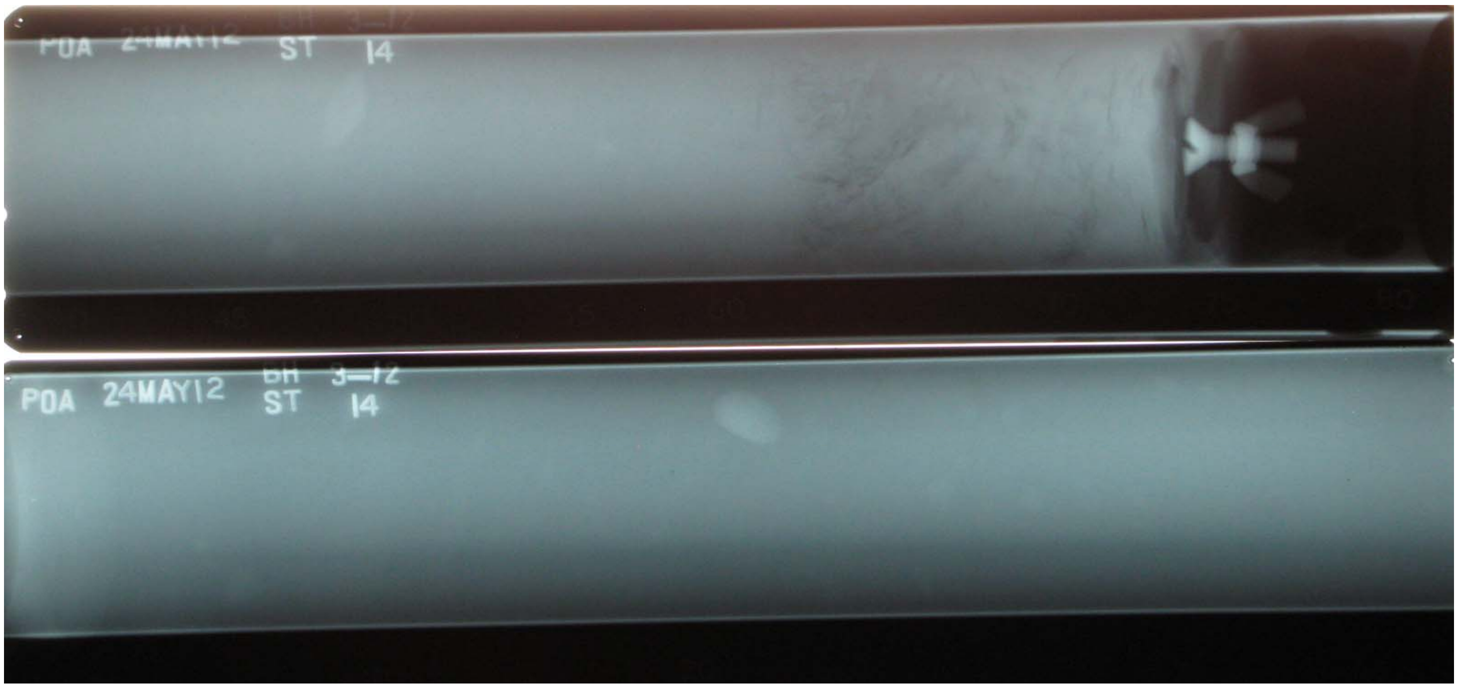
Sample No. ST-13
(40.84-41.45m)
Top

Sample No. ST-13
(40.84-41.45m)
Bottom

Borehole: BH 003-12

Sample No. ST-14
(41.45-42.06m)
Top

Sample No. ST-14
(41.45-42.06m)
Bottom



Borehole: BH 003-12

Sample No. ST-15
(42.36-42.98m)
Top

Sample No. ST-15
(42.36-42.98m)
Bottom

Marine + Earth MEG Geosciences

Borehole: BH 003-12

Sample No. ST-16
(42.98-43.59m)
Top

Sample No. ST-16
(42.98-43.59m)
Bottom

Marine + Earth
MEG
Geosciences

Borehole: BH 004-12

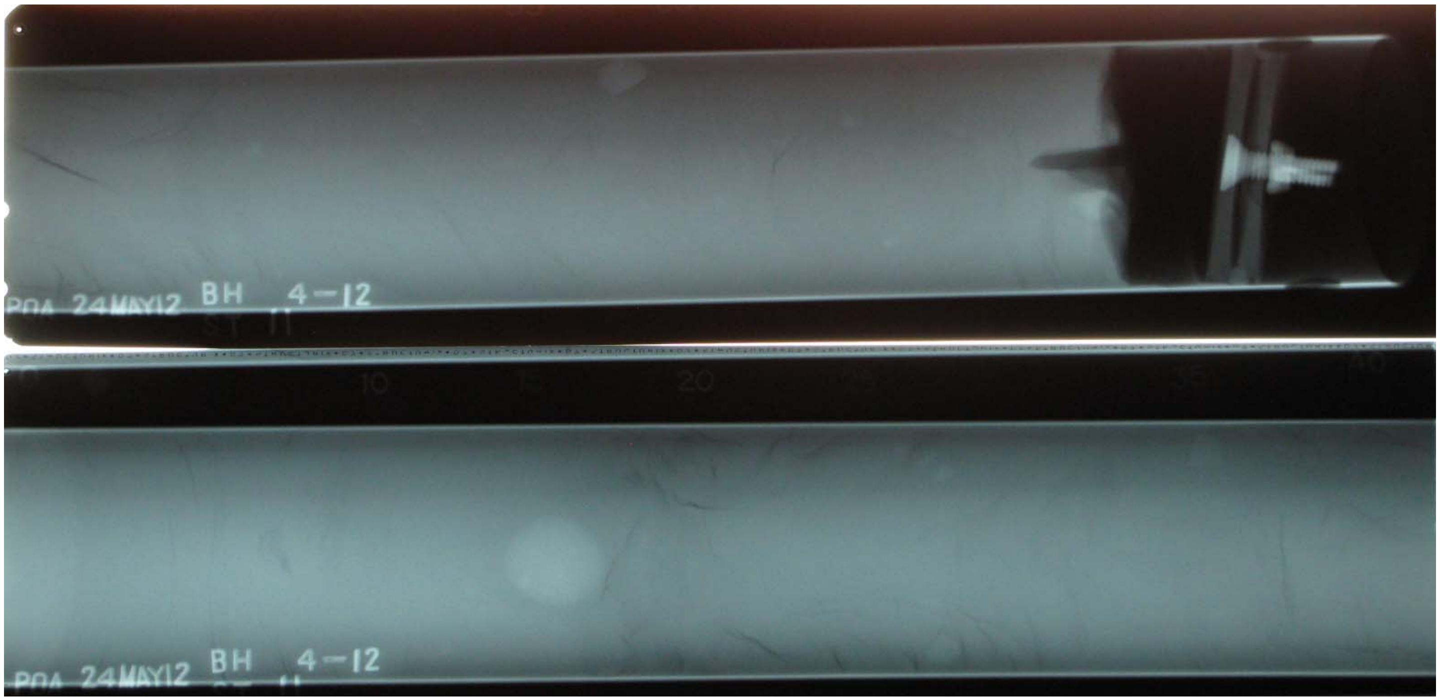
Sample No. ST-9
(27.13-27.74m)
Top

Sample No. ST-9
(27.13-27.74m)
Bottom

Borehole: BH 004-12

Sample No. ST-11
(28.65-29.26m)
Top

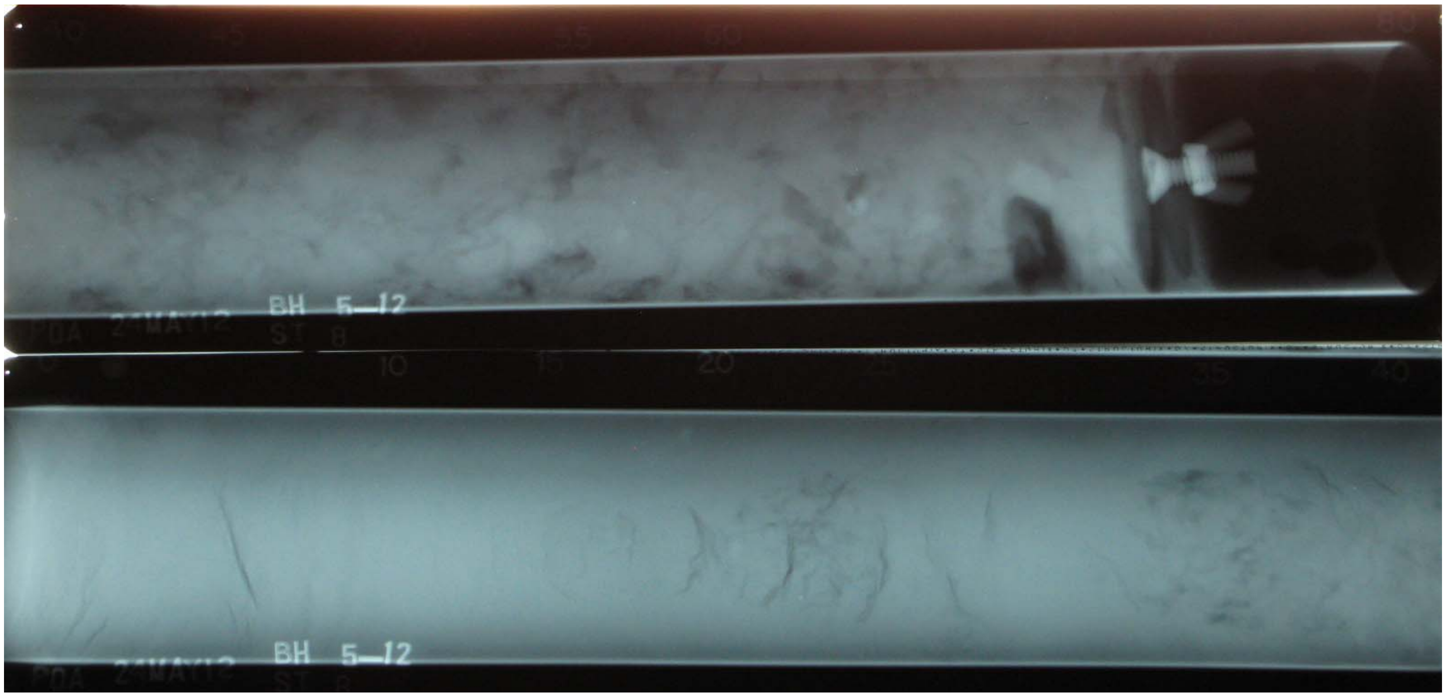
Sample No. ST-11
(28.65-29.26m)
Bottom



Borehole: BH 005-12

Sample No. ST-8
(18.59-19.20m)
Top

Sample No. ST-8
(18.59-19.20m)
Bottom

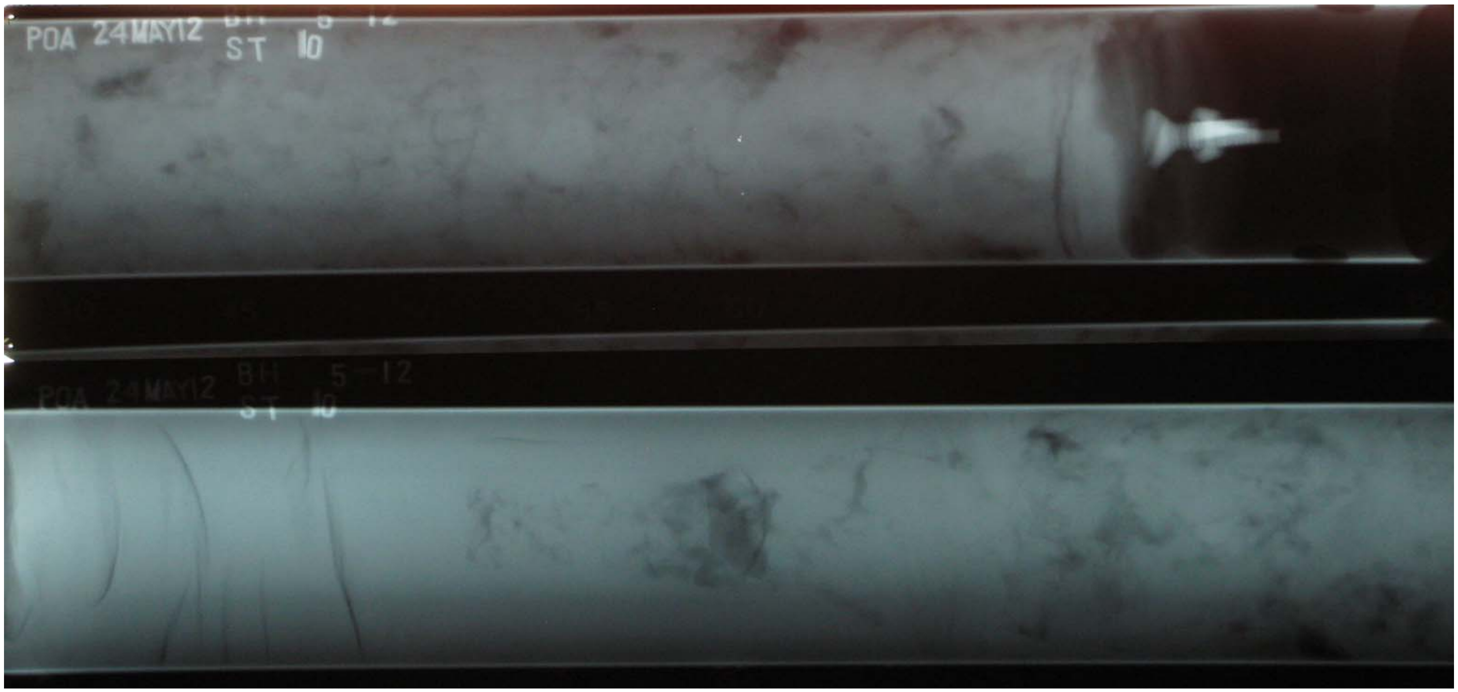


Marine + Earth
MEG
Geosciences

Borehole: BH 005-12

Sample No. ST-10
(21.34-21.95m)
Top

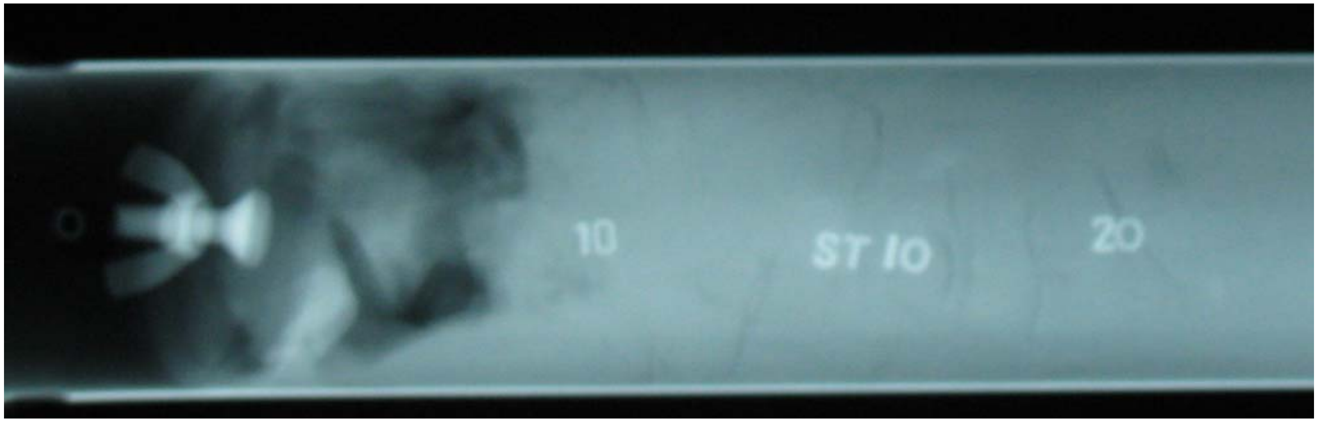
Sample No. ST-10
(21.34-21.95m)
Bottom



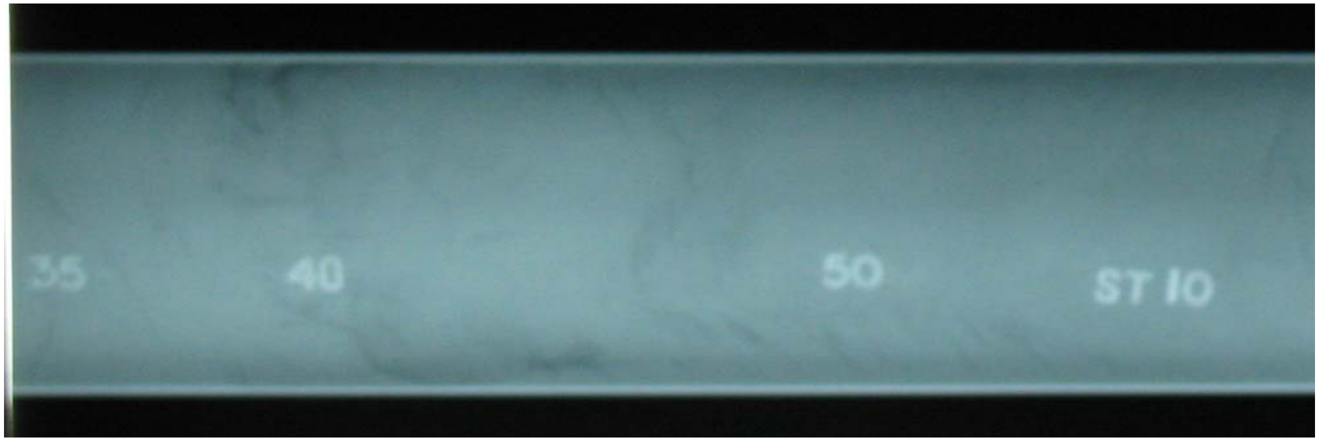
Marine + Earth
MEG
Geosciences

Borehole: BH 004-12

Sample No. ST- 10
(28.04-28.65m)
Top



Sample No. ST- 10
(28.04-28.65m)
Bottom



Marine + Earth
MEG
Geosciences

Borehole: BH 005-12

Sample No. ST-11
(22.25-22.86m)
Top

Sample No. ST-12
(22.86-23.46m)
Top

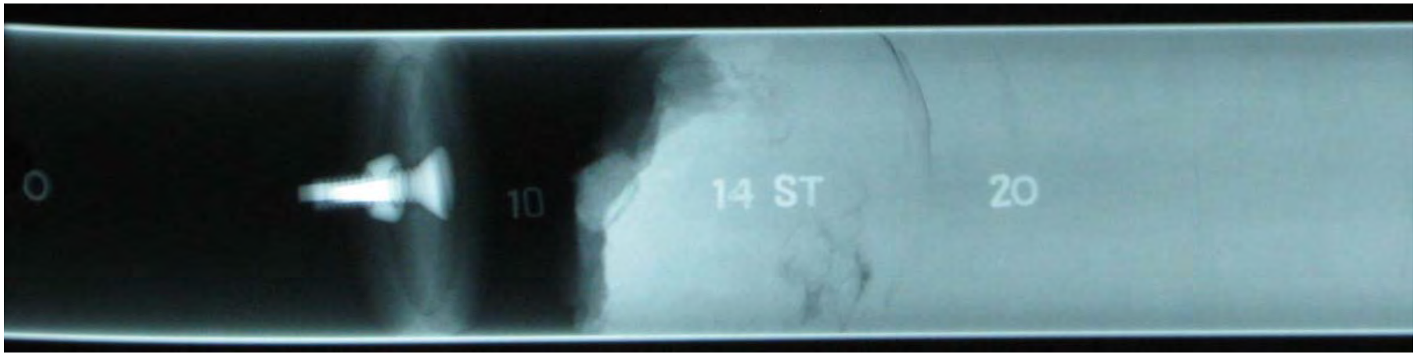
Borehole: BH 005-12

Sample No. ST-11
(22.25-22.86m)
Bottom

Sample No. ST-12
(22.86-23.46m)
Bottom

Borehole: BH 001-12

Sample No. ST-14
(29.26-29.87m)
Top



Sample No. ST-14
(29.26-29.87m)
Bottom

APPENDIX B.2

WATER CONTENT & UNIT WEIGHT

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Water Content and Unit Weight (ASTM D 2216)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage , US	Date:	June 4, 2012
Borehole:	BH-001-12	Page:	1 of 4

Sample Nº	Depth (m)	Tin Nº	Wt. of tare (TW) (g)	TW+ Wet weight (g)	TW+ Dry weight (g)	Water Content (%)	Sample Diameter (mm)	Sample Height (mm)	Sample Weight (g)	Volume (cm^3)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
BH-001-12 ST-4	21.88	55	24.27	63.31	53.98	31.4	63.5	25.4	144.61	80.44	17.64	13.42
BH-001-12 ST-7	23.69	93	23.68	51.93	46.16	25.7	63.5	25.4	159.42	80.44	19.44	15.47
BH-001-12 ST-13	29.14	11	32.92	81.53	71.52	25.9	63.5	25.4	162.38	80.44	19.80	15.73
BH-001-12 ST-14	29.72	24	24.03	138.93	115.58	25.5	66.4	22.4	150.53	77.57	19.04	15.17
BH-001-12 ST-15	30.94	69	23.86	49.47	45.33	19.3	63.5	25.4	165.52	80.44	20.19	16.92

Performed By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 4, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Marine + Earth MEG Geosciences

Water Content and Unit Weight (ASTM D 2216)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage , US	Date:	June 4, 2012
Borehole:	BH-003-12	Page:	2 of 4

Sample Nº	Depth (m)	Tin Nº	Wt. of tare (TW) (g)	TW+ Wet weight (g)	TW+ Dry weight (g)	Water Content (%)	Sample Diameter (mm)	Sample Height (mm)	Sample Weight (g)	Volume (cm^3)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
BH-003-12 ST-2	28.29	13	24.82	104.90	90.25	22.4	63.5	25.4	163.99	80.44	20.00	16.34
BH-003-12 ST-3	29.20	43	24.04	141.88	115.85	28.4	63.5	25.4	170.49	80.44	20.79	16.20
BH-003-12 ST-4	29.81	77	33.83	185.13	154.27	25.6	63.5	25.4	159.99	80.44	19.51	15.53
BH-003-12 ST-5	30.73	42	33.74	43.22	40.90	32.4	63.5	25.4	149.39	80.44	18.22	13.76
BH-003-12 ST-6	30.73	28	24.00	45.44	40.62	29.0	63.5	25.4	153.99	80.44	18.78	14.56
BH-003-12 ST-7	35.33	44	33.27	58.06	53.04	25.4	63.5	25.4	160.53	80.44	19.58	15.61
BH-003-12 ST-9	38.30	70	32.89	81.43	72.28	23.2	63.5	25.4	165.44	80.44	20.18	16.37
BH-003-12 ST-10	38.96	71	25.68	128.13	107.42	25.3	63.5	25.4	165.00	80.44	20.12	16.05
BH-003-12 ST-12	40.48	111	33.12	104.25	90.88	23.1	63.5	25.4	162.51	80.44	19.82	16.09
BH-003-12 ST-15	42.82	64	33.38	83.95	74.85	21.9	63.5	25.4	159.92	80.44	19.50	15.99
BH-003-12 ST-16	42.98	71	25.67	48.09	43.27	27.4	63.5	25.4	159.06	80.44	19.40	15.23

Performed By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 4, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Water Content and Unit Weight (ASTM D 2216)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage , US	Date:	June 4, 2012
Borehole:	BH-004-12	Page:	3 of 4

Sample Nº	Depth (m)	Tin Nº	Wt. of tare (TW) (g)	TW+ Wet weight (g)	TW+ Dry weight (g)	Water Content (%)	Sample Diameter (mm)	Sample Height (mm)	Sample Weight (g)	Volume (cm^3)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
BH-004-12 ST-3	19.80	24	33.04	62.54	57.09	22.7	63.5	25.4	165.32	80.44	20.16	16.44
BH-004-12 ST-7	24.62	28	24.00	45.34	40.97	25.8	63.5	25.4	162.48	80.44	19.82	15.76
BH-004-12 ST-9	27.67	67	24.04	61.58	53.52	27.3	63.5	25.4	158.70	80.44	19.35	15.20
BH-004-12 ST-11	29.19	93	23.68	59.93	52.79	24.5	63.5	25.4	160.29	80.44	19.55	15.70
BH-004-12 ST-13	30.63	81	24.07	43.59	39.80	24.1	63.5	25.4	163.06	80.44	19.89	16.02

Performed By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 4, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Water Content and Unit Weight (ASTM D 2216)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage , US	Date:	June 4, 2012
Borehole:	BH-005-12	Page:	4 of 4

Sample Nº	Depth (m)	Tin Nº	Wt. of tare (TW) (g)	TW+ Wet weight (g)	TW+ Dry weight (g)	Water Content (%)	Sample Diameter (mm)	Sample Height (mm)	Sample Weight (g)	Volume (cm^3)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
BH-005-12 ST-3	14.83	17	24.91	55.38	49.78	22.5	63.5	25.4	164.15	80.44	20.02	16.34
BH-005-12 ST-8	19.20	80	23.60	141.34	116.38	26.9	63.5	25.4	158.50	80.44	19.33	15.23
BH-005-12 ST-11	22.53	59	25.28	51.36	46.20	24.7	63.5	25.4	164.35	80.44	20.04	16.08
BH-005-12 ST-13	24.31	81	24.07	57.39	51.02	23.6	63.5	25.4	160.74	80.44	19.60	15.86

Performed By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 4, 2012	Date:	August 24, 2012	Date:	August 27, 2012

APPENDIX B.3

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

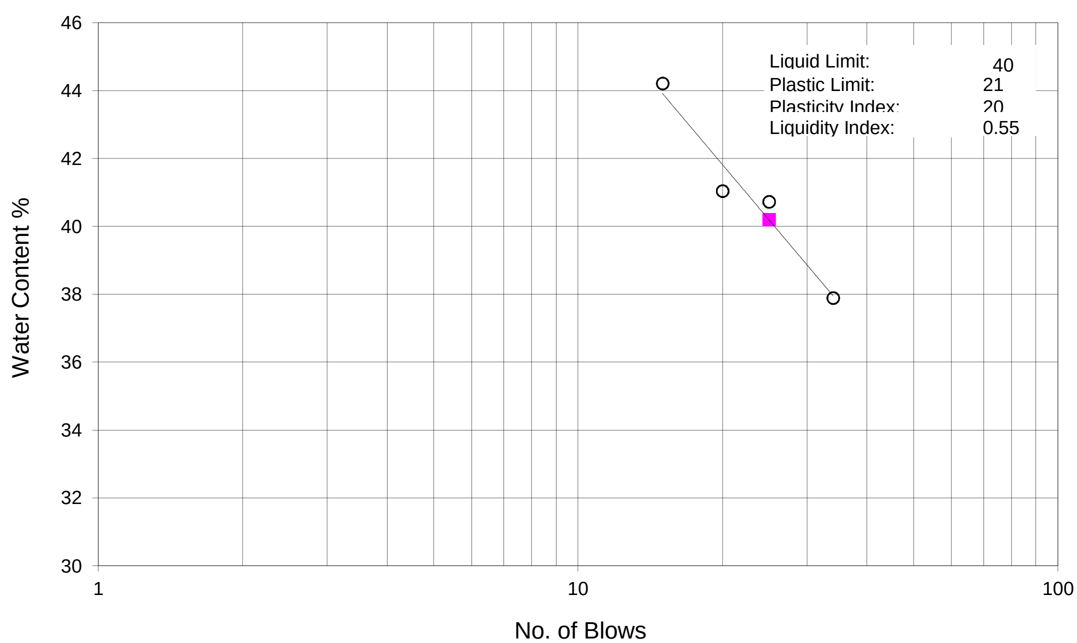
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-09
Location:	Anchorage, US			Date:	June 19, 2012
Borehole:	BH-001-12	Sample No.:	ST-4	Depth (m):	21.88

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
84	46.39	43.12	34.49	3.27	8.63	37.9	34	43	32.51	31.06	24.04	1.45	7.02	20.7
59	35.74	32.71	25.27	3.03	7.44	40.7	25	77	41.05	39.81	33.82	1.24	5.99	20.7
17	36.00	32.77	24.90	3.23	7.87	41.0	20							
44	47.08	42.84	33.25	4.24	9.59	44.2	15							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 20, 2012	Date:	August 24, 2012	Date:	August 25, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

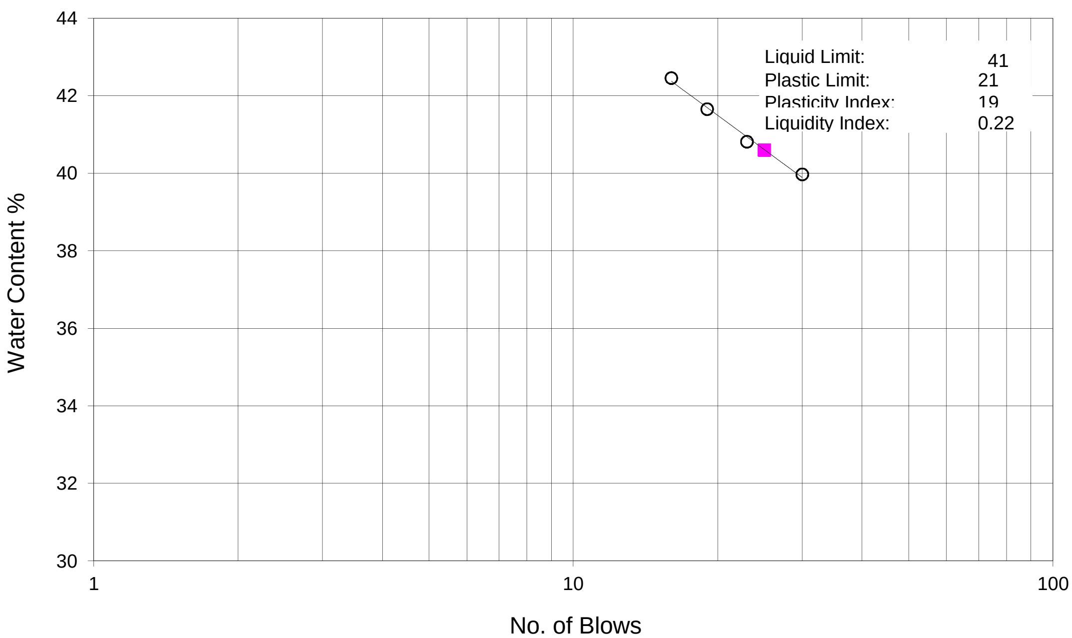
Liquid Limit, Plastic Limit and Plasticity Index of Soils (ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-09
Location:	Anchorage, US	Date:	June 19, 2012
Borehole:	BH-001-12 Sample No.: ST-7	Depth (m):	23.69

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
111	43.60	40.61	33.13	2.99	7.48	40.0	30	64A	39.68	38.57	33.39	1.11	5.18	21.4
94	42.12	39.32	32.46	2.80	6.86	40.8	23	11	38.92	37.86	32.92	1.06	4.94	21.5
28	36.14	32.57	24.00	3.57	8.57	41.7	19							
75	44.85	41.05	32.10	3.80	8.95	42.5	16							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 20, 2012	Date:	August 24, 2012	Date:	August 25, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

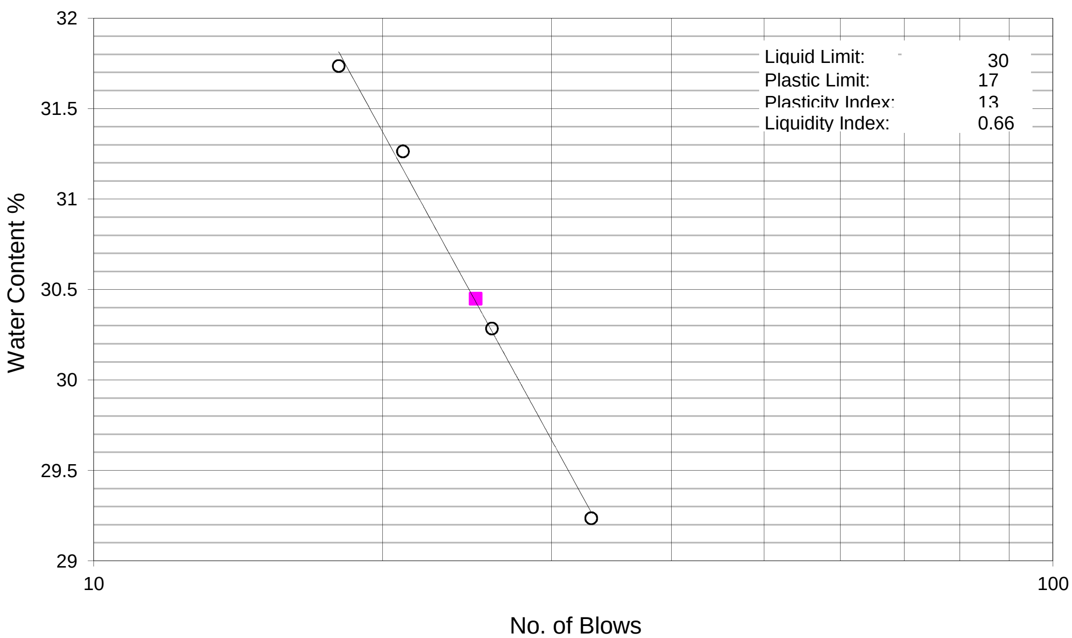
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 18, 2012
Borehole:	BH-001-12	Sample No.:	ST-13	Depth (m):	29.19

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
94A	43.71	41.26	32.88	2.45	8.38	29.2	33	152	26.49	25.53	20.04	0.96	5.49	17.5
42	47.02	43.94	33.77	3.08	10.17	30.3	26	148	26.42	25.48	19.96	0.94	5.52	17.0
45A	44.84	42.17	33.63	2.67	8.54	31.3	21							
2A	46.25	43.07	33.05	3.18	10.02	31.7	18							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 19, 2012	Date:	June 20, 2012	Date:	June 20, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

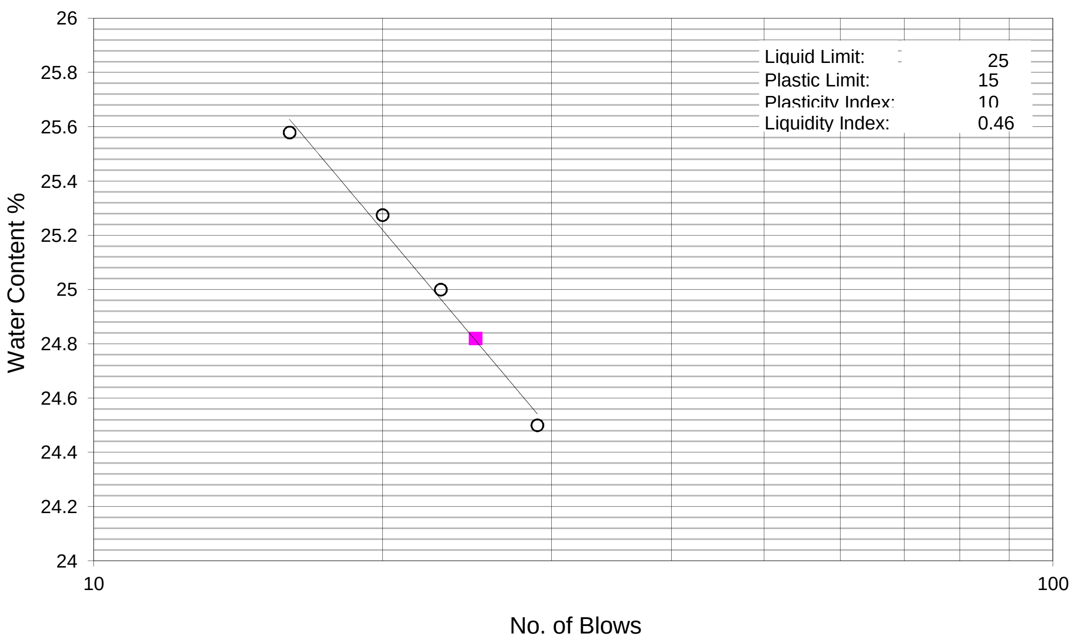
Liquid Limit, Plastic Limit and Plasticity Index of Soils (ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 15, 2012
Borehole:	BH-001-12 Sample No.: ST-15	Depth (m):	31.02

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
89A	44.98	42.53	32.53	2.45	10.00	24.5	29	148	26.37	25.55	19.96	0.82	5.59	14.7
2A	47.45	44.57	33.05	2.88	11.52	25.0	23	152	26.23	25.44	20.02	0.79	5.42	14.6
70	44.28	41.98	32.88	2.30	9.10	25.3	20							
44	46.27	43.62	33.26	2.65	10.36	25.6	16							

Classification of the material : CL

98 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 15, 2012	Date:	June 18, 2012	Date:	June 18, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

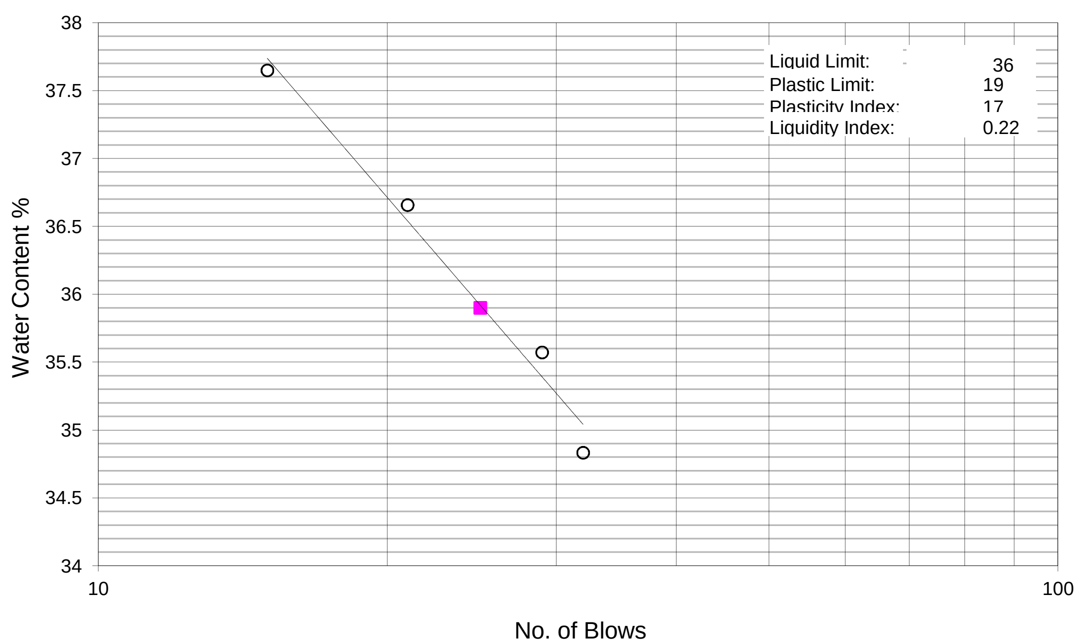
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project: Port of Anchorage		Project No.:	12-MTS-009
Location: Anchorage, US		Date:	June 11, 2012
Borehole: BH-003-12	Sample No.: ST-2	Depth (m):	28.08

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
48	31.46	29.37	23.37	2.09	6.00	34.8	32	64A	40.66	39.52	33.39	1.14	6.13	18.6
70	43.79	40.93	32.89	2.86	8.04	35.6	29	45A	41.30	40.09	33.63	1.21	6.46	18.7
2A	43.19	40.47	33.05	2.72	7.42	36.7	21							
42	46.41	42.95	33.76	3.46	9.19	37.6	15							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 12, 2012	Date:	June 13, 2012	Date:	June 13, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

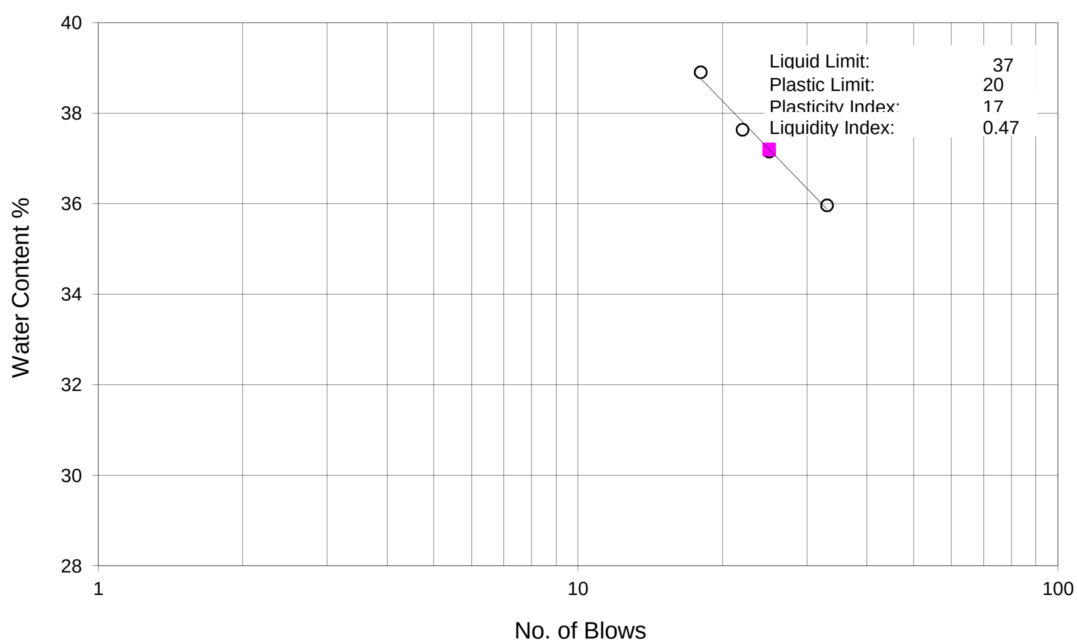
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 17, 2012
Borehole:	BH-003-12	Sample No.:	ST-3	Depth (m):	29.20

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
19	48.11	44.15	33.14	3.96	11.01	36.0	33	152	26.10	25.08	20.09	1.02	4.99	20.4
39	35.45	32.21	23.49	3.24	8.72	37.2	25							
70	46.52	42.79	32.88	3.73	9.91	37.6	22							
89A	48.05	43.70	32.52	4.35	11.18	38.9	18							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	August 20, 2012	Date:	August 21, 2012	Date:	August 22, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

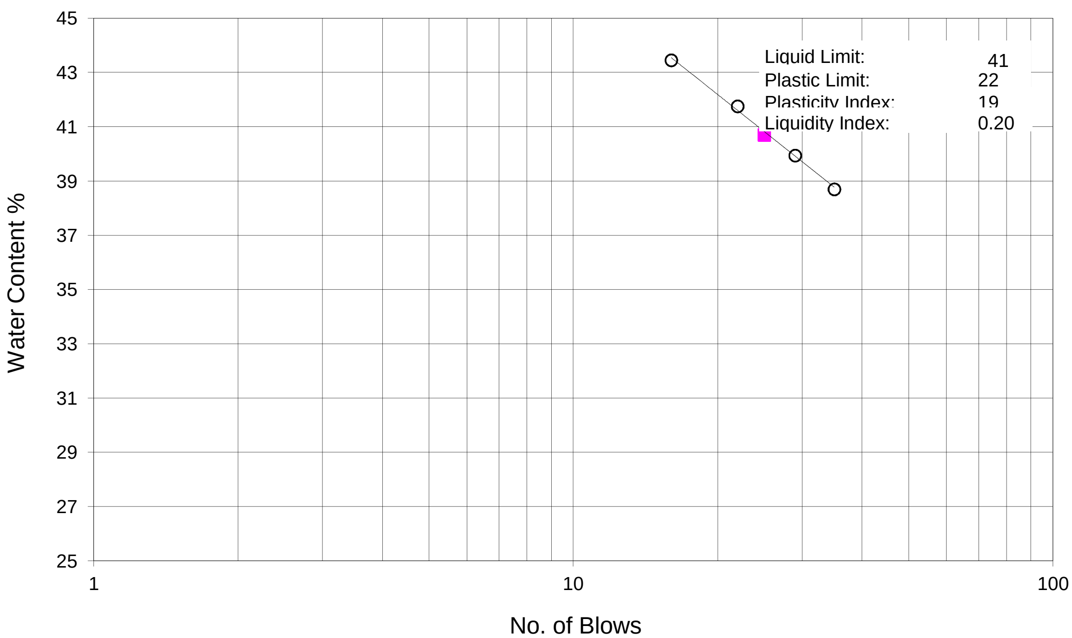
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 16, 2012
Borehole:	BH-003-12	Sample No.:	ST-4	Depth (m):	29.72

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
28	36.76	33.20	24.00	3.56	9.20	38.7	35	17	30.99	29.87	24.89	1.12	4.98	22.5
57	37.87	33.90	23.96	3.97	9.94	39.9	29	45A	39.83	38.75	33.62	1.08	5.13	21.1
69	41.30	36.16	23.85	5.14	12.31	41.8	22							
94	49.01	44.00	32.47	5.01	11.53	43.5	16							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	PC	Checked by:	PS	Approved by:	JPS
Date:	August 17, 2012	Date:	August 20, 2012	Date:	August 21, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

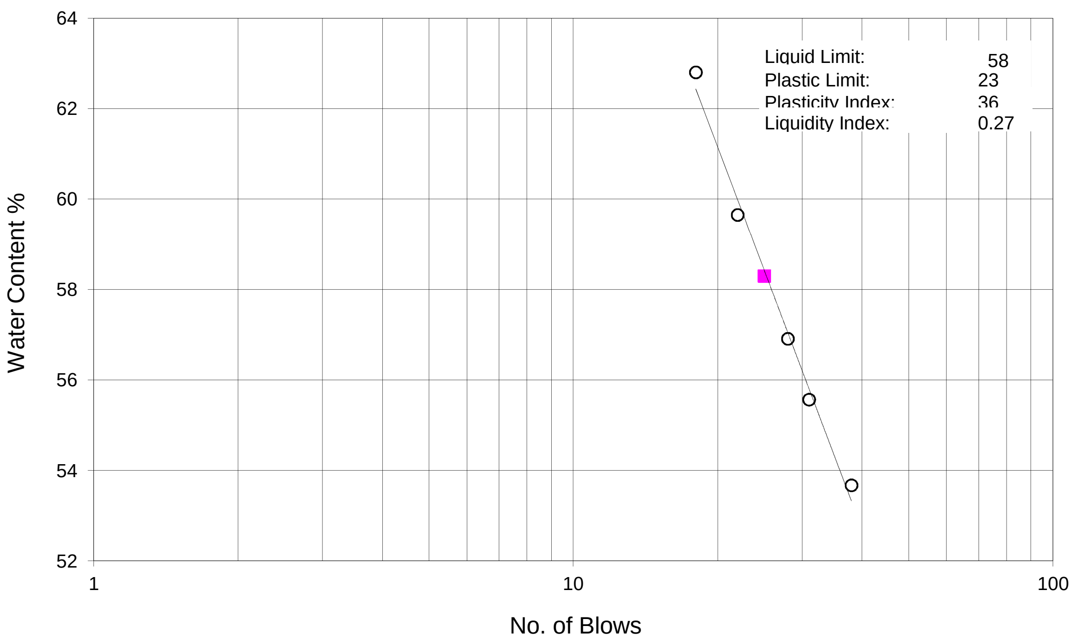
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage		Project No.:	12-MTS-009
Location:	Anchorage, US		Date:	June 01, 2012
Borehole:	BH-003-12	Sample No.: ST-5	Depth (m):	30.73

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
24A	51.03	45.33	34.71	5.70	10.62	53.7	38	57	29.92	28.81	23.98	1.11	4.83	23.0
93	38.77	33.38	23.68	5.39	9.70	55.6	31	62	30.51	29.49	24.98	1.02	4.51	22.6
100	46.20	41.26	32.58	4.94	8.68	56.9	28							
2A	47.69	42.22	33.05	5.47	9.17	59.7	22							
94	45.83	40.68	32.48	5.15	8.20	62.8	18							

Classification of the material : MH

99 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 4, 2012	Date:	June 5, 2012	Date:	June 5, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Liquid Limit, Plastic Limit and Plasticity Index of Soils (ASTM D 4318)

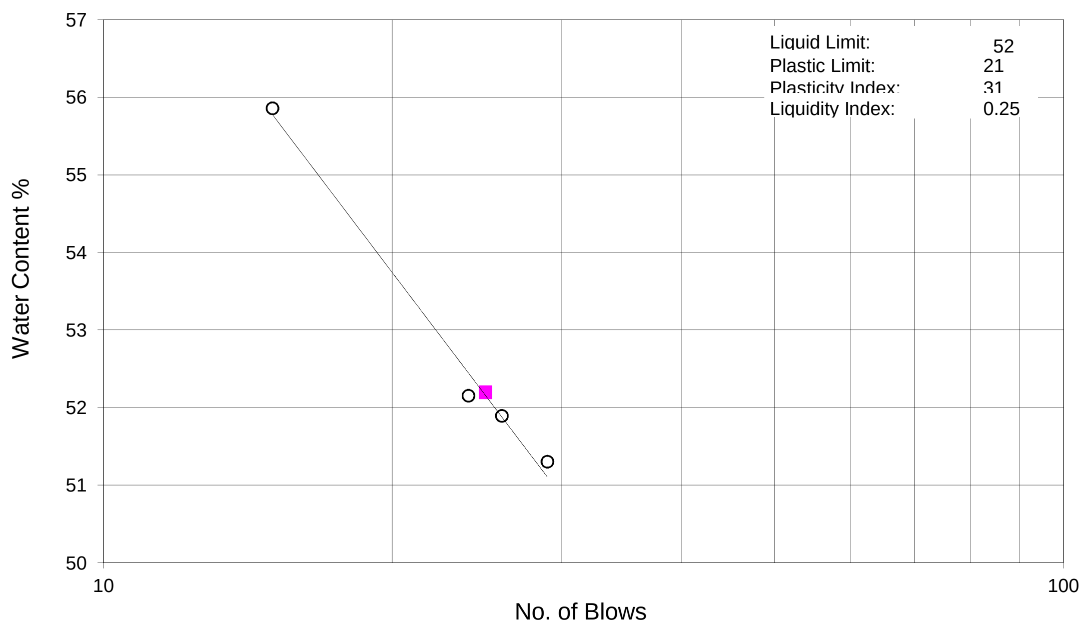
Marine + Earth MEG Geosciences

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12 Sample No.: ST-6	Depth (m):	31.29

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
40	47.37	42.65	33.45	4.72	9.20	51.3	29	44	39.05	38.02	33.25	1.03	4.77	21.6
45A	48.05	43.12	33.62	4.93	9.50	51.9	26	87	39.77	38.72	33.78	1.05	4.94	21.3
34	49.12	44.40	35.35	4.72	9.05	52.2	24							
59	41.75	35.84	25.26	5.91	10.58	55.9	15							

Classification of the material : CH

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 4, 2012	Date:	June 5, 2012	Date:	June 5, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

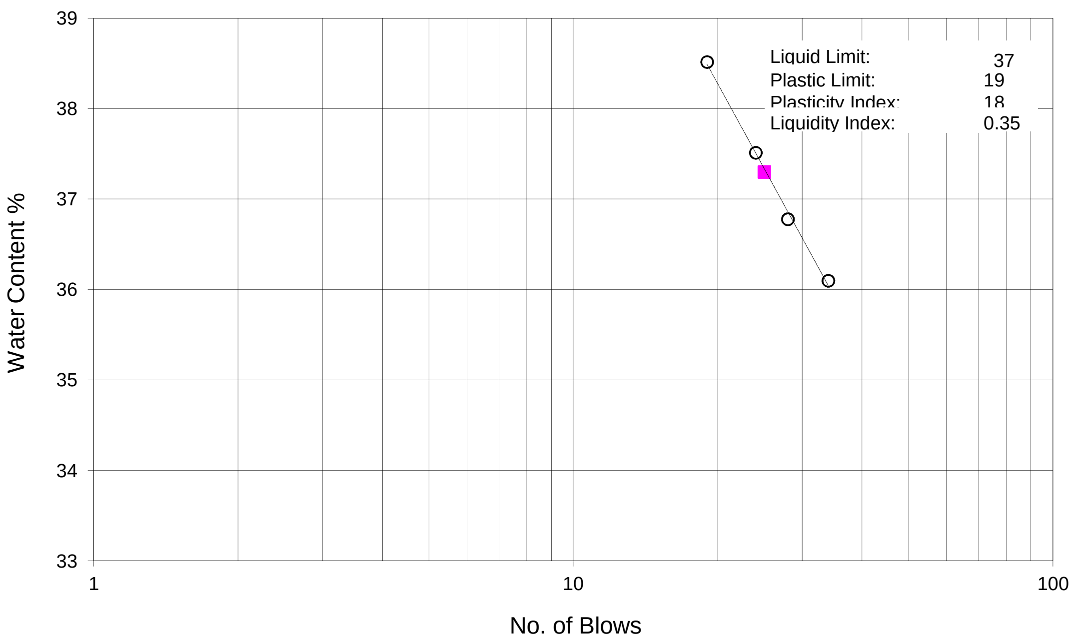
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage		Project No.:	12-MTS-009
Location:	Anchorage, US		Date:	June 12, 2012
Borehole:	BH-003-12	Sample No.: ST-7	Depth (m):	35.28

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
43	35.70	32.61	24.05	3.09	8.56	36.1	34	148	26.37	25.34	19.96	1.03	5.38	19.1
98	44.08	41.34	33.89	2.74	7.45	36.8	28	152	26.35	25.34	20.03	1.01	5.31	19.0
13	37.65	34.15	24.82	3.50	9.33	37.5	24							
95	33.63	30.41	22.05	3.22	8.36	38.5	19							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 13, 2012	Date:	August 17, 2012	Date:	August 17, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Liquid Limit, Plastic Limit and Plasticity Index of Soils (ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 4, 2012
Borehole:	BH-003-12 Sample No.: ST-9	Depth (m):	38.30

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
13	41.87	37.68	24.83	4.19	12.85	32.6	35	11E	34.98	34.04	28.93	0.94	5.11	18.4
48	39.41	35.43	23.37	3.98	12.06	33.0	30	52	36.14	35.17	29.88	0.97	5.29	18.3
11	51.15	46.59	32.93	4.56	13.66	33.4	24							
78	40.15	35.76	22.88	4.39	12.88	34.1	17							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40

Observations: slightly plastic sample

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 5, 2012	Date:	June 6, 2012	Date:	June 6, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

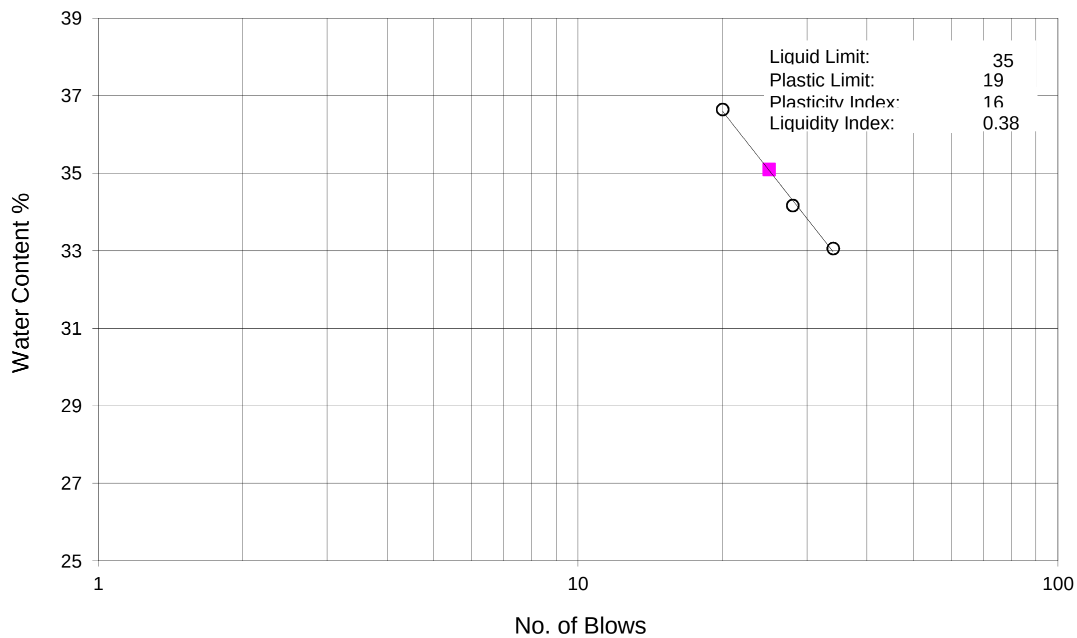
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project: Port of Anchorage		Project No.:	12-MTS-009
Location: Anchorage, US		Date:	August 15, 2012
Borehole: BH-003-12	Sample No.: ST-10	Depth (m):	38.96

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
24A	42.83	40.81	34.70	2.02	6.11	33.1	34	134	26.27	25.26	20.05	1.01	5.21	19.4
25	46.95	43.82	34.66	3.13	9.16	34.2	28	152	26.74	25.66	20.08	1.08	5.58	19.4
57	38.39	34.52	23.96	3.87	10.56	36.6	20							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	PC	Checked by:	PS	Approved by:	JPS
Date:	August 16, 2012	Date:	August 17, 2012	Date:	August 17, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

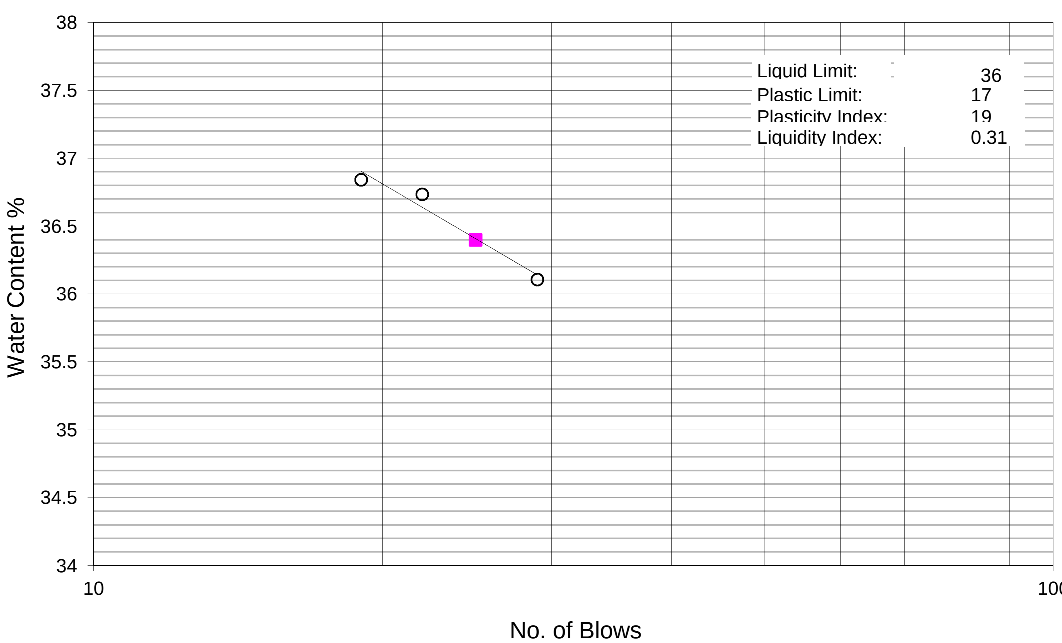
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 7, 2012
Borehole:	BH-003-12 Sample No.: ST-12	Depth (m):	40.48

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
75	41.74	39.18	32.09	2.56	7.09	36.1	29	100	39.40	38.40	32.57	1.00	5.83	17.2
59	35.99	33.11	25.27	2.88	7.84	36.7	22	29	30.79	29.81	23.99	0.98	5.82	16.8
17	36.09	33.08	24.91	3.01	8.17	36.8	19							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 8, 2012	Date:	August 17, 2012	Date:	August 17, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

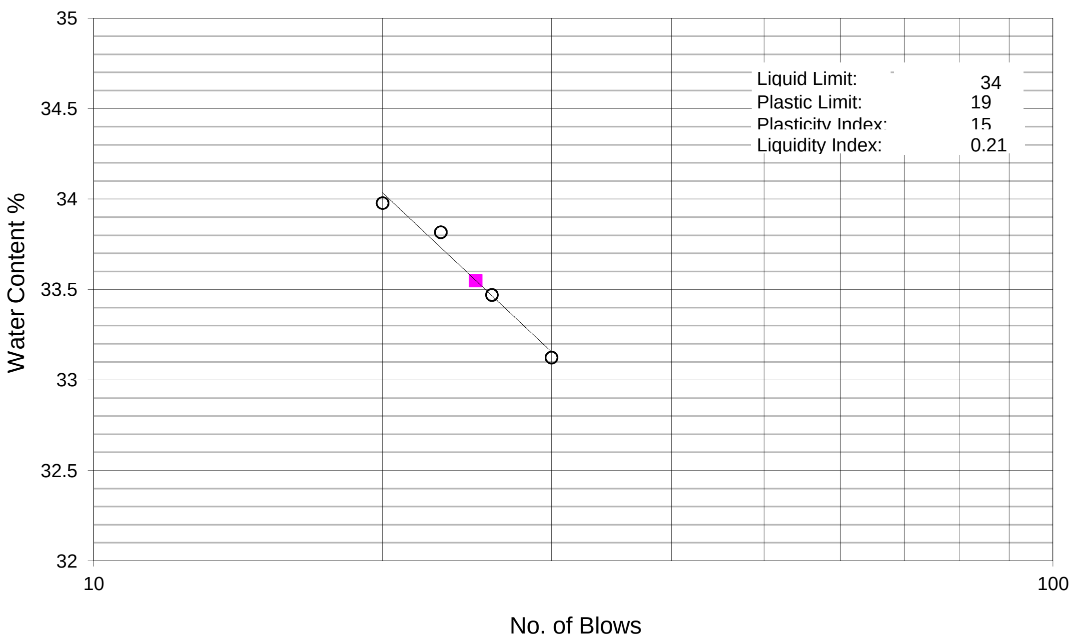
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project: Port of Anchorage		Project No.:	12-MTS-009
Location: Anchorage, US		Date:	June 8, 2012
Borehole: BH-003-12	Sample No.: ST-15	Depth (m):	42.82

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
64A	46.12	42.95	33.38	3.17	9.57	33.1	30	152	26.51	25.46	20.03	1.05	5.43	19.3
43	37.01	33.76	24.05	3.25	9.71	33.5	26	154	26.33	25.33	19.84	1.00	5.49	18.2
98	46.79	43.53	33.89	3.26	9.64	33.8	23							
93	37.52	34.01	23.68	3.51	10.33	34.0	20							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 8, 2012	Date:	June 11, 2012	Date:	June 11, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

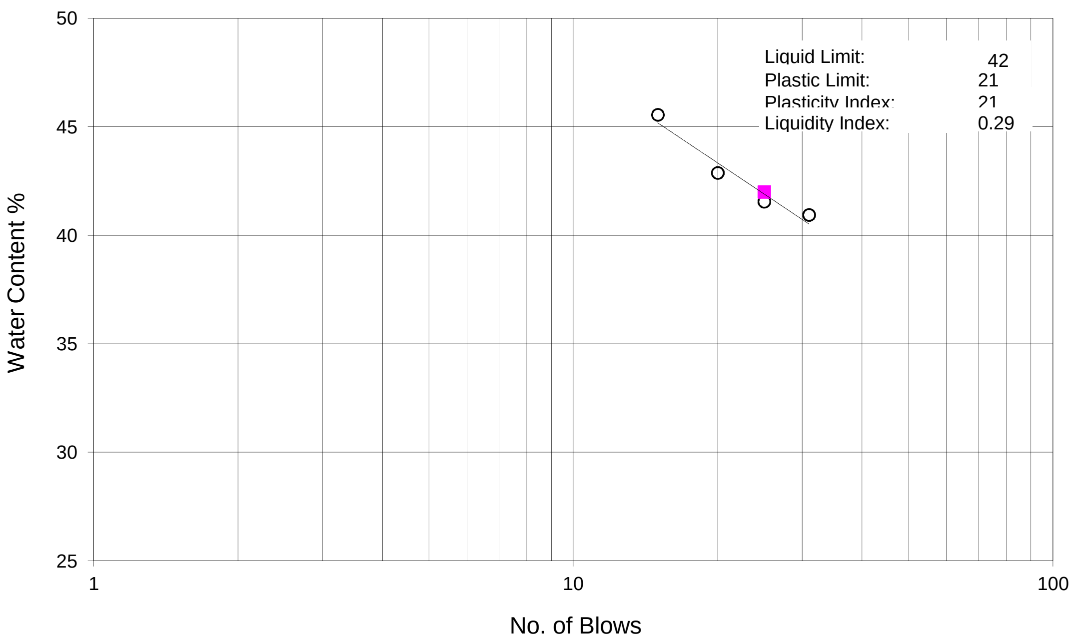
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 8, 2012
Borehole:	BH-003-12	Sample No.:	ST-16	Depth (m):	43.52

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
95	34.03	30.55	22.05	3.48	8.50	40.9	31	77	42.64	41.08	33.84	1.56	7.24	21.5
111	43.88	40.69	33.01	3.19	7.68	41.6	25	11	40.72	39.35	32.94	1.37	6.41	21.4
69	33.80	30.82	23.87	2.98	6.95	42.9	20							
84	49.08	44.52	34.51	4.56	10.01	45.6	15							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 11, 2012	Date:	August 17, 2012	Date:	August 17, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

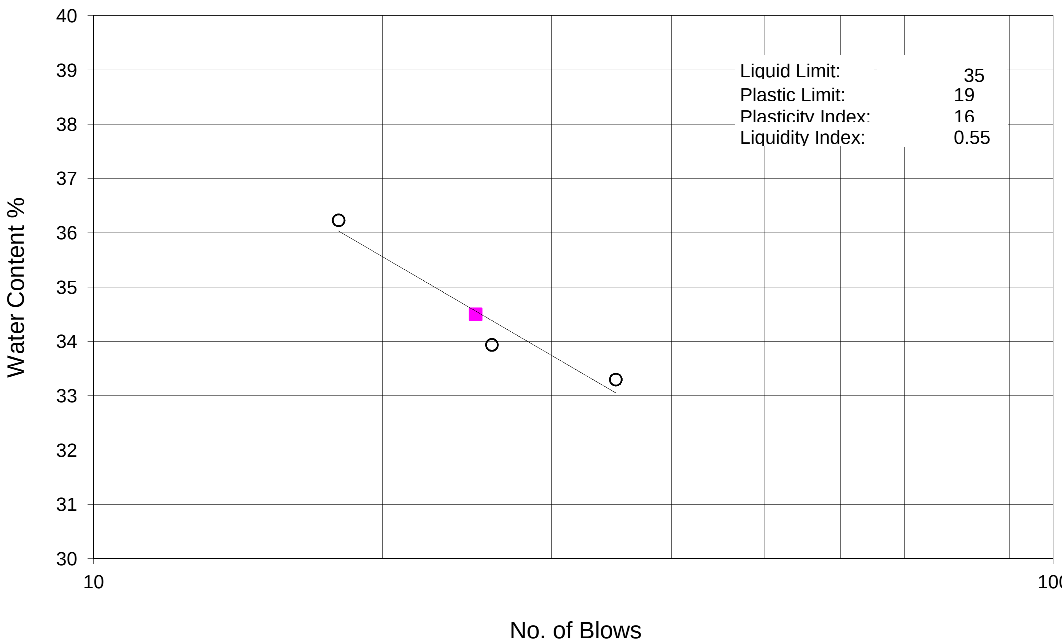
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole:	BH-004-12 Sample No.: ST-3	Depth (m):	19.80

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
57	37.59	34.19	23.98	3.40	10.21	33.3	35	52C	36.30	35.30	29.88	1.00	5.42	18.5
59	36.33	33.53	25.28	2.80	8.25	33.9	26	12E	36.12	35.13	29.81	0.99	5.32	18.6
69	35.30	32.26	23.87	3.04	8.39	36.2	18							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 20, 2012	Date:	June 20, 2012	Date:	June 20, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

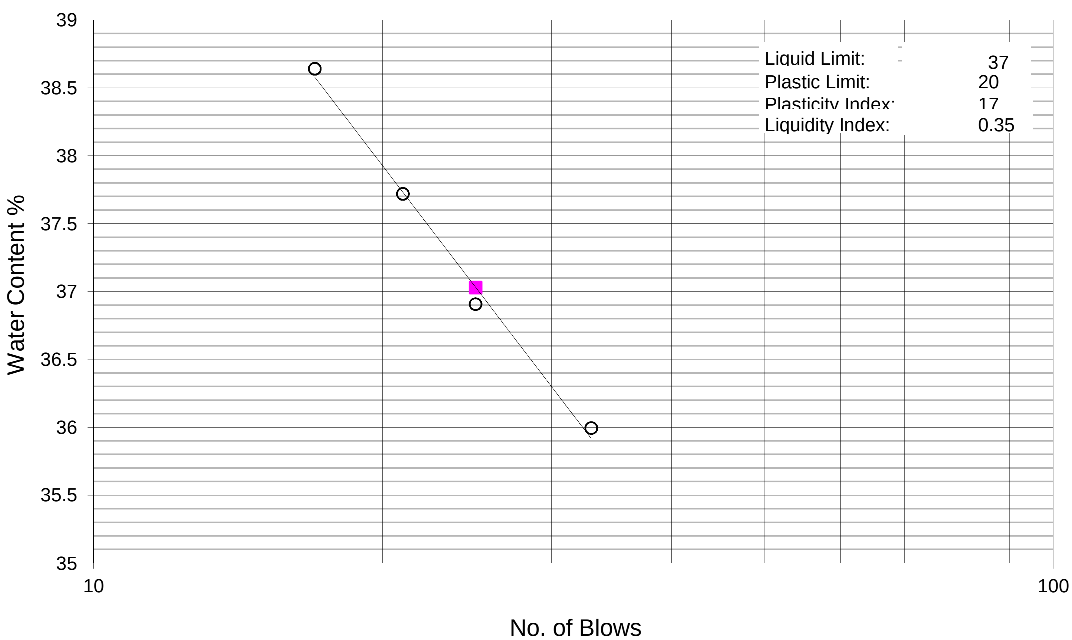
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 22, 2012
Borehole:	BH-004-12 Sample No.: ST-7	Depth (m):	24.62

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
43	35.13	32.20	24.06	2.93	8.14	36.0	33	155	26.70	25.58	19.91	1.12	5.67	19.8
84	45.49	42.53	34.51	2.96	8.02	36.9	25	154	26.58	25.46	19.85	1.12	5.61	20.0
44	46.55	42.91	33.26	3.64	9.65	37.7	21							
70	45.34	41.87	32.89	3.47	8.98	38.6	17							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 25, 2012	Date:	June 26, 2012	Date:	June 26, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

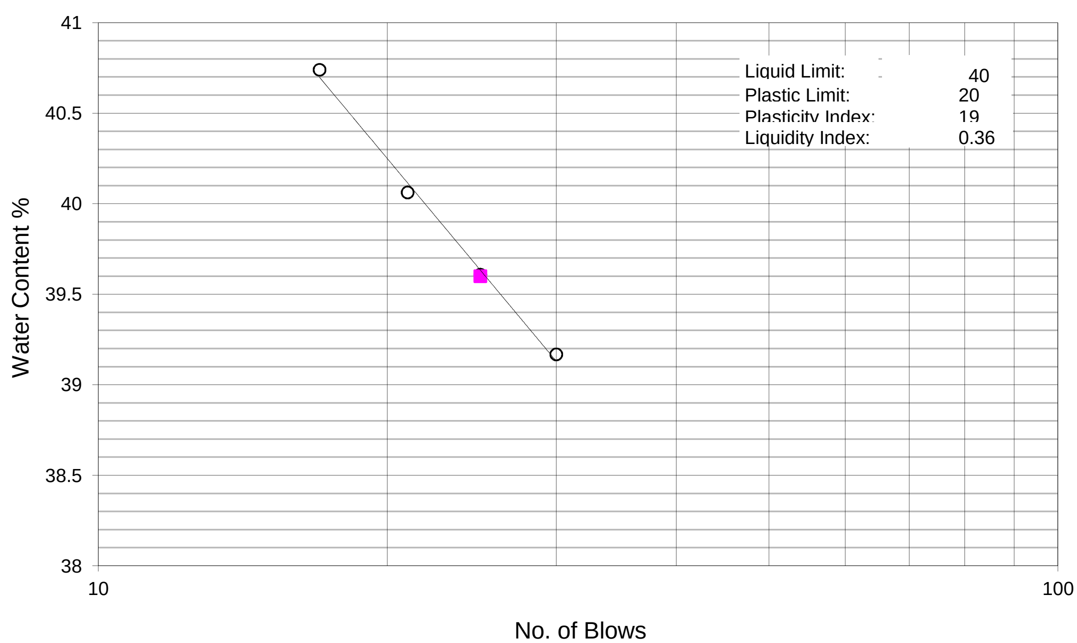
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 20, 2012
Borehole:	BH-004-12	Sample No.:	ST-9	Depth (m):	27.67

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
98	46.61	43.03	33.89	3.58	9.14	39.2	30	148	26.10	25.08	19.97	1.02	5.11	20.0
70	44.30	41.06	32.88	3.24	8.18	39.6	25	152	26.34	25.26	20.04	1.08	5.22	20.7
48	36.68	32.87	23.36	3.81	9.51	40.1	21							
92A	44.65	41.24	32.87	3.41	8.37	40.7	17							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations: ______________________

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 20, 2012	Date:	June 20, 2012	Date:	June 20, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

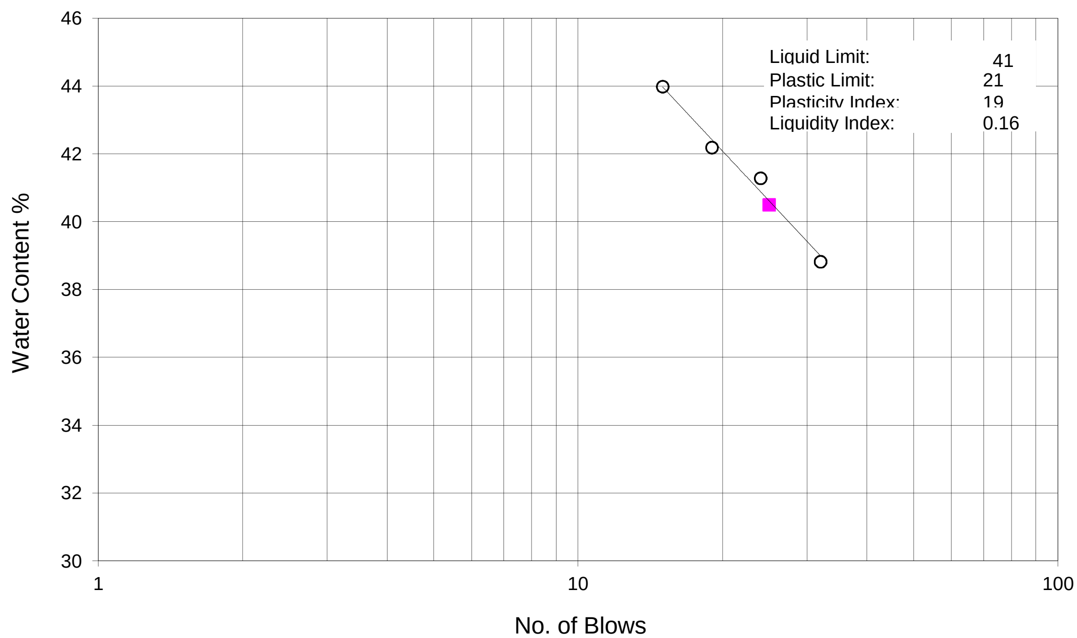
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 25, 2012
Borehole:	BH-004-12 Sample No.: ST-11	Depth (m):	29.19

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
11	43.29	40.39	32.92	2.90	7.47	38.8	32	134	27.07	25.83	20.02	1.24	5.81	21.3
57	35.65	32.24	23.98	3.41	8.26	41.3	24	146	28.06	26.66	20.12	1.40	6.54	21.4
98	48.46	44.14	33.90	4.32	10.24	42.2	19							
92A	47.11	42.76	32.87	4.35	9.89	44.0	15							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 26, 2012	Date:	July 3, 2012	Date:	August 23, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

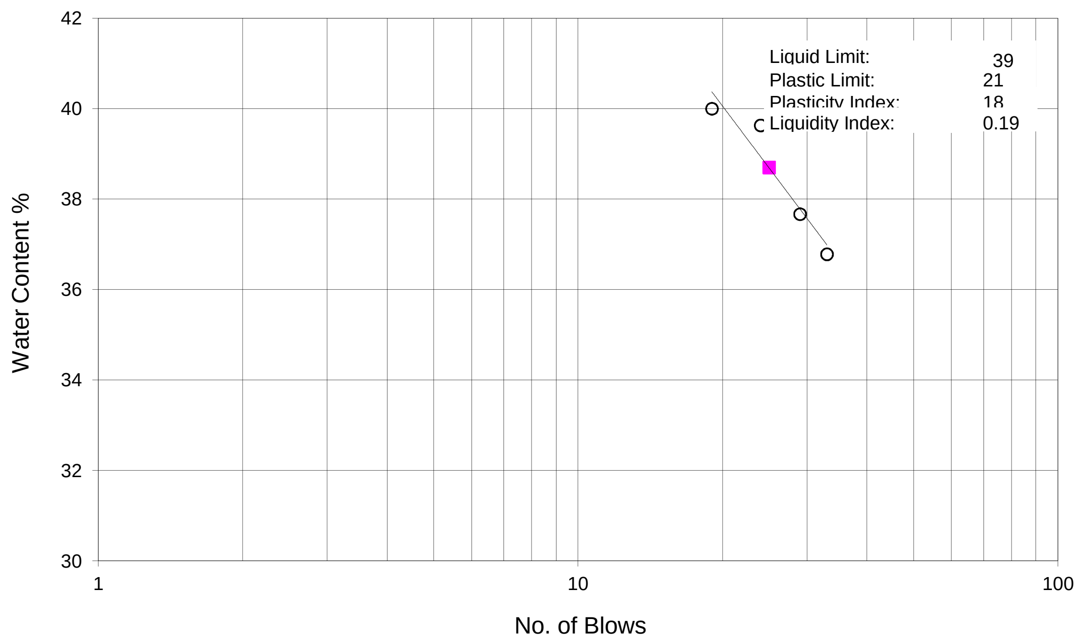
Marine + Earth MEG Geosciences

Project:	Portof Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 28, 2012
Borehole:	BH-004-12	Sample No.:	ST-13	Depth (m):	30.72

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
11	43.63	40.75	32.92	2.88	7.83	36.8	33	148	26.23	25.16	19.95	1.07	5.21	20.5
28	35.22	32.15	24.00	3.07	8.15	37.7	29	146	26.46	25.37	20.11	1.09	5.26	20.7
98	47.49	43.63	33.89	3.86	9.74	39.6	24							
18	45.31	42.13	34.18	3.18	7.95	40.0	19							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	July 3, 2012	Date:	July 5, 2012	Date:	August 24, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

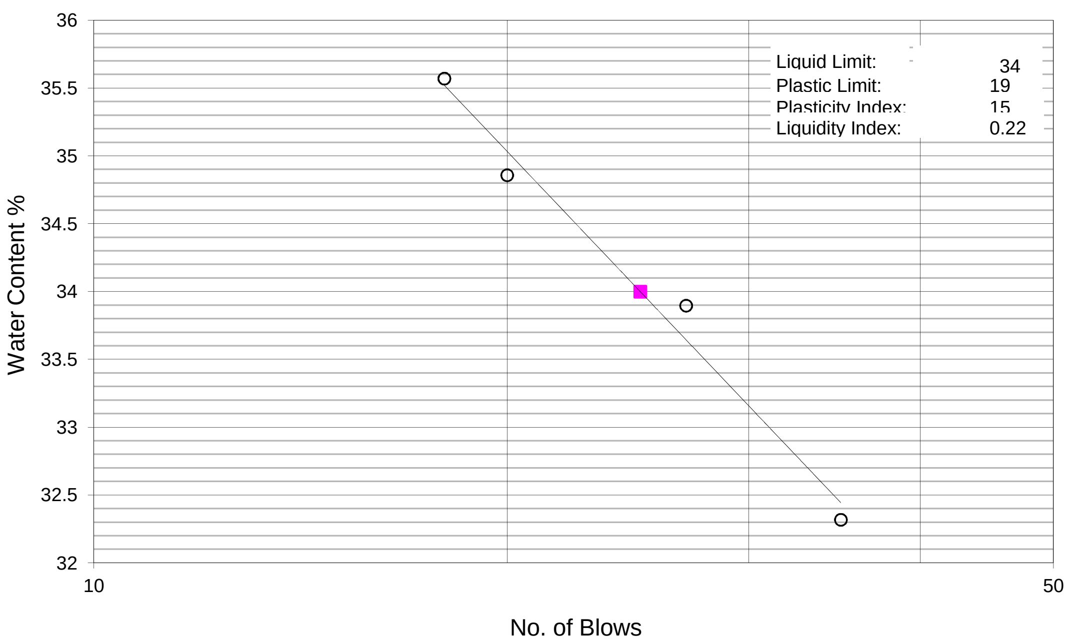
Liquid Limit, Plastic Limit and Plasticity Index of Soils (ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 28, 2012
Borehole:	BH-005-12	Sample No.:	ST-3	Depth (m):	14.83

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
82	35.11	32.67	25.12	2.44	7.55	32.3	35	152	26.11	25.12	20.03	0.99	5.09	19.4
67A	35.95	32.94	24.06	3.01	8.88	33.9	27	154	26.73	25.62	19.85	1.11	5.77	19.2
25	43.22	41.01	34.67	2.21	6.34	34.9	20							
60	46.72	43.01	32.58	3.71	10.43	35.6	18							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations: ______________________

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 29, 2012	Date:	July 3, 2012	Date:	July 3, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

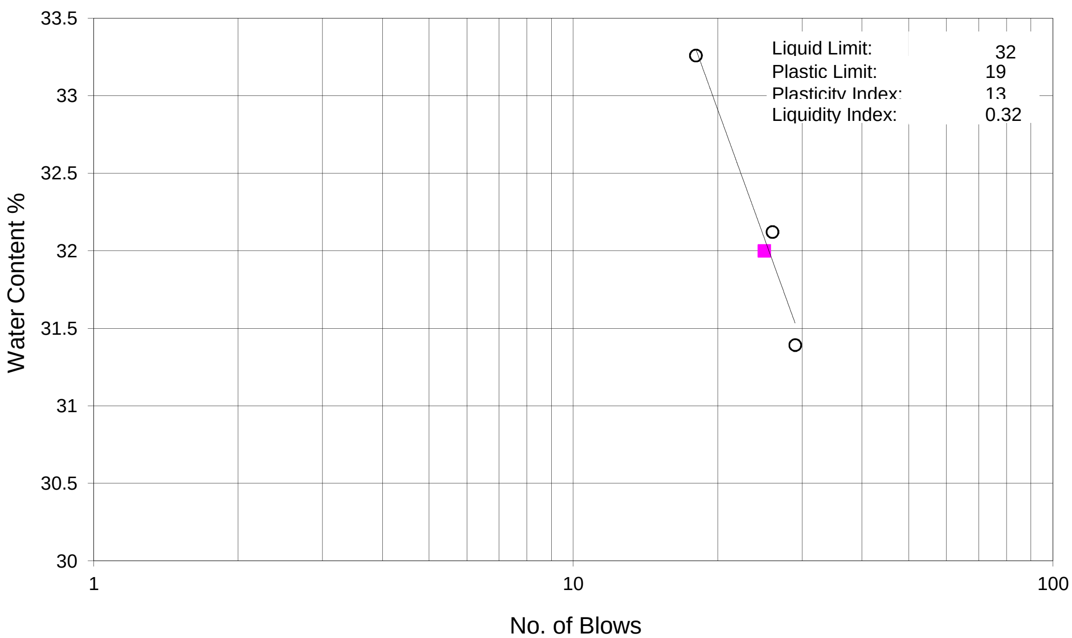
Liquid Limit, Plastic Limit and Plasticity Index of Soils (ASTM D 4318)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 3, 2012
Borehole:	BH-005-12	Sample No.:	ST-8	Depth (m):	19.06

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
45A	44.00	41.52	33.62	2.48	7.90	31.4	29	146	27.42	26.27	20.14	1.15	6.13	18.8
25	48.12	44.85	34.67	3.27	10.18	32.1	26	148	27.14	26.03	19.98	1.11	6.05	18.3
64A	45.52	42.49	33.38	3.03	9.11	33.3	18							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations: ______________________

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	July 10, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

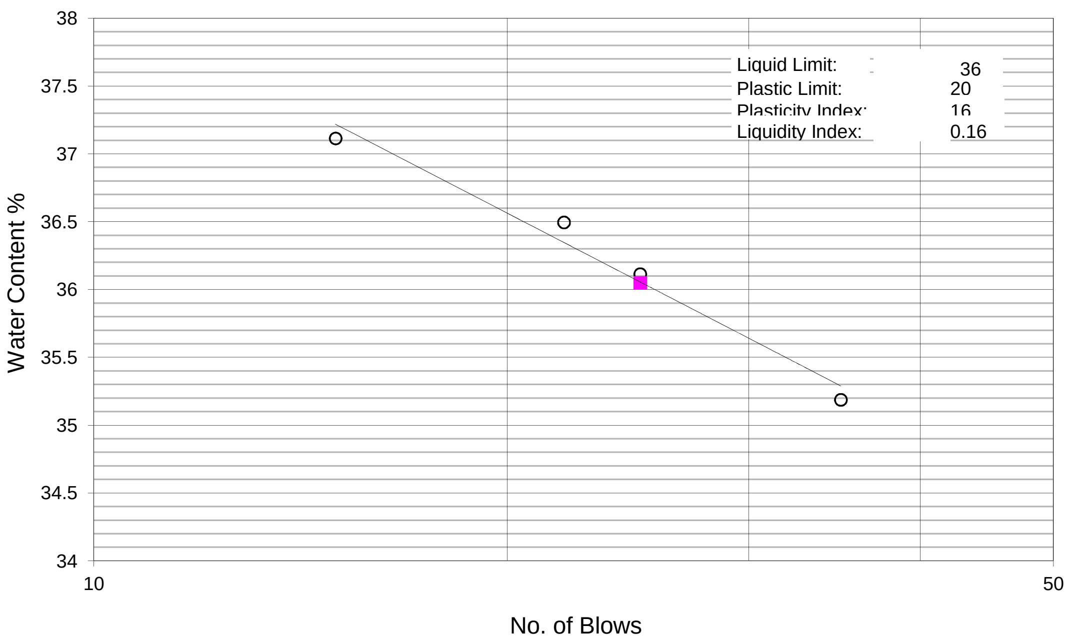
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project: Port of Anchorage		Project No.:	12-MTS-009
Location: Anchorage, US		Date:	July 11, 2012
Borehole: BH-005-12	Sample No.: ST-11	Depth (m):	22.58

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
2A	43.50	40.78	33.05	2.72	7.73	35.2	35	154	26.61	25.50	19.87	1.11	5.63	19.7
60	45.96	42.41	32.58	3.55	9.83	36.1	25	152	26.49	25.41	20.07	1.08	5.34	20.2
48	33.72	30.95	23.36	2.77	7.59	36.5	22							
24A	48.47	44.74	34.69	3.73	10.05	37.1	15							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	July 12, 2012	Date:	July 13, 2012	Date:	July 13, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

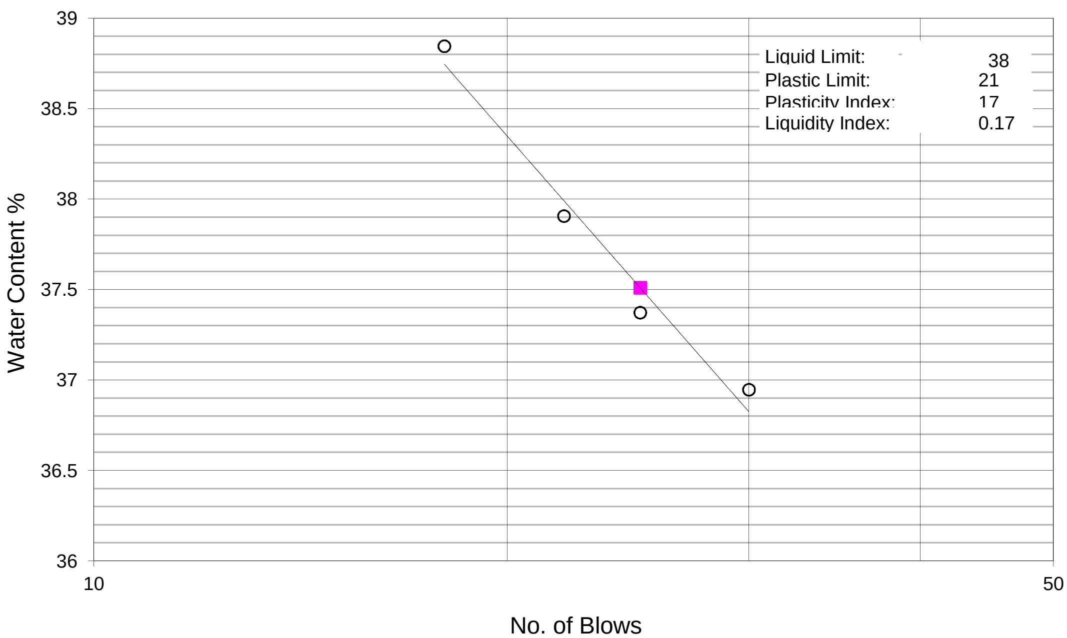
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 12, 2012
Borehole:	BH-005-12	Sample No.: ST-13 / Depth (m):	24.31

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
64A	42.34	39.92	33.37	2.42	6.55	36.9	30	146	26.92	25.75	20.14	1.17	5.61	20.9
38	46.73	43.43	34.60	3.30	8.83	37.4	25	148	26.59	25.46	19.99	1.13	5.47	20.7
77	47.40	43.67	33.83	3.73	9.84	37.9	22							
59	37.78	34.28	25.27	3.50	9.01	38.8	18							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations: found a piece of rock while mixing the sample
(L-26.34mm x W-13.52mm x H-8.1mm)

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	July 13, 2012	Date:	August 24, 2012	Date:	August 24, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

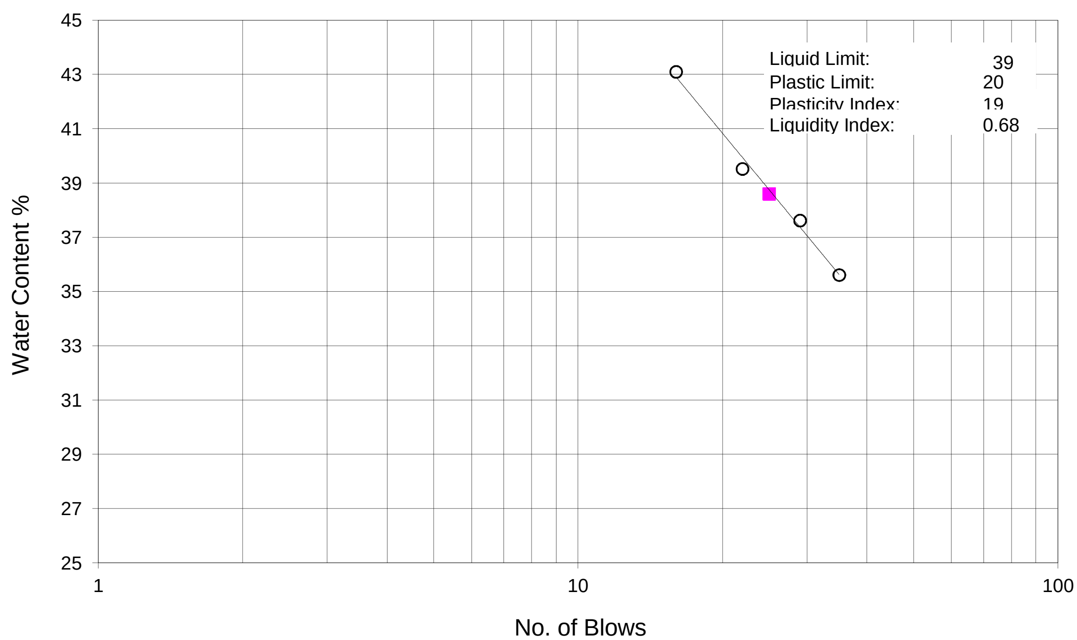
Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D 4318)

Project:	Port of Anchorage		Project No.:	12-MTS-009
Location:	Anchorage, US		Date:	August 15, 2012
Borehole:	BH-005-12	Sample No.: ST-16	Depth (m):	26.44

LIQUID LIMIT								PLASTIC LIMIT						
TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)	No. of Blows	TIN No.	Tare + Weight of Wet Soil (g)	Tare + Weight of Dry Soil (g)	Weight of Tin (g)	Weight of Water (g)	Weight of Dry Soil (g)	Water Content (%)
48	32.70	30.25	23.37	2.45	6.88	35.6	35	154	26.17	25.14	19.90	1.03	5.24	19.7
76	32.98	30.61	24.31	2.37	6.30	37.6	29	155	26.01	25.00	19.95	1.01	5.05	20.0
89A	41.83	39.19	32.51	2.64	6.68	39.5	22							
69	38.98	34.42	23.84	4.56	10.58	43.1	16							

Classification of the material : CL

100 % with respect to the total of the material smaller than sieve No. 40



Observations: ______________________

Prepared by:	PC	Checked by:	PS	Approved by:	JPS
Date:	August 16, 2012	Date:	August 17, 2012	Date:	August 17, 2012

APPENDIX B.4

GRAIN SIZE DISTRIBUTION (SIEVE & HYDROMETER) ANALYSIS

MEG TECHNICAL SERVICES

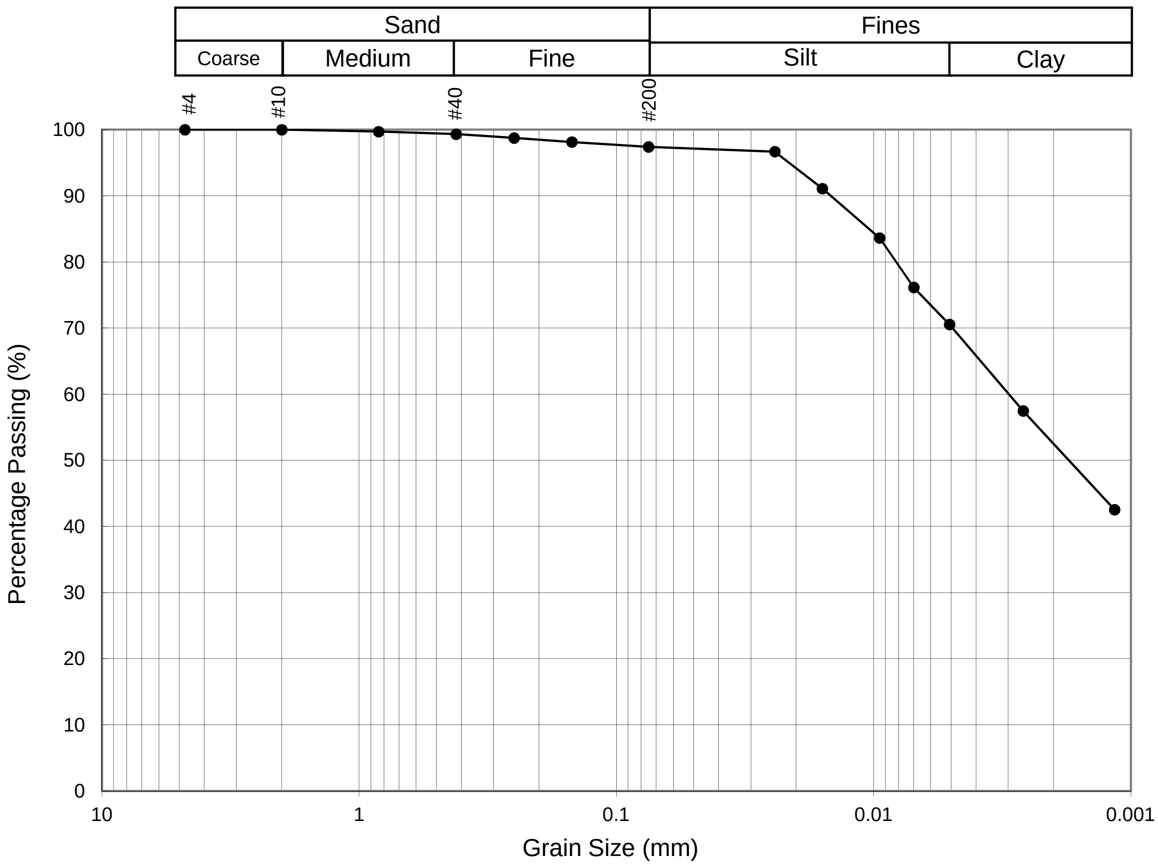
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole:	BH-001-12 Sample No.: ST-4	Depth (m):	21.88

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey CLAY and SILT, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-4	21.88	0	0	1	2	44	53

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 21, 2012	Date:	June 29, 2012	Date:	June 29, 2012

MEG TECHNICAL SERVICES

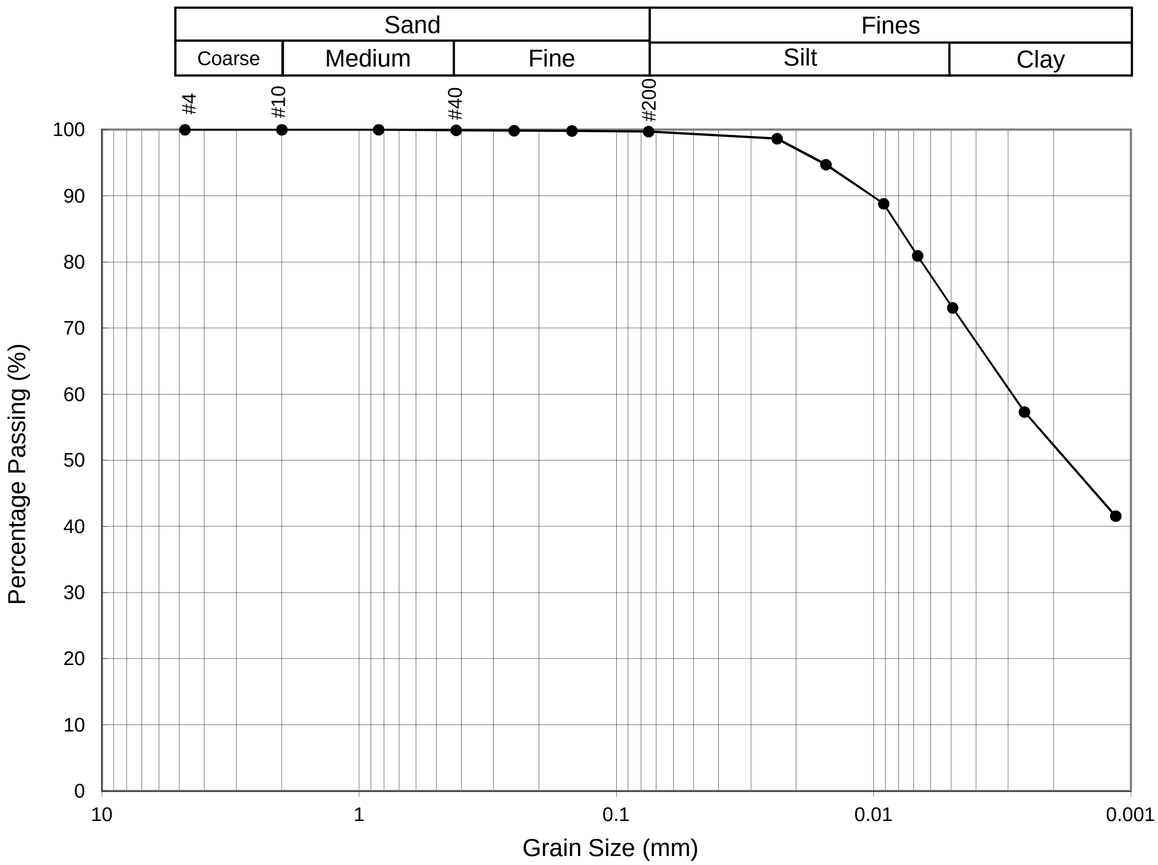
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole:	BH-001-12 Sample No.: ST-7	Depth (m):	23.69

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey CLAY and SILT



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
	23.69	0	0	0	0	47	53

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 21, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

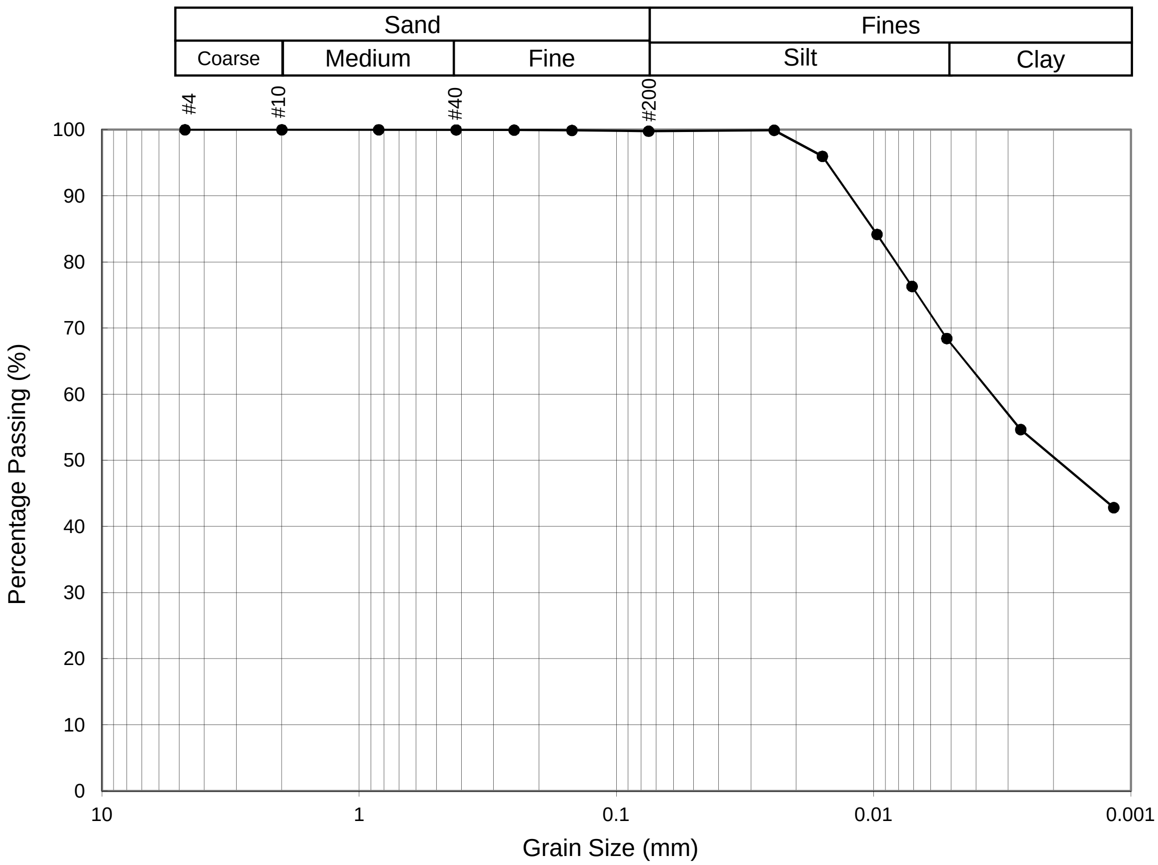
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Alaska	Date:	Jun 21, 2012
Borehole:	BH-001-12 Sample No.: ST-13	Depth (m):	29.19

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey CLAY and SILT



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
	29.19	0	0	0	0	49	51

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	Jun 21, 2012	Date:	Jun 22, 2012	Date:	Jun 22, 2012

MEG TECHNICAL SERVICES

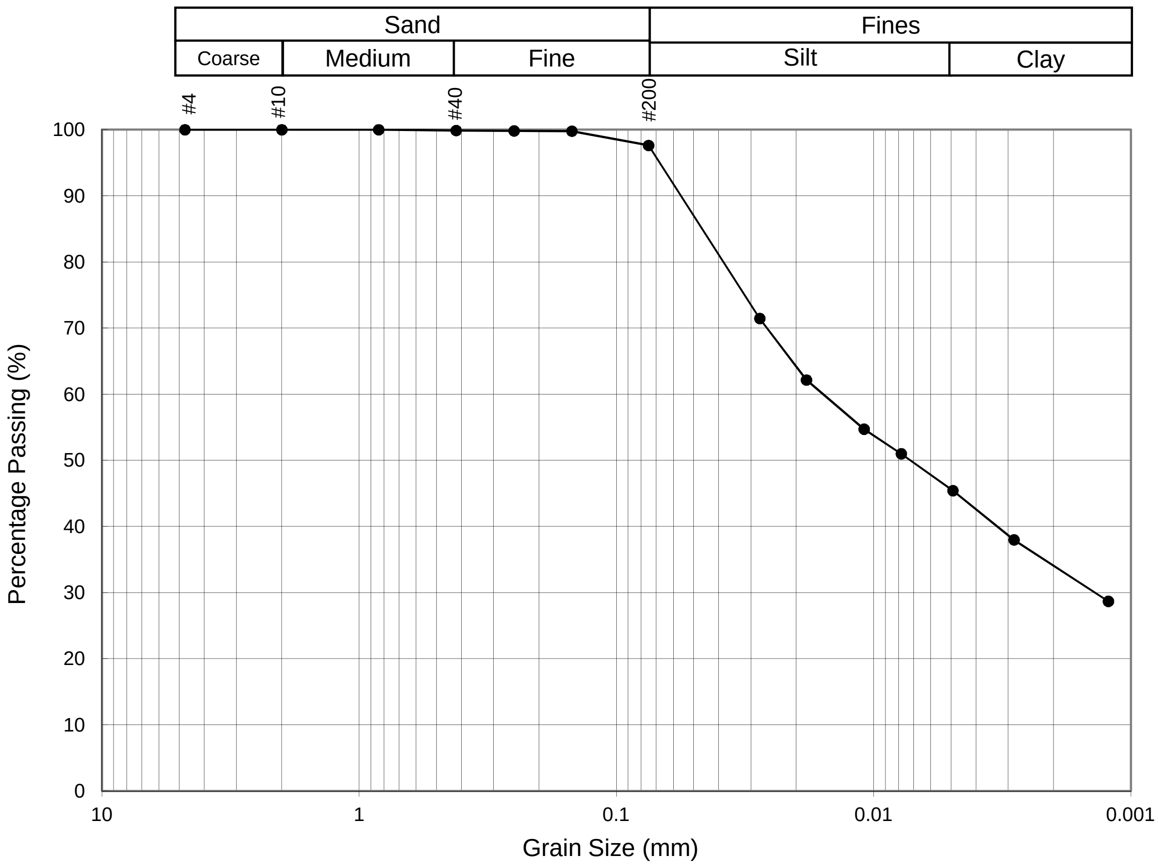
(A Division of MEG Consulting Limited)

Particle Size Distribution (ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Alaska	Date:	Jun 19, 2012
Borehole:	BH-001-12 Sample No.: ST-15	Depth (m):	31.08

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey clayey SILT, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
	31.08	0	0	0	2	64	34

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	Jun 19, 2012	Date:	Jun 29, 2012	Date:	Jun 29, 2012

MEG TECHNICAL SERVICES

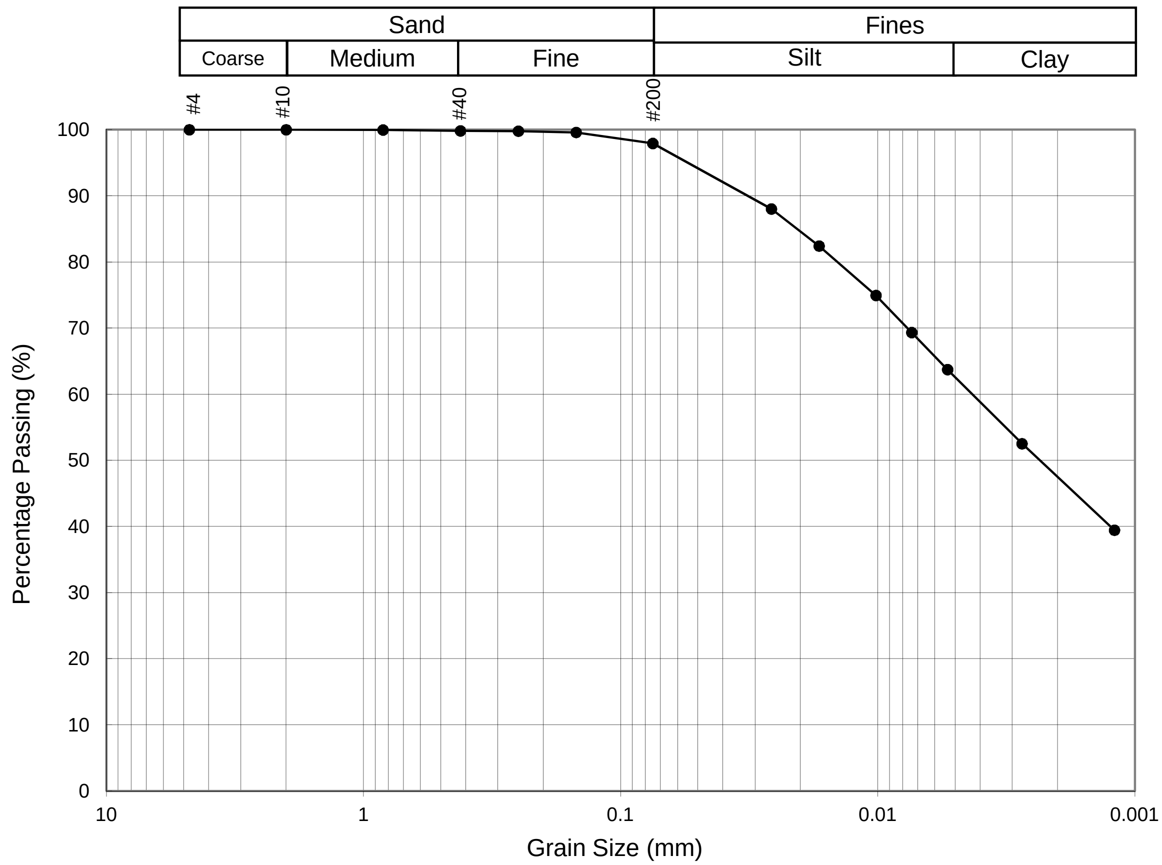
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	June 1,2012
Borehole:	BH 003	Sample No.:	ST2	Depth (m):	28.29

Unified Soil Classification System (ASTM D 2487)

Description of Material: Light grey SILT and CLAY, trace fine sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST2	28.29	0	0	0	2	51	47

Comments:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	Jun 04, 2012	Date:	Jun 05, 2012	Date:	Jun 05, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

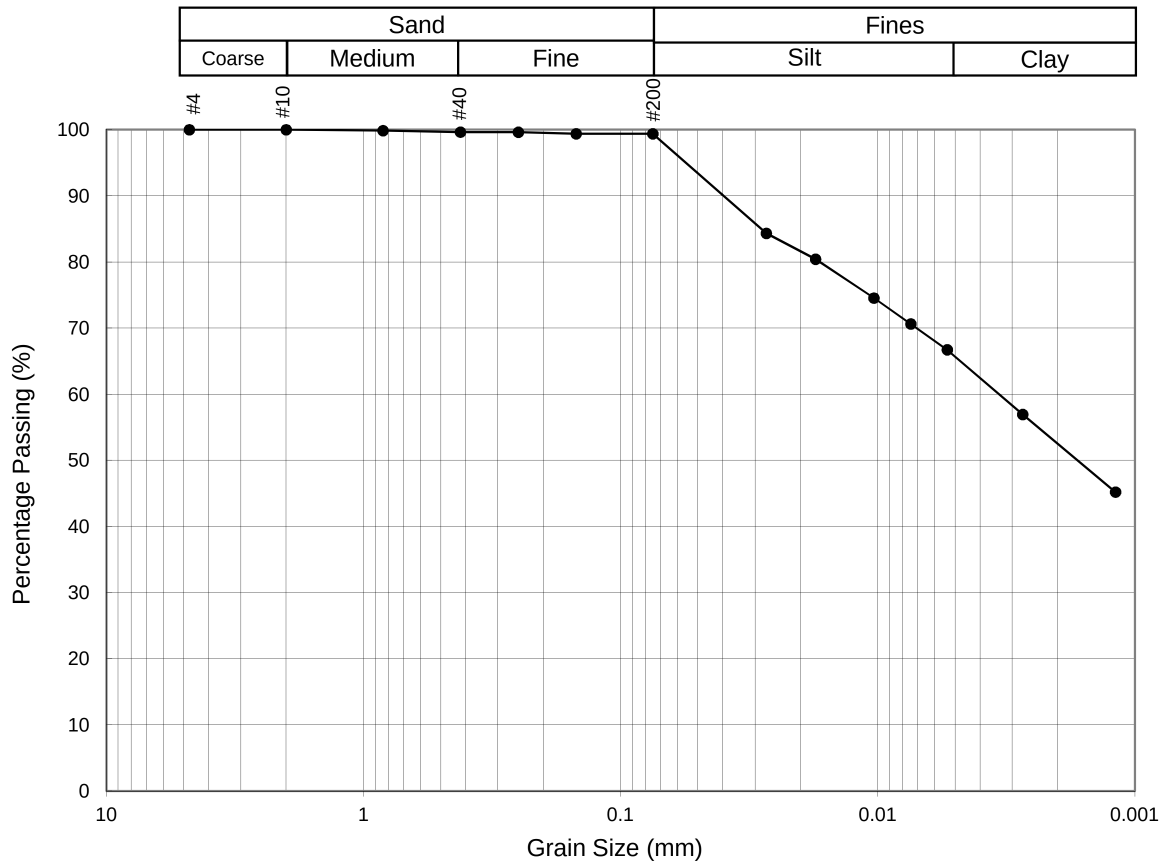
Marine + Earth MEG Geosciences

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Alaska			Date:	Jun 01, 2012
Borehole:	BH 003-12	Sample No.:	ST3	Depth (m):	29.2

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark Grey CLAY and SILT



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST3	29.20	0	0	0	0	47	53

Comments:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	Jun 04, 2012	Date:	Jun 05, 2012	Date:	Jun 05, 2012

MEG TECHNICAL SERVICES

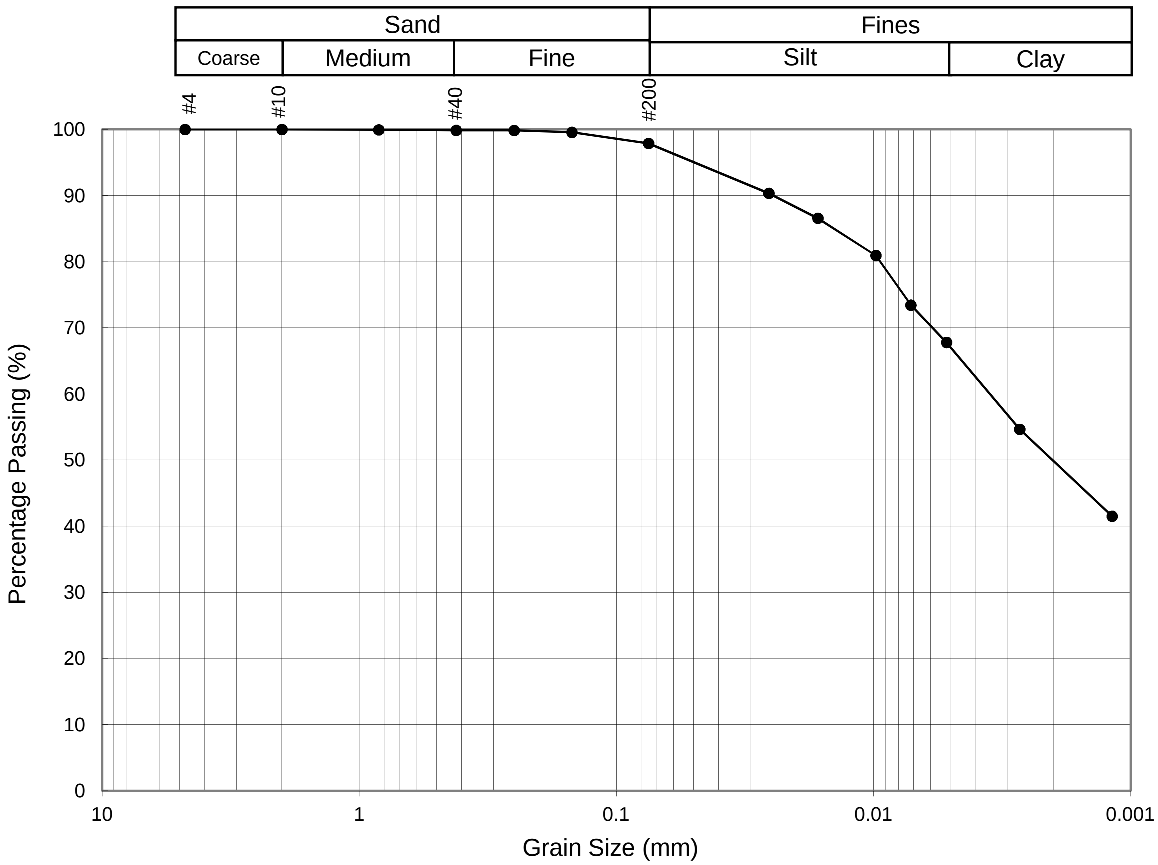
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 1, 2012
Borehole:	BH 003-12	Sample No.:	ST-4	Depth (m):	29.81

Unified Soil Classification System (ASTM D 2487)

Description of Material: Grey SILT and CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-4	29.81	0	0	0	2	49	49

Comments:

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 4, 2012	Date:	June 5, 2012	Date:	June 5, 2012

MEG TECHNICAL SERVICES

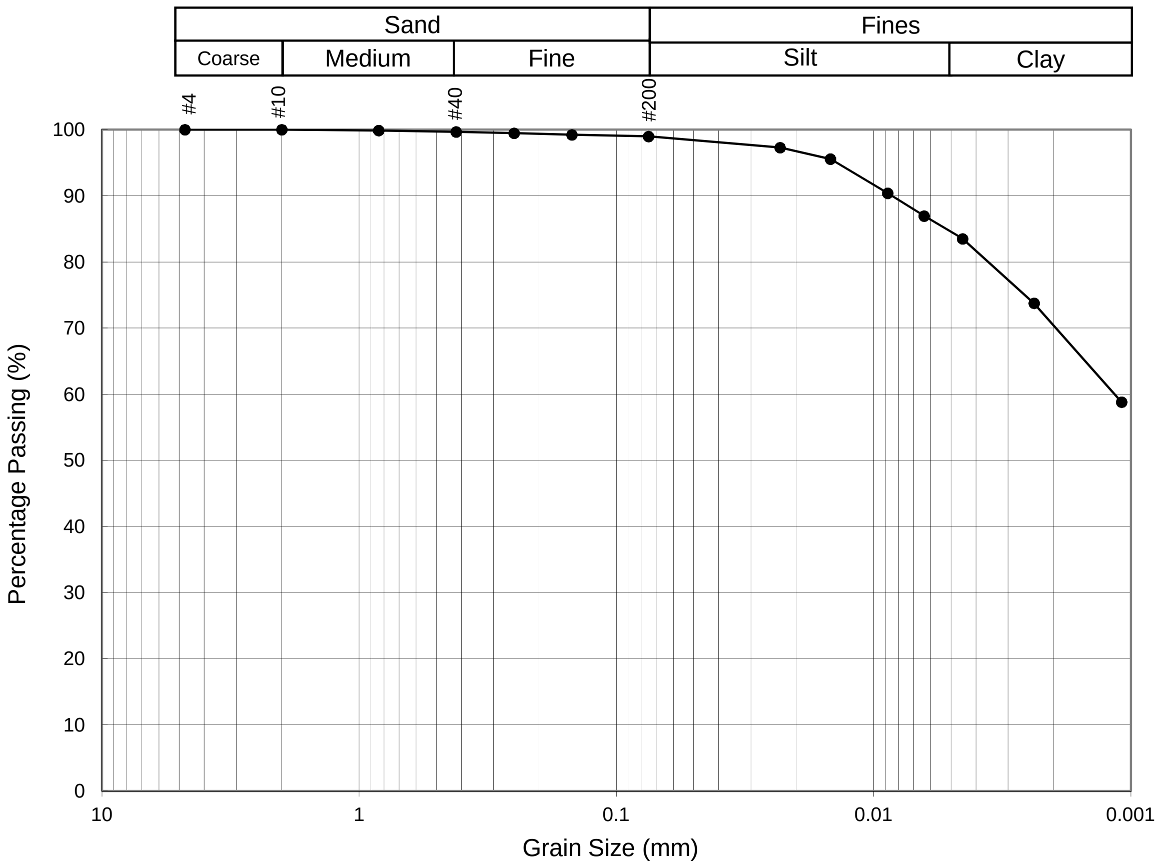
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 19, 2012
Borehole:	BH-003-12	Sample No.: ST-5	Depth (m):	30.73

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey silty CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
	30.73	0	0	0	1	28	71

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 19, 2012	Date:	June 20, 2012	Date:	June 20, 2012

MEG TECHNICAL SERVICES

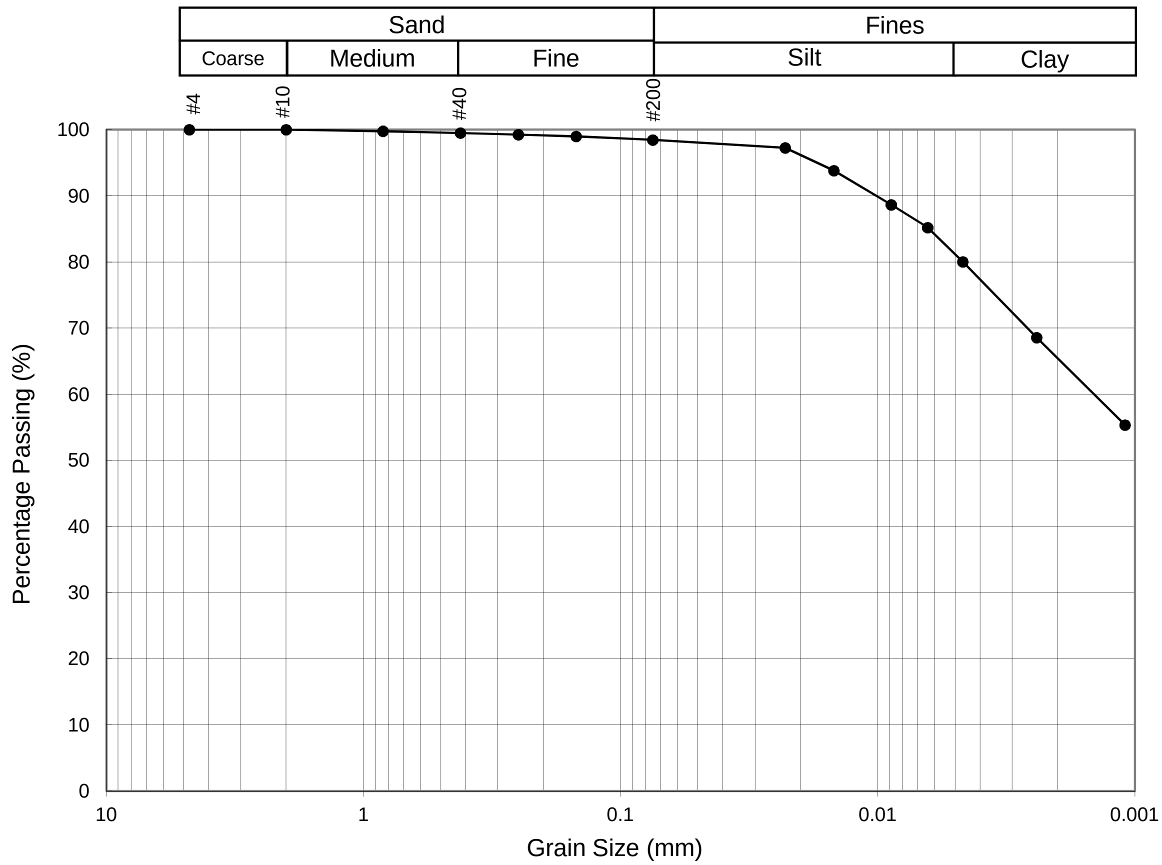
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole:	BH-003-12 Sample No.: ST-6	Depth (m):	31.29

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey silty CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-6	31.29	0	0	1	1	32	66

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 21, 2012	Date:	June 22, 2012	Date:	June 22, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

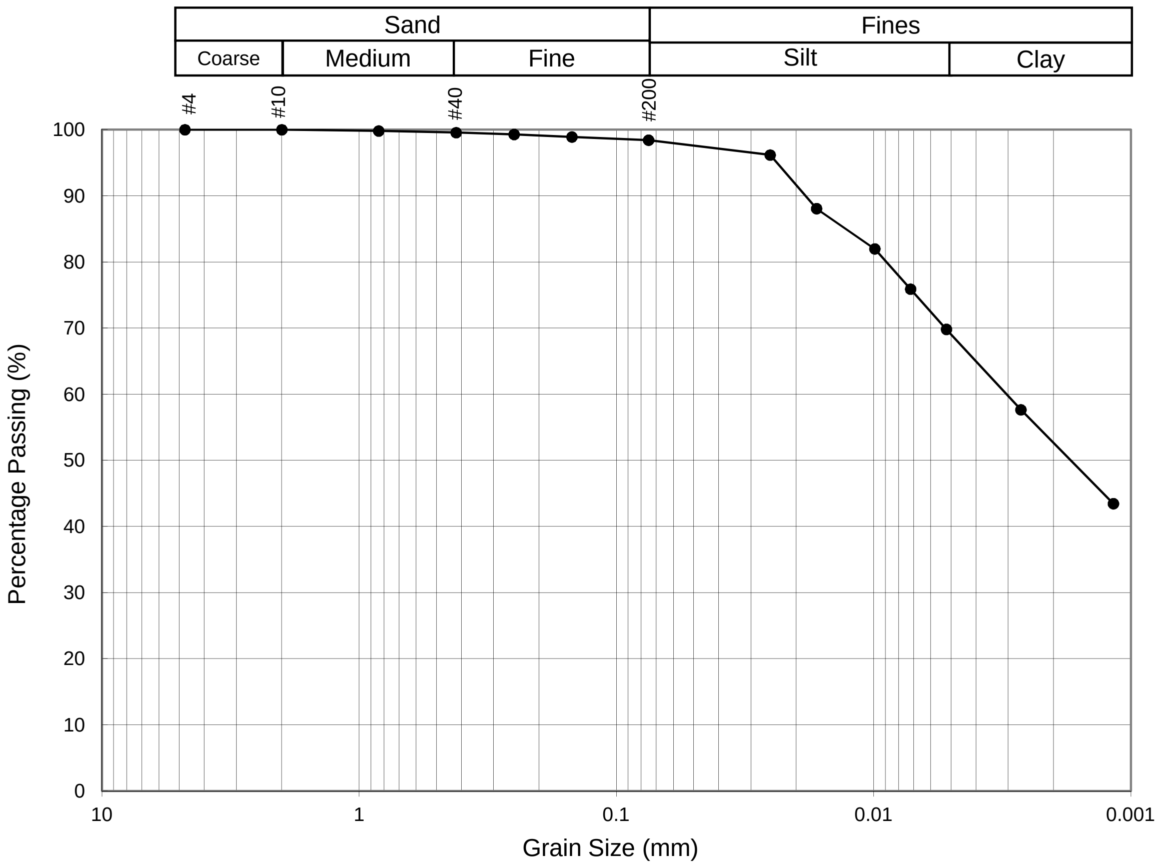
Marine + Earth MEG Geosciences

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 19, 2012
Borehole:	BH-003-12 Sample No.: ST-7	Depth (m):	35.28

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey silty CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-7	35.28	0	0	0	2	45	53

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 19, 2012	Date:	June 20, 2012	Date:	June 20, 2012

MEG TECHNICAL SERVICES

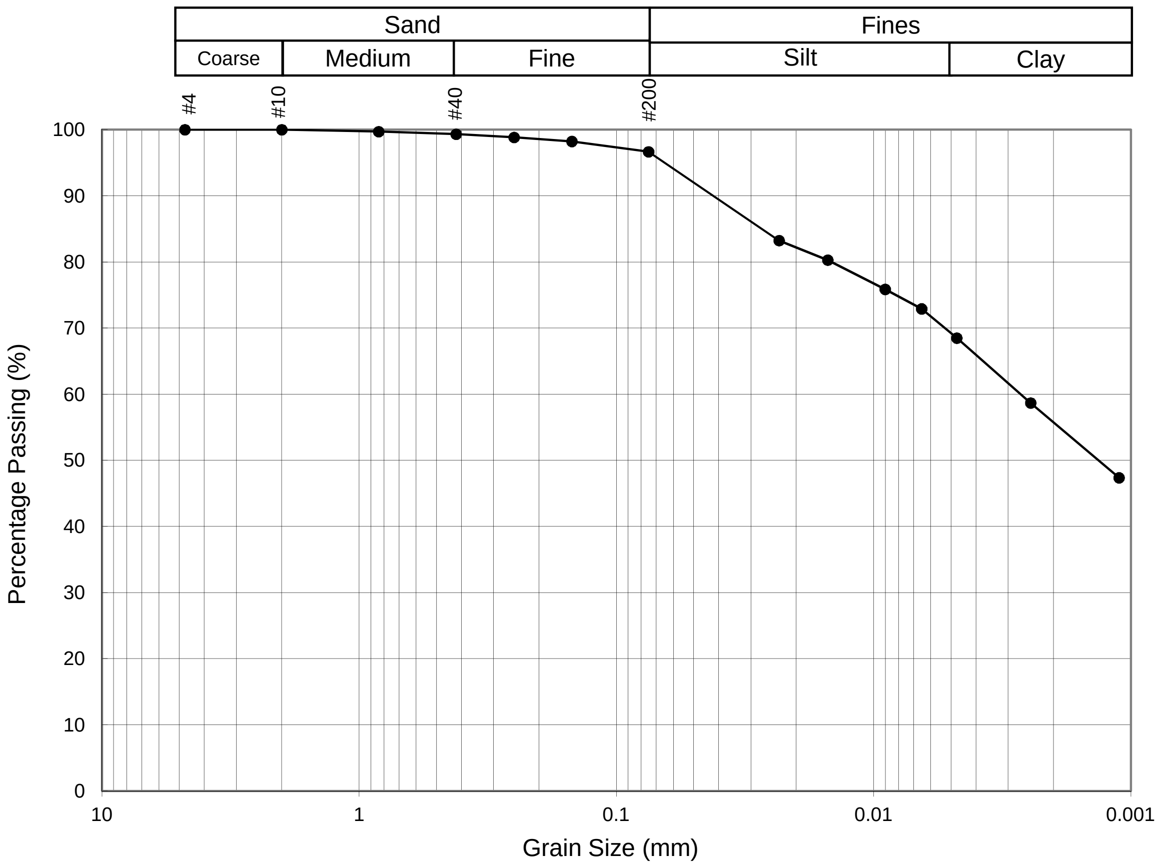
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole: BH-003-12	Sample No.: ST-9	Depth (m):	38.30

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey silty CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-9	38.30	0	0	0	3	41	56

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 21, 2012	Date:	June 22, 2012	Date:	June 22, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

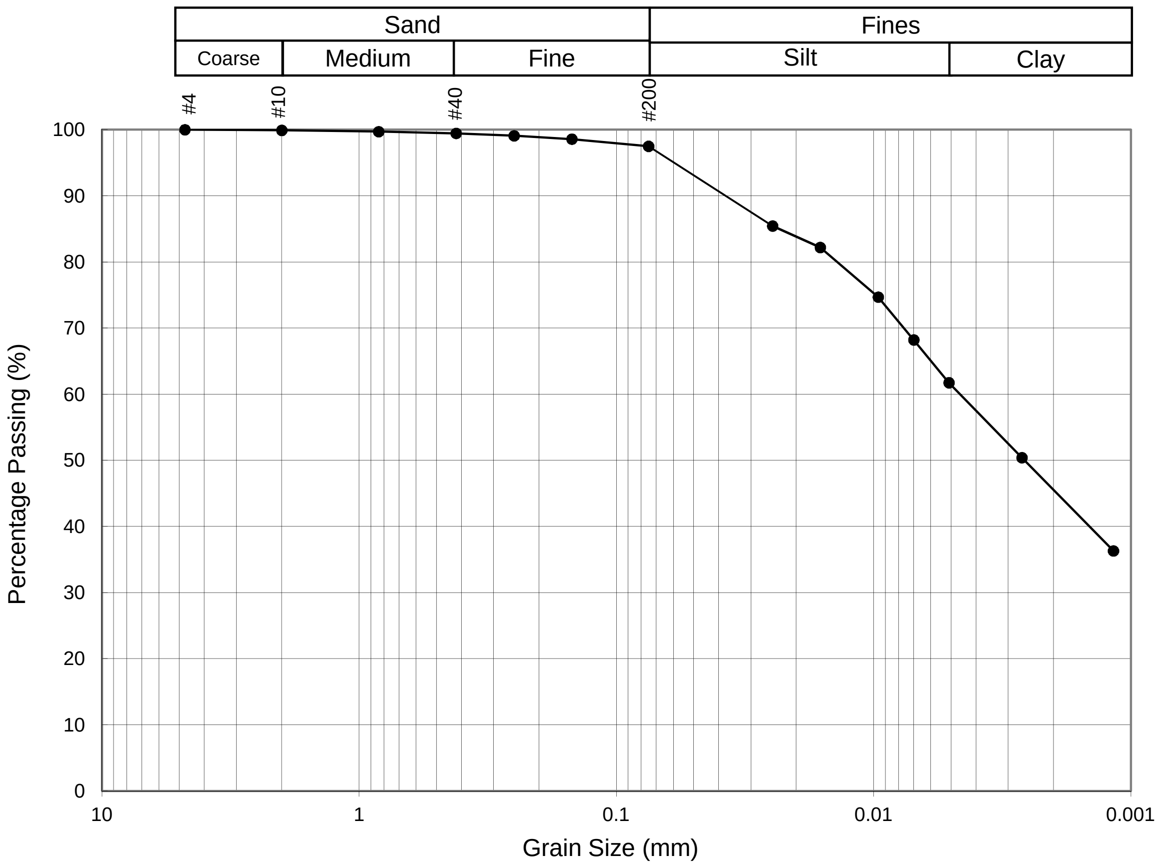
Marine + Earth MEG Geosciences

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 14, 2012
Borehole:	BH-003-12	Sample No.:	ST-10	Depth (m):	38.96

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT amd CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-10	38.96	0	0	0	2	53	45

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 14, 2012	Date:	June 15, 2012	Date:	June 15, 2012

MEG TECHNICAL SERVICES

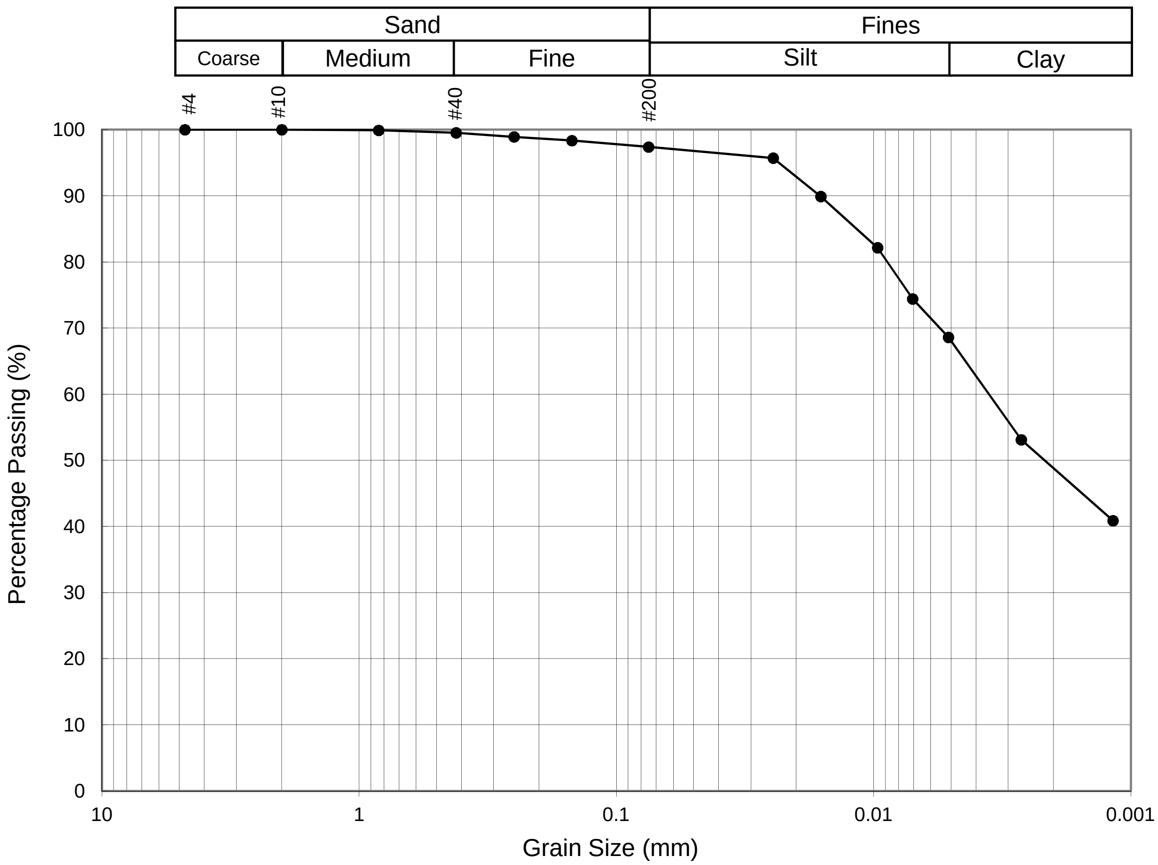
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 18, 2012
Borehole:	BH-003-12 Sample No.: ST-12	Depth (m):	40.48

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT and CLAY, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-12	40.48	0	0	0	2	50	48

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

MEG TECHNICAL SERVICES

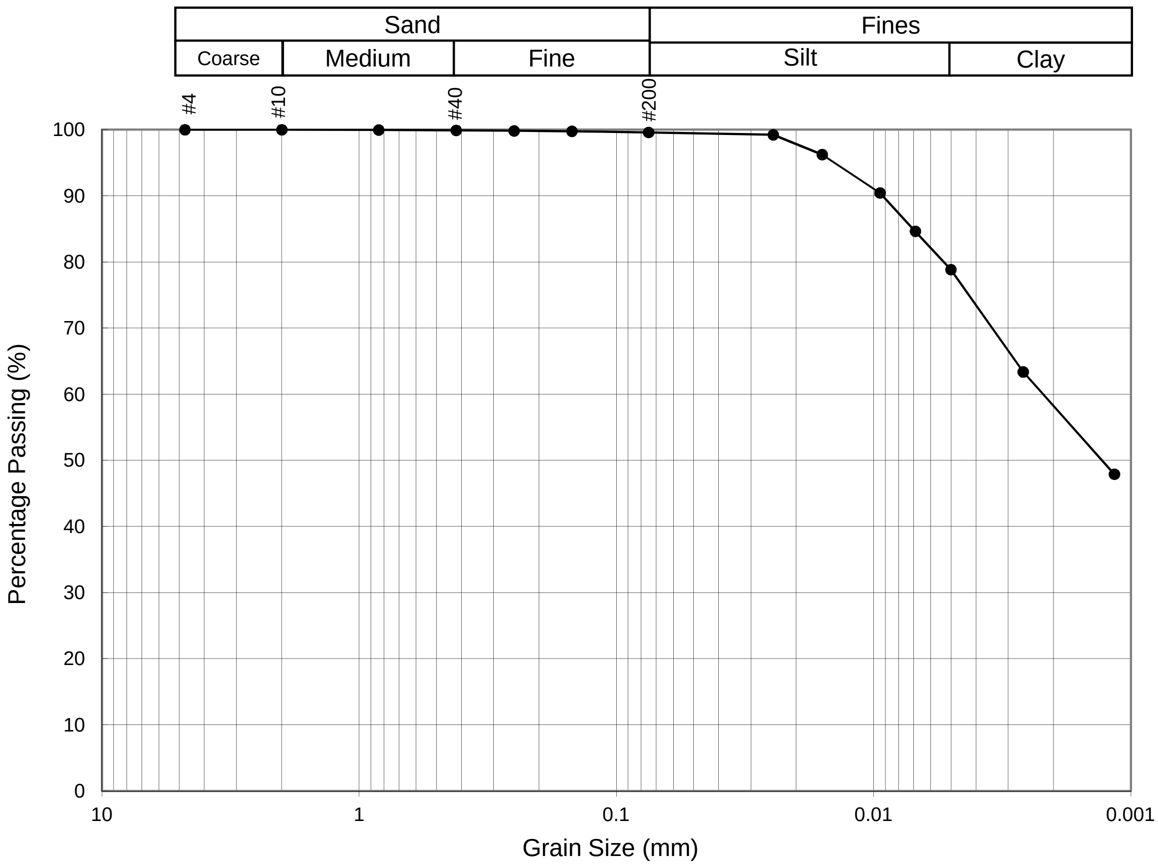
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project: Port of Anchorage		Project No.:	12-MTS-009
Location: Anchorage, US		Date:	June 21, 2012
Borehole: BH-003-12	Sample No.: ST-16	Depth (m):	42.98

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey silty CLAY



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-16	42.98	0	0	0	0	33	67

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 21, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

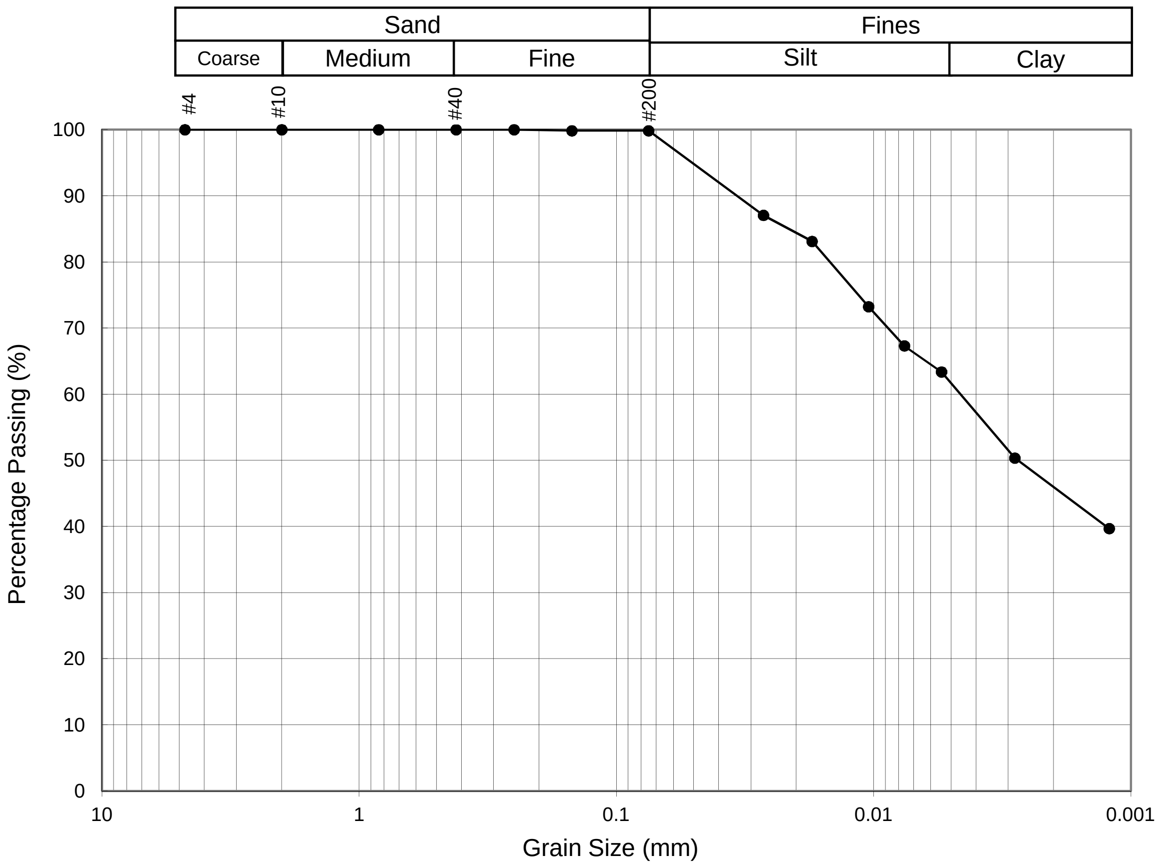
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 27, 2012
Borehole:	BH-004-12	Sample No.: ST-3	Depth (m): 19.80

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT and CLAY



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-3	19.80	0	0	0	0	54	46

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 27, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

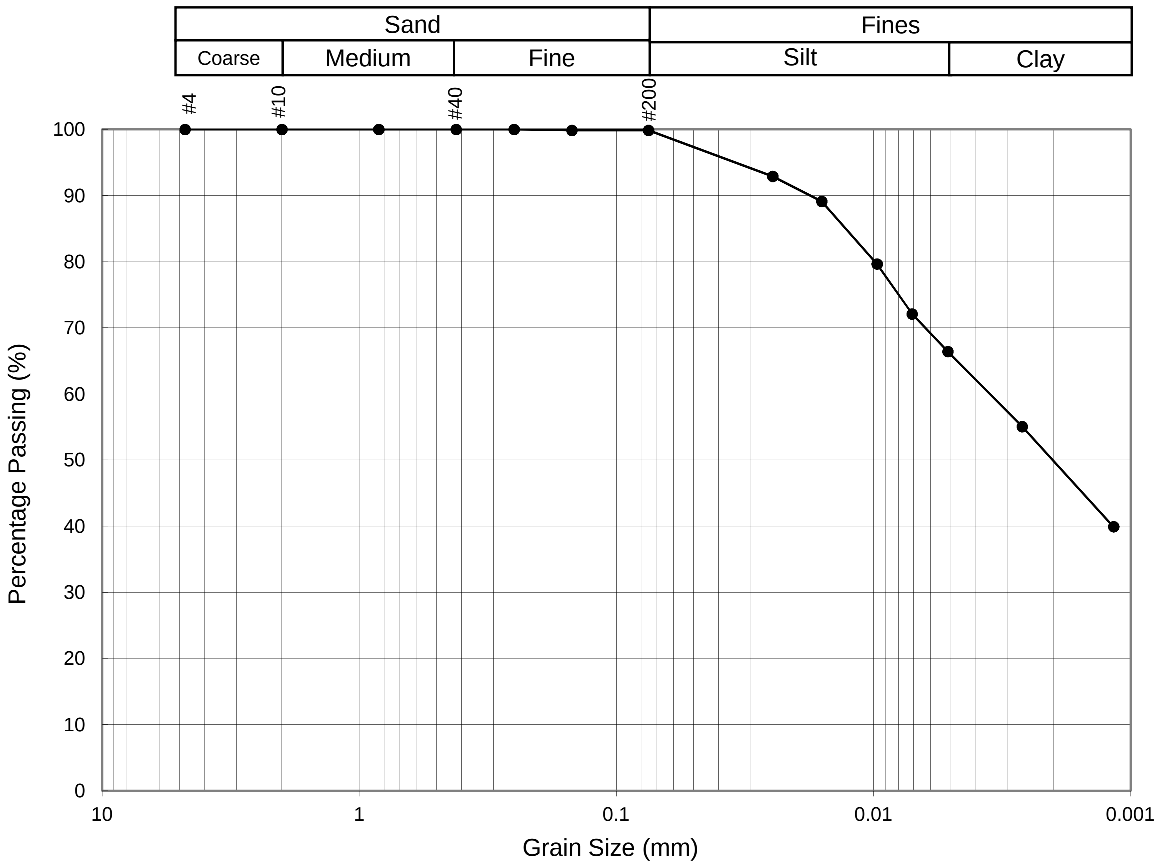
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 27, 2012
Borehole:	BH-004-12	Sample No.: ST-7	Depth (m): 24.62

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT and CLAY



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-7	24.62	0	0	0	0	51	49

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 27, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES
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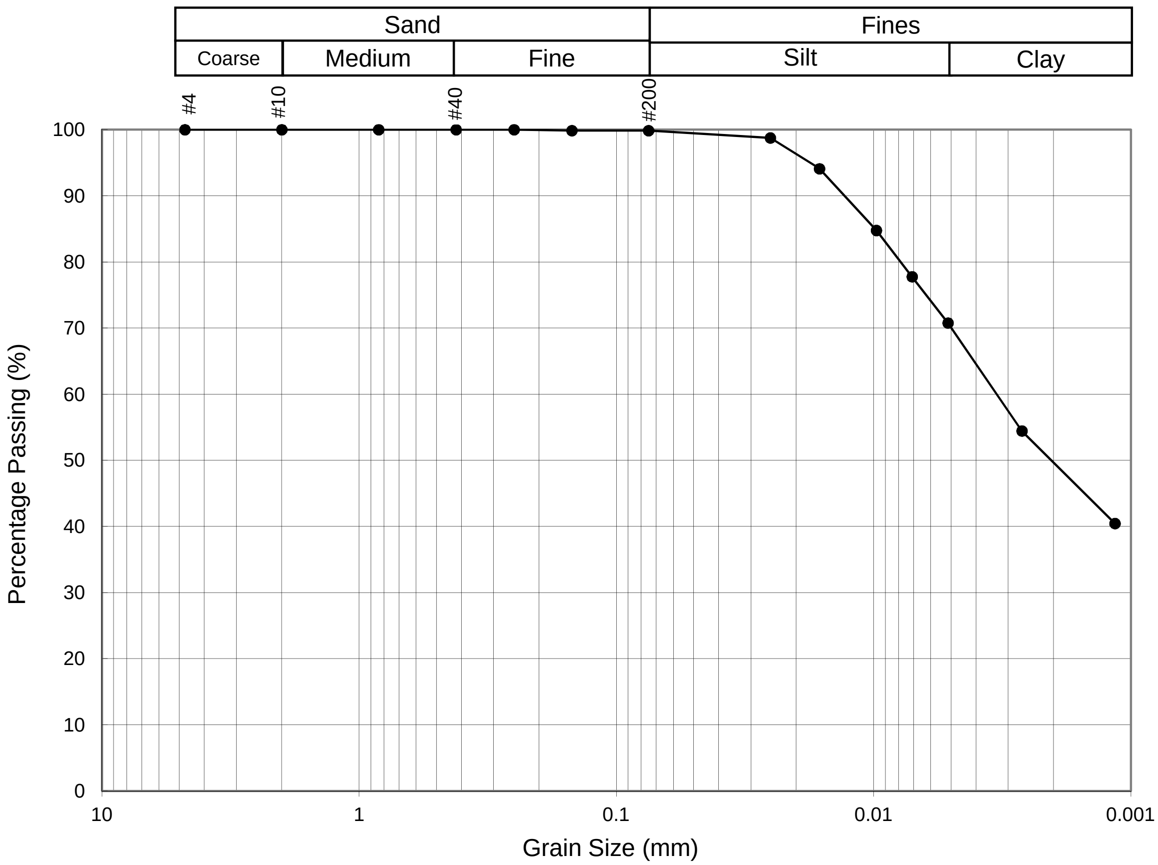
Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 25, 2012
Borehole:	BH-004-12 Sample No.: ST-9	Depth (m):	27.67

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT and CLAY



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-9	27.67	0	0	0	0	51	49

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 25, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

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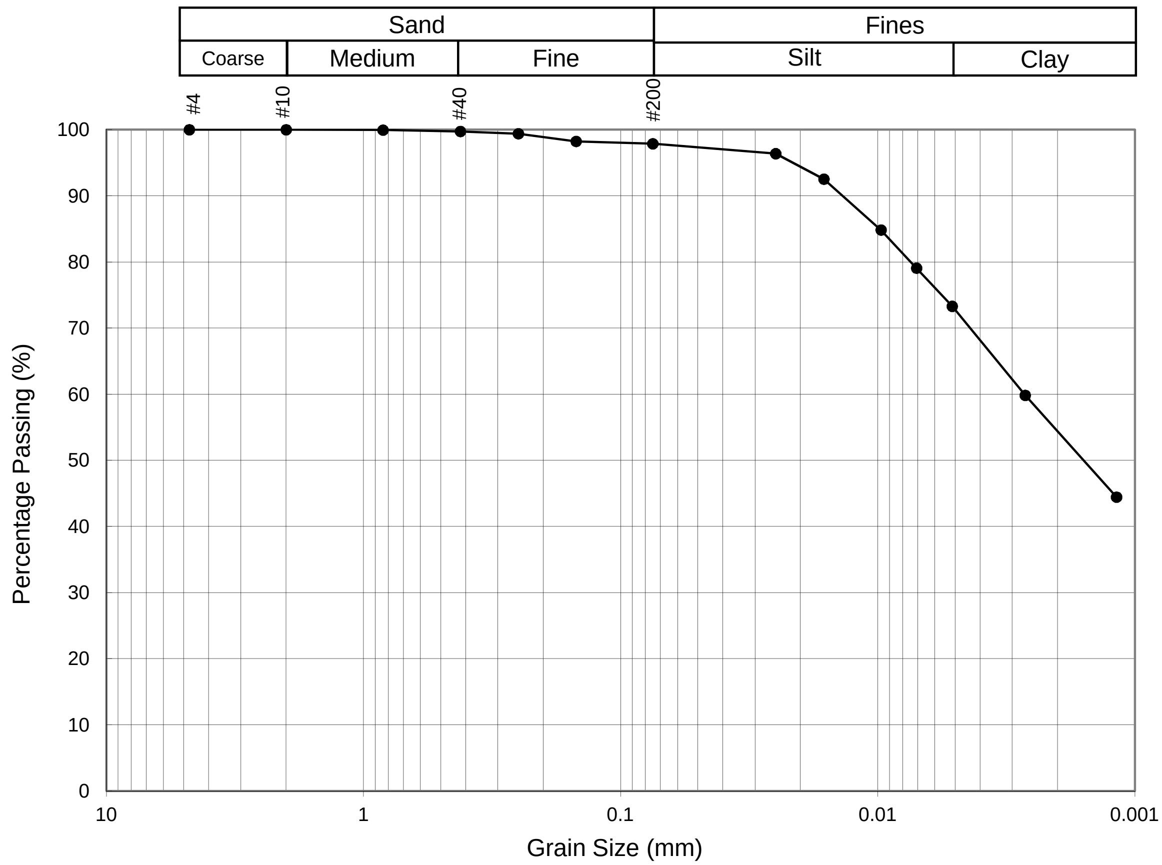
Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 28, 2012
Borehole:	BH-004-12 Sample No.: ST-11	Depth (m):	29.19

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey CLAY and SILT, trace sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-11	29.19	0	0	0	2	44	54

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	June 28, 2012	Date:	August 24, 2012	Date:	August 27, 2012

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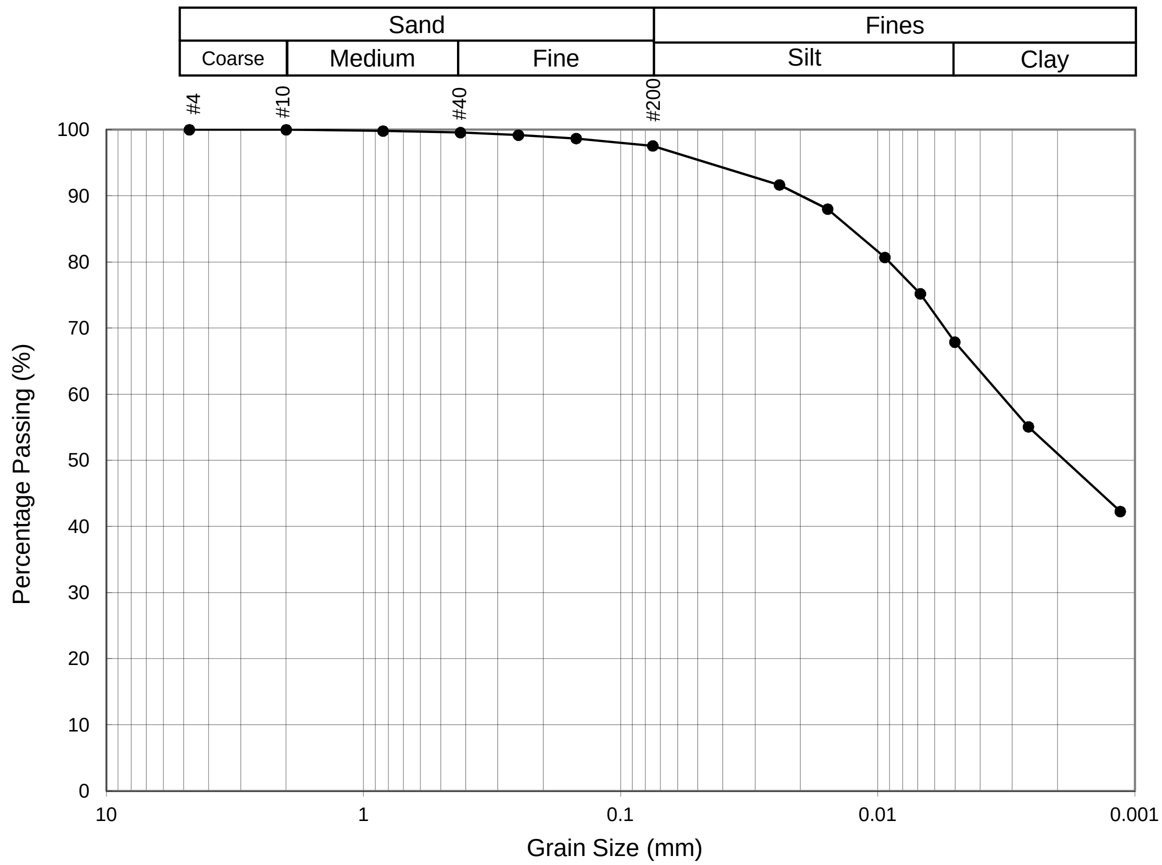
(A Division of MEG Consulting Limited)

Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 10, 2012
Borehole:	BH-004-12	Sample No.: ST-13	Depth (m): 30.72

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey CLAY and SILT, trace fine sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-13	30.72	0	0	0	2	47	51

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	July 10, 2012	Date:	July 11, 2012	Date:	July 11, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

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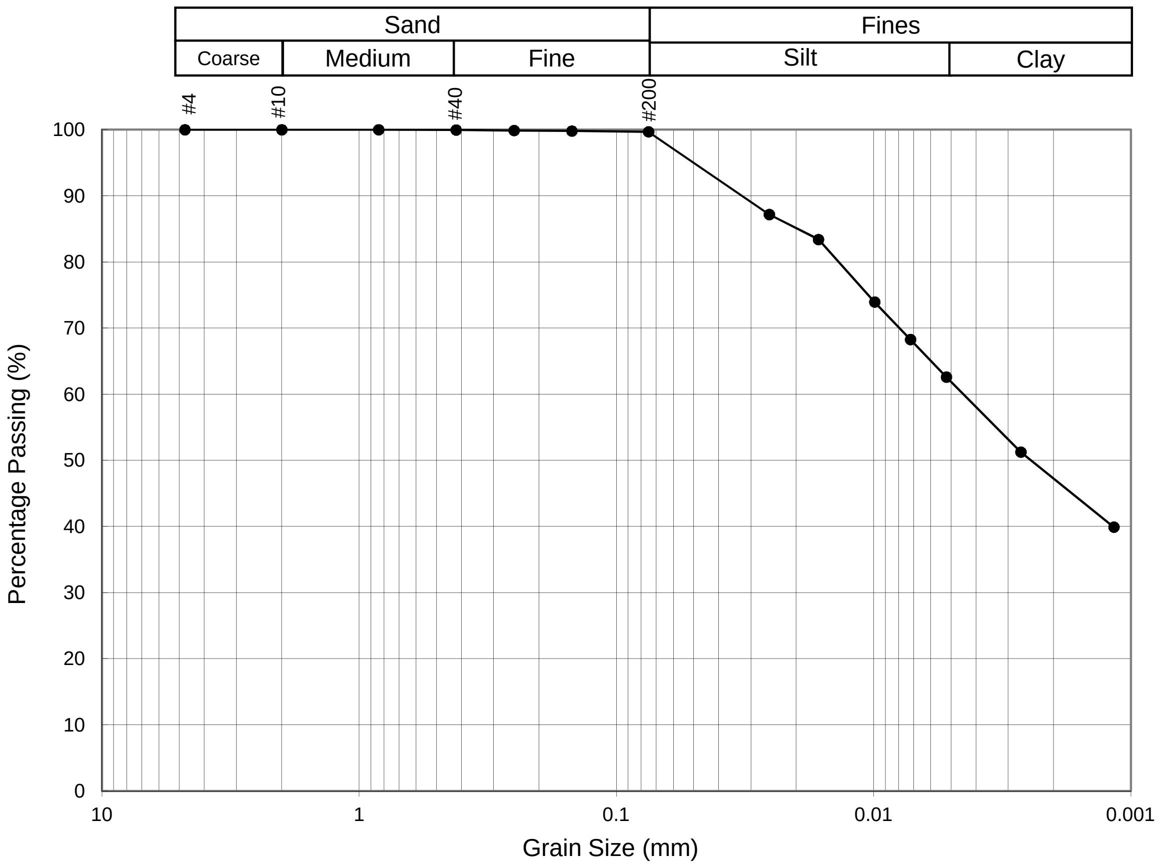
Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 10, 2012
Borehole:	BH-005-12 Sample No.: ST-3	Depth (m):	14.83

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT and CLAY



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
	14.83	0	0	0	0	53	47

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	July 10, 2012	Date:	July 11, 2012	Date:	July 11, 2012

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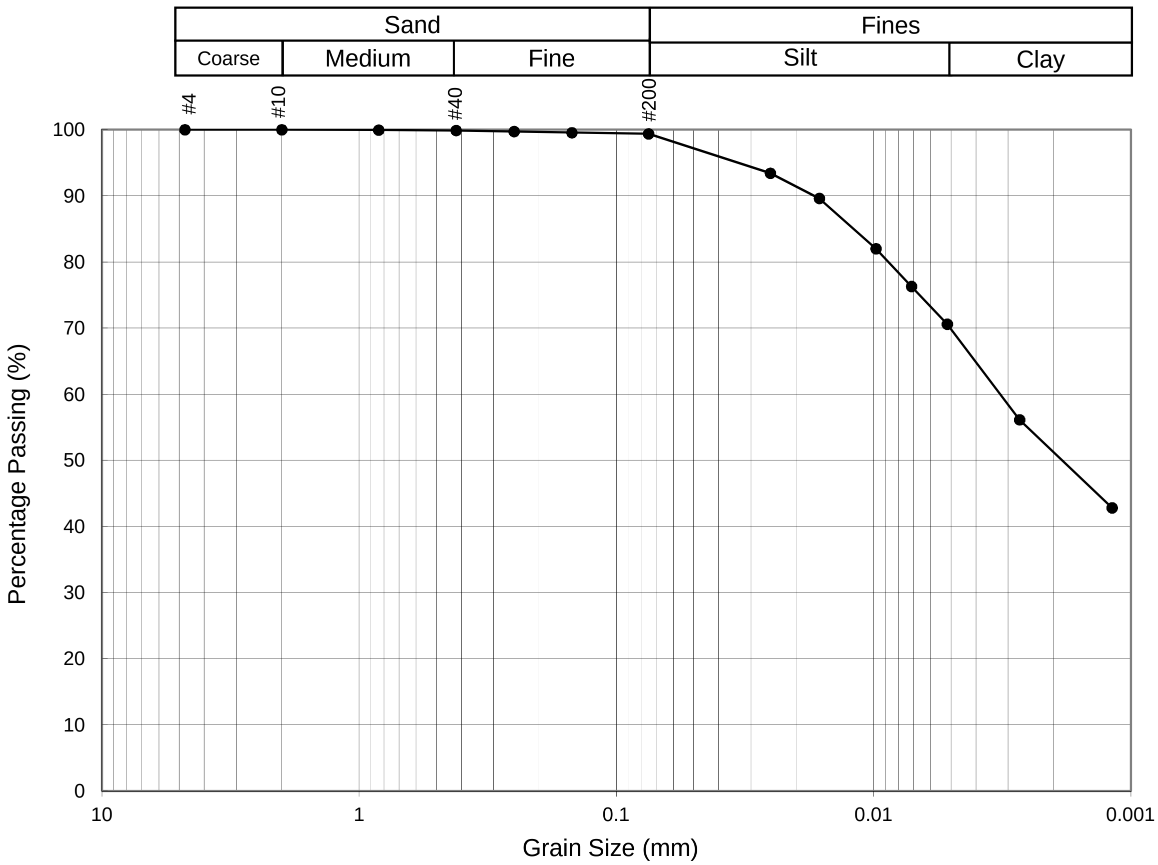
Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 11, 2012
Borehole:	BH-005-12	Sample No.: ST-8		Depth (m):	19.06

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey CLAY and SILT, trace fine sand



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-8	19.06	0	0	0	1	47	52

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	July 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

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Geosciences

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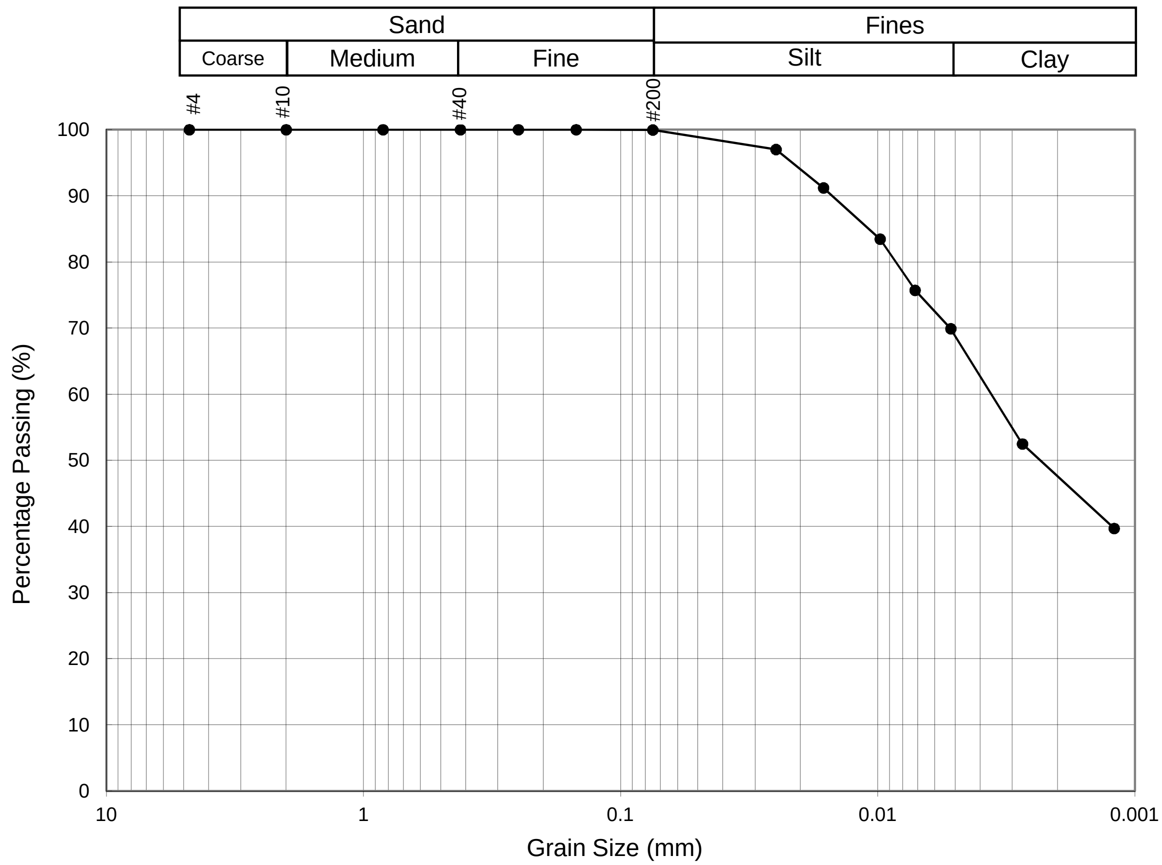
Particle Size Distribution
(ASTM D 422)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 11, 2012
Borehole:	BH-005-12	Sample No.: ST-11	Depth (m): 22.53

Unified Soil Classification System (ASTM D 2487)

Description of Material: Dark grey SILT and CLAY



Sample No.	Depth (m)	Percentage of Material by Weight (%)					
		Gravel	Sand			Fines	
			Coarse	Medium	Fine	Silt	Clay
ST-11	22.53	0	0	0	0	53	47

Comments:

Prepared by:	MF	Checked by:	PS	Approved by:	JPS
Date:	July 11, 2012	Date:	August 23, 2012	Date:	August 27, 2012

APPENDIX B.5

SPECIFIC GRAVITY

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

SPECIFIC GRAVITY (ASTM D 854)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 22, 2012
Borehole:	BH-001-12		

Sample Number	Depth (m)	Volumetric flask No.	Weight of flask and soil (g)	Weight of flask, water and soil (g)	Weight of dry solid (g)	Temperature (°C)	Specific Gravity Gs
BH-001-12 ST-4	21.88	7	213.60	688.72	36.81	20	2.74
BH-001-12 ST-7	23.69	6	167.02	692.99	44.06	25	2.76
BH-001-12 ST-13	29.19	4	213.07	689.48	36.45	20	2.74
BH-001-12 ST-14	29.80	7	217.58	697.04	50.67	20	2.67
BH-001-12 ST-15	31.02	5	210.24	689.15	35.78	20	2.75

Comments :

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	August 24, 2012	Date:	August 26, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

SPECIFIC GRAVITY (ASTM D 854)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 22, 2012
Borehole:	BH-004-12		

Sample Number	Depth (m)	Volumetric flask No.	Weight of flask and soil (g)	Weight of flask, water and soil (g)	Weight of dry solid (g)	Temperature (^oC)	Specific Gravity Gs
BH-004-12 ST-3	19.80	6	210.47	687.68	35.30	20	2.71
BH-004-12 ST-7	24.62	6	216.30	696.77	49.32	22	2.83
BH-004-12 ST-9	27.67	7	214.78	695.16	47.86	22	2.74
BH-004-12 ST-11	29.19	5	214.71	696.06	46.93	22	2.83
BH-004-12 ST-13	30.72	5	212.42	694.75	44.64	21	2.86

Comments :

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	August 24, 2012	Date:	August 26, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

SPECIFIC GRAVITY (ASTM D 854)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 30, 2012
Borehole:	BH-003-12		

Sample Number	Depth (m)	Volumetric flask No.	Weight of flask and soil (g)	Weight of flask, water and soil (g)	Weight of dry solid (g)	Temperature (°C)	Specific Gravity Gs
BH-003-12 ST-2	28.29	6	246.37	715.36	79.37	22	2.72
BH-003-12 ST-3	29.20	5	209.19	692.23	41.41	22	2.71
BH-003-12 ST-4	29.81	6	221.56	699.96	54.58	22	2.75
BH-003-12 ST-5	30.73	6	206.73	690.46	39.75	22	2.74
BH-003-12 ST-6	31.29	7	216.98	696.94	50.06	24	2.77
BH-003-12 ST-7	35.33	4	207.51	691.15	39.54	24	2.77
BH-003-12 ST-9	38.30	5	207.28	690.96	39.40	24	2.71
BH-003-12 ST-10	38.86	7	207.58	690.40	40.66	24.0	2.61
BH-003-12 ST-12	40.54	5	219.53	698.91	51.75	25.0	2.79
BH-003-12 ST-15	42.98	7	217.94	697.04	50.99	25.0	2.73
BH-003-12 ST-16	43.52	6	206.89	690.29	39.91	24	2.69

Comments :

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	June 23, 2012	Date:	July 5, 2012	Date:	July 6,2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

SPECIFIC GRAVITY (ASTM D 854)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 22, 2012
Borehole:	BH-005-12		

Sample Number	Depth (m)	Volumetric flask No.	Weight of flask and soil (g)	Weight of flask, water and soil (g)	Weight of dry solid (g)	Temperature (^{o}C)	Specific Gravity Gs
BH-005-12 ST-3	14.83	6	208.78	691.92	41.80	21	2.83
BH-005-12 ST-8	19.06	4	219.01	698.41	50.72	21	2.74
BH-005-12 ST-11	22.53	7	216.71	696.98	49.79	19	2.74
BH-005-12 ST-13	24.31	6	218.05	697.54	50.68	19	2.73
BH-005-12 ST-16	26.44	5	218.35	698.56	50.57	21	2.75

Comments :

Prepared by:	MJ	Checked by:	PS	Approved by:	JPS
Date:	August 24, 2012	Date:	August 26, 2012	Date:	August 27, 2012

APPENDIX B.6

ONE-DIMENSIONAL CONSOLIDATION USING STANDARD LOAD INCREMENT (LIR)

MEG TECHNICAL SERVICES

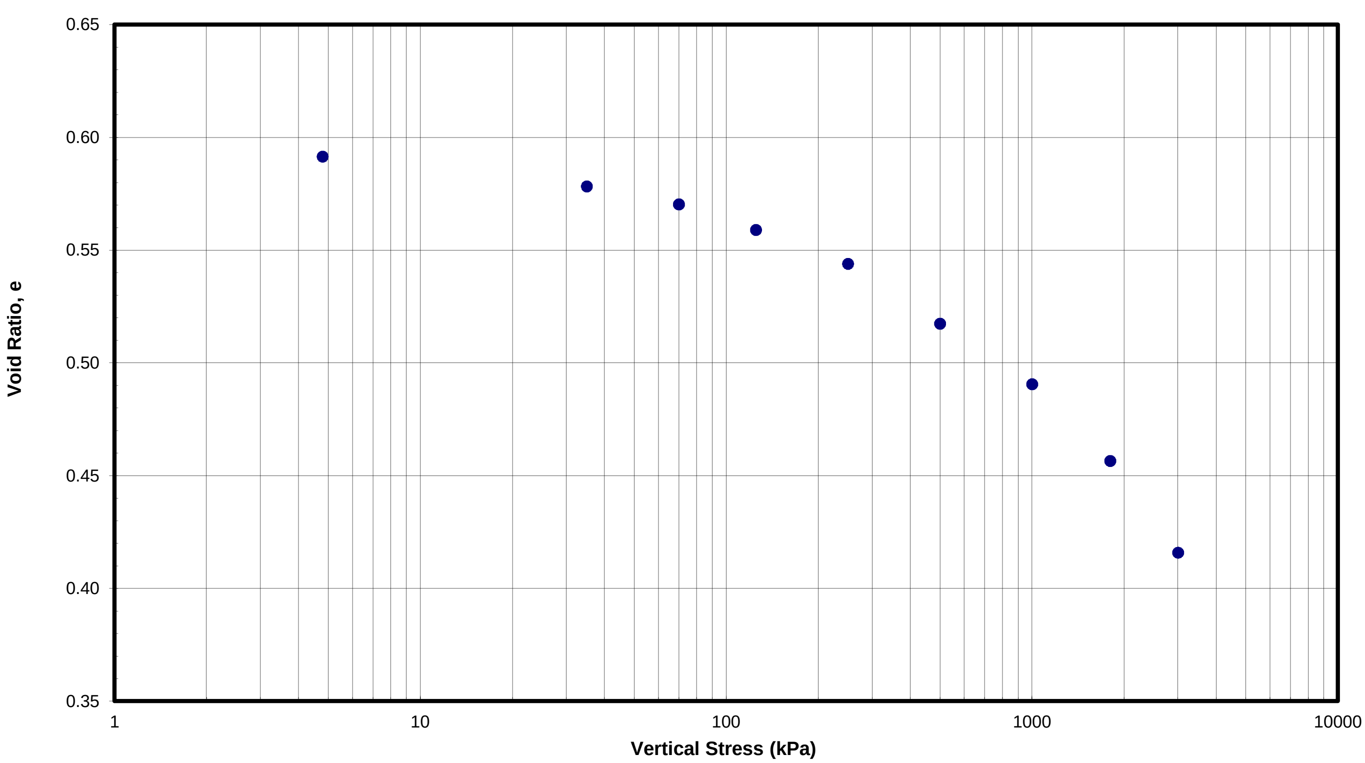
(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29

Weight of Ring (g):	216.64	**Ring + Wet Weight (g):**	383.68	**Initial Void Ratio, e:**	0.59
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	353.98	**Height of Soil, Hs (mm):**	15.94
Diameter of Ring (mm):	63.50	**Water Content (%):**	21.6	**Height of Void, Hv (mm):**	9.46
Unit Weight (kN/m^3)	20.37	**Specific Gravity, Gs:**	2.72		

Step No.	Vertical Stress (kPa)	Height of Sample (mm)	Vertical Strain (%)	Final Void Ratio e_f	Change in Void Ratio e	Coefficient of Compressibility a_v (m^2/MN)	Coefficient of Volume Compressibility m_v (m^2/MN)
1	5	25.3746	0.1000	0.5915	0.00		
2	35	25.1638	0.9300	0.5783	0.01	0.4377	0.27
3	70	25.0368	1.4300	0.5704	0.01	0.2276	0.14
4	125	24.8558	2.1423	0.5590	0.01	0.2063	0.13
5	250	24.6166	3.0841	0.5440	0.02	0.1200	0.08
6	500	24.1932	4.7512	0.5174	0.03	0.1062	0.07
7	1000	23.7651	6.4366	0.4906	0.03	0.0537	0.03
8	1800	23.2228	8.5716	0.4566	0.03	0.0425	0.03
9	3000	22.5742	11.1251	0.4159	0.04	0.0339	0.02



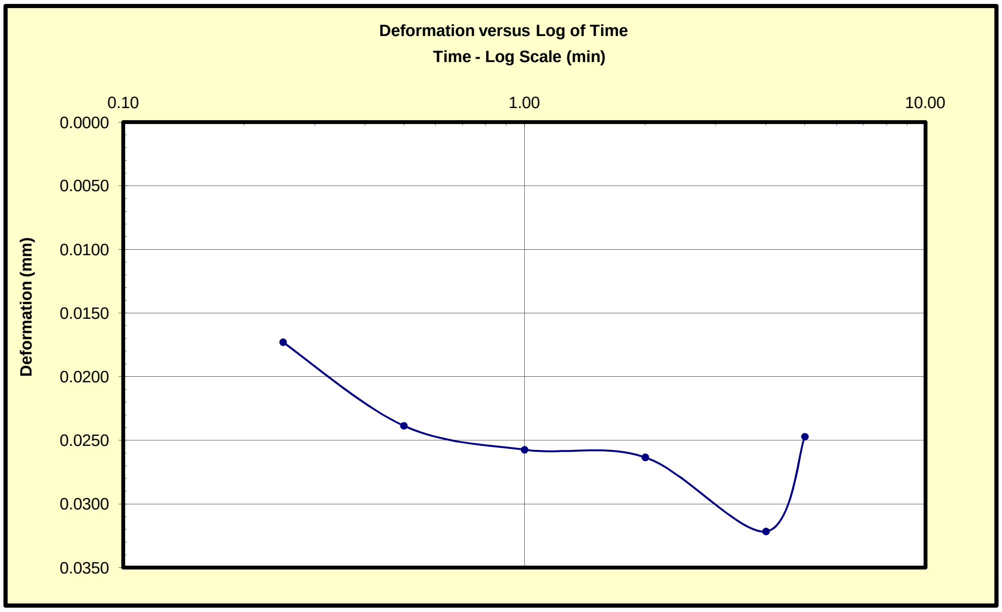
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

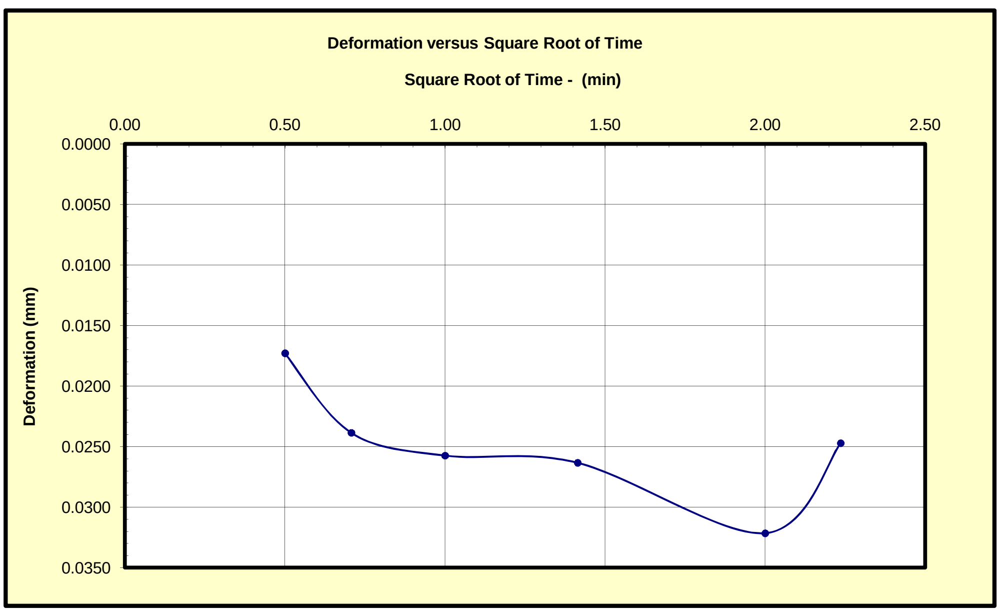
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	1	Vertical Stress (kPa):	4.8





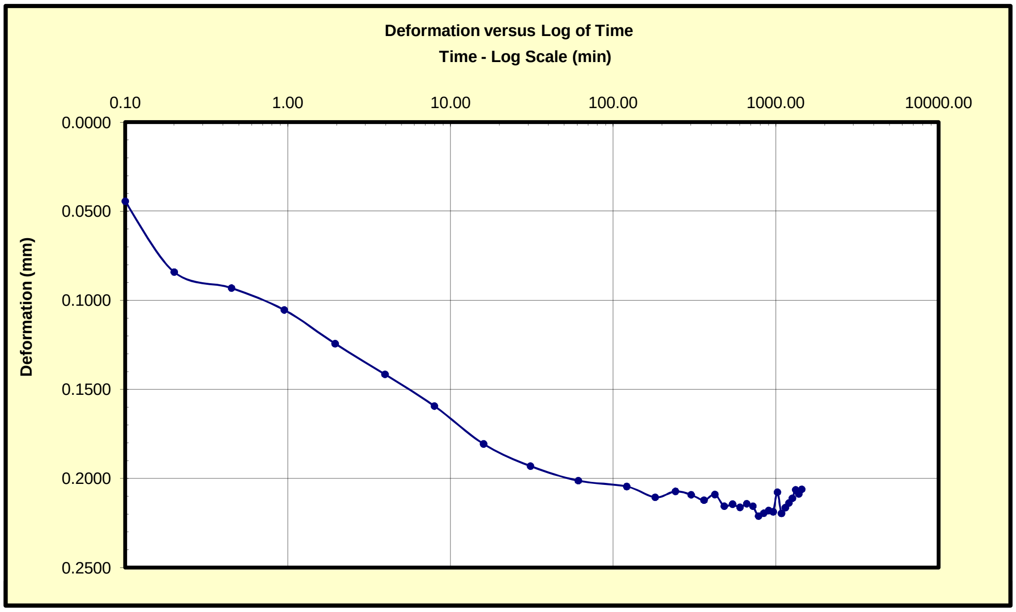
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

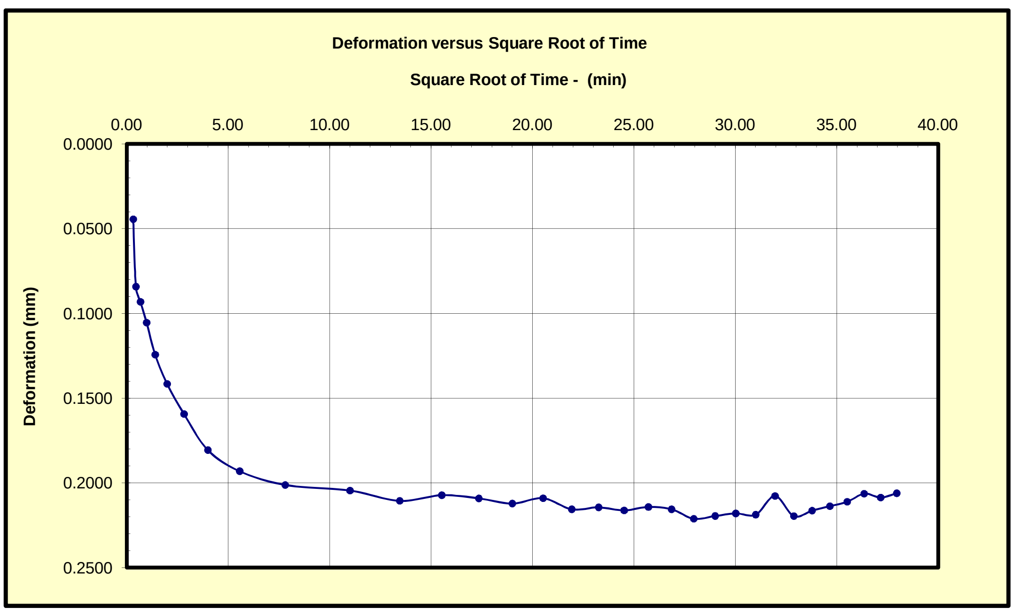
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	2	Vertical Stress (kPa):	35.0





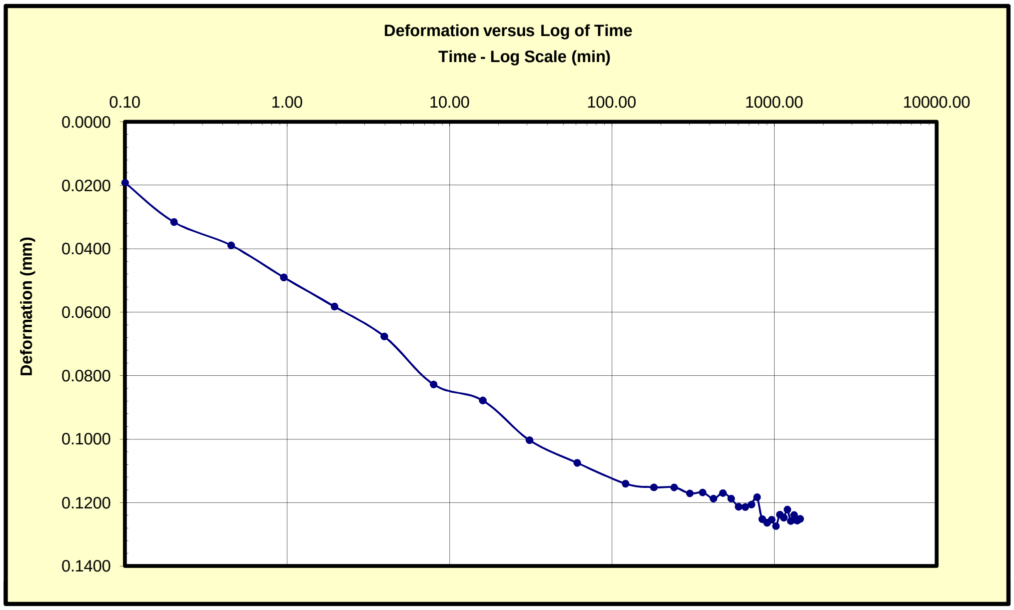
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

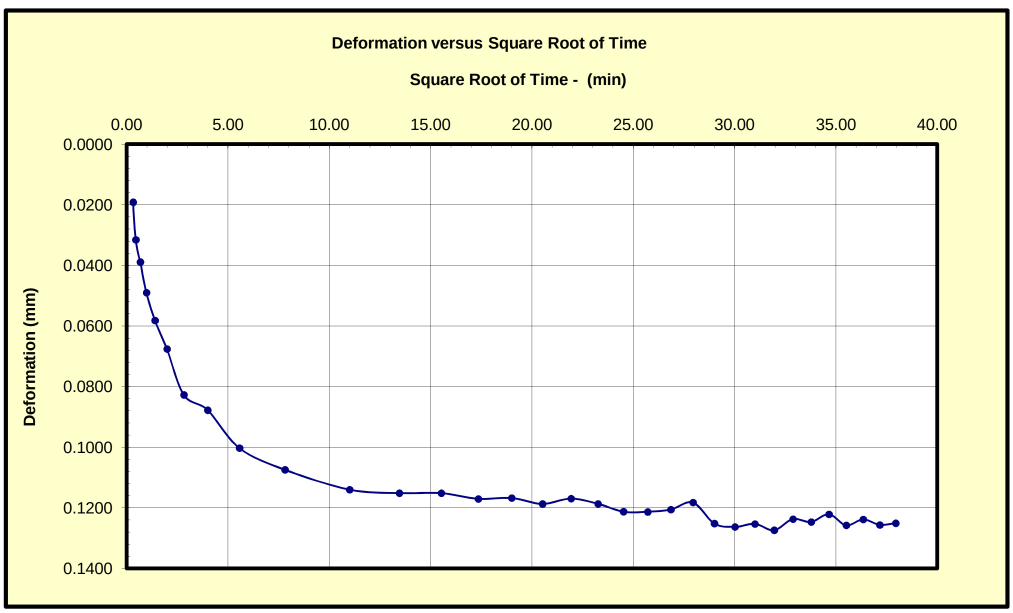
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	3	Vertical Stress (kPa):	70.0





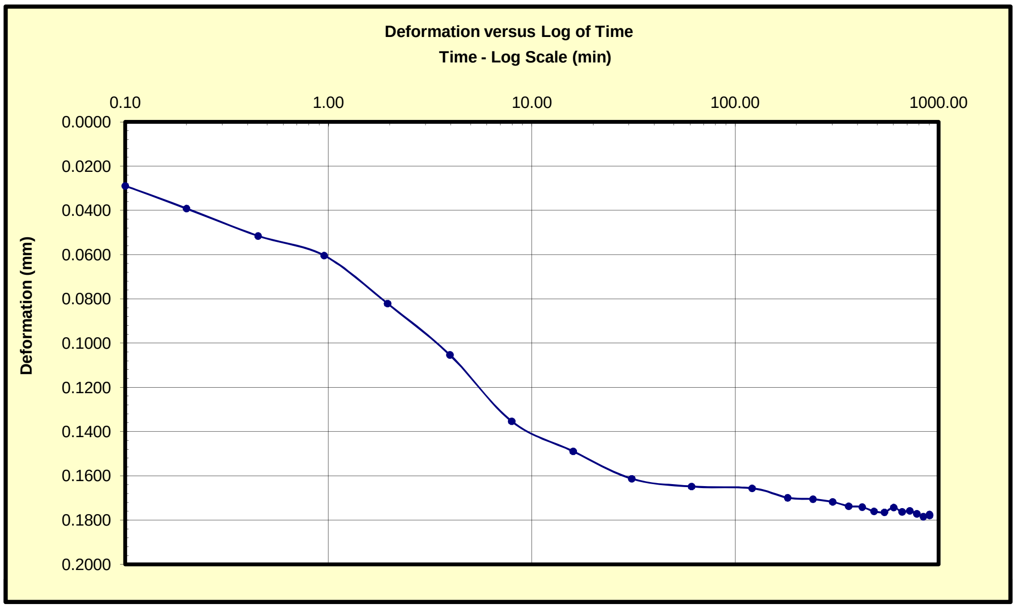
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

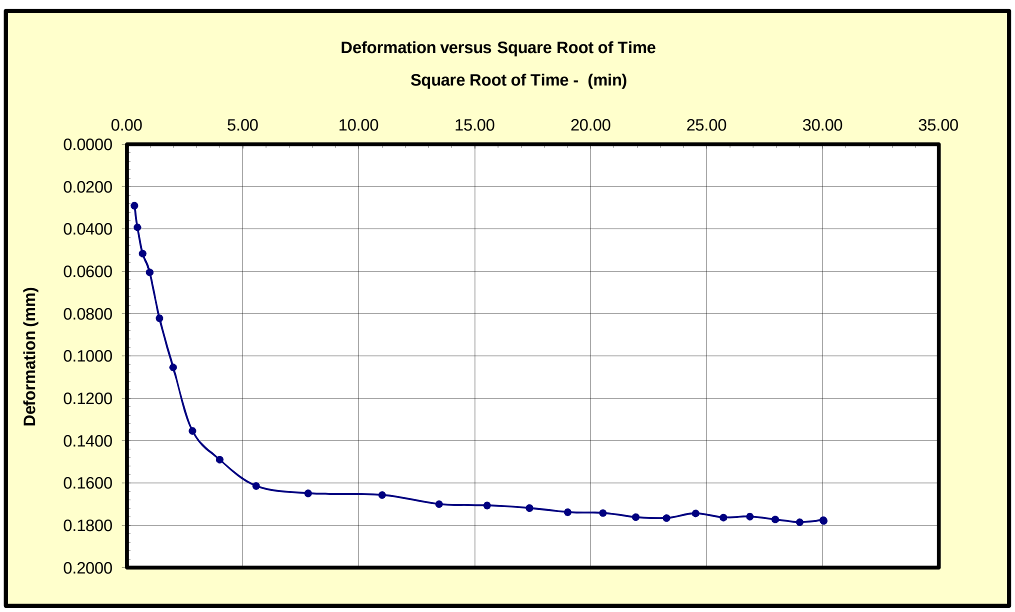
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	4	Vertical Stress (kPa):	125.0





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

MEG TECHNICAL SERVICES

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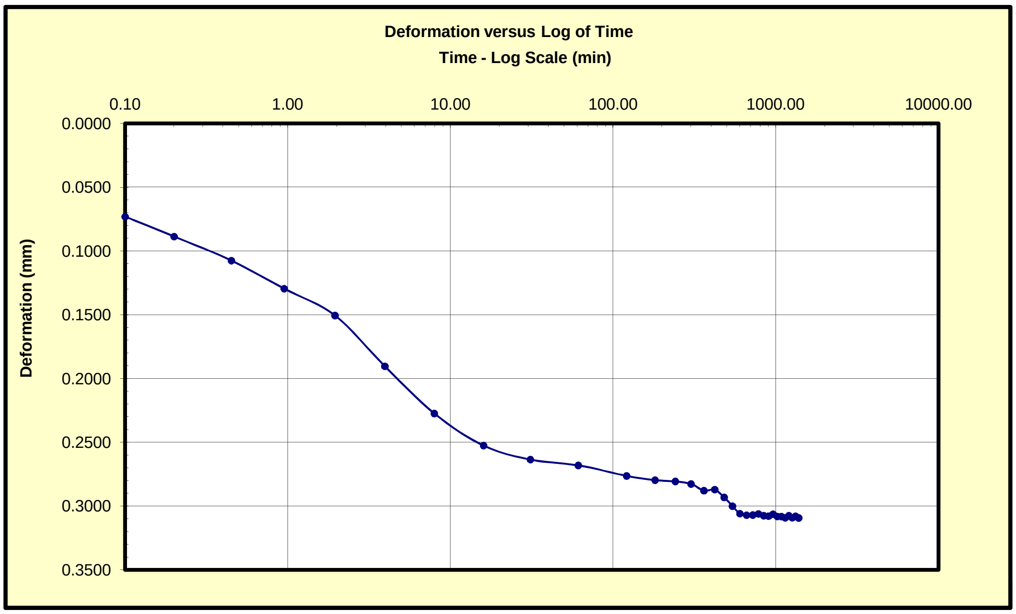
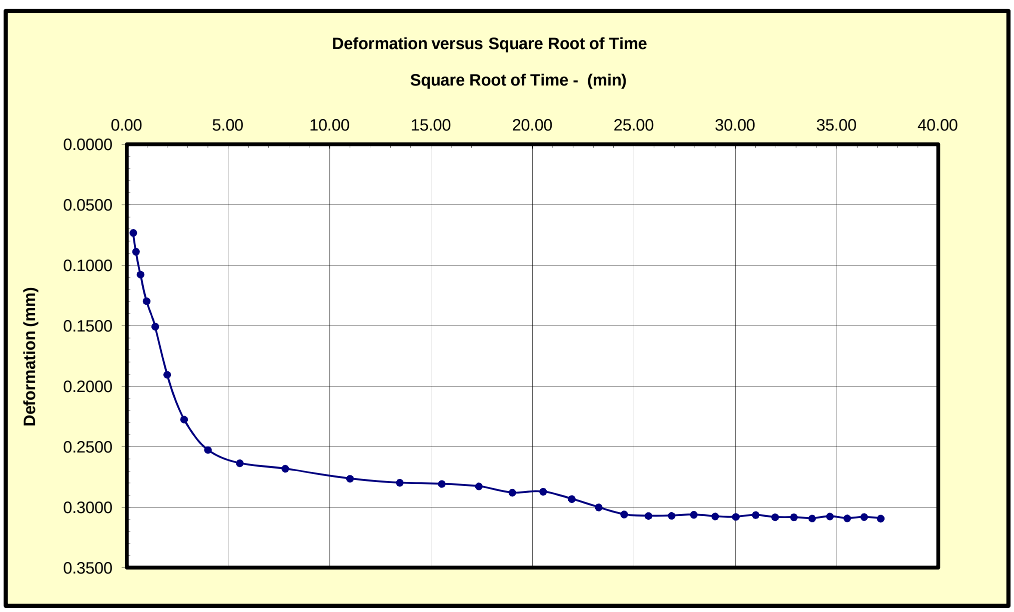
One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	5	Vertical Stress (kPa):	250.0





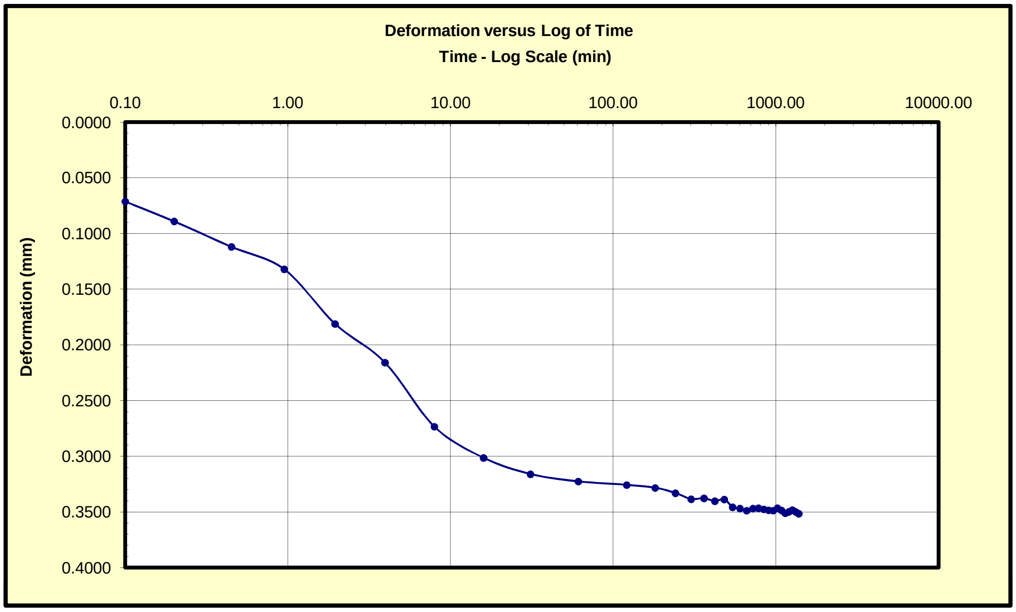
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

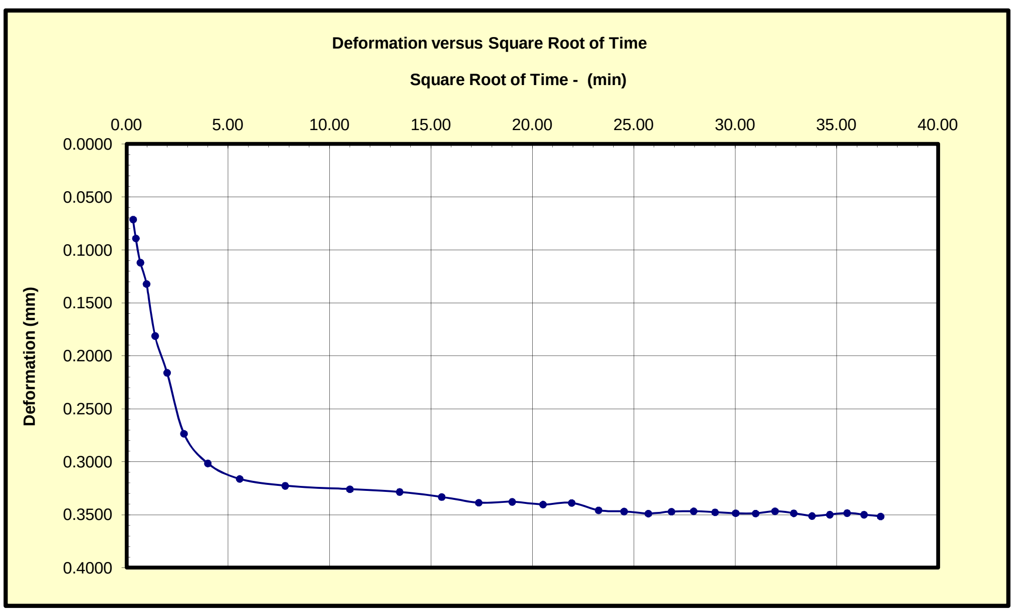
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	6	Vertical Stress (kPa):	500.0





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

MEG TECHNICAL SERVICES

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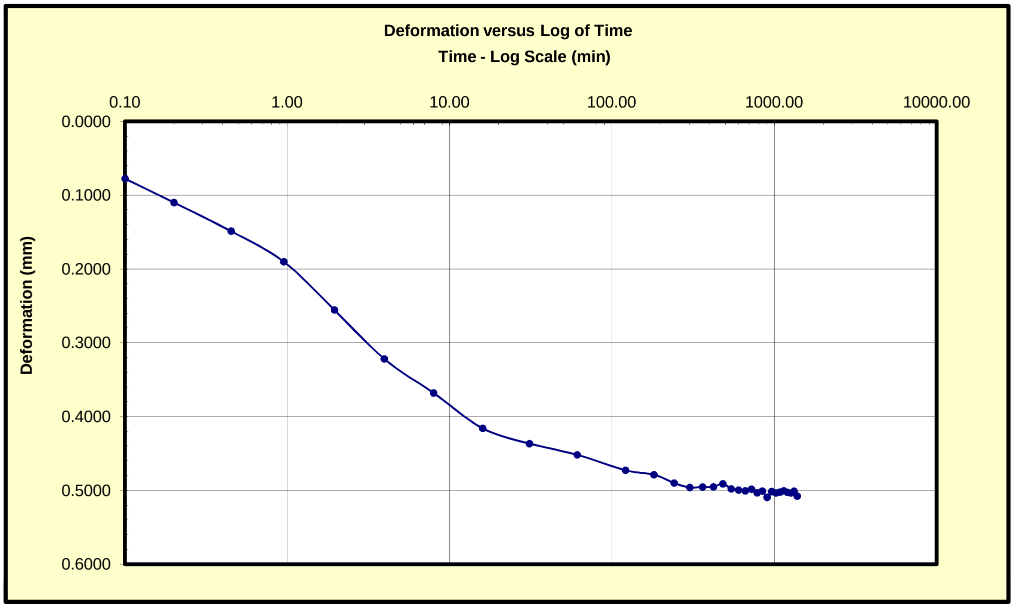
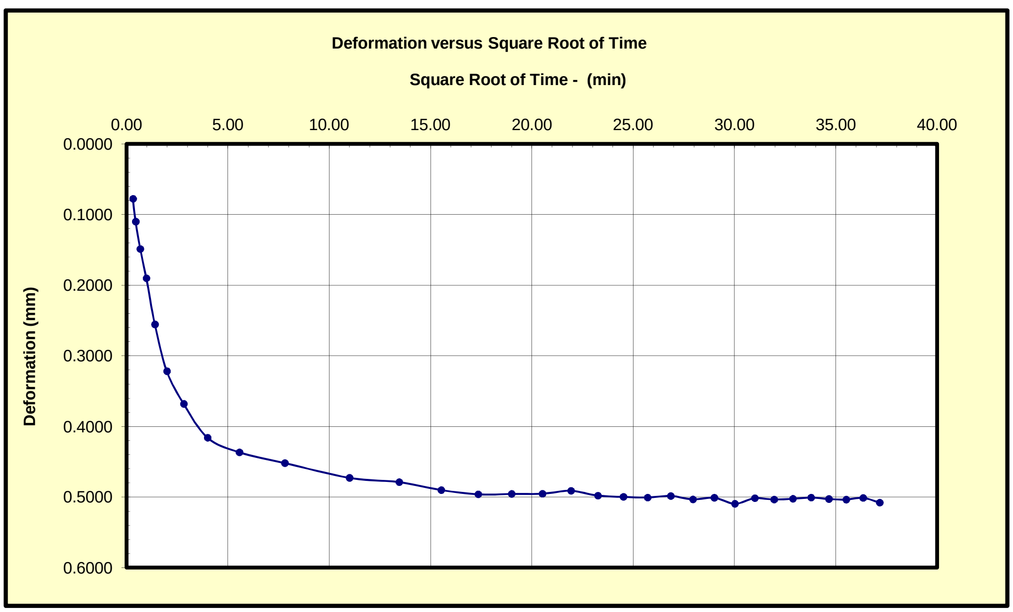
One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	7	Vertical Stress (kPa):	1000.0





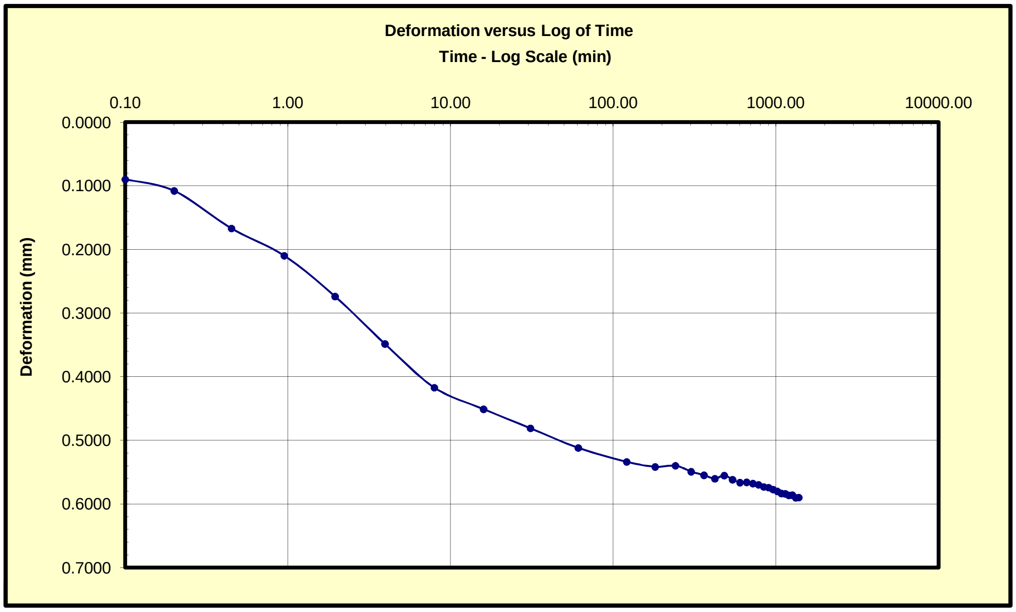
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

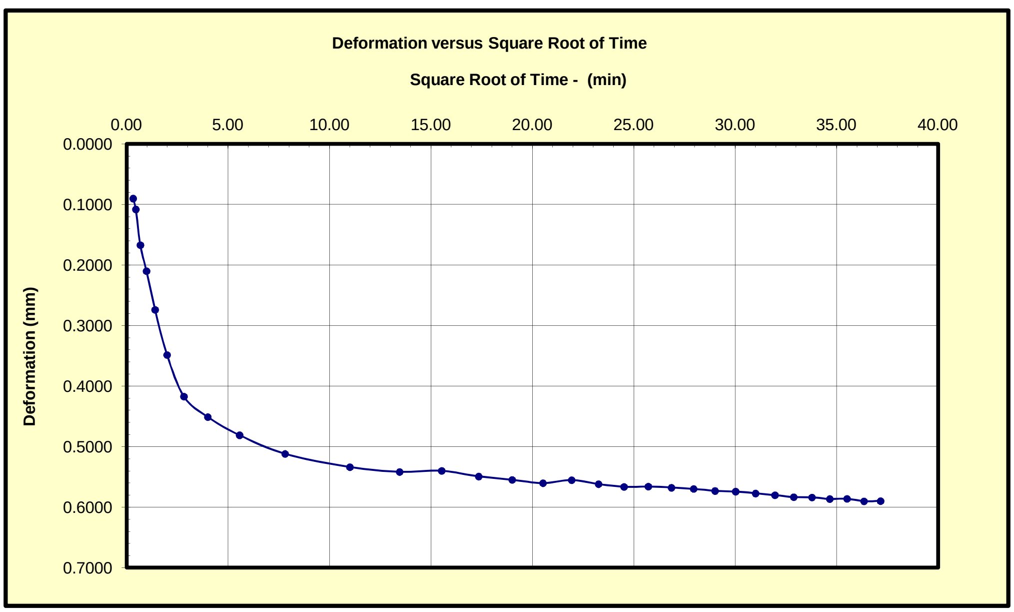
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	8	Vertical Stress (kPa):	1800.0





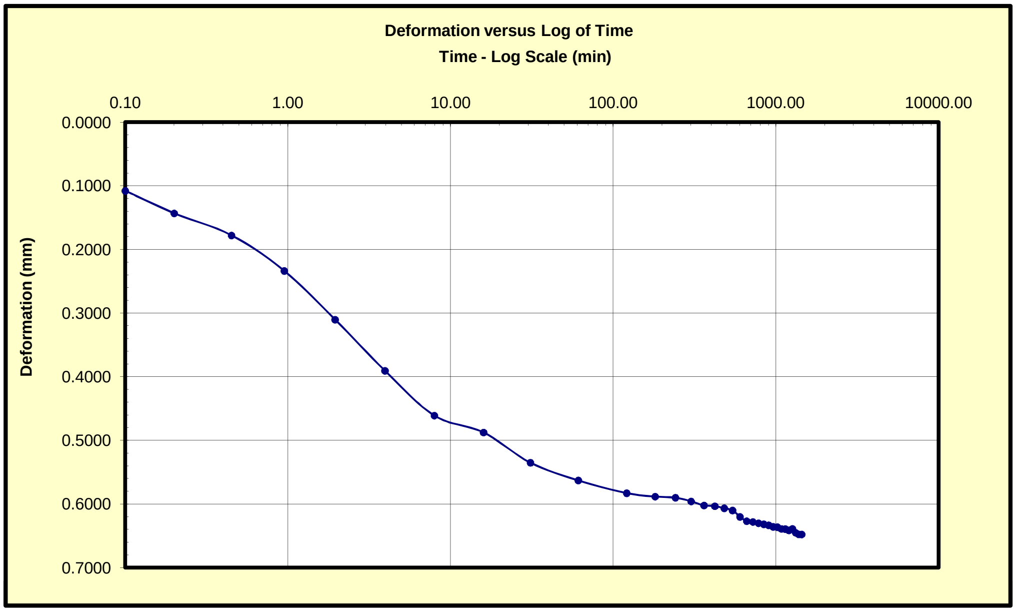
Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

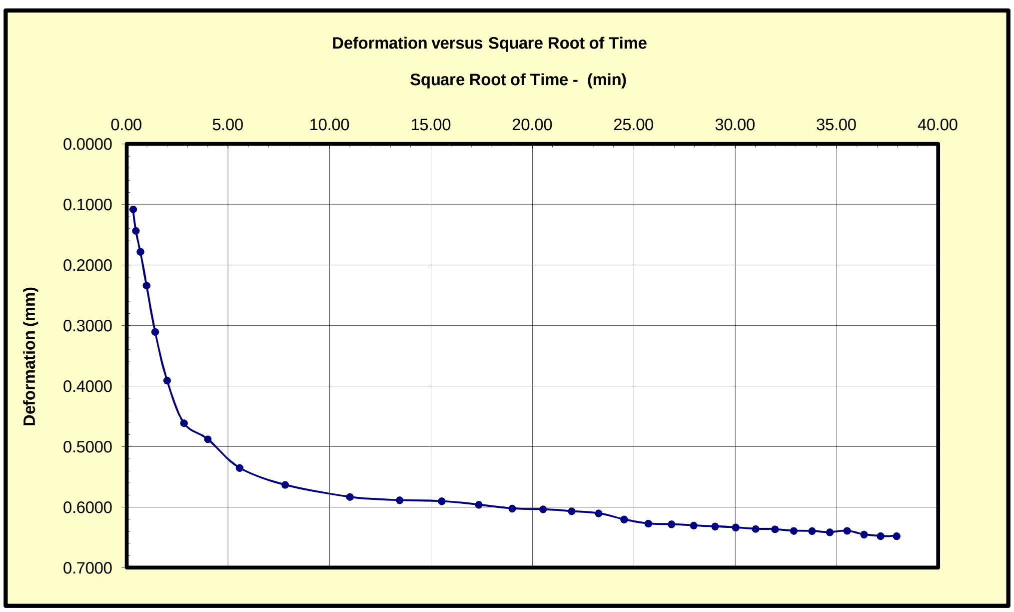
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-2	Depth (m):	28.29
Consolidation Step:	9	Vertical Stress (kPa):	3000.0





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 18, 2012	Date:	June 19, 2012	Date:	June 19, 2012

MEG TECHNICAL SERVICES

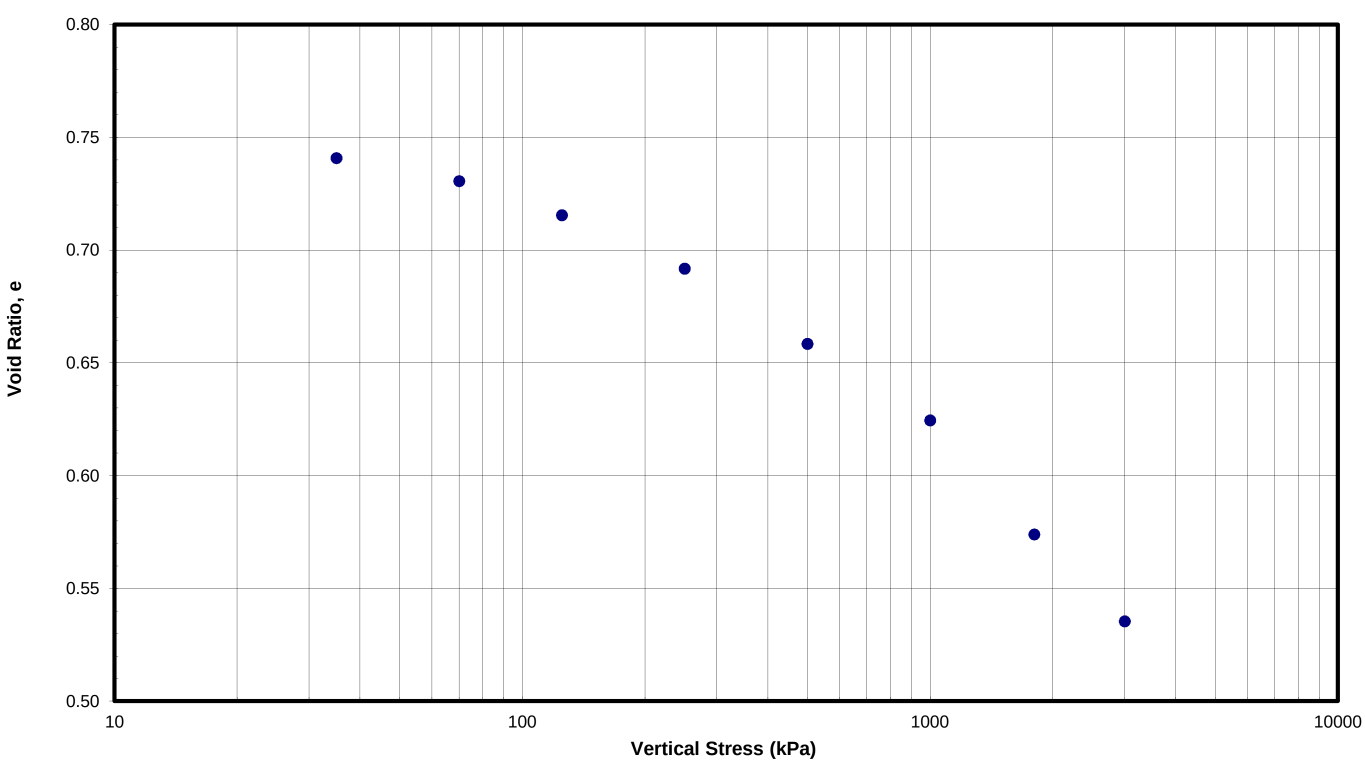
(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Alaska	Date:	July 31, 2012
Borehole:	BH-003-12	Station:	2
Sample No.:	ST-7	Depth (m):	35.36

Weight of Ring (g):	212.26	**Ring + Wet Weight (g):**	371.10	**Initial Void Ratio, e:**	0.76
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	339.16	**Height of Soil, Hs (mm):**	14.47
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.2	**Height of Void, Hv (mm):**	10.93
Unit Weight (kN/m^3)	19.37	**Specific Gravity, Gs:**	2.77		

Step No.	Vertical Stress (kPa)	Height of Sample (mm)	Vertical Strain (%)	Final Void Ratio e_f	Change in Void Ratio e	Coefficient of Compressibility a_v (m^2/MN)	Coefficient of Volume Compressibility m_v (m^2/MN)
1	5	25.3898	0.0400	0.7551	0.00		
2	35	25.1841	0.8500	0.7409	0.01	0.4707	0.27
3	70	25.0362	1.4321	0.7307	0.01	0.2920	0.17
4	125	24.8175	2.2935	0.7155	0.02	0.2750	0.16
5	250	24.4748	3.6423	0.6919	0.02	0.1895	0.11
6	500	23.9922	5.5425	0.6585	0.03	0.1335	0.08
7	1000	23.5013	7.4751	0.6246	0.03	0.0679	0.04
8	1800	22.7698	10.3551	0.5740	0.05	0.0632	0.04
9	3000	22.2122	12.5504	0.5354	0.04	0.0321	0.02



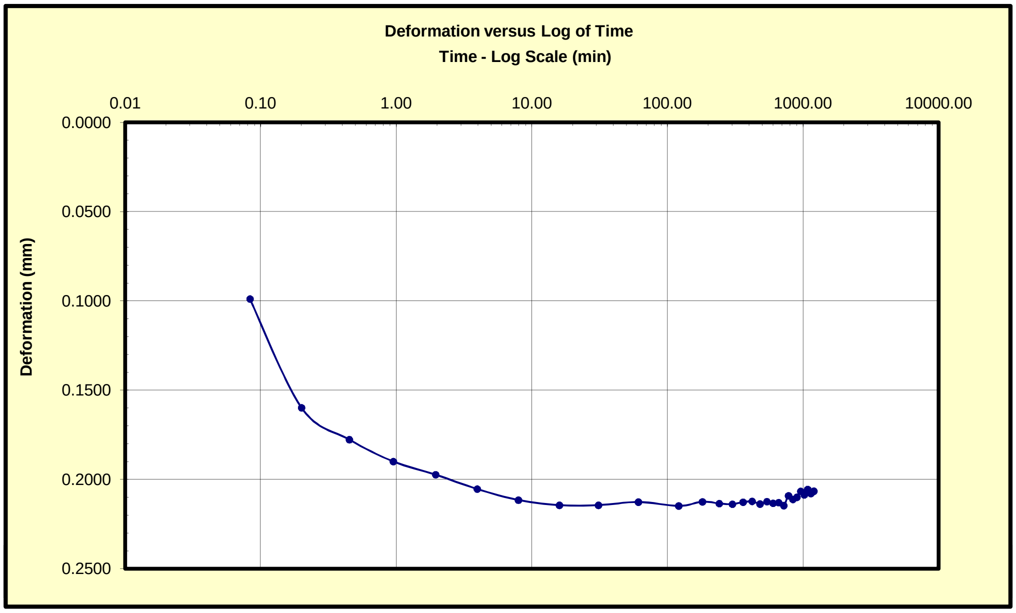
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	August 20, 2012	Date:	August 21, 2012	Date:	August 27, 2012

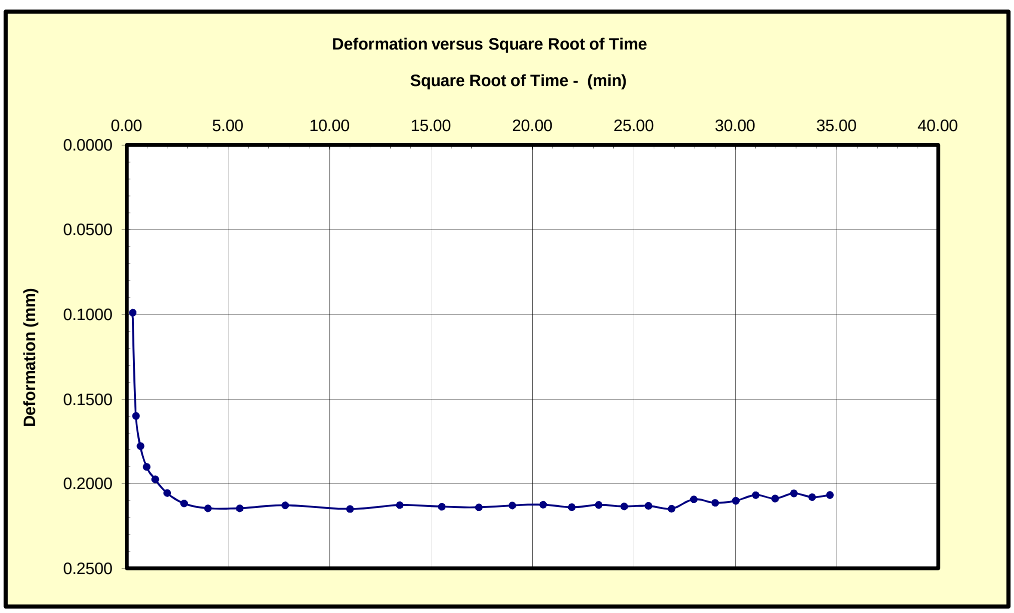
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	2	Vertical Stress (kPa):	





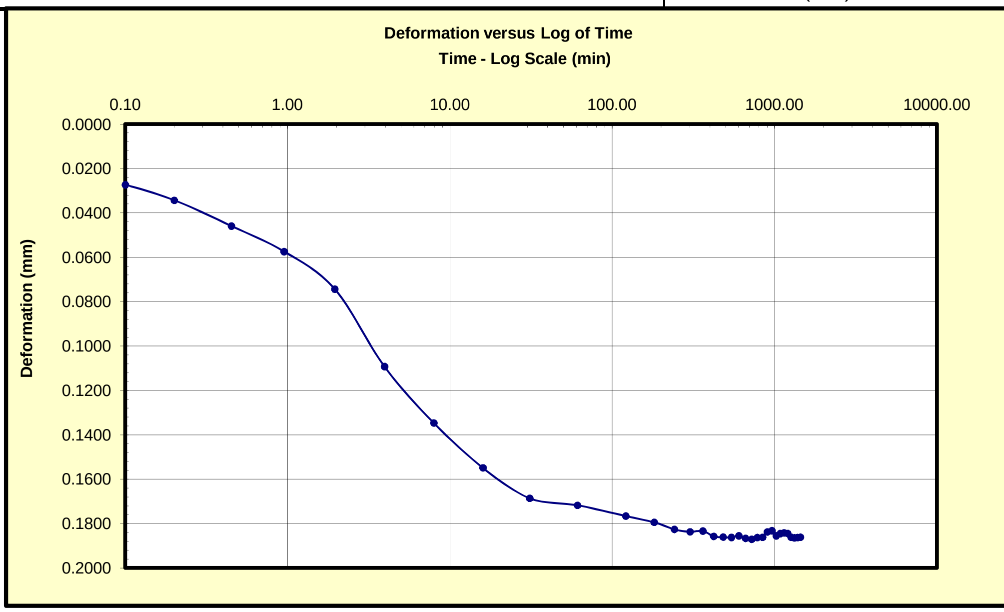
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

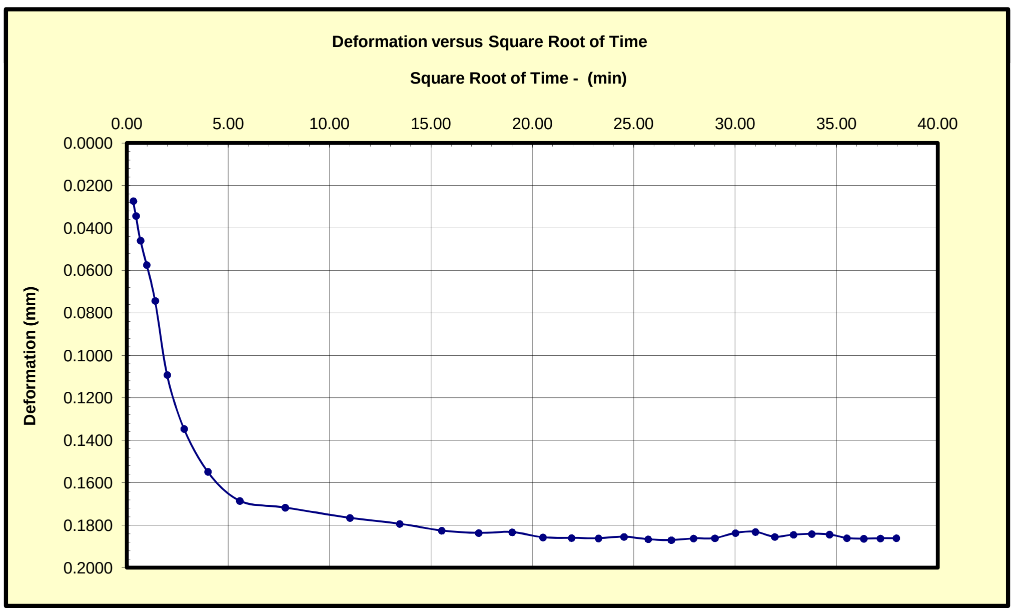
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	3	Vertical Stress (kPa):	





Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

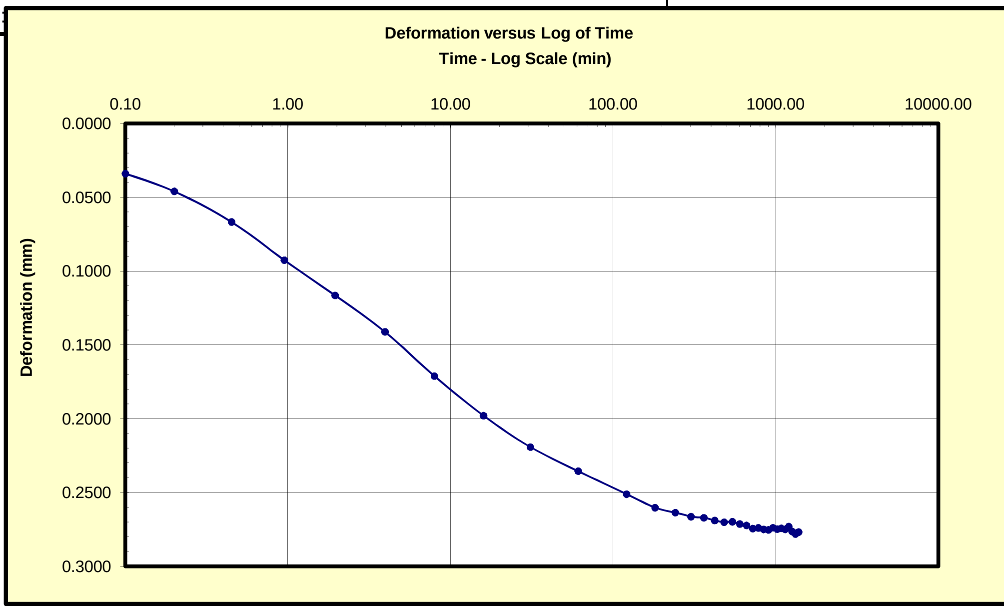
MEG TECHNICAL SERVICES

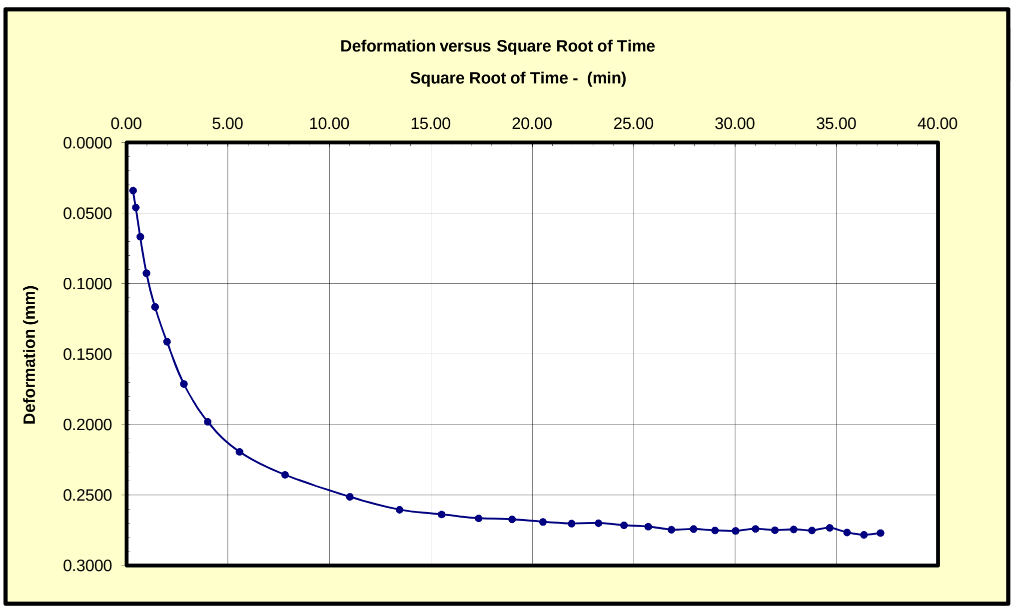
(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Marine + Earth MEG Geosciences

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:			





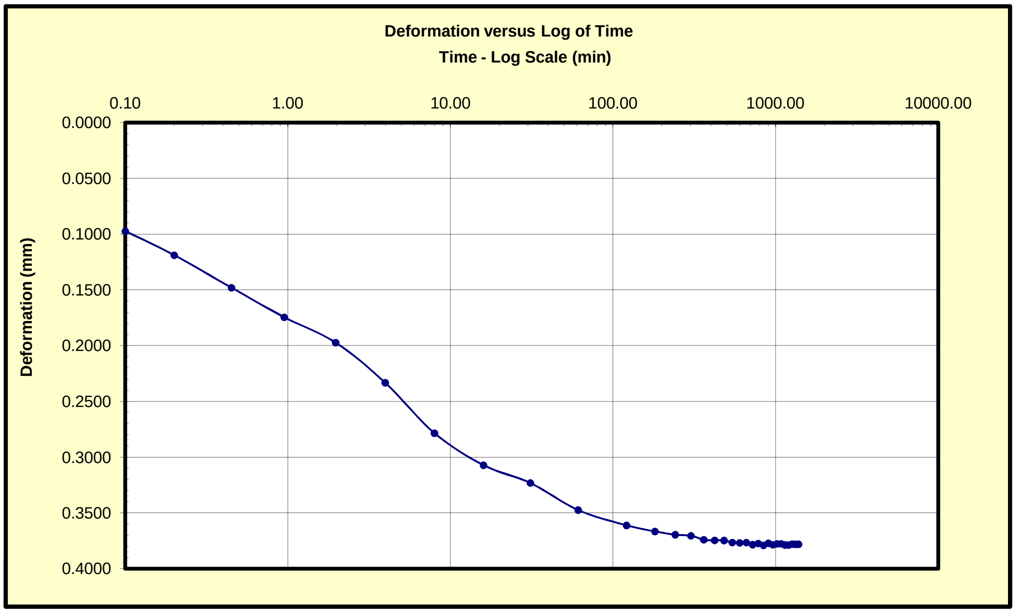
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

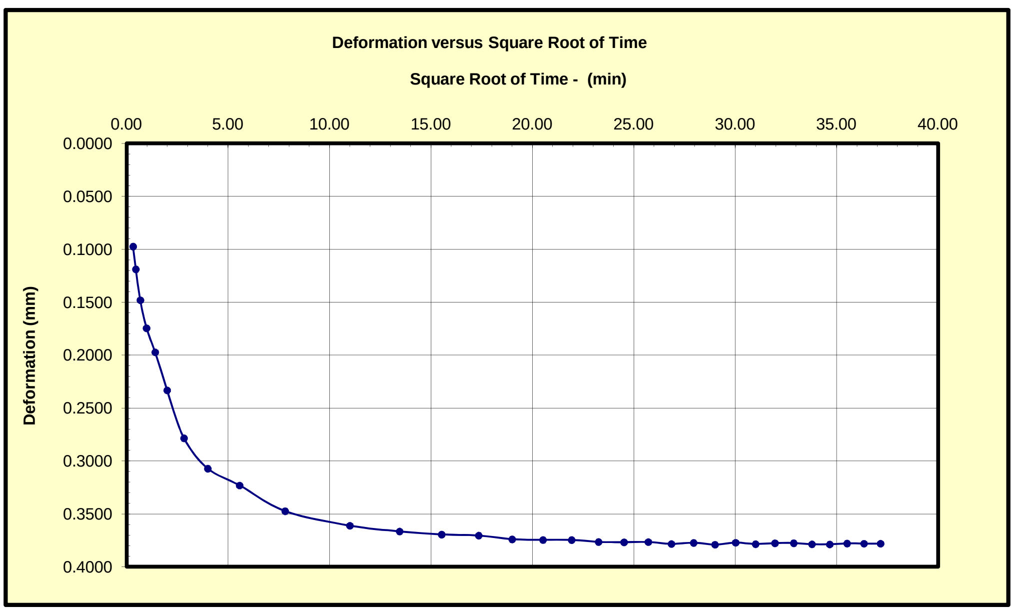
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	5	Vertical Stress (kPa):	





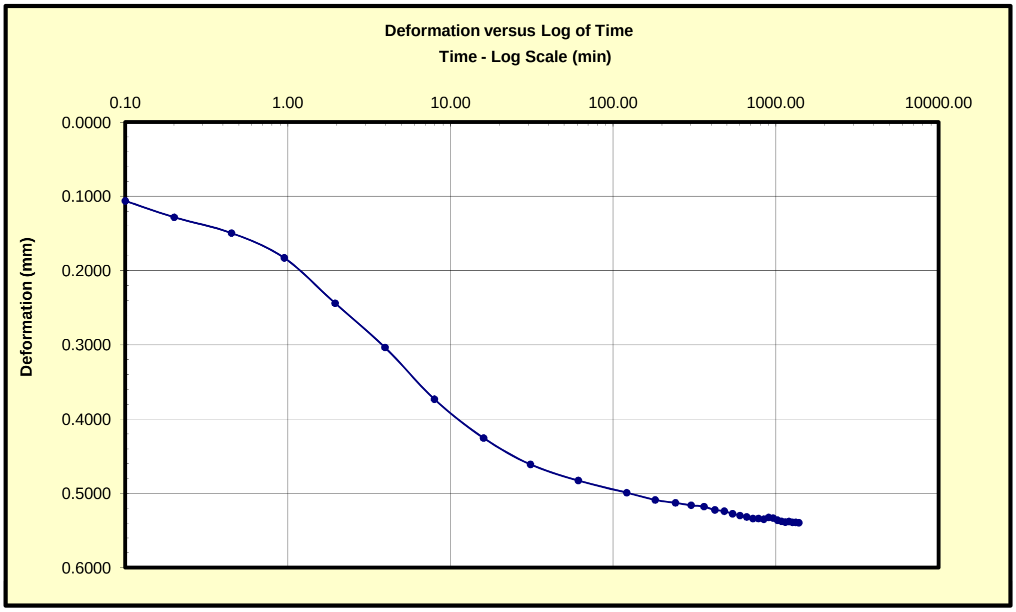
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

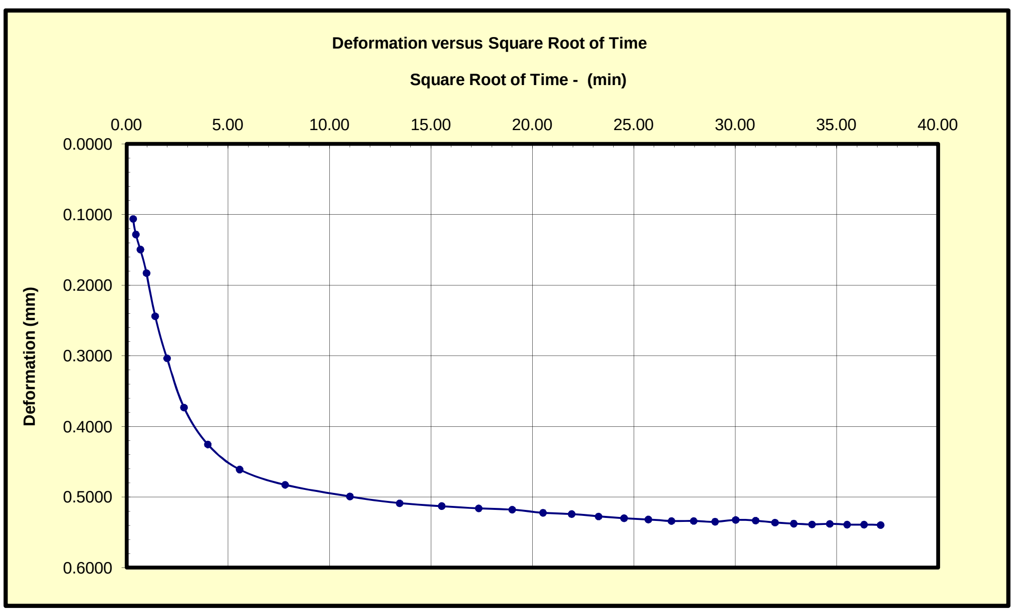
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	6	Vertical Stress (kPa):	





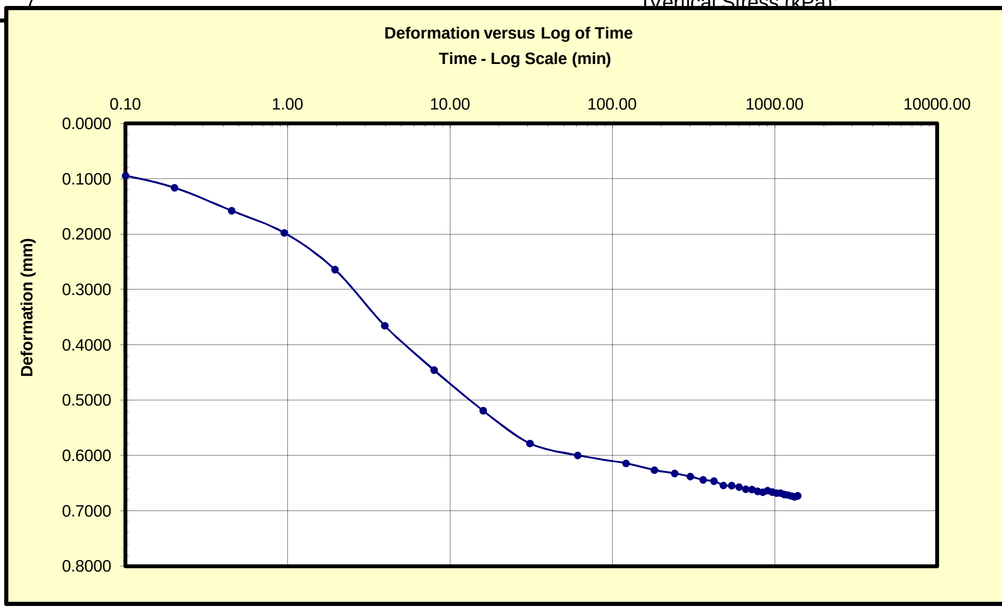
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

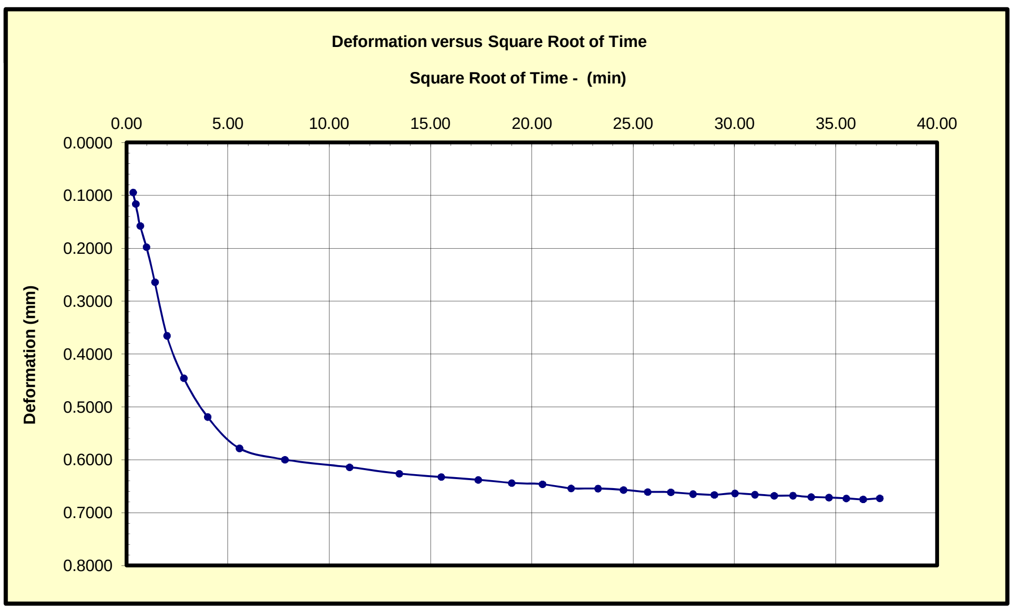
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	7	Vertical Stress (kPa):	





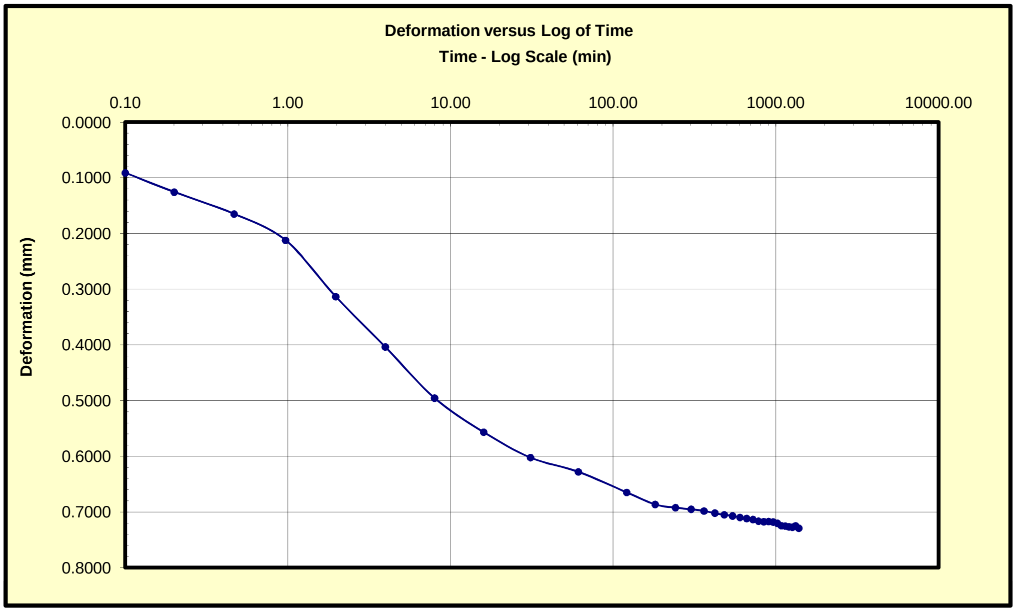
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

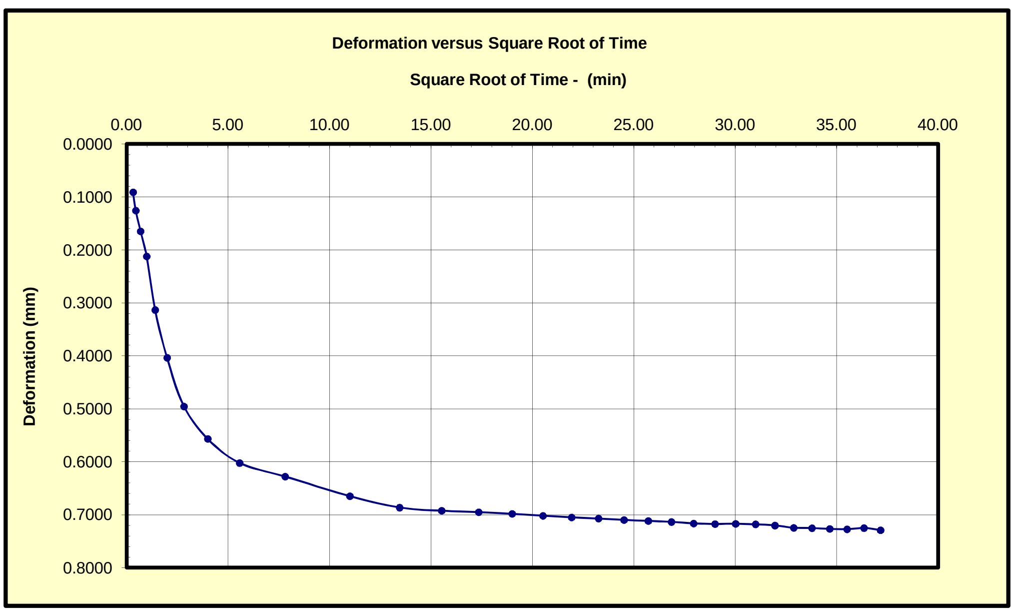
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	8	Vertical Stress (kPa):	





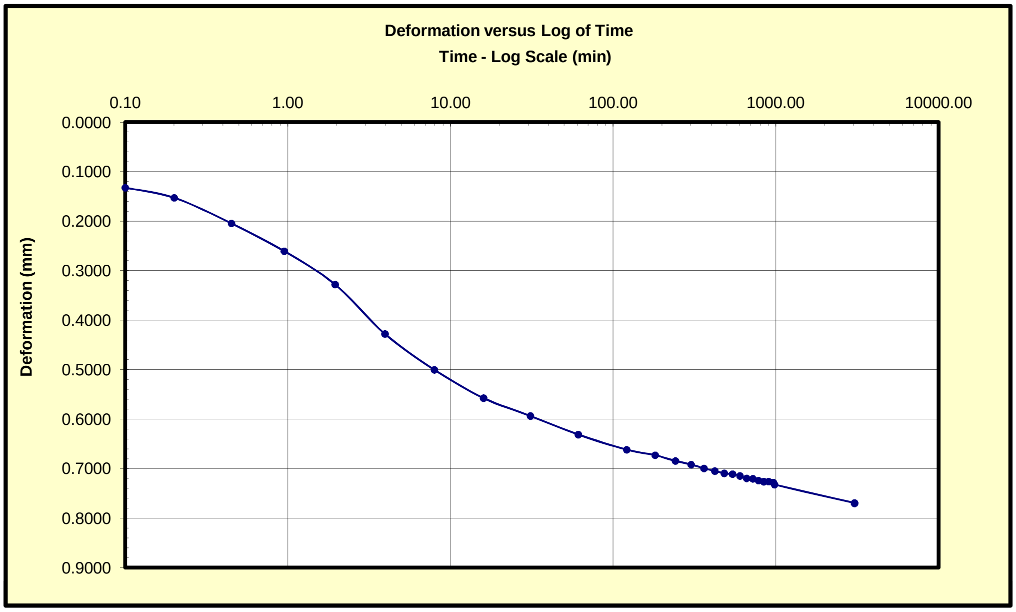
Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

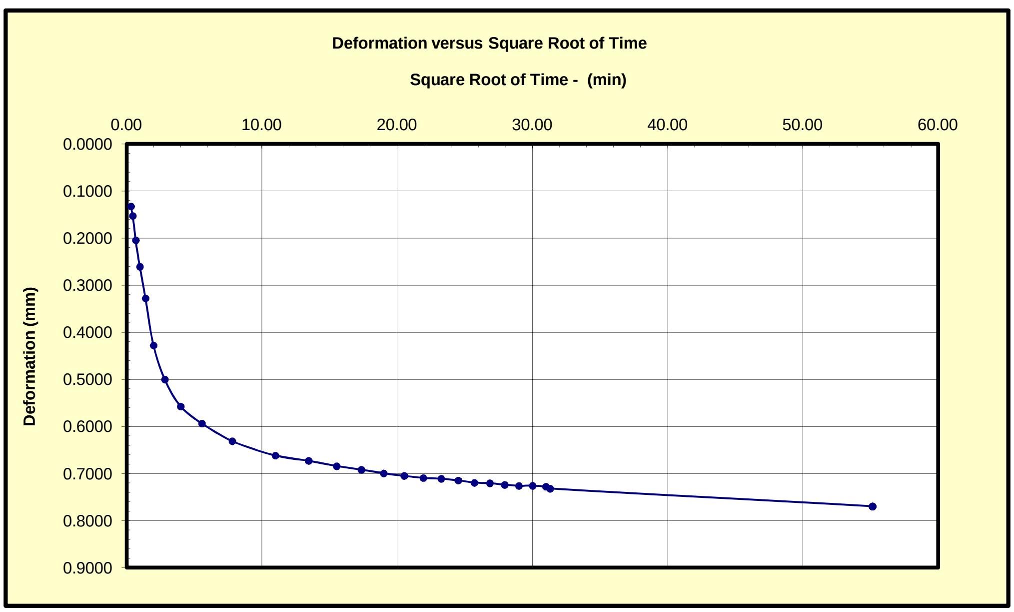
MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

One-Dimensional Consolidation (ASTM D 2435)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 31, 2012
Borehole:	BH-003-12	Station:	#2
Sample No.:	ST-7	Depth (m):	35.36
Consolidation Step:	9	Vertical Stress (kPa):	





Prepared By:	PC	Checked By:	PS	Approved By:	JPS
Date:	Aug 20, 2012	Date:	Aug 24, 2012	Date:	Aug 25, 2012

APPENDIX B.7

ONE-DIMENSIONAL CONSOLIDATION USING CONSTANT RATE OF LOADING (CRS)

MEG TECHNICAL SERVICES

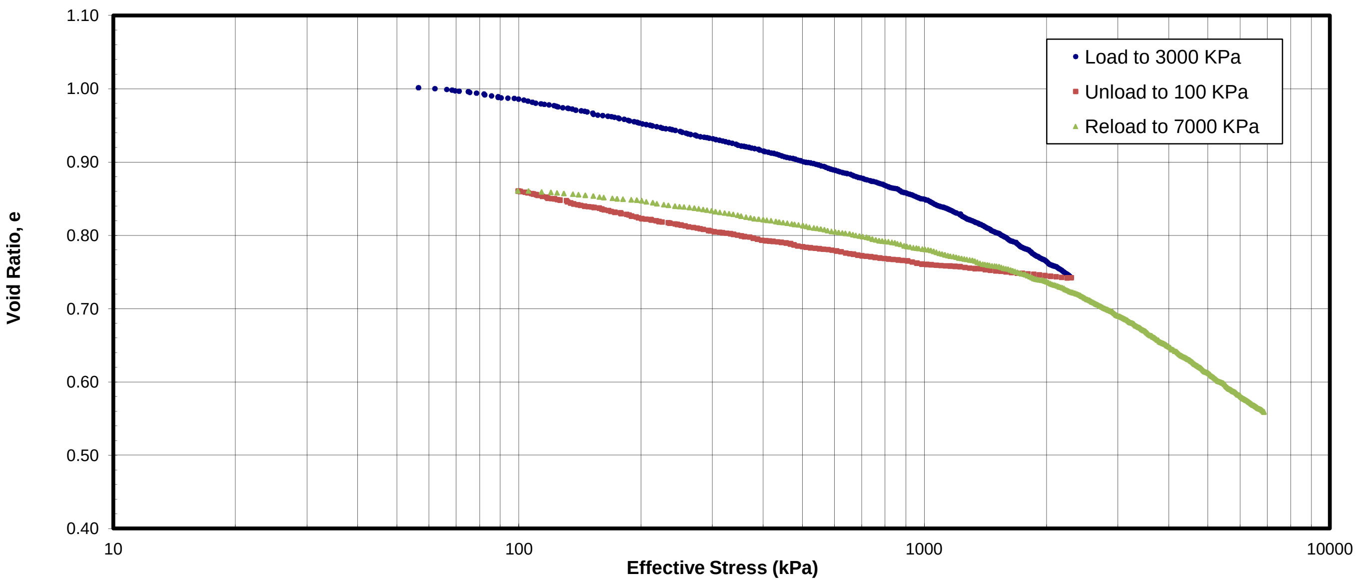
(A Division of MEG Consulting Limited)

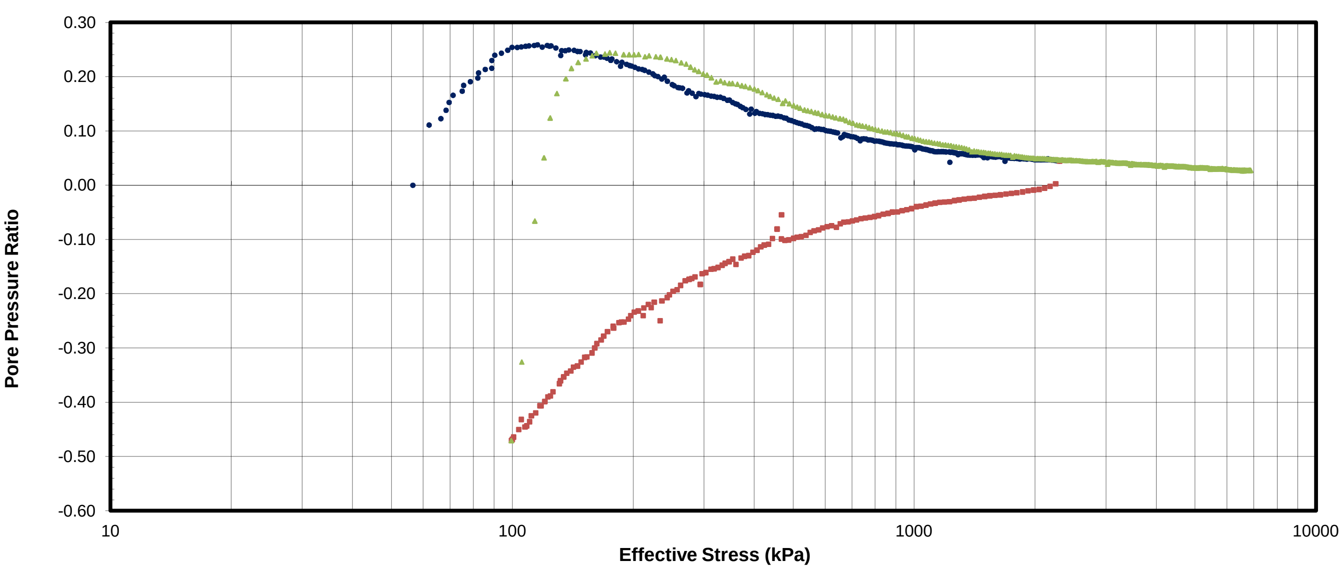
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 15, 2012
Borehole:	BH-001-12	Station:	CRS #3
Sample No.:	ST-4	Depth (m):	21.88

Weight of Ring (g):	216.00	**Ring + Wet Weight (g):**	360.61	**Initial Void Ratio, e:**	1.00
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	326.05	**Height of Soil, Hs (mm):**	12.68
Diameter of Ring (mm):	63.50	**Water Content (%):**	31.4	**Height of Void, Hv (mm):**	12.72
Unit Weight (kN/m^3)	17.64	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 20, 2012	Date:	July 12, 2012	Date:	July 12, 2012

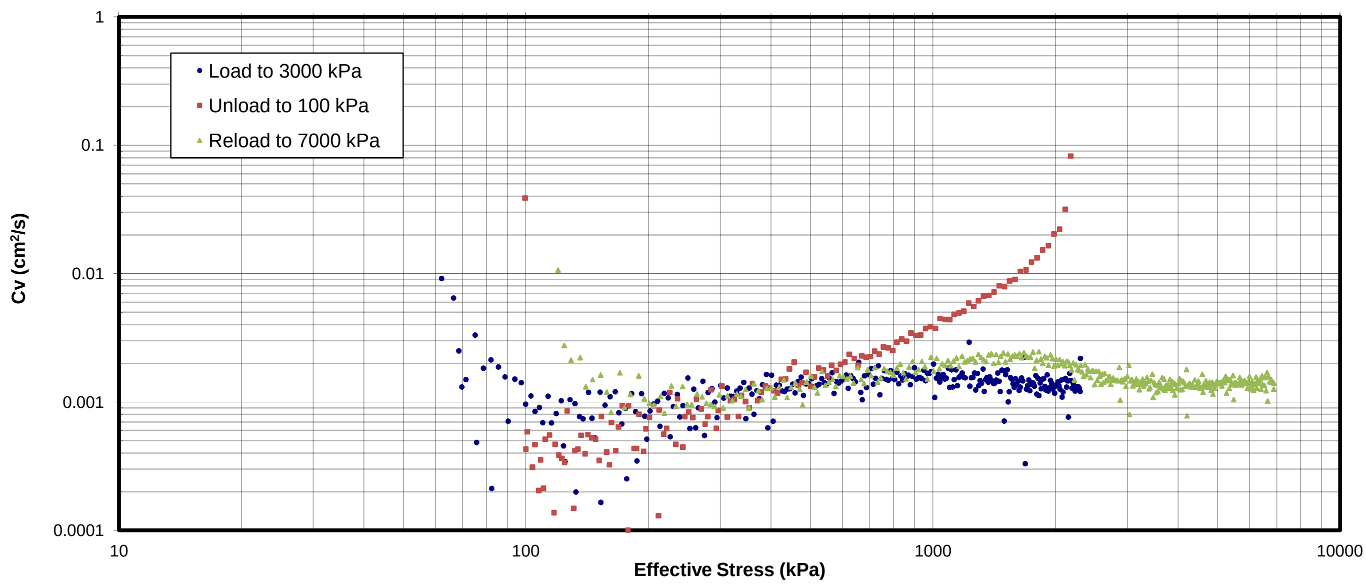
MEG TECHNICAL SERVICES
(A Division of MEG Consulting Limited)

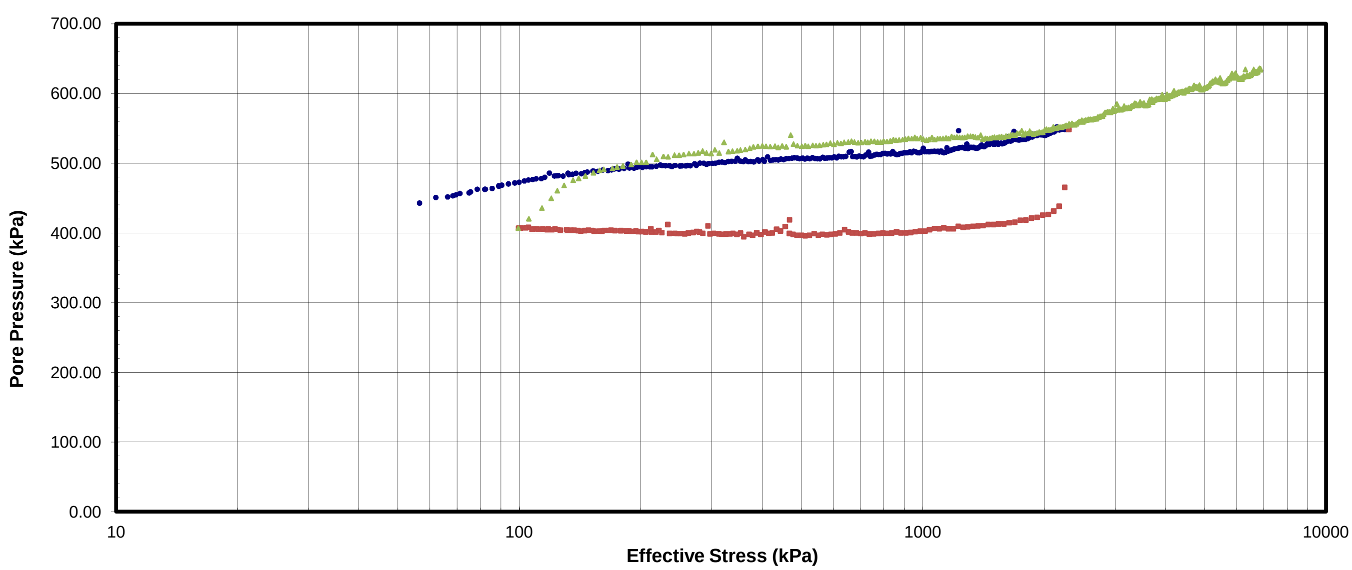
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 15, 2012
Borehole:	BH-001-12	Station:	CRS #3
Sample No.:	ST-4	Depth (m):	21.88

Weight of Ring (g):	216.00	**Ring + Wet Weight (g):**	360.61	**Initial Void Ratio, e:**	1.00
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	326.05	**Height of Soil, Hs (mm):**	12.68
Diameter of Ring (mm):	63.50	**Water Content (%):**	31.4	**Height of Void, Hv (mm):**	12.72
Unit Weight (kN/m^3)	17.64	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 20, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

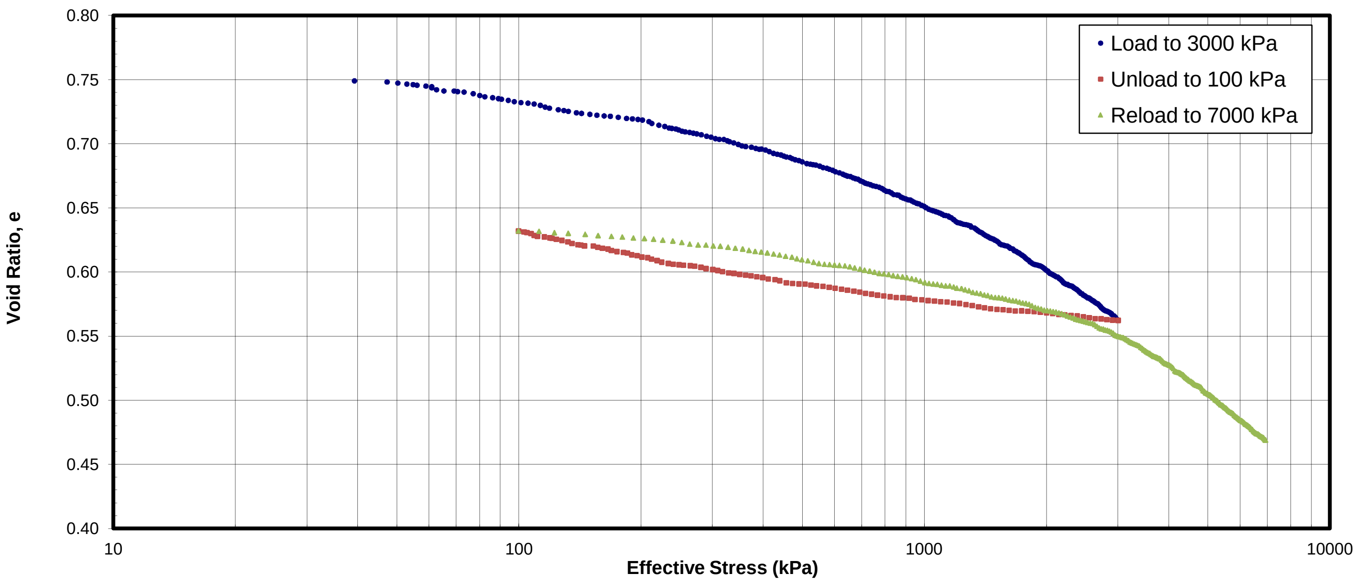
Marine + Earth Geosciences

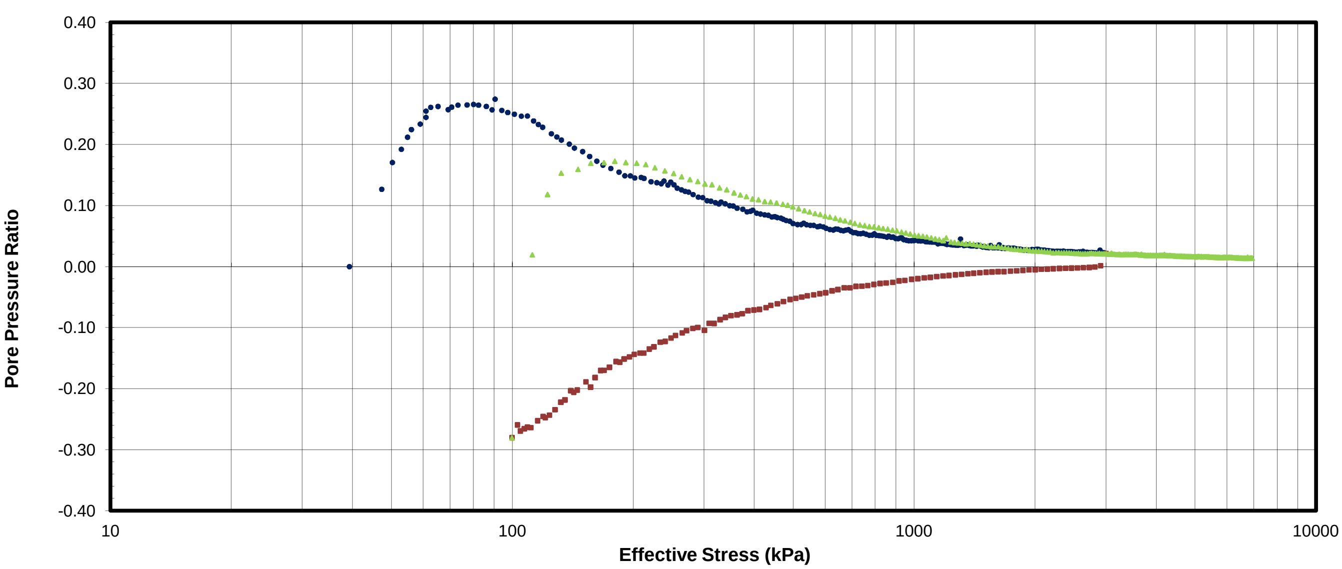
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 15, 2012
Borehole:	BH-001-12	Station:	CRS #1
Sample No.:	ST-7	Depth (m):	23.69

Weight of Ring (g):	211.63	**Ring + Wet Weight (g):**	371.05	**Initial Void Ratio, e:**	0.75
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	338.49	**Height of Soil, Hs (mm):**	14.51
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.7	**Height of Void, Hv (mm):**	10.89
Unit Weight (kN/m^3)	19.44	**Specific Gravity, Gs:**	2.76		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 20, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

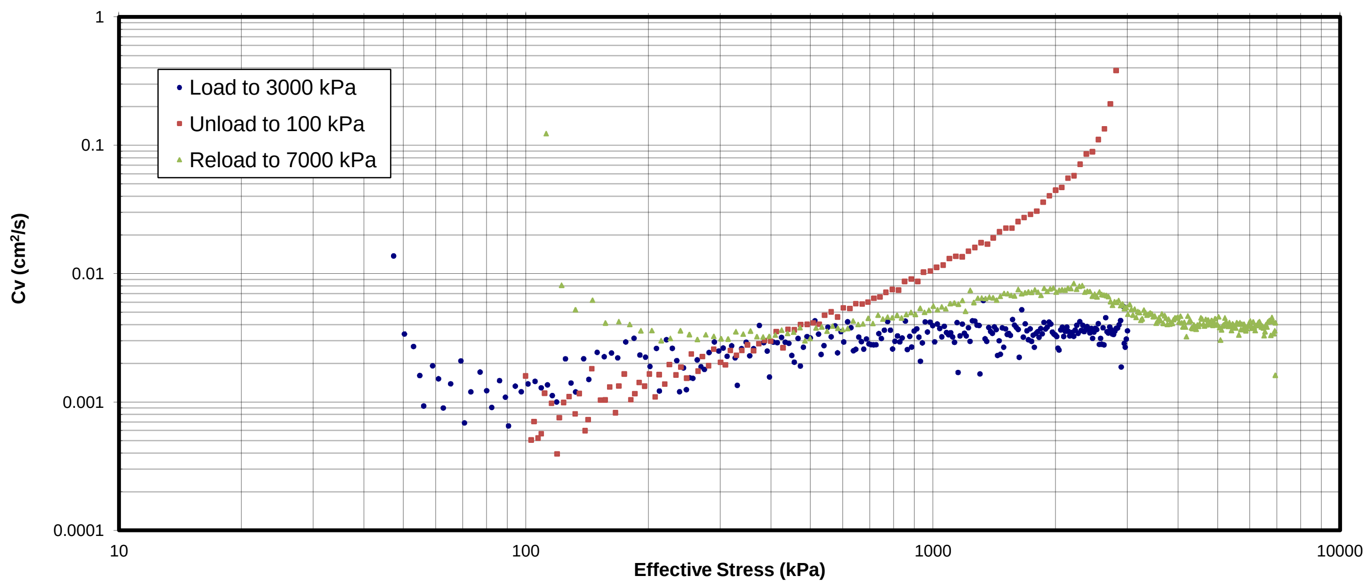
(A Division of MEG Consulting Limited)

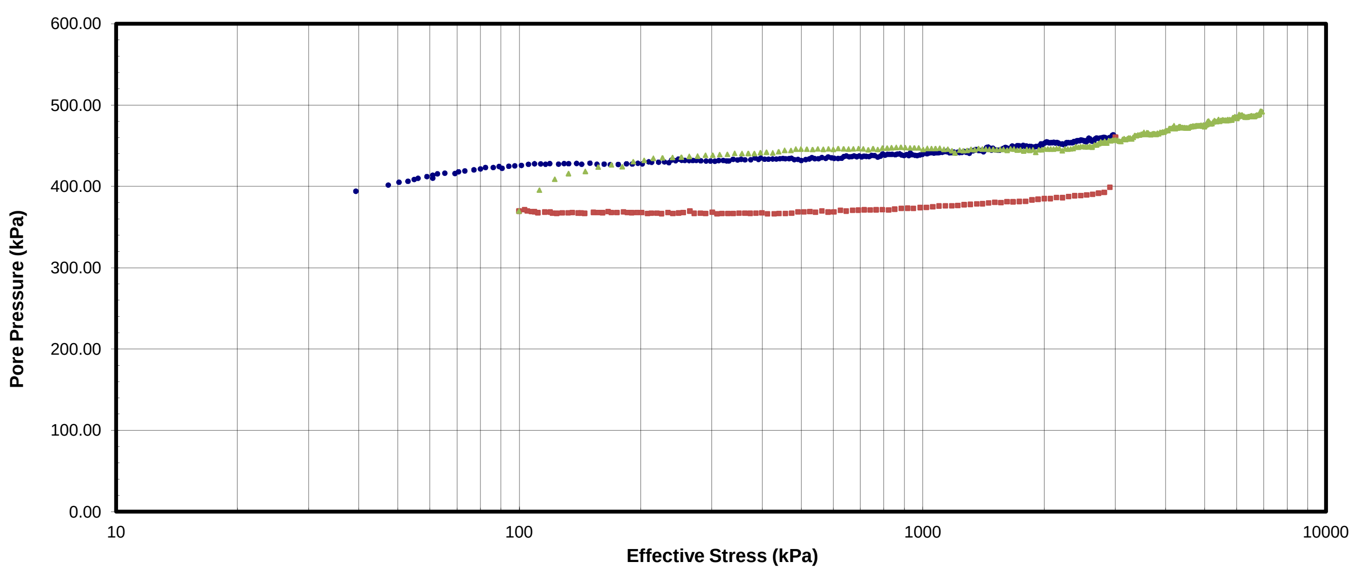
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 15, 2012
Borehole:	BH-001-12	Station:	CRS #1
Sample No.:	ST-7	Depth (m):	23.69

Weight of Ring (g):	211.63	**Ring + Wet Weight (g):**	371.05	**Initial Void Ratio, e:**	0.75
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	338.49	**Height of Soil, Hs (mm):**	14.51
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.7	**Height of Void, Hv (mm):**	10.89
Unit Weight (kN/m^3)	19.44	**Specific Gravity, Gs:**	2.76		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 20, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

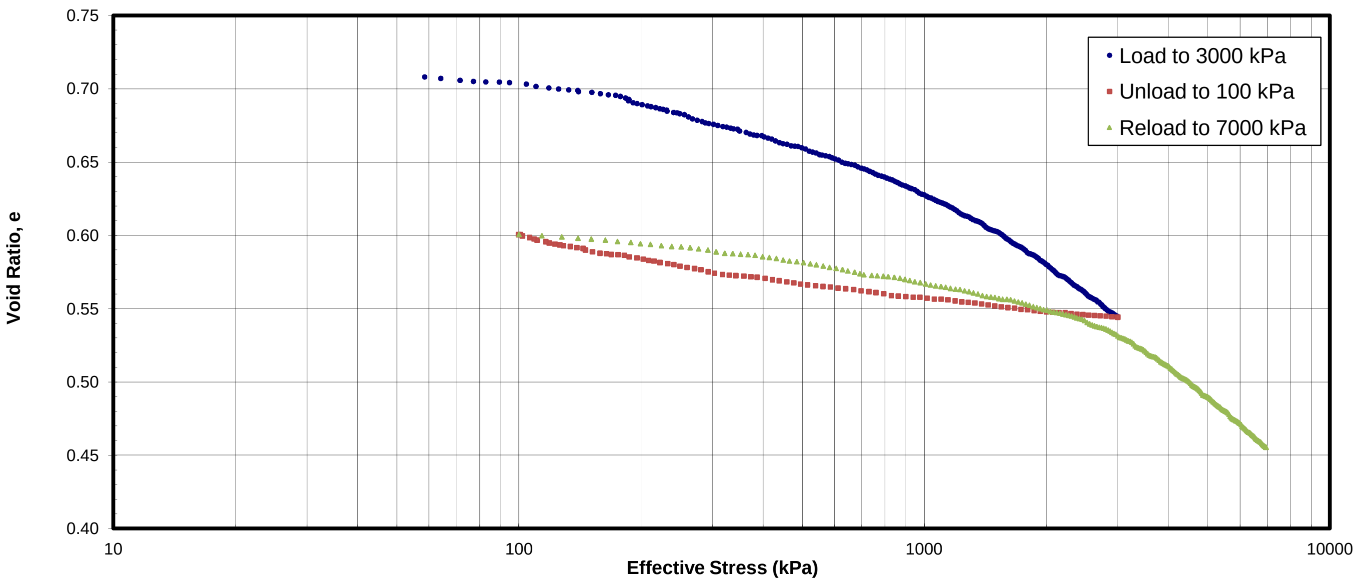
(A Division of MEG Consulting Limited)

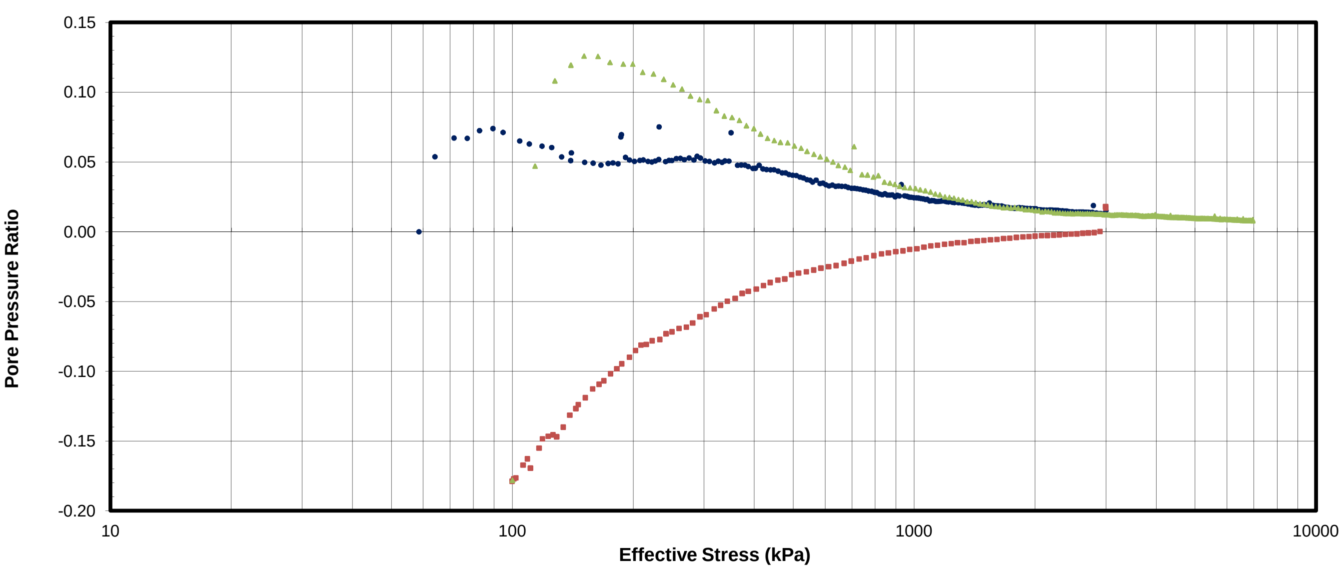
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 10, 2012
Borehole:	BH-001-12	Station:	CRS #1
Sample No.:	ST-13	Depth (m):	29.14

Weight of Ring (g):	216.64	**Ring + Wet Weight (g):**	379.02	**Initial Void Ratio, e:**	0.71
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	345.58	**Height of Soil, Hs (mm):**	14.86
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.9	**Height of Void, Hv (mm):**	10.54
Unit Weight (kN/m^3)	19.80	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	14.9		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 10, 2012	Date:	July 13, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

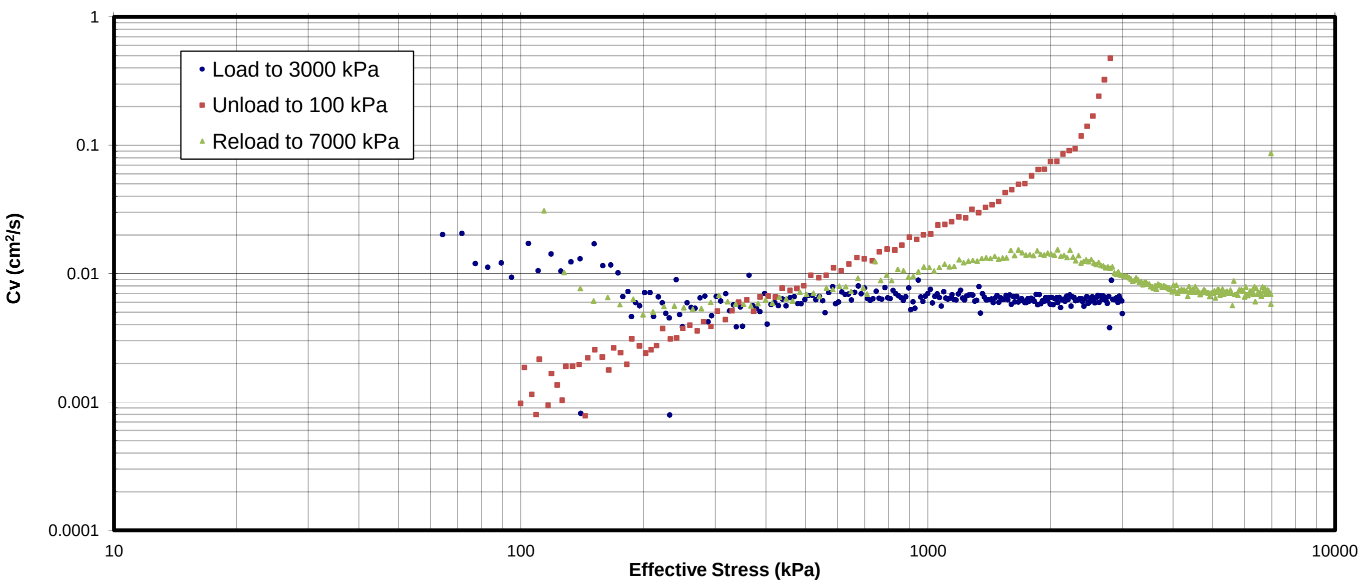
(A Division of MEG Consulting Limited)

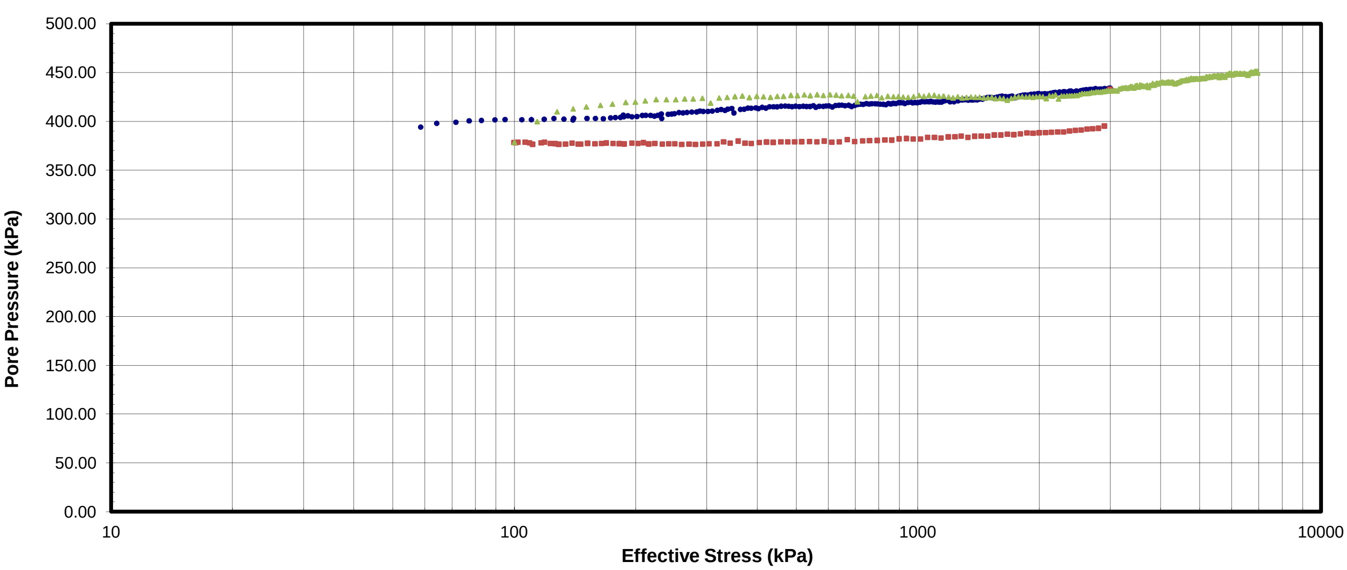
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 10, 2012
Borehole:	BH-001-12	Station:	CRS #1
Sample No.:	ST-13	Depth (m):	29.14

Weight of Ring (g):	216.64	**Ring + Wet Weight (g):**	379.02	**Initial Void Ratio, e:**	0.71
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	345.58	**Height of Soil, Hs (mm):**	14.86
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.9	**Height of Void, Hv (mm):**	10.54
Unit Weight (kN/m^3)	19.80	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	14.9		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 10, 2012	Date:	July 13, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

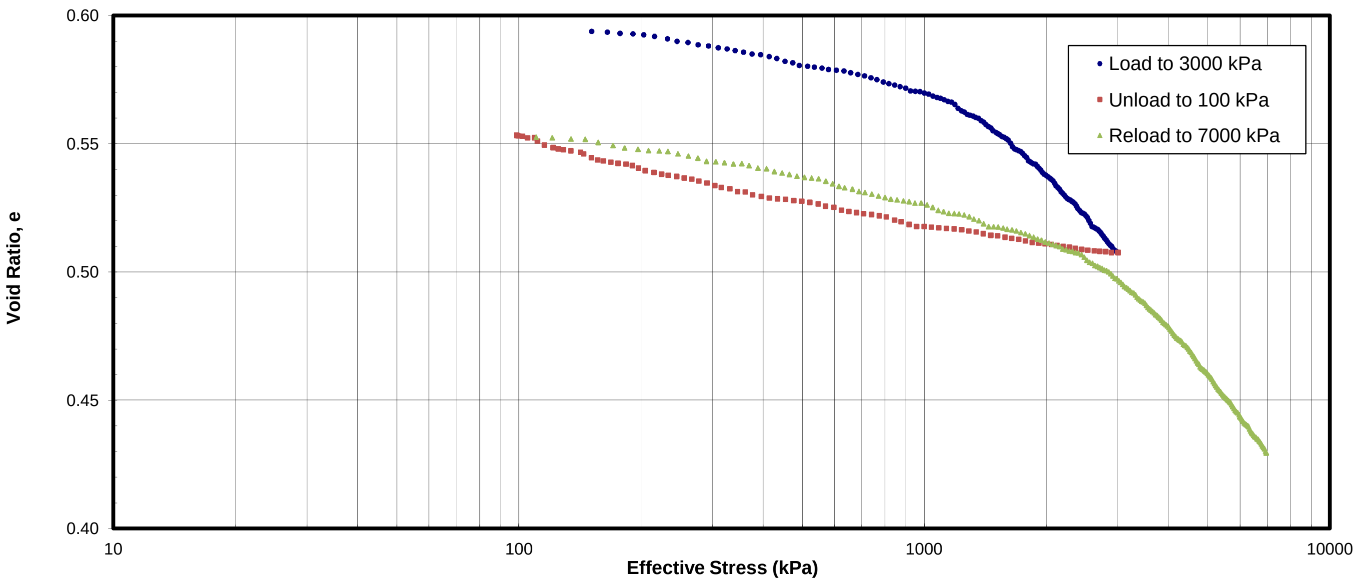
Marine + Earth MEG Geosciences

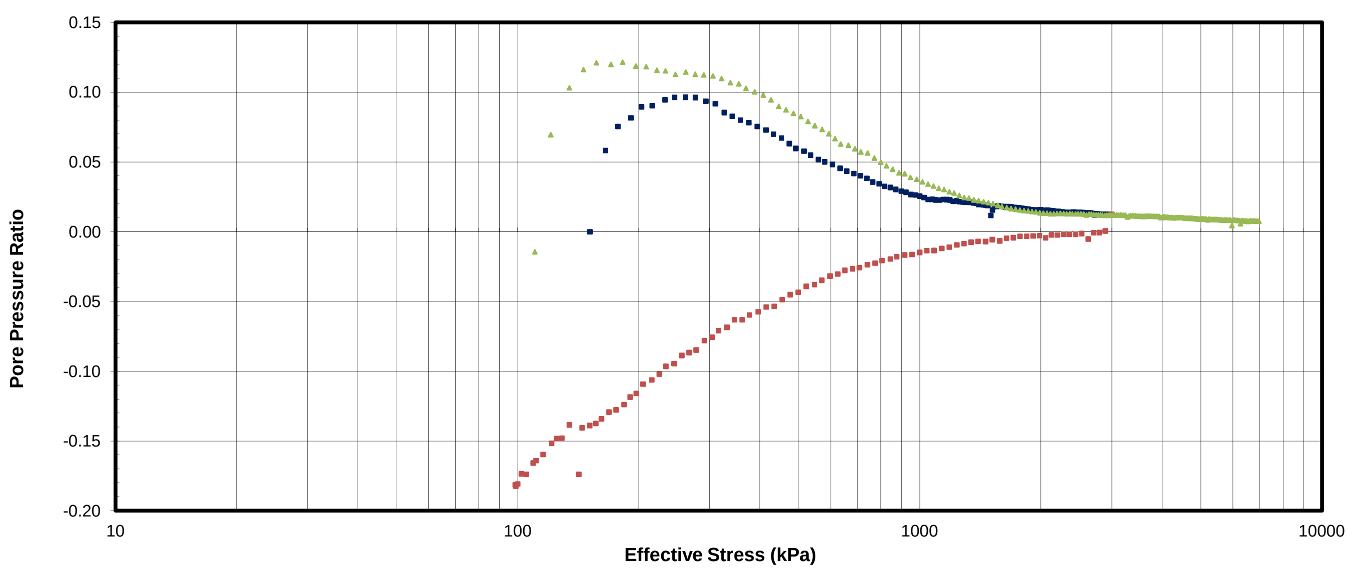
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jul 10, 2012
Borehole:	BH-001-12	Station:	CRS #1
Sample No.:	ST-15	Depth (m):	30.94

Weight of Ring (g):	215.97	**Ring + Wet Weight (g):**	381.49	**Initial Void Ratio, e:**	0.59
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	354.73	**Height of Soil, Hs (mm):**	15.93
Diameter of Ring (mm):	63.50	**Water Content (%):**	19.3	**Height of Void, Hv (mm):**	9.47
Unit Weight (kN/m^3)	20.19	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	10.3		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 17, 2012	Date:	July 18, 2012	Date:	July 18, 2012

MEG TECHNICAL SERVICES

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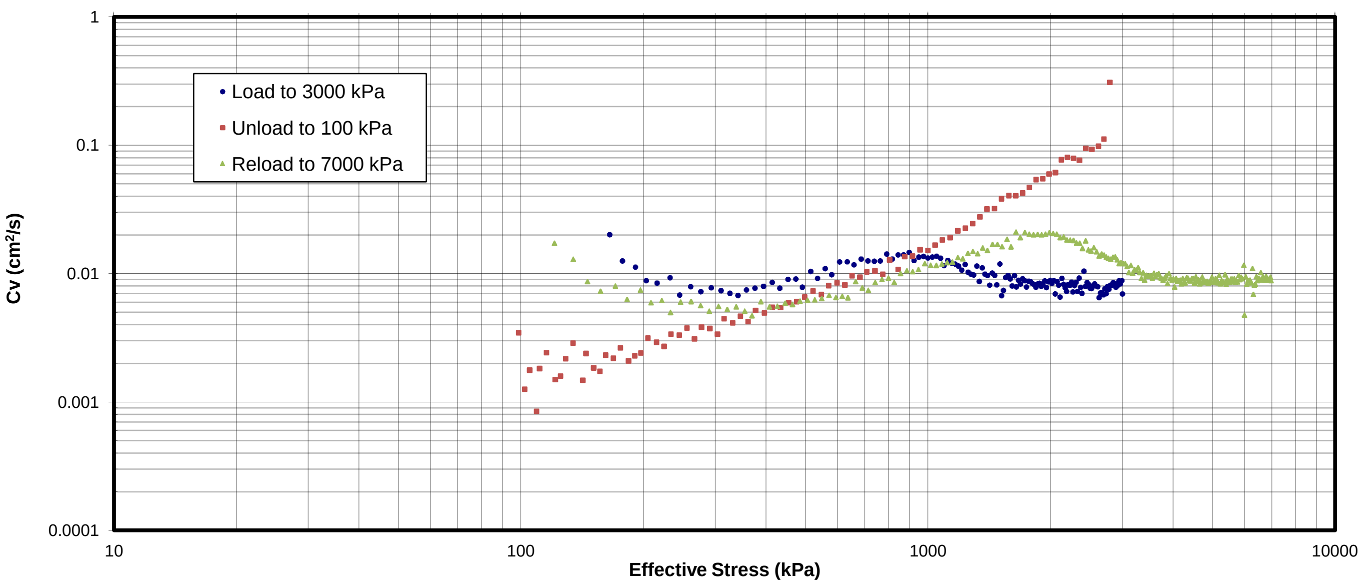
Marine + Earth MEG Geosciences

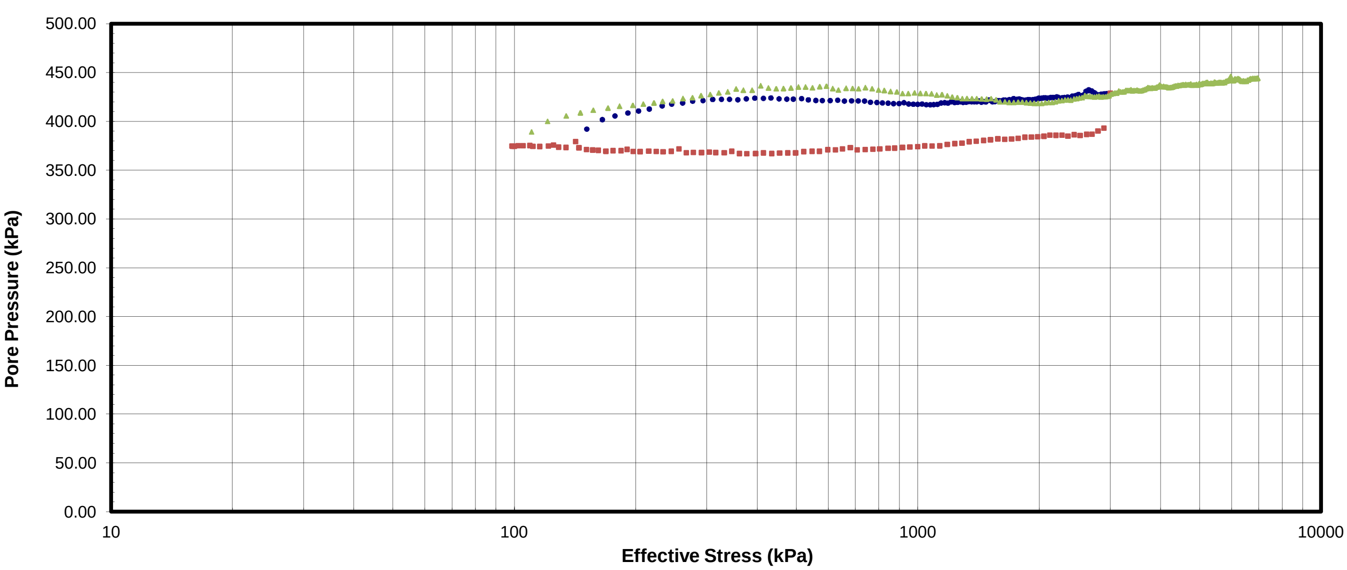
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 10, 2012
Borehole:	BH-001-12	Station:	CRS #1
Sample No.:	ST-15	Depth (m):	30.94

Weight of Ring (g):	215.97	**Ring + Wet Weight (g):**	381.49	**Initial Void Ratio, e:**	0.59
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	354.73	**Height of Soil, Hs (mm):**	15.93
Diameter of Ring (mm):	63.50	**Water Content (%):**	19.3	**Height of Void, Hv (mm):**	9.47
Unit Weight (kN/m^3)	20.19	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	10.3		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 17, 2012	Date:	July 18, 2012	Date:	July 18, 2012

MEG TECHNICAL SERVICES

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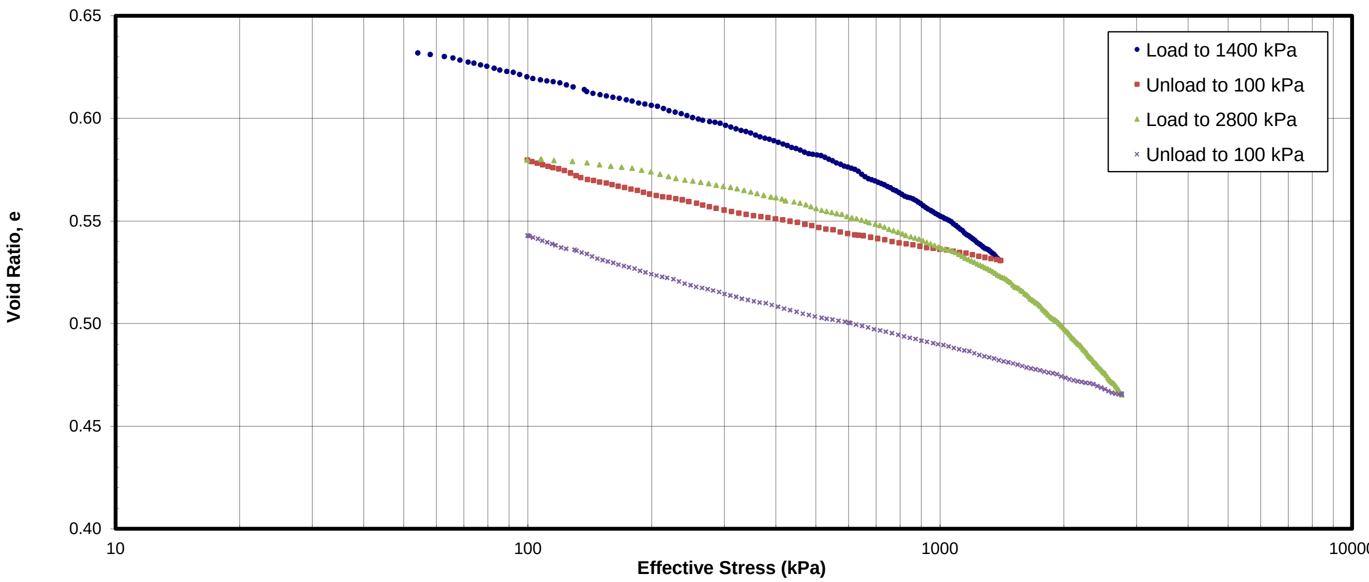
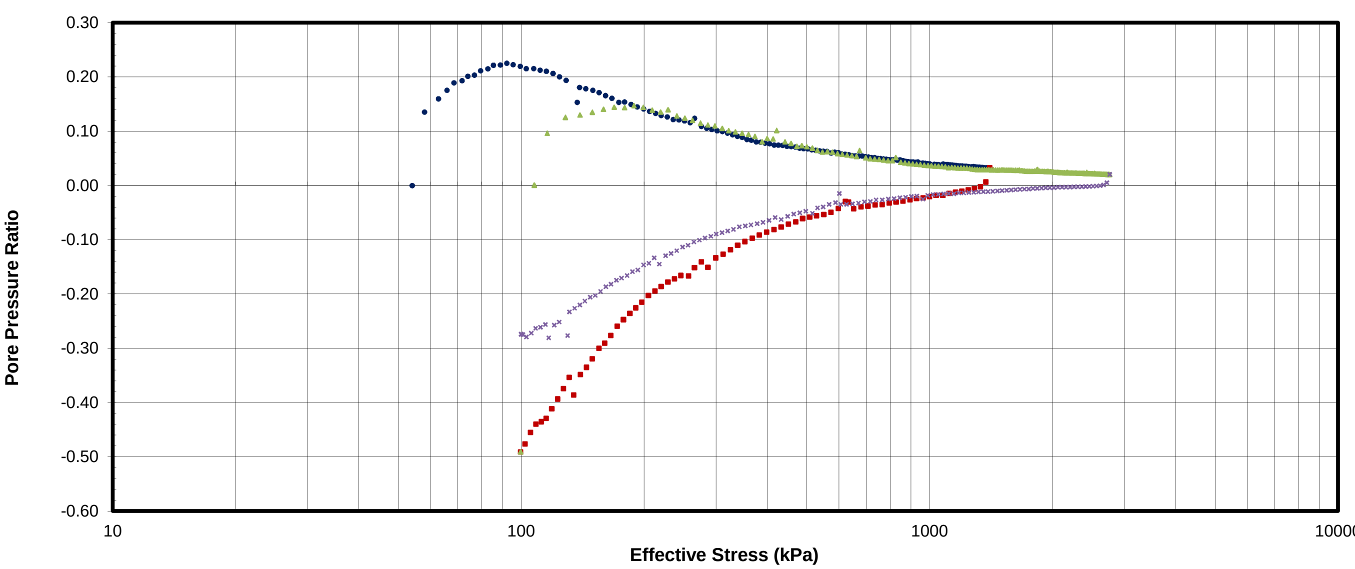
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 29, 2012
Borehole:	BH-003-12	Station:	CRS #3
Sample No.:	ST-2	Depth (m):	28.29

Weight of Ring (g):	216.65	**Ring + Wet Weight (g):**	380.64	**Initial Void Ratio, e:**	0.63
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	350.64	**Height of Soil, Hs (mm):**	15.55
Diameter of Ring (mm):	63.50	**Water Content (%):**	22.4	**Height of Void, Hv (mm):**	9.85
Unit Weight (kN/m^3)	20.00	**Specific Gravity, Gs:**	2.72		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	10.26		





Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	June 1, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

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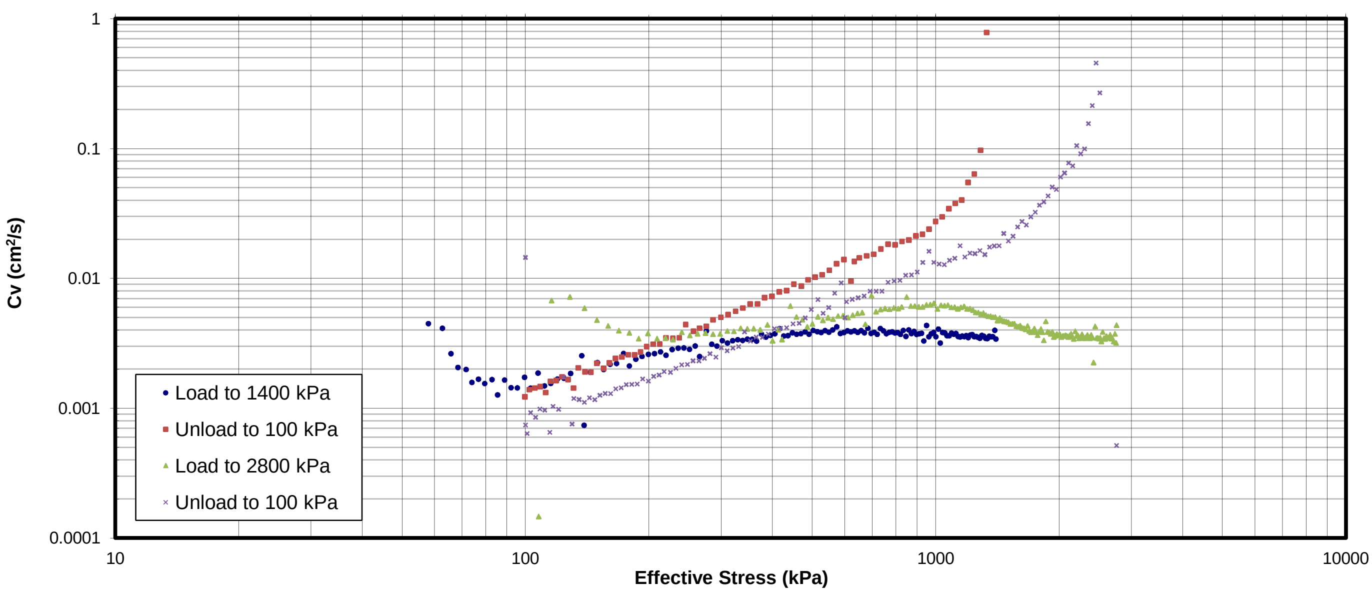
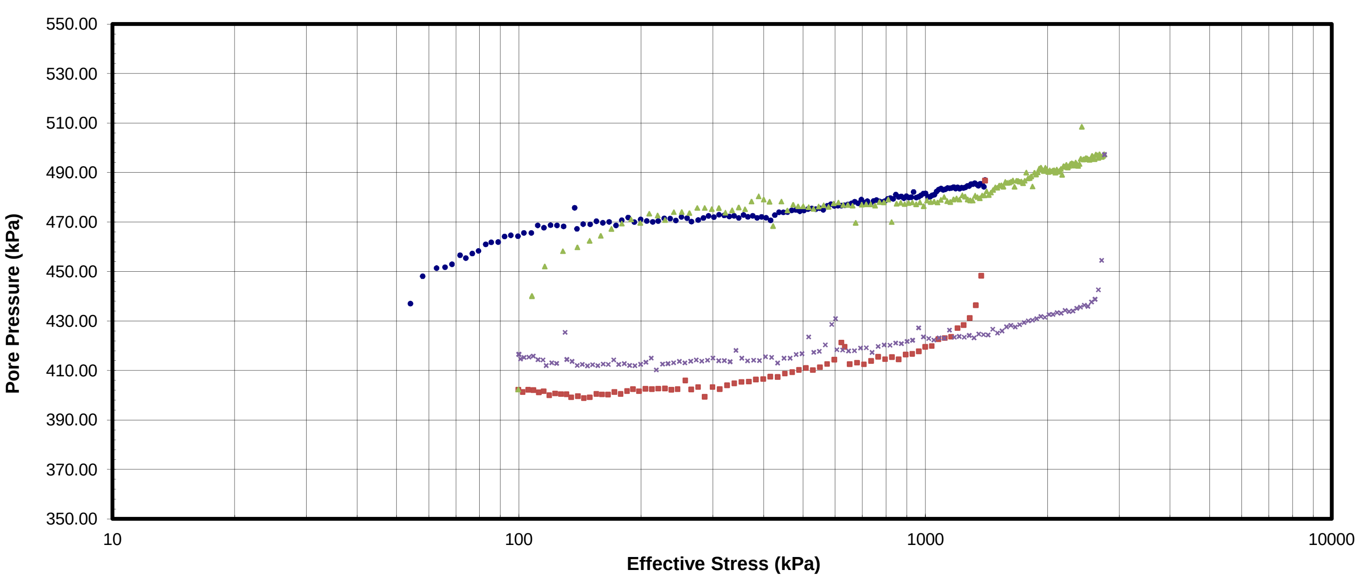
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 29, 2012
Borehole:	BH-003-12	Station:	CRS #3
Sample No.:	ST-2	Depth (m):	28.29

Weight of Ring (g):	216.65	**Ring + Wet Weight (g):**	380.64	**Initial Void Ratio, e:**	0.63
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	350.64	**Height of Soil, Hs (mm):**	15.55
Diameter of Ring (mm):	63.50	**Water Content (%):**	22.4	**Height of Void, Hv (mm):**	9.85
Unit Weight (kN/m^3)	20.00	**Specific Gravity, Gs:**	2.72		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	10.26		





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Date:	June 1, 2012	Date:	July 12, 2012	Date:	July 12, 2012

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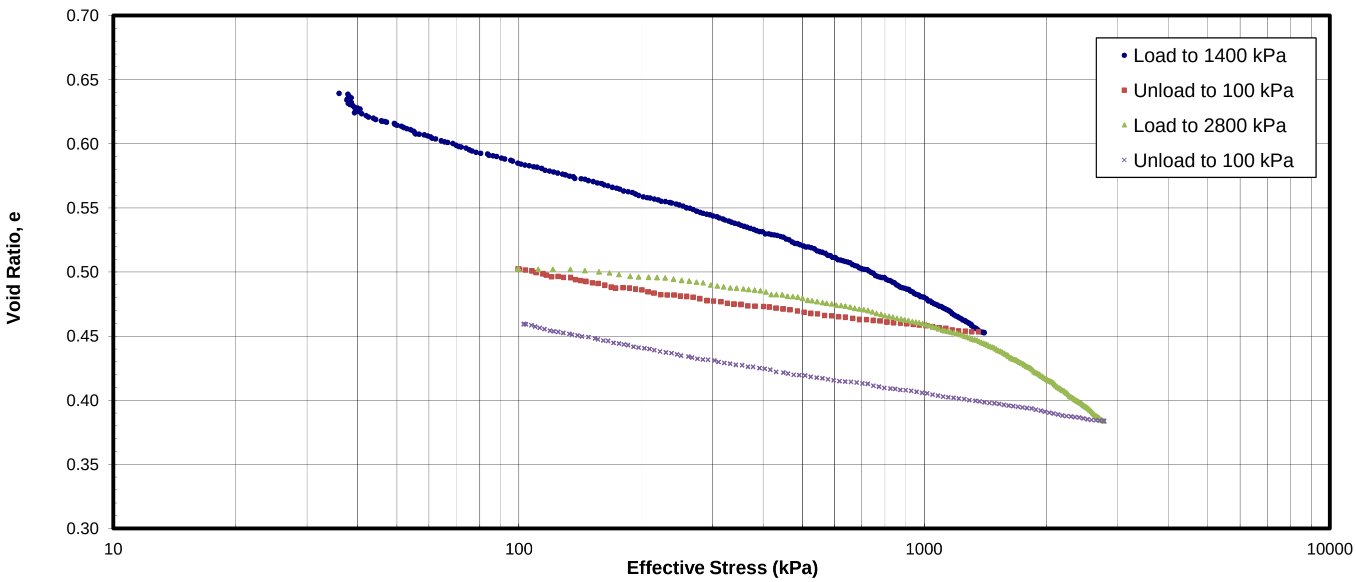
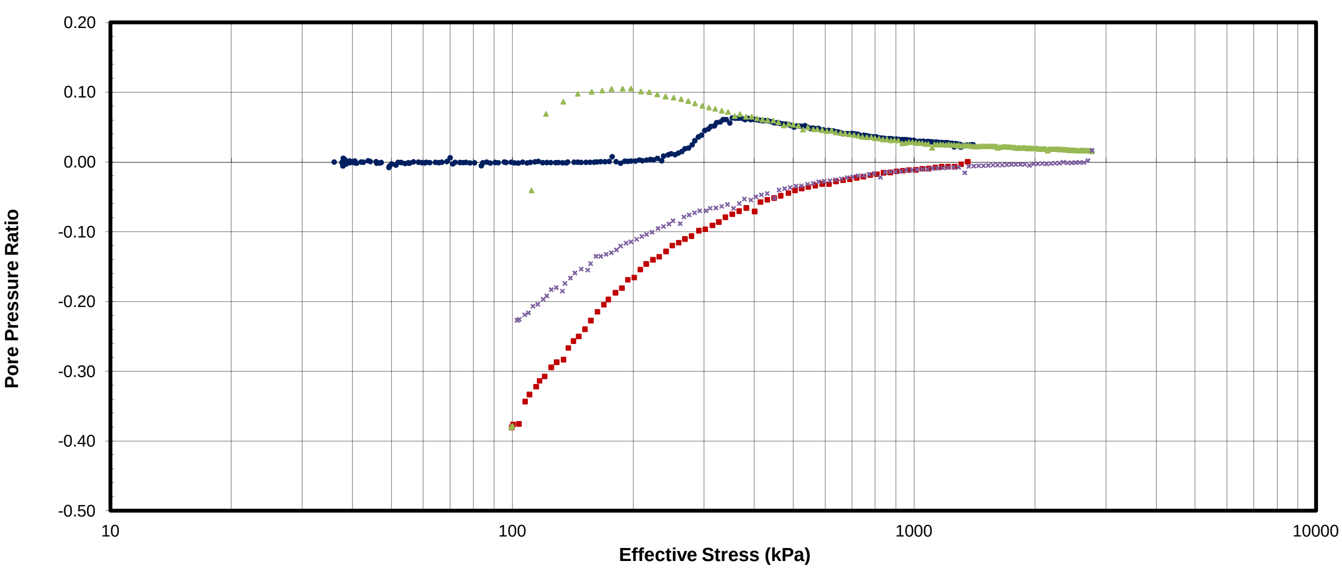
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 29, 2012
Borehole:	BH-003-12	Station:	CRS #2
Sample No.:	ST-3	Depth (m):	29.20

Weight of Ring (g):	200.00	**Ring + Wet Weight (g):**	370.49	**Initial Void Ratio, e:**	0.64
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	332.83	**Height of Soil, Hs (mm):**	15.48
Diameter of Ring (mm):	63.50	**Water Content (%):**	28.4	**Height of Void, Hv (mm):**	9.92
Unit Weight (kN/m^3)	20.79	**Specific Gravity, Gs:**	2.71		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	15.67		





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Date:	June 1, 2012	Date:	July 12, 2012	Date:	July 12, 2012

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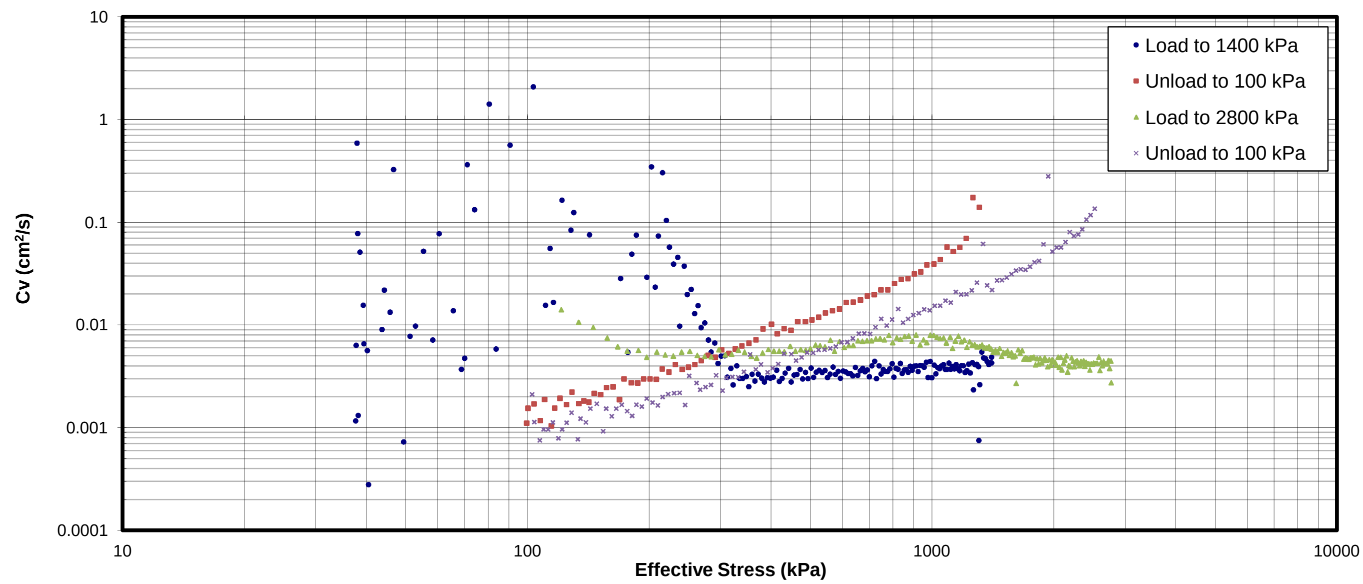
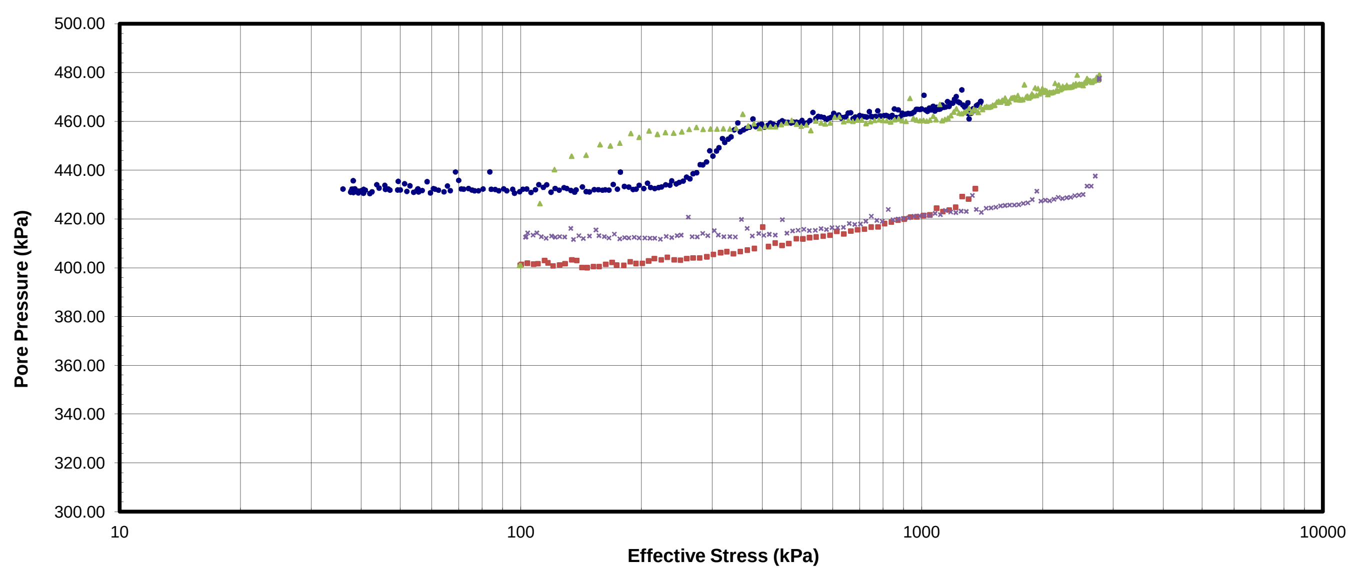
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 29, 2012
Borehole:	BH-003-12	Station:	CRS #2
Sample No.:	ST-3	Depth (m):	29.20

Weight of Ring (g):	200.00	**Ring + Wet Weight (g):**	370.49	**Initial Void Ratio, e:**	0.64
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	332.83	**Height of Soil, Hs (mm):**	15.48
Diameter of Ring (mm):	63.50	**Water Content (%):**	28.4	**Height of Void, Hv (mm):**	9.92
Unit Weight (kN/m^3)	20.79	**Specific Gravity, Gs:**	2.71		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	15.67		





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Date:	June 1, 2012	Date:	July 12, 2012	Date:	July 12, 2012

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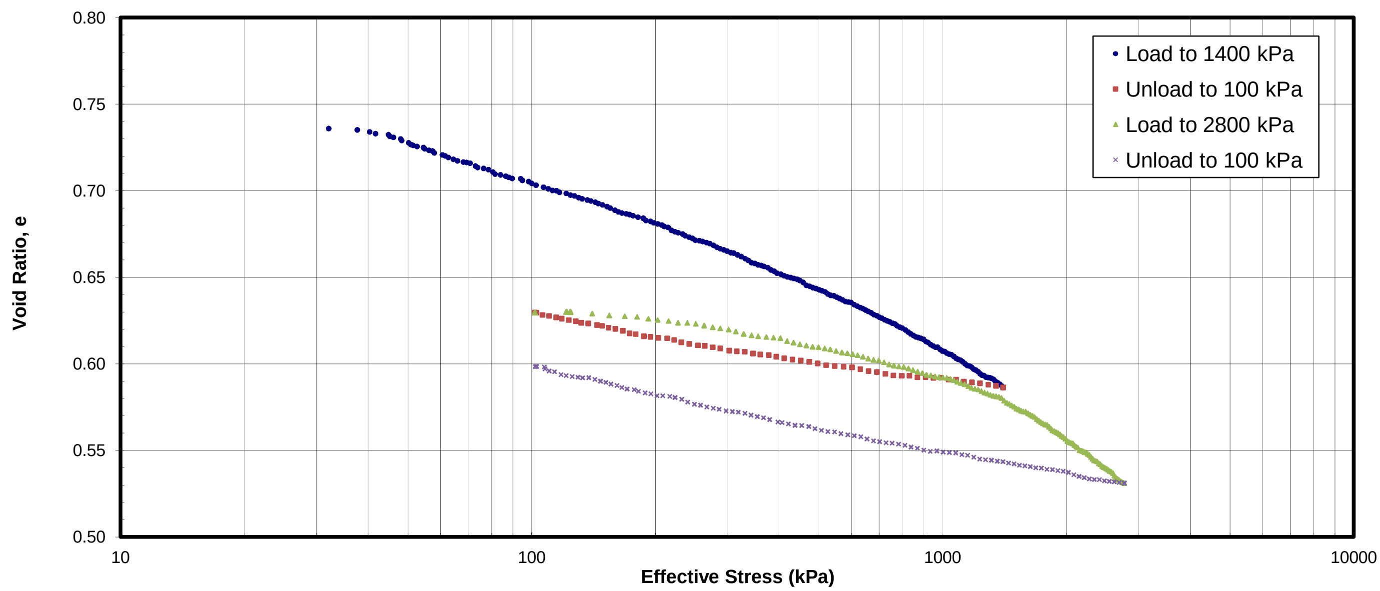
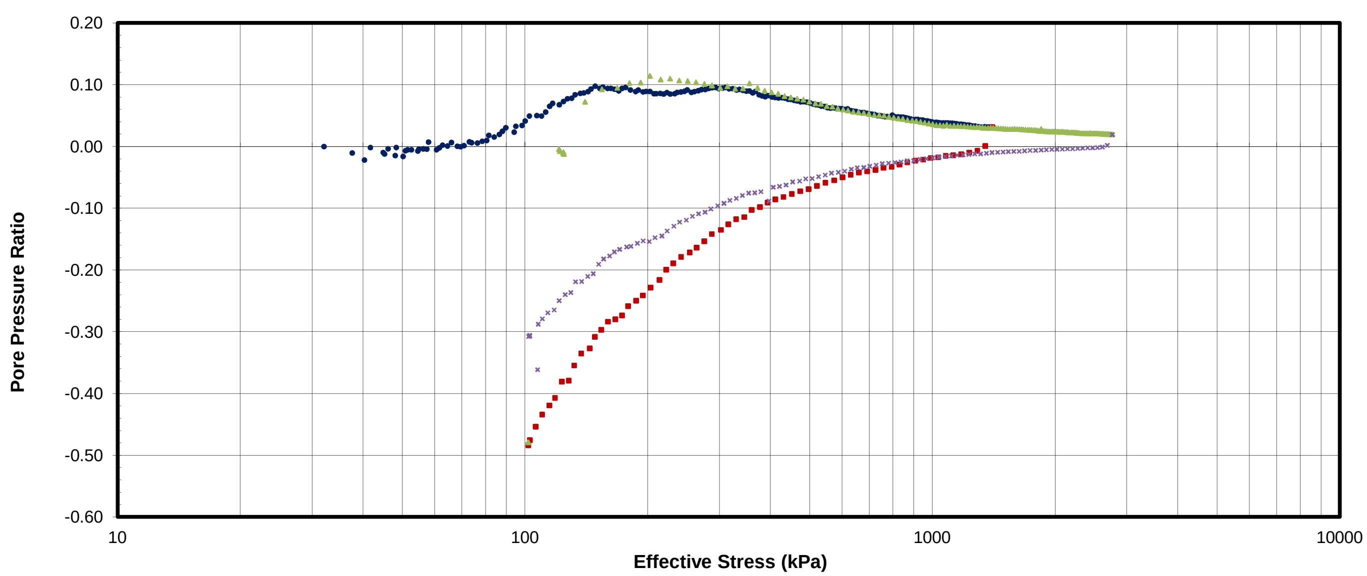
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 29, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-4	Depth (m):	29.81

Weight of Ring (g):	214.38	**Ring + Wet Weight (g):**	374.37	**Initial Void Ratio, e:**	0.74
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	341.74	**Height of Soil, Hs (mm):**	14.62
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.6	**Height of Void, Hv (mm):**	10.78
Unit Weight (kN/m^3)	19.51	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 1, 2012	Date:	July 12, 2012	Date:	July 12, 2012

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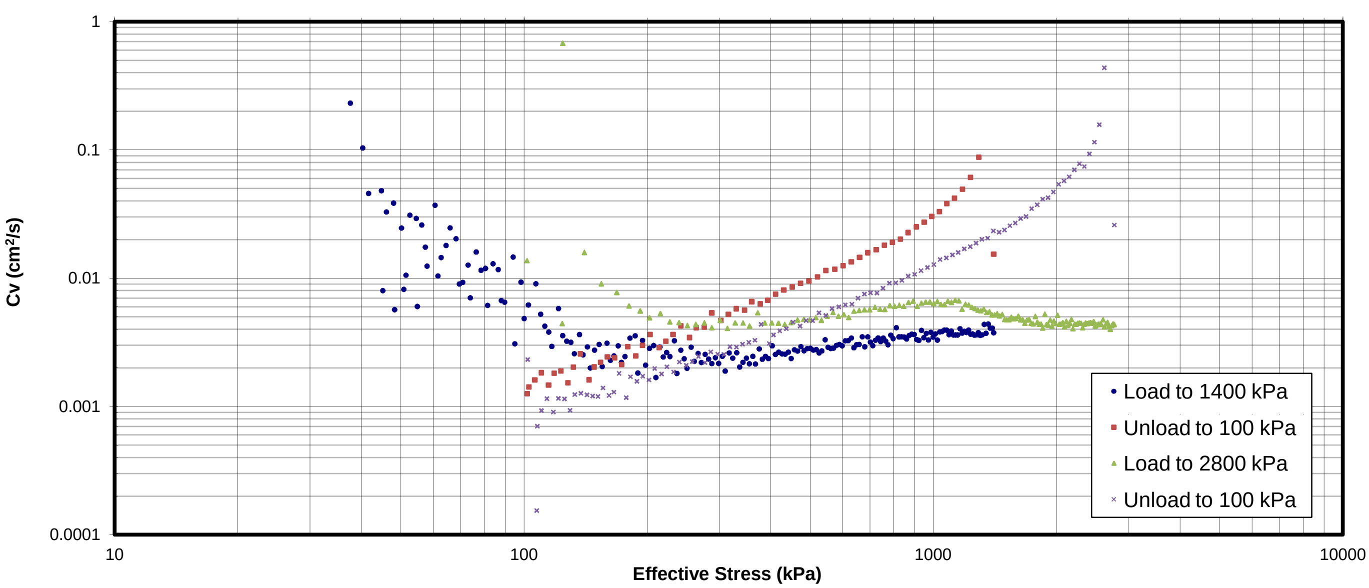
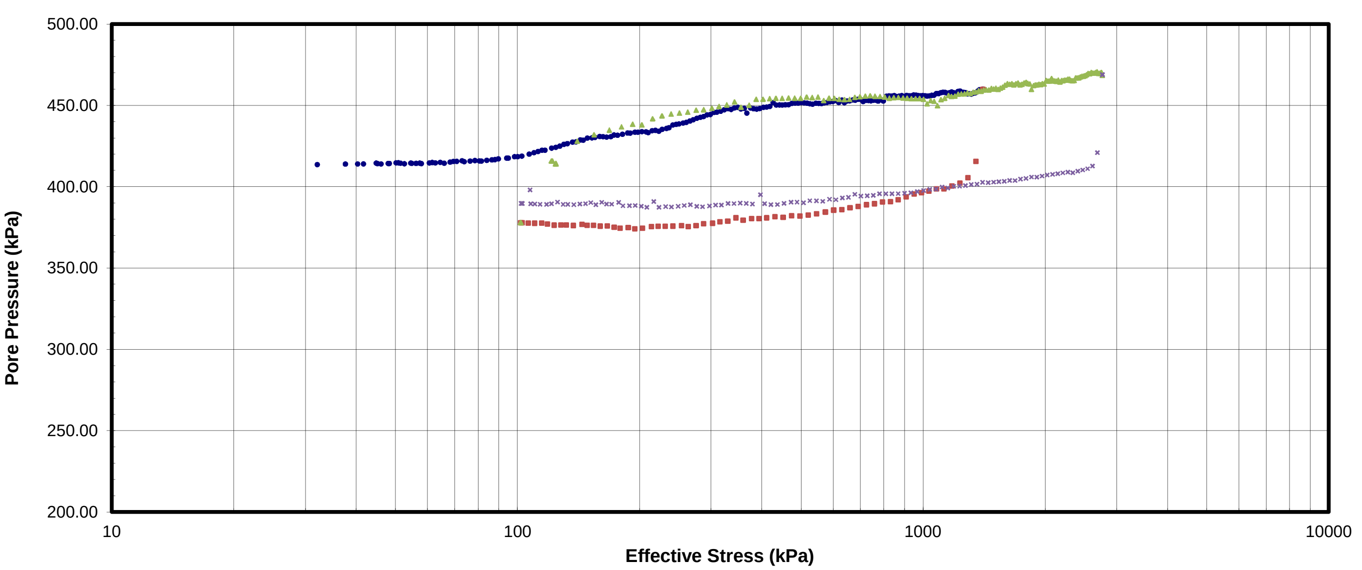
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	May 29, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-4	Depth (m):	29.81

Weight of Ring (g):	214.38	**Ring + Wet Weight (g):**	374.37	**Initial Void Ratio, e:**	0.74
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	341.74	**Height of Soil, Hs (mm):**	14.62
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.6	**Height of Void, Hv (mm):**	10.78
Unit Weight (kN/m^3)	19.51	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 1, 2012	Date:	July 12, 2012	Date:	July 12, 2012

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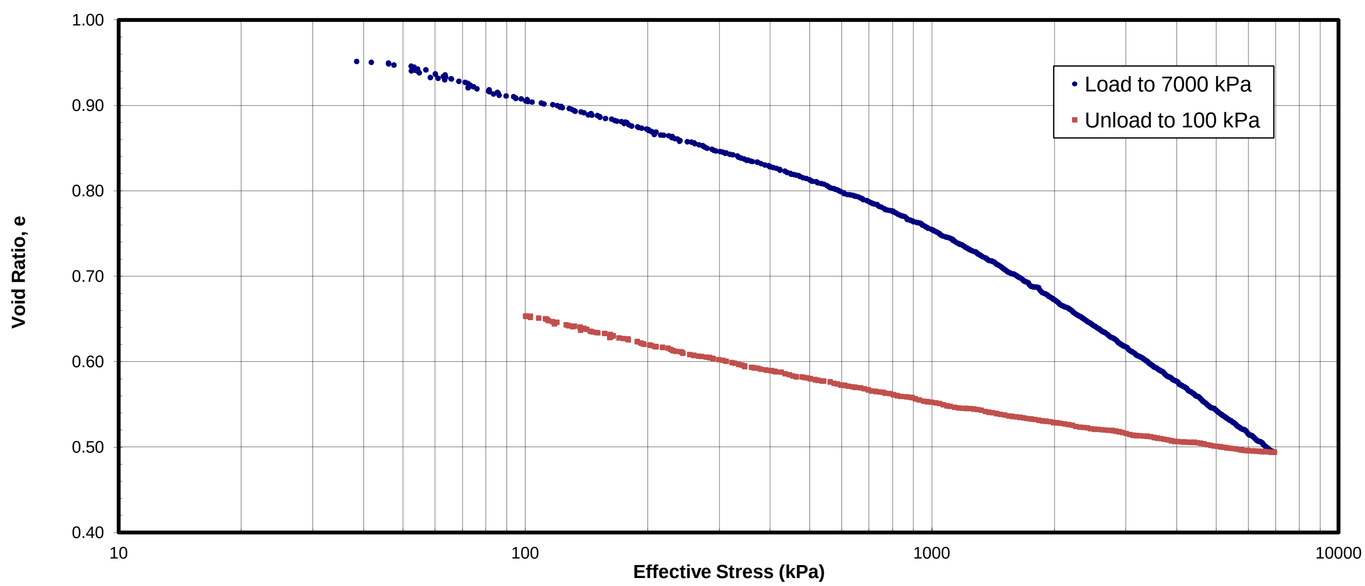
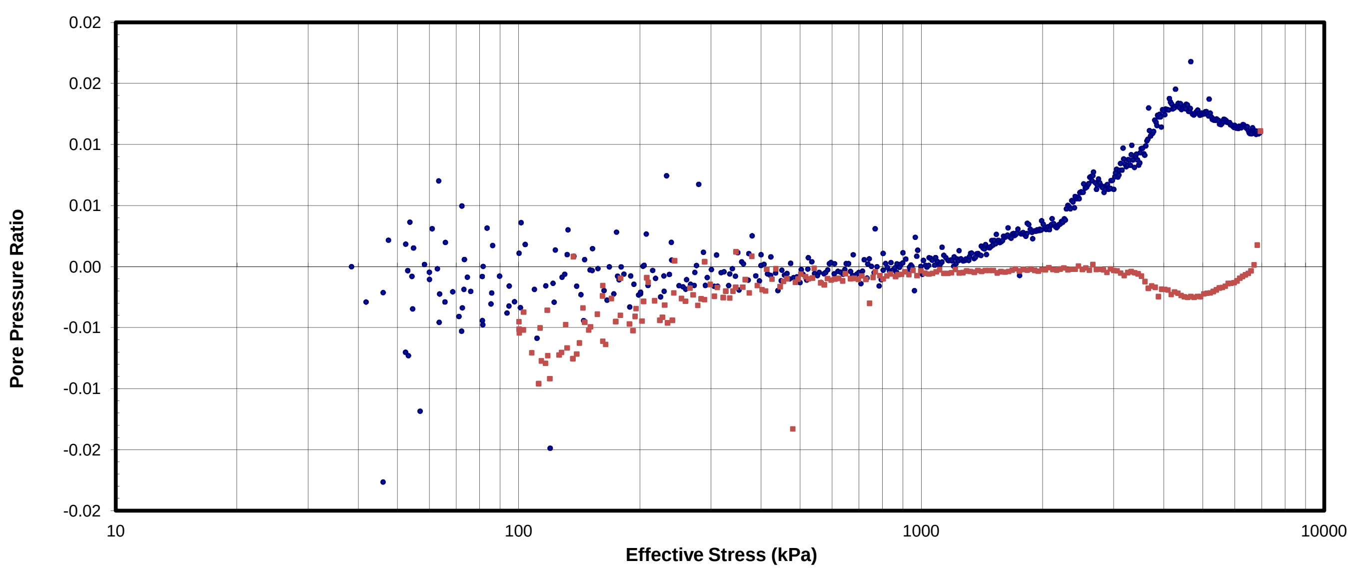
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-5	Depth (m):	30.73

Weight of Ring (g):	214.38	**Ring + Wet Weight (g):**	363.77	**Initial Void Ratio, e:**	0.95
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	327.21	**Height of Soil, Hs (mm):**	13.00
Diameter of Ring (mm):	63.50	**Water Content (%):**	32.4	**Height of Void, Hv (mm):**	12.40
Unit Weight (kN/m^3)	18.22	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	6940	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	23.5		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 4, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

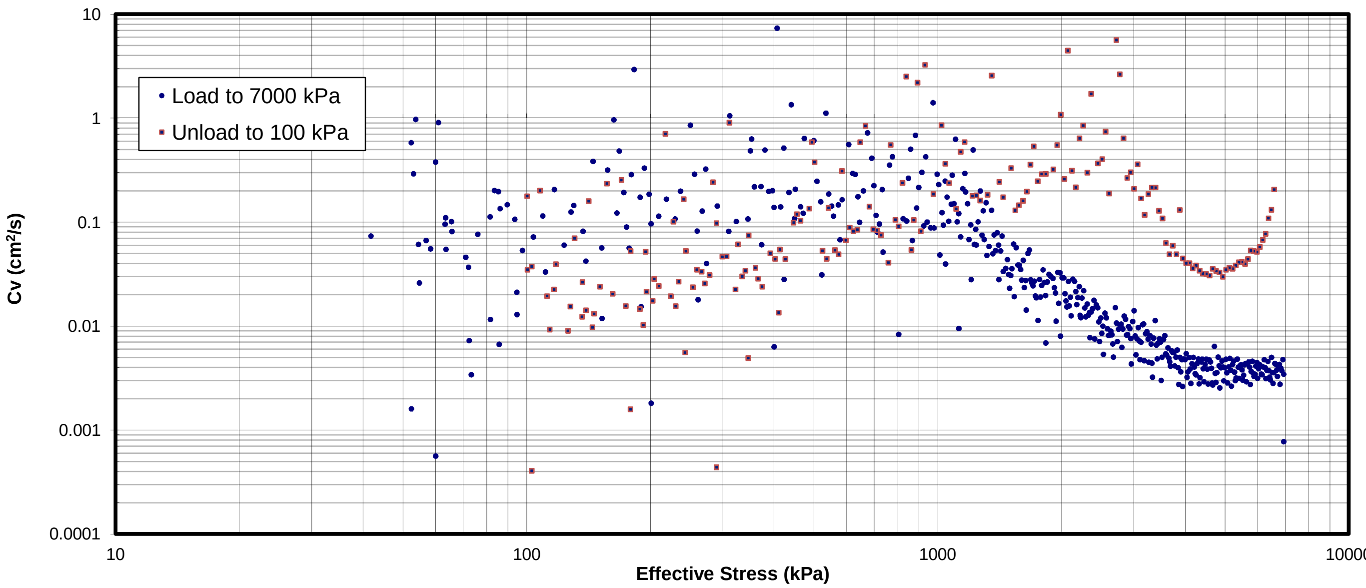
(A Division of MEG Consulting Limited)

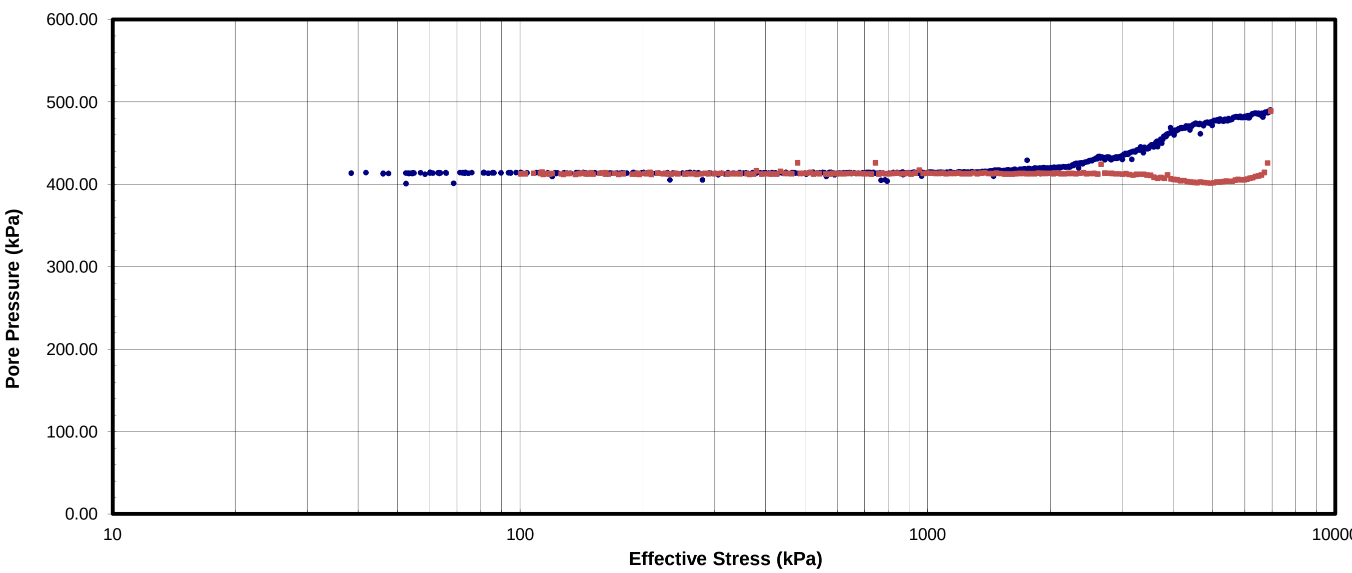
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jun 1, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-5	Depth (m):	30.73

Weight of Ring (g):	214.38	**Ring + Wet Weight (g):**	363.77	**Initial Void Ratio, e:**	0.95
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	327.21	**Height of Soil, Hs (mm):**	13.00
Diameter of Ring (mm):	63.50	**Water Content (%):**	32.4	**Height of Void, Hv (mm):**	12.40
Unit Weight (kN/m^3)	18.22	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	6940	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	23.5		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 4, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

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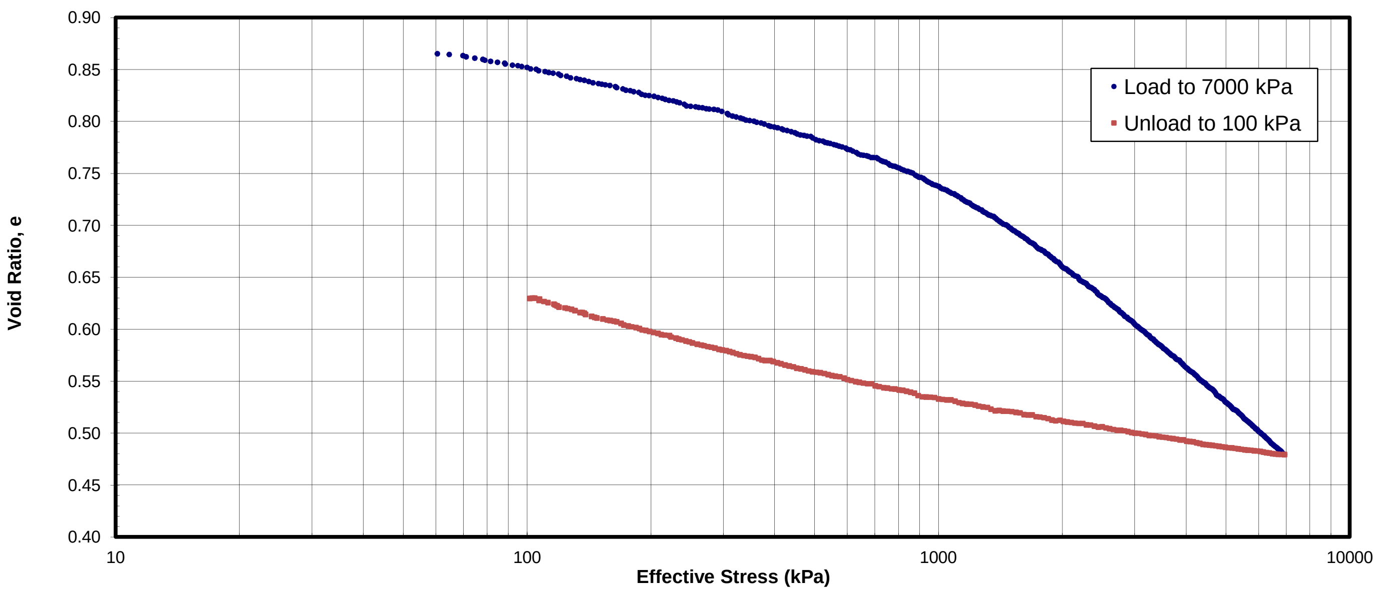
Marine + Earth MEG Geosciences

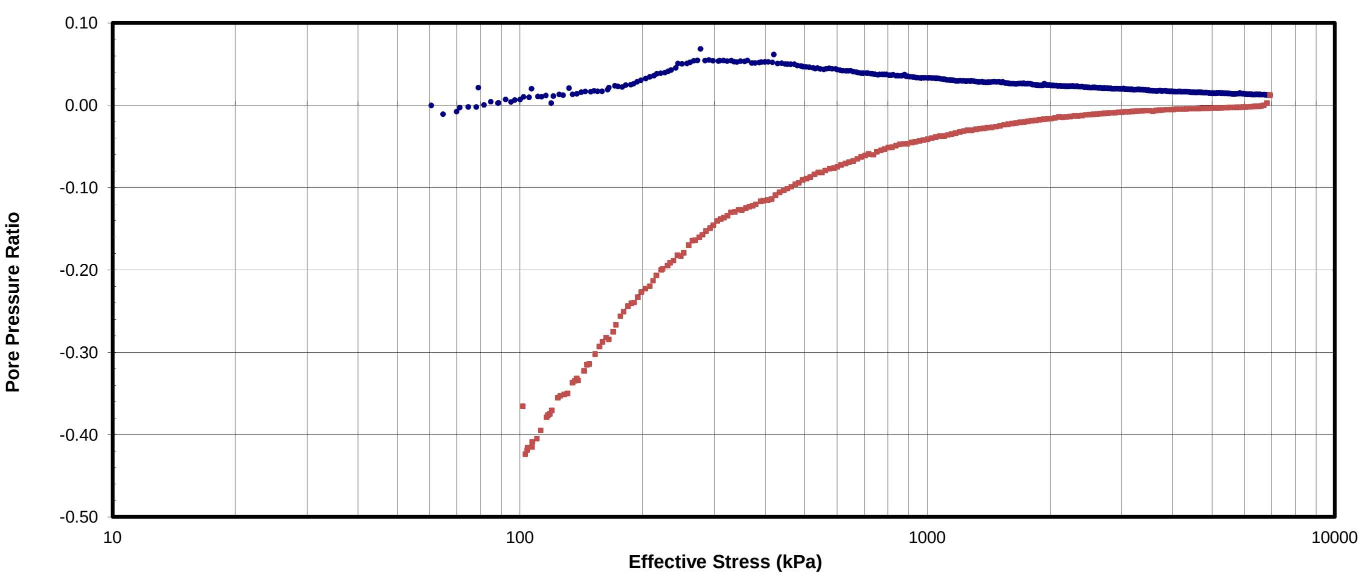
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12	Station:	CRS #2
Sample No.:	ST-6	Depth (m):	31.29

Weight of Ring (g):	211.63	**Ring + Wet Weight (g):**	365.62	**Initial Void Ratio, e:**	0.87
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	331.00	**Height of Soil, Hs (mm):**	13.61
Diameter of Ring (mm):	63.50	**Water Content (%):**	29.0	**Height of Void, Hv (mm):**	11.79
Unit Weight (kN/m^3)	18.78	**Specific Gravity, Gs:**	2.77		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	6931	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	20.7		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 4, 2012	Date:	July 12, 2012	Date:	July 12, 2012

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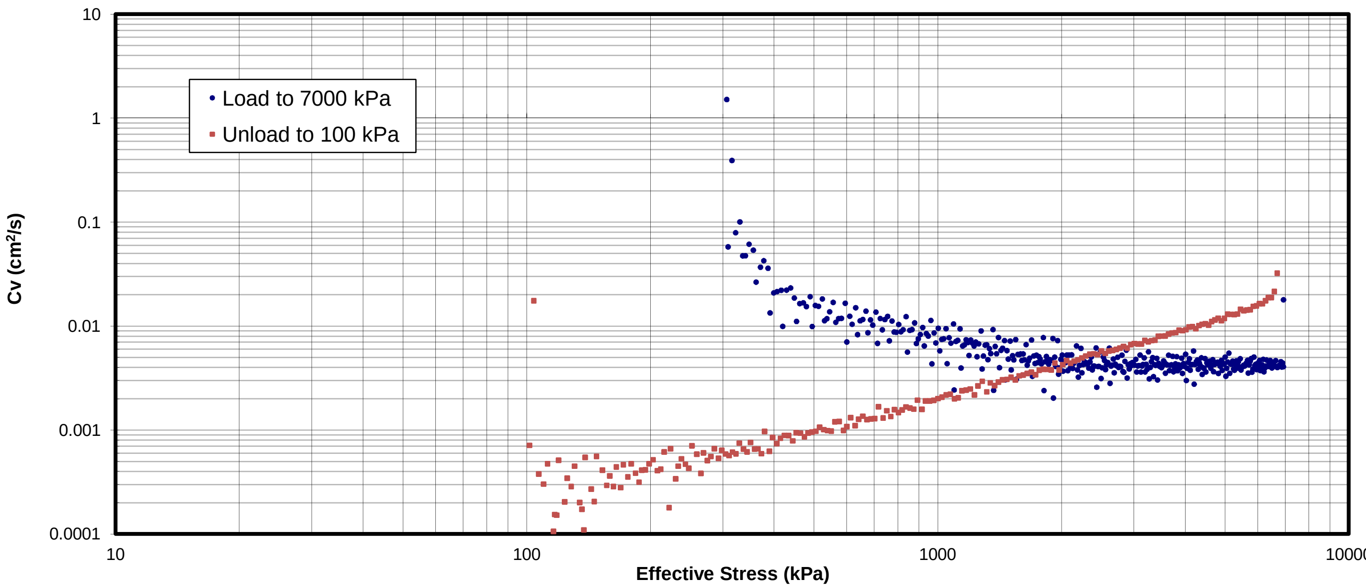
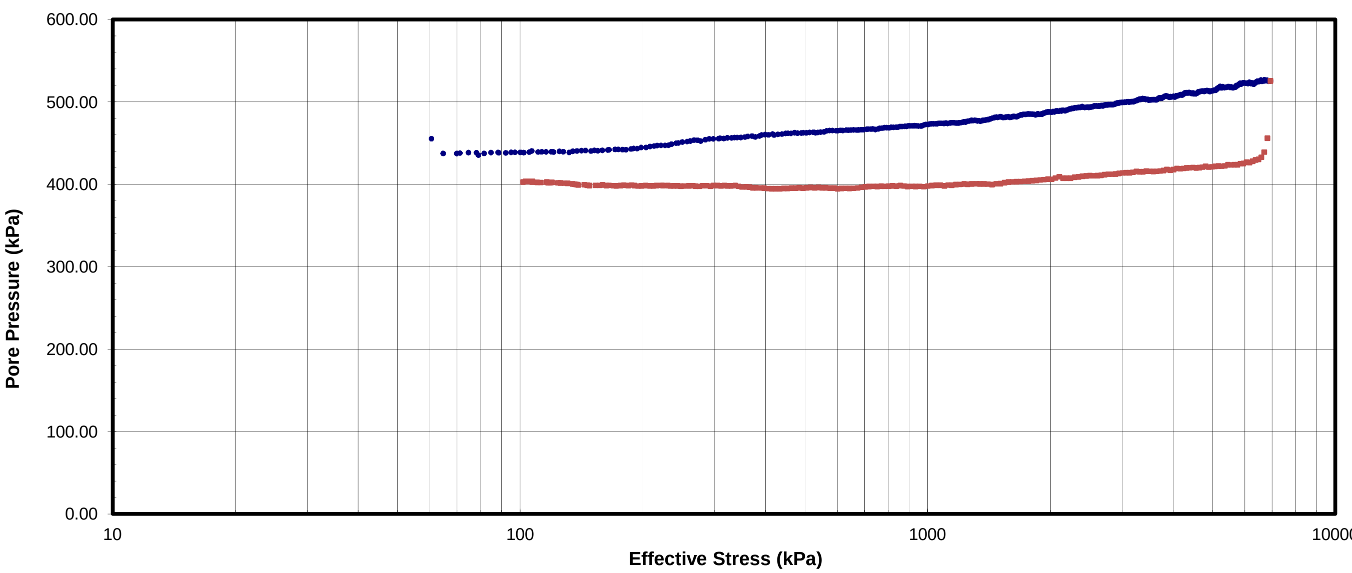
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12	Station:	CRS #2
Sample No.:	ST-6	Depth (m):	31.29

Weight of Ring (g):	211.63	**Ring + Wet Weight (g):**	365.62	**Initial Void Ratio, e:**	0.87
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	331.00	**Height of Soil, Hs (mm):**	13.61
Diameter of Ring (mm):	63.50	**Water Content (%):**	29.0	**Height of Void, Hv (mm):**	11.79
Unit Weight (kN/m³)	18.78	**Specific Gravity, Gs:**	2.77		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	6931	**Backpressure (kPa):**	527
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	20.7		





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Date:	June 4, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

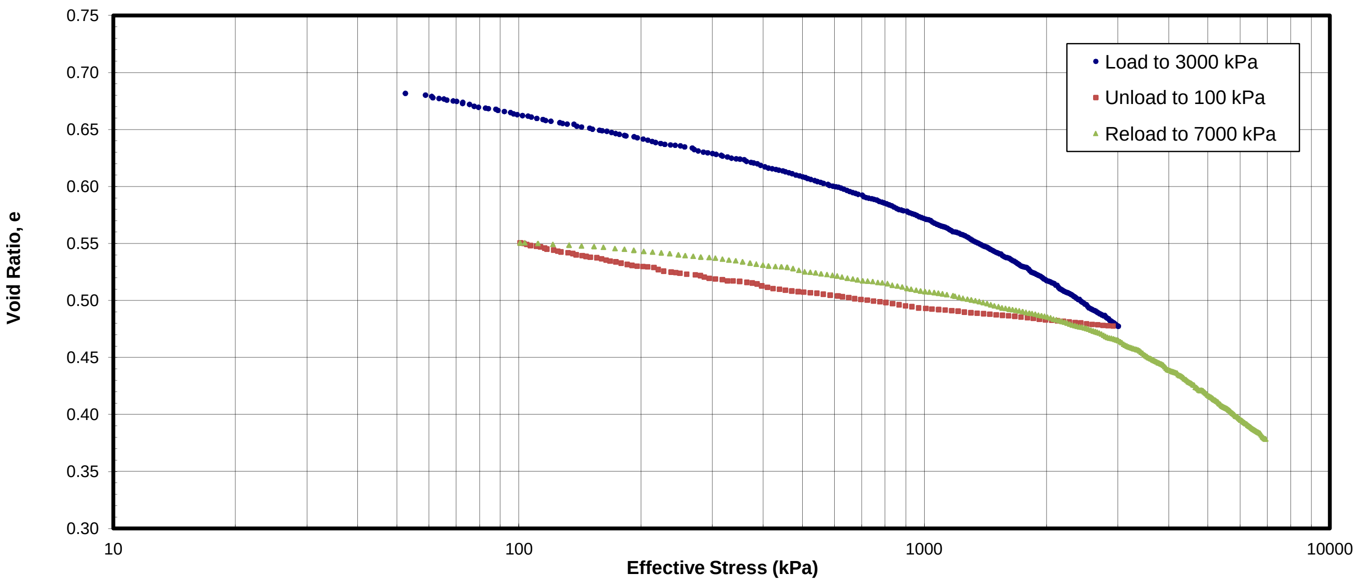
(A Division of MEG Consulting Limited)

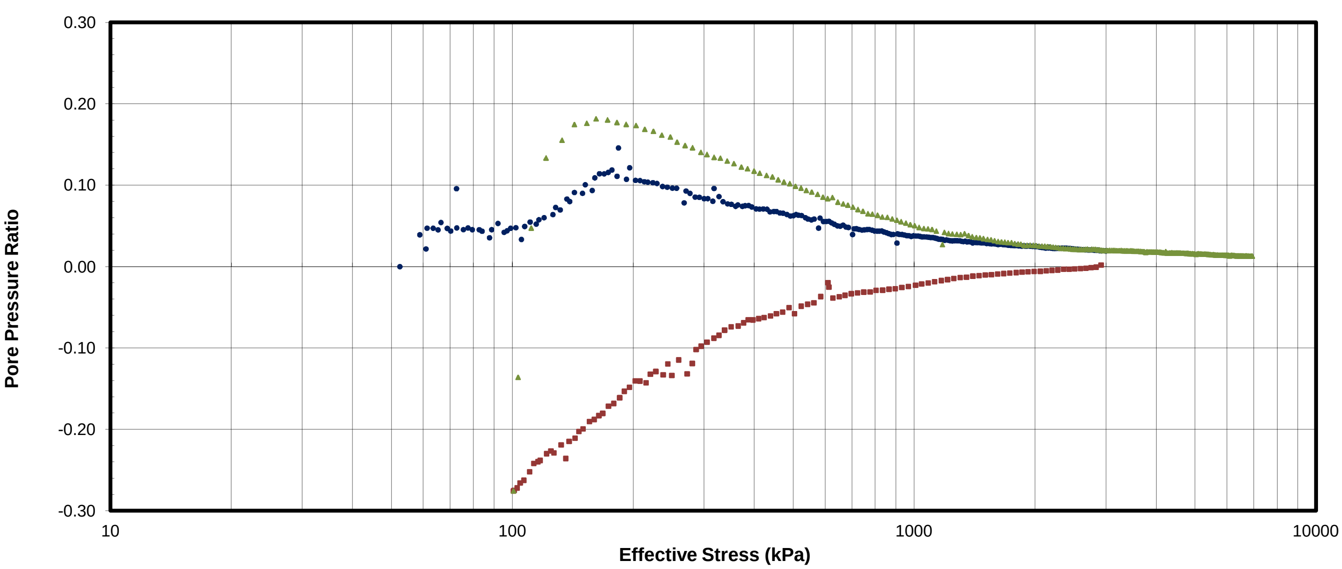
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 11, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-7	Depth (m):	35.33

Weight of Ring (g):	215.99	**Ring + Wet Weight (g):**	376.52	**Initial Void Ratio, e:**	0.74
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	344.01	**Height of Soil, Hs (mm):**	14.59
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.4	**Height of Void, Hv (mm):**	10.81
Unit Weight (kN/m^3)	19.58	**Specific Gravity, Gs:**	2.77		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 20, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

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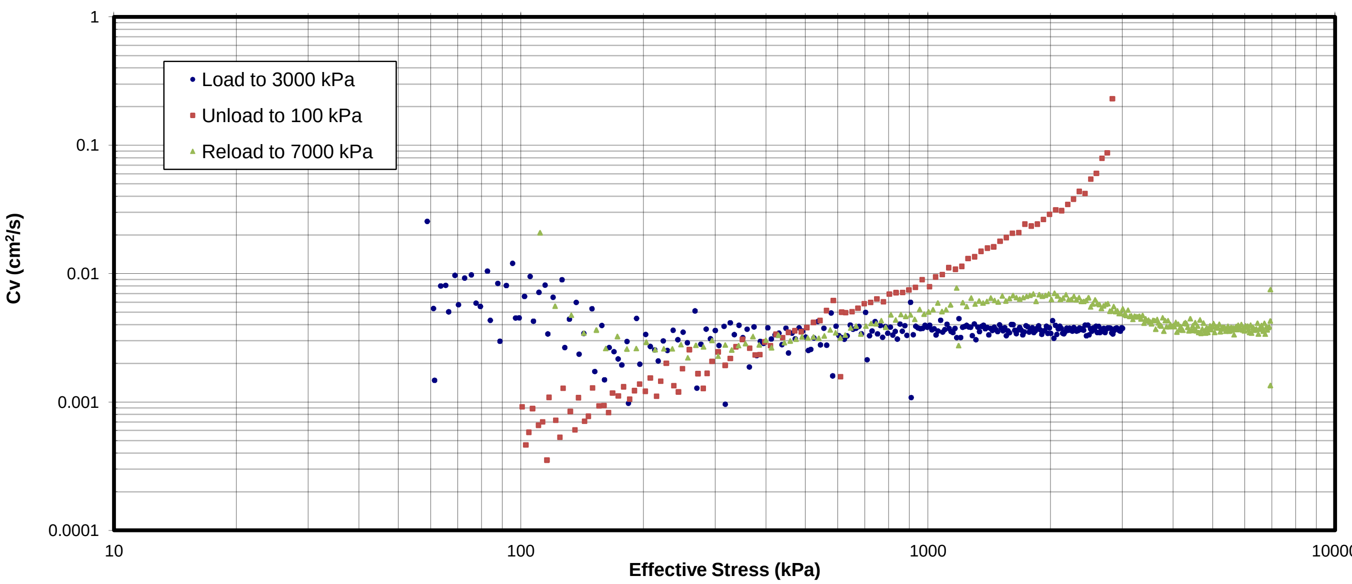
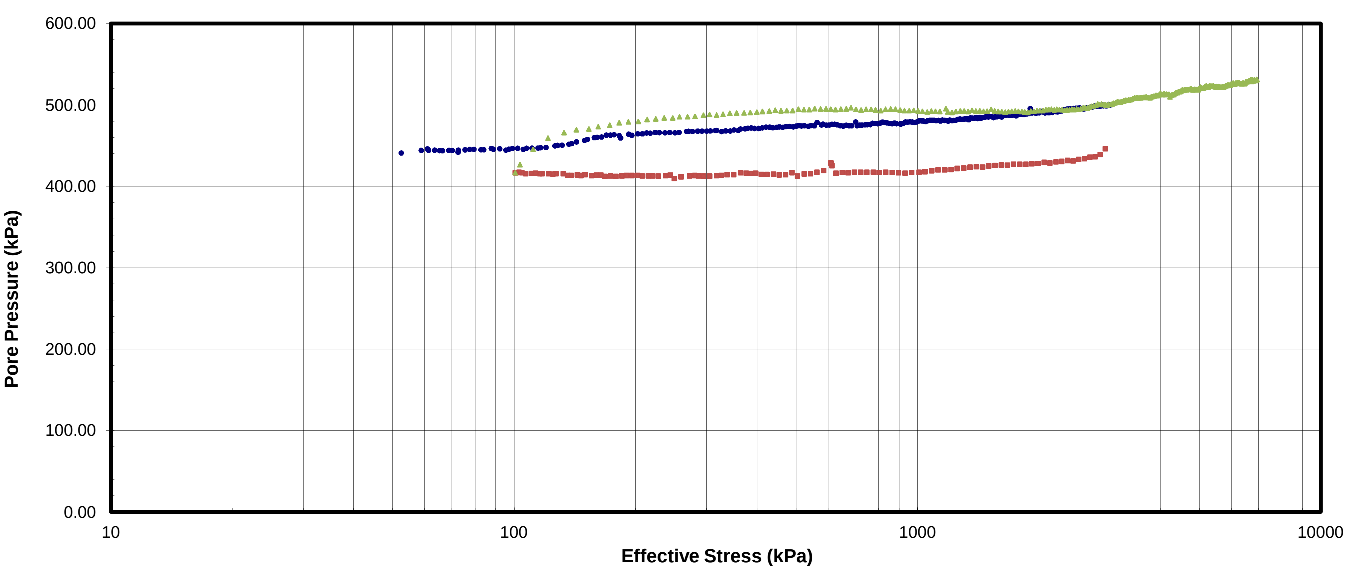
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 11, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-7	Depth (m):	35.33

Weight of Ring (g):	215.99	**Ring + Wet Weight (g):**	376.52	**Initial Void Ratio, e:**	0.74
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	344.01	**Height of Soil, Hs (mm):**	14.59
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.4	**Height of Void, Hv (mm):**	10.81
Unit Weight (kN/m^3)	19.58	**Specific Gravity, Gs:**	2.77		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 20, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

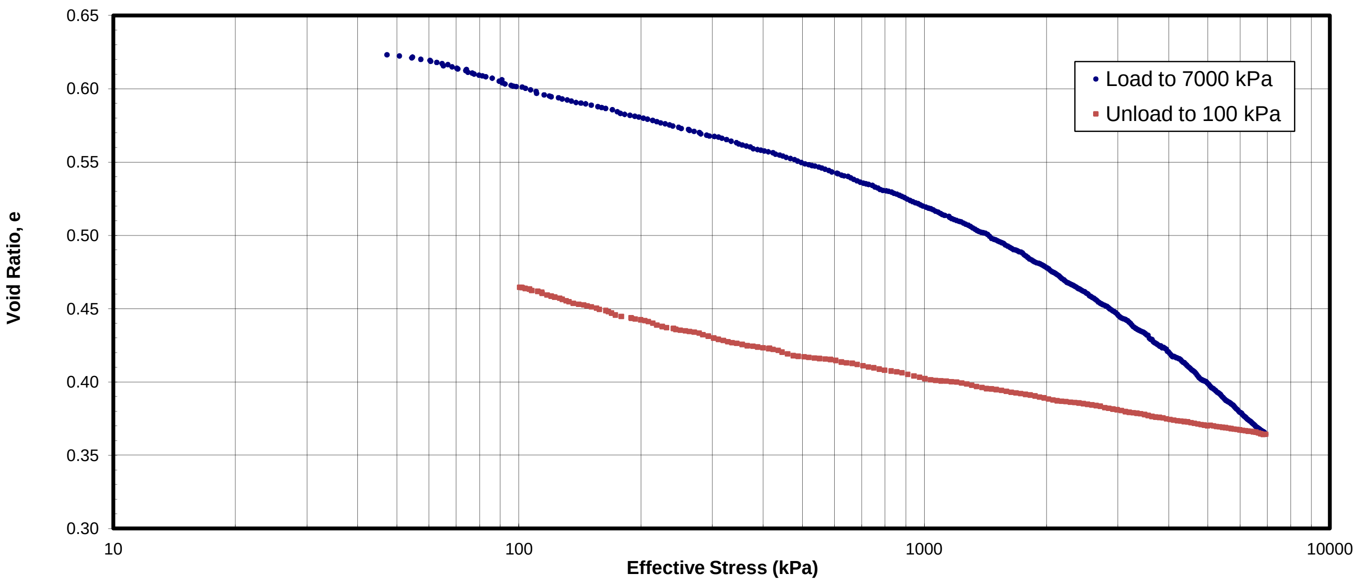
Marine + Earth Geosciences

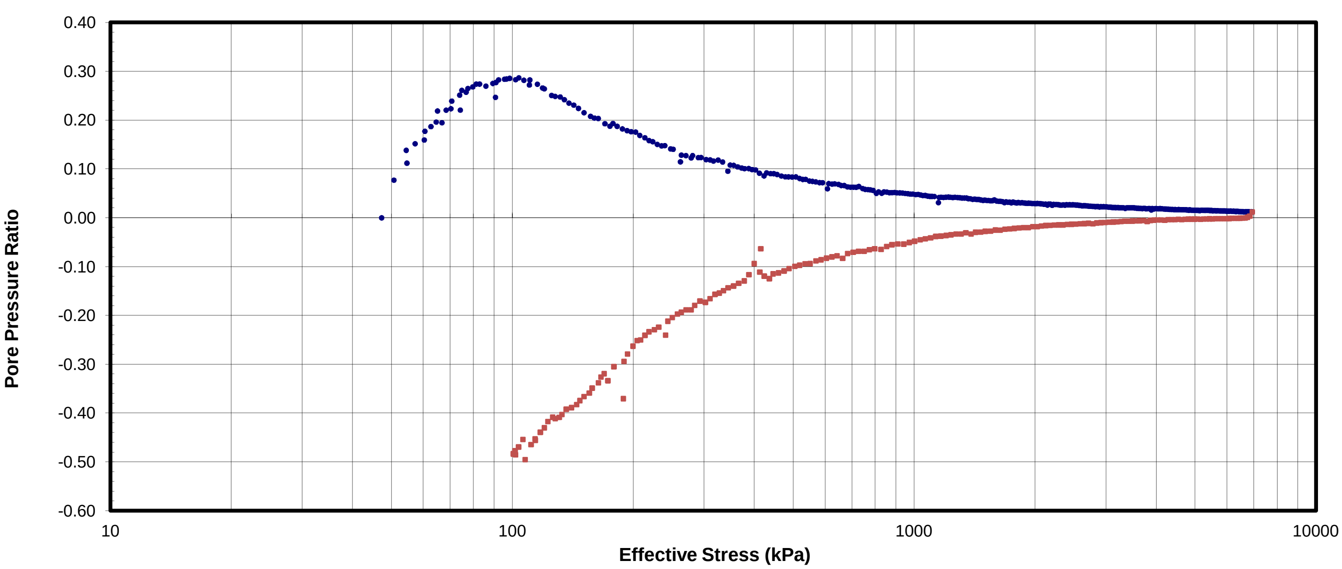
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12	Station:	CRS #3
Sample No.:	ST-9	Depth (m):	38.30

Weight of Ring (g):	216.69	**Ring + Wet Weight (g):**	382.13	**Initial Void Ratio, e:**	0.62
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	350.94	**Height of Soil, Hs (mm):**	15.64
Diameter of Ring (mm):	63.50	**Water Content (%):**	23.2	**Height of Void, Hv (mm):**	9.76
Unit Weight (kN/m^3)	20.18	**Specific Gravity, Gs:**	2.71		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	6932	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	16.0		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 5, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

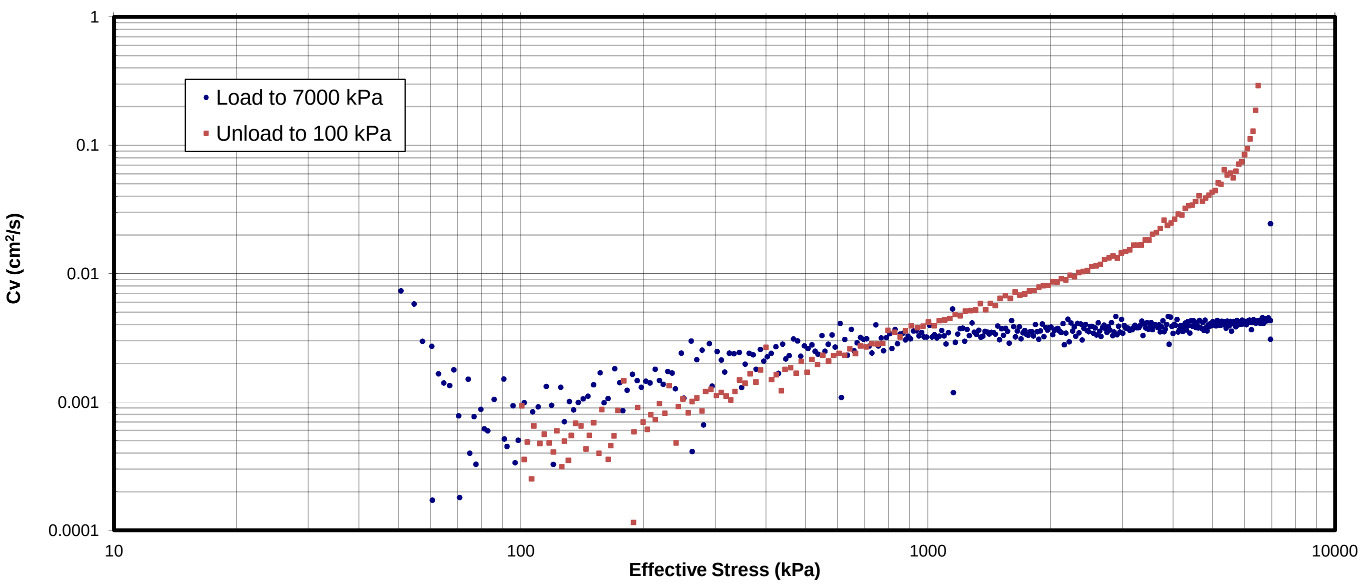
(A Division of MEG Consulting Limited)

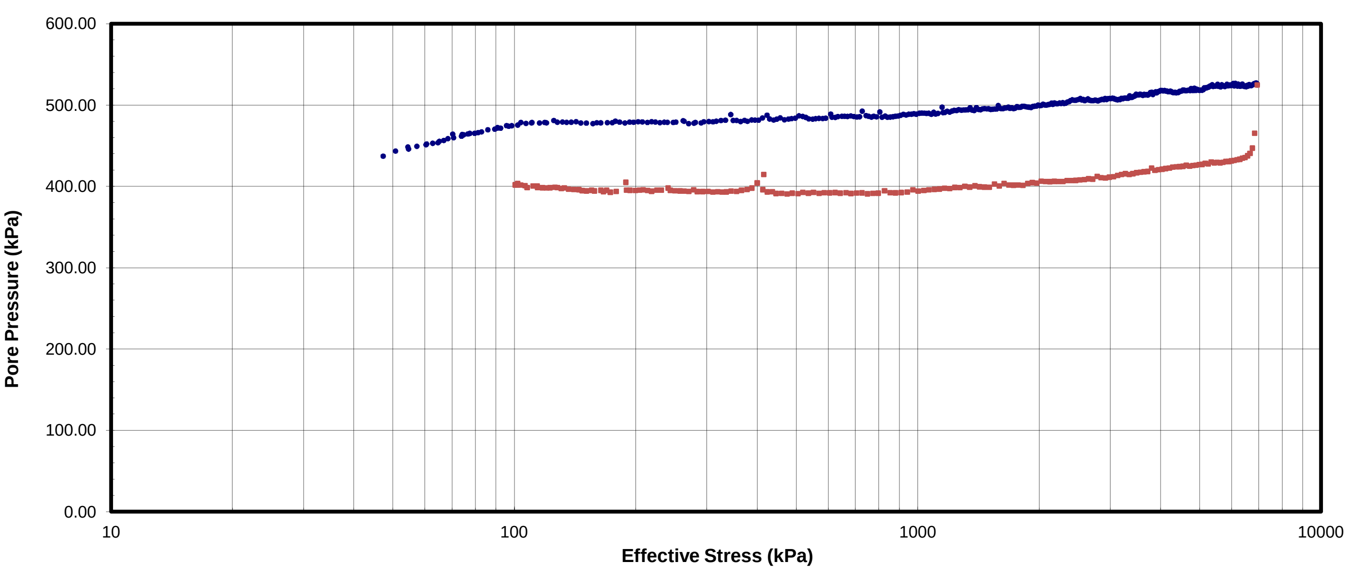
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12	Station:	CRS #3
Sample No.:	ST-9	Depth (m):	38.30

Weight of Ring (g):	216.69	**Ring + Wet Weight (g):**	382.13	**Initial Void Ratio, e:**	0.62
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	350.94	**Height of Soil, Hs (mm):**	15.64
Diameter of Ring (mm):	63.50	**Water Content (%):**	23.2	**Height of Void, Hv (mm):**	9.76
Unit Weight (kN/m^3)	20.18	**Specific Gravity, Gs:**	2.71		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	6932	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	16.0		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 5, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

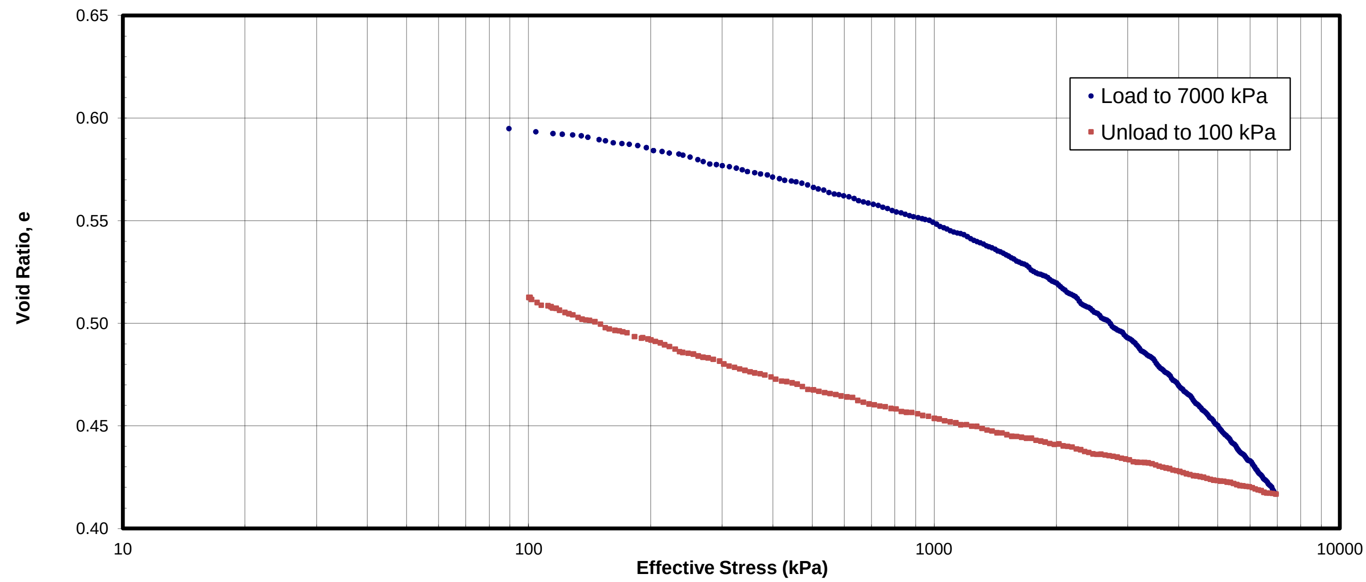
Marine + Earth MEG Geosciences

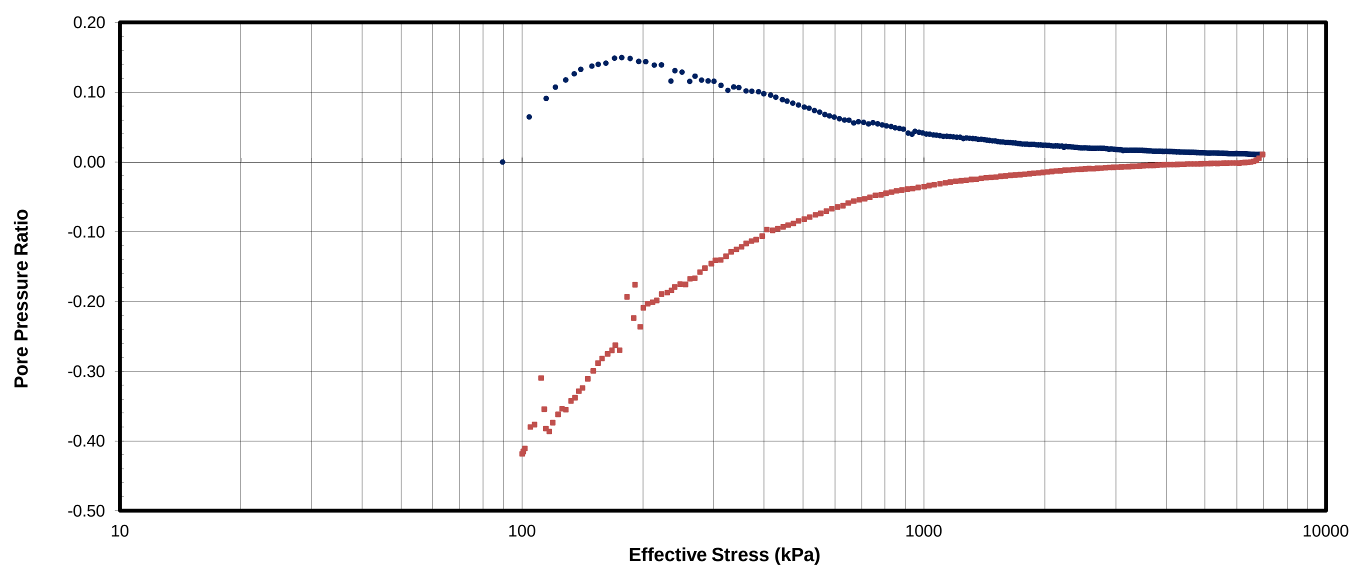
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 5, 2012
Borehole:	BH-003-12	Station:	CRS #2
Sample No.:	ST-10	Depth (m):	38.96

Weight of Ring (g):	216.65	**Ring + Wet Weight (g):**	381.65	**Initial Void Ratio, e:**	0.59
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	348.30	**Height of Soil, Hs (mm):**	15.93
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.3	**Height of Void, Hv (mm):**	9.47
Unit Weight (kN/m^3)	20.12	**Specific Gravity, Gs:**	2.61		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 9, 2012	Date:	July 12, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

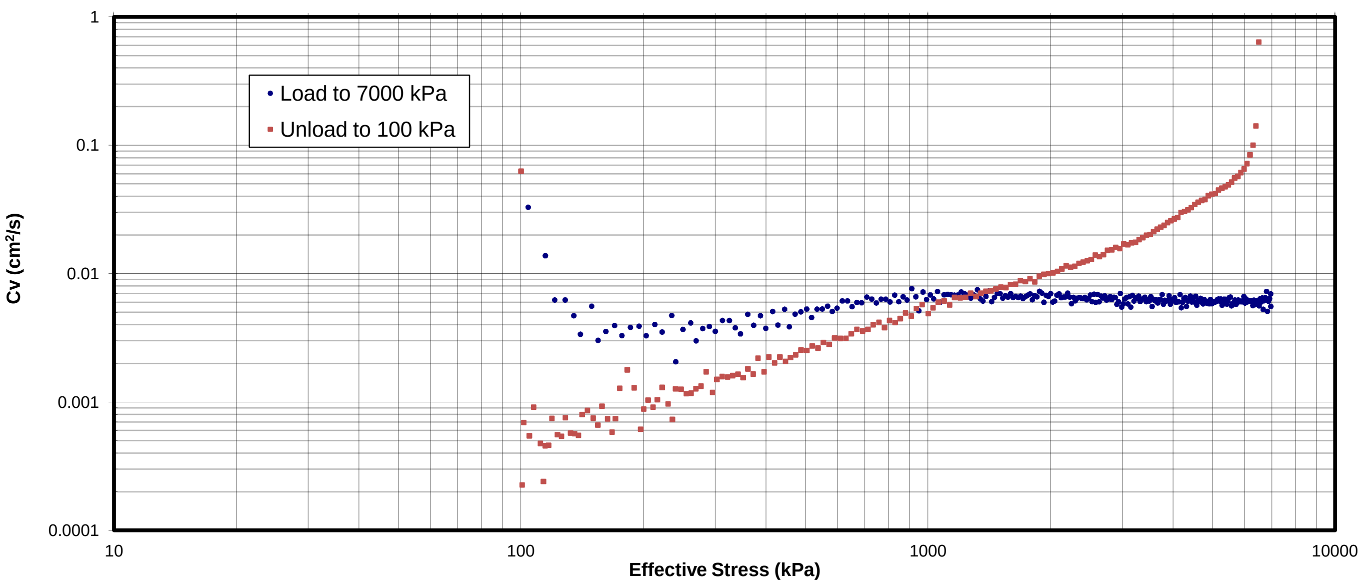
(A Division of MEG Consulting Limited)

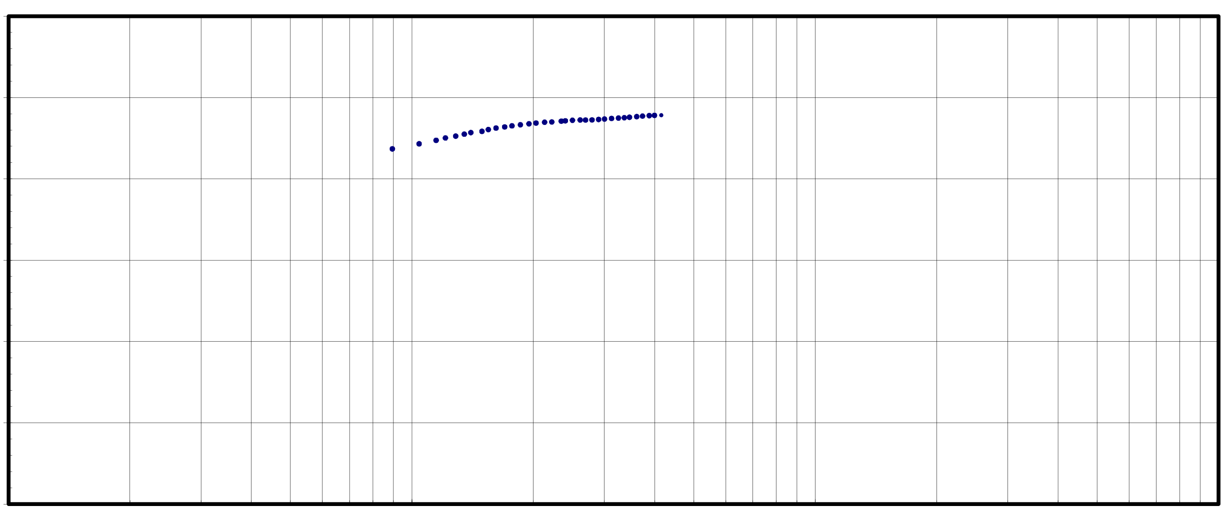
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 5, 2012
Borehole:	BH-003-12	Station:	CRS #2
Sample No.:	ST-10	Depth (m):	38.96

Weight of Ring (g):	216.65	**Ring + Wet Weight (g):**	381.65	**Initial Void Ratio, e:**	0.59
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	348.30	**Height of Soil, Hs (mm):**	15.93
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.3	**Height of Void, Hv (mm):**	9.47
Unit Weight (kN/m^3)	20.12	**Specific Gravity, Gs:**	2.61		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 9, 2012	Date:	July 12, 2012	Date:	Jully 12, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

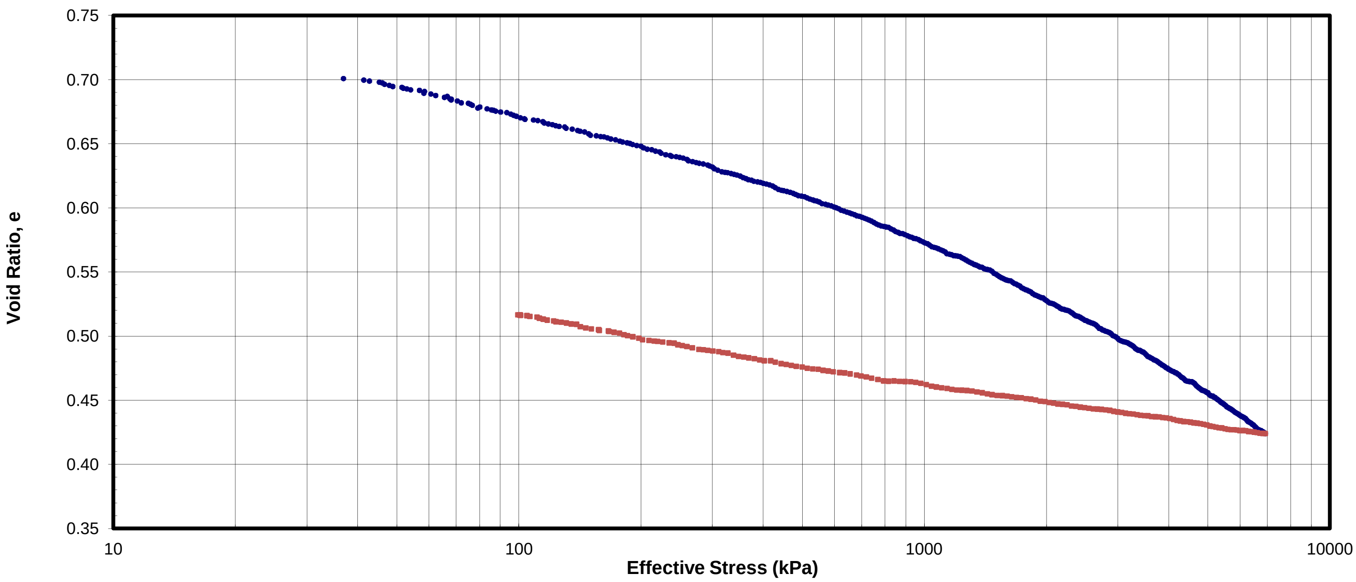
Marine + Earth MEG Geosciences

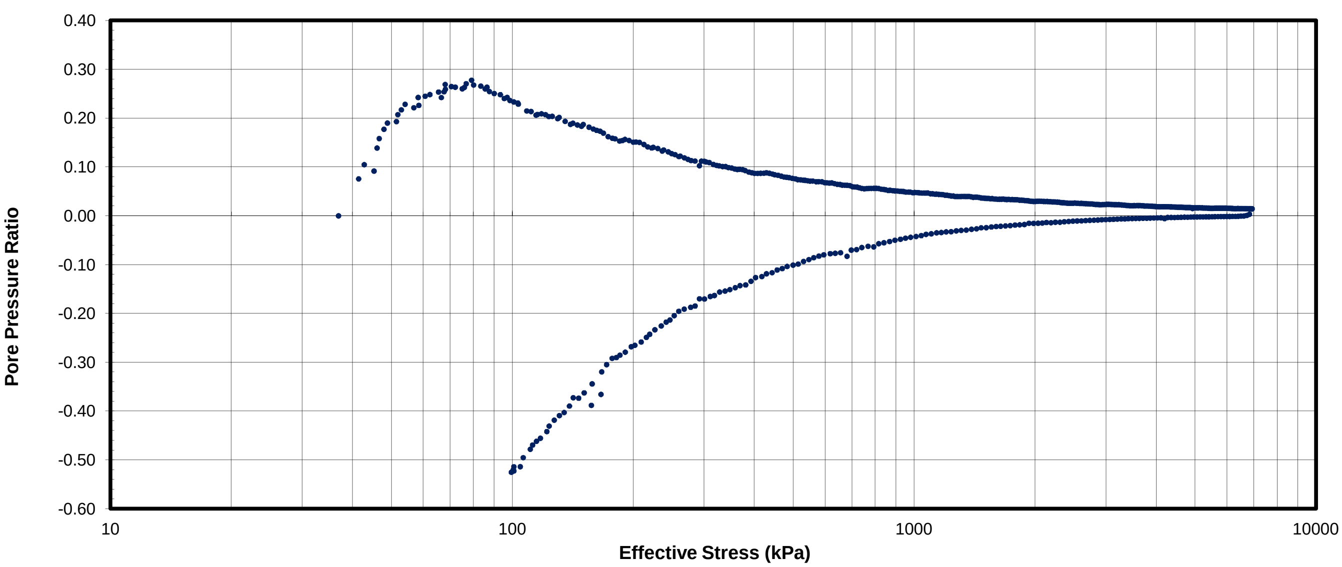
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 5, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-12	Depth (m):	40.48

Weight of Ring (g):	214.38	**Ring + Wet Weight (g):**	376.89	**Initial Void Ratio, e:**	0.70
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	346.34	**Height of Soil, Hs (mm):**	14.94
Diameter of Ring (mm):	63.50	**Water Content (%):**	23.1	**Height of Void, Hv (mm):**	10.46
Unit Weight (kN/m^3)	19.82	**Specific Gravity, Gs:**	2.79		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 8, 2012	Date:	July 15, 2012	Date:	July 15, 2012

MEG TECHNICAL SERVICES

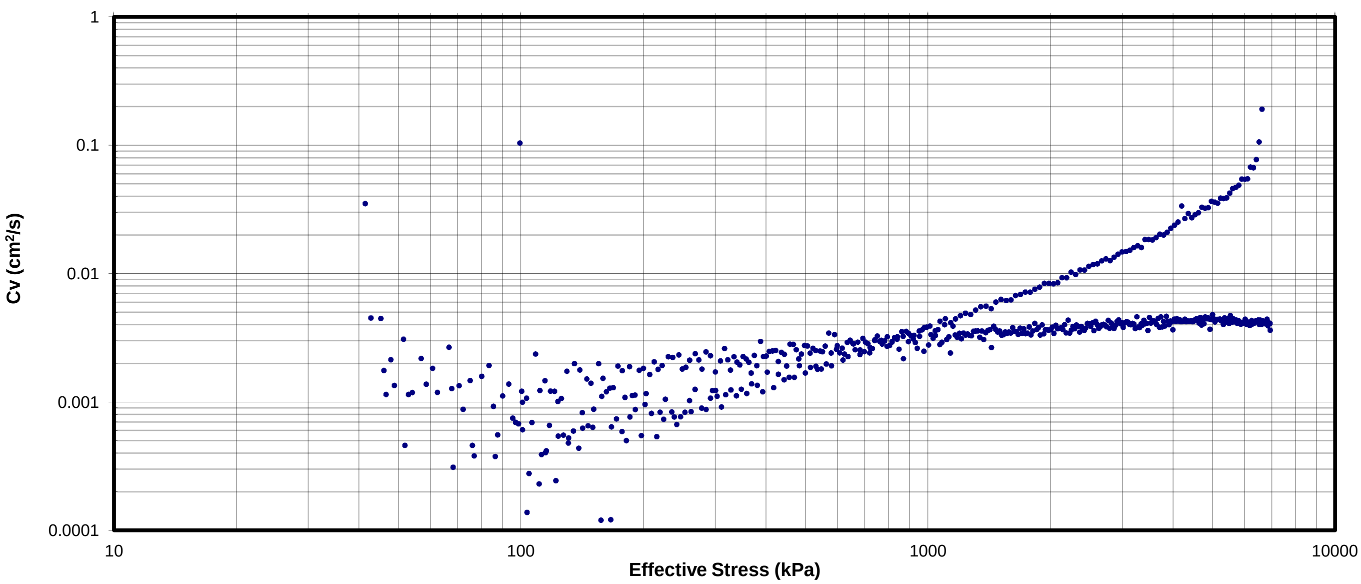
(A Division of MEG Consulting Limited)

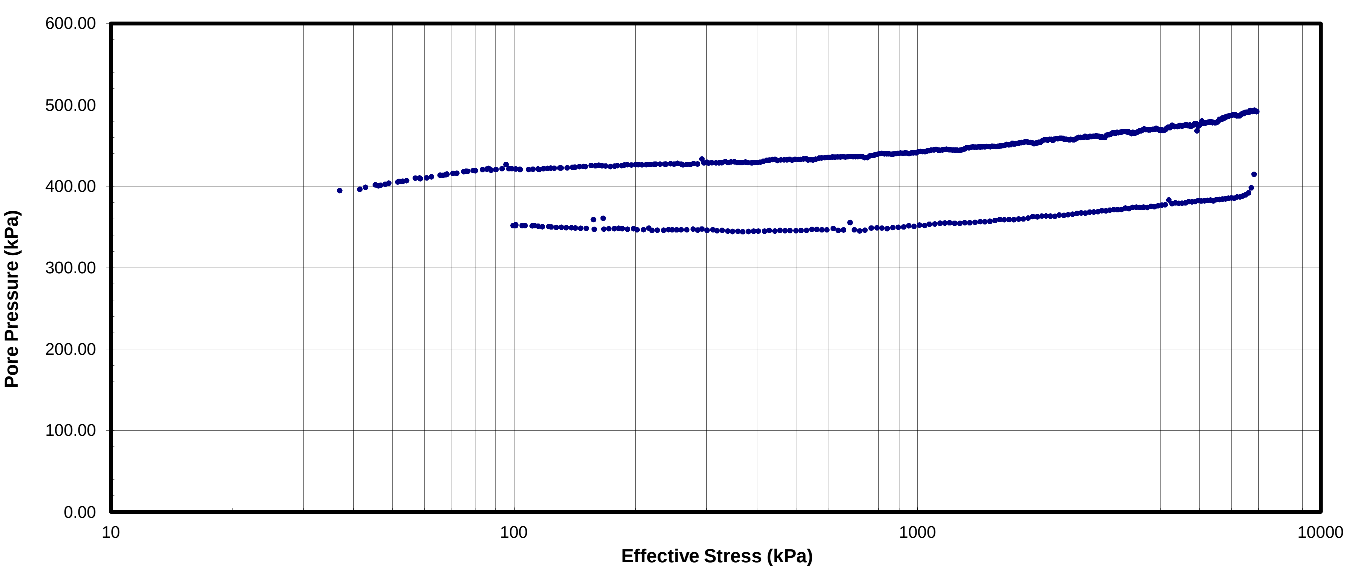
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	Jun 05, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-12	Depth (m):	40.48

Weight of Ring (g):	214.38	**Ring + Wet Weight (g):**	376.89	**Initial Void Ratio, e:**	0.70
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	346.34	**Height of Soil, Hs (mm):**	14.94
Diameter of Ring (mm):	63.50	**Water Content (%):**	23.1	**Height of Void, Hv (mm):**	10.46
Unit Weight (kN/m^3)	19.82	**Specific Gravity, Gs:**	2.79		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 8, 2012	Date:	July 15, 2012	Date:	July 16, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

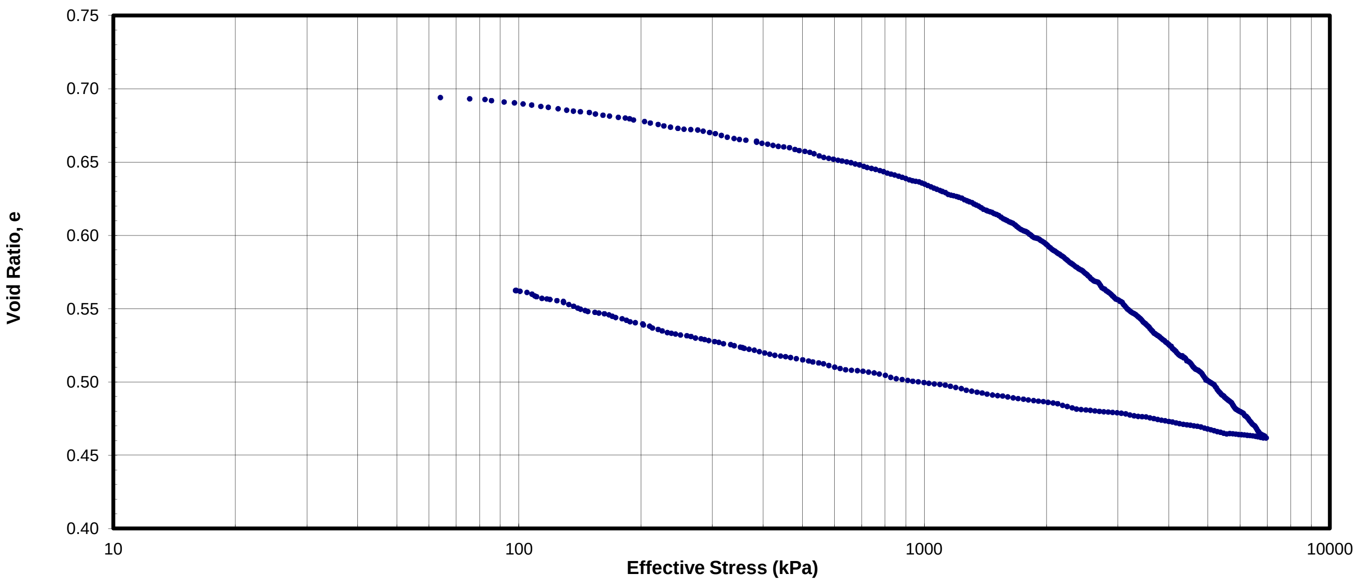
Marine + Earth MEG Geosciences

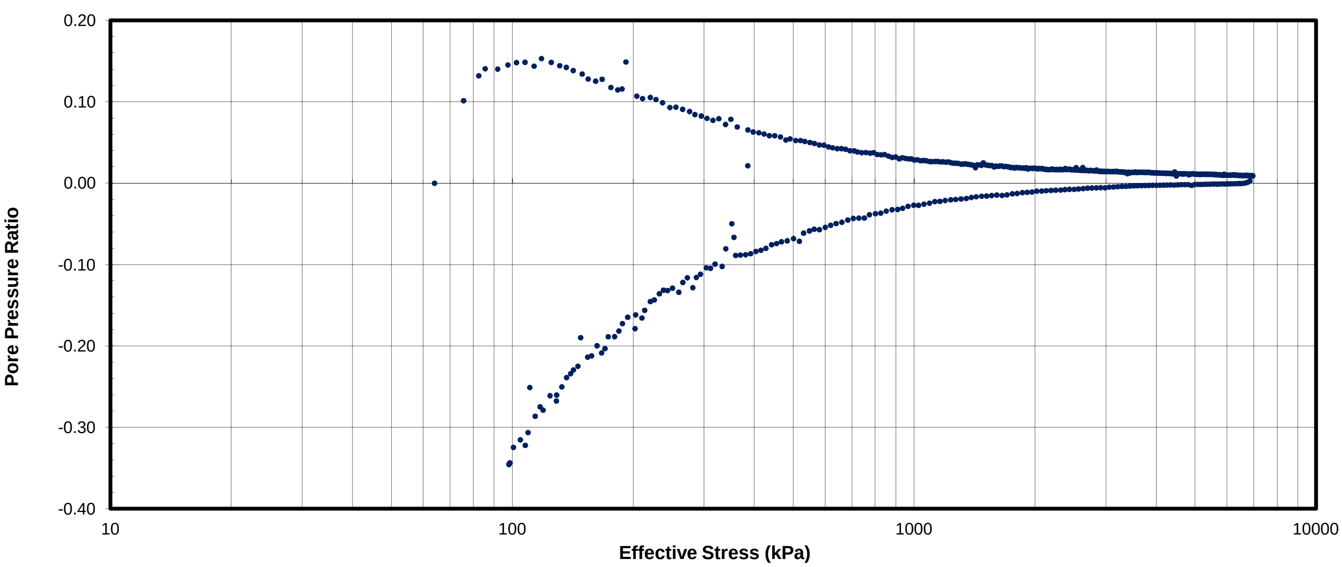
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 6, 2012
Borehole:	BH-003-12	Station:	CRS #3
Sample No.:	ST-15	Depth (m):	42.82

Weight of Ring (g):	211.63	**Ring + Wet Weight (g):**	371.55	**Initial Void Ratio, e:**	0.69
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	342.77	**Height of Soil, Hs (mm):**	15.06
Diameter of Ring (mm):	63.50	**Water Content (%):**	21.9	**Height of Void, Hv (mm):**	10.34
Unit Weight (kN/m^3)	19.50	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 9, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

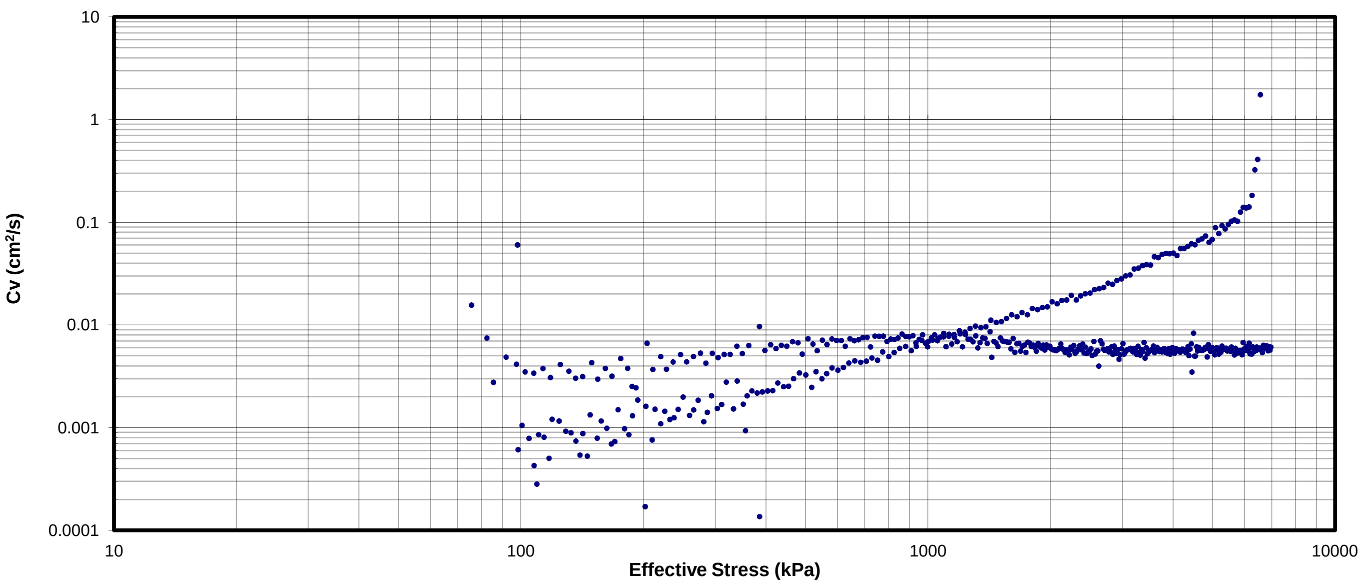
(A Division of MEG Consulting Limited)

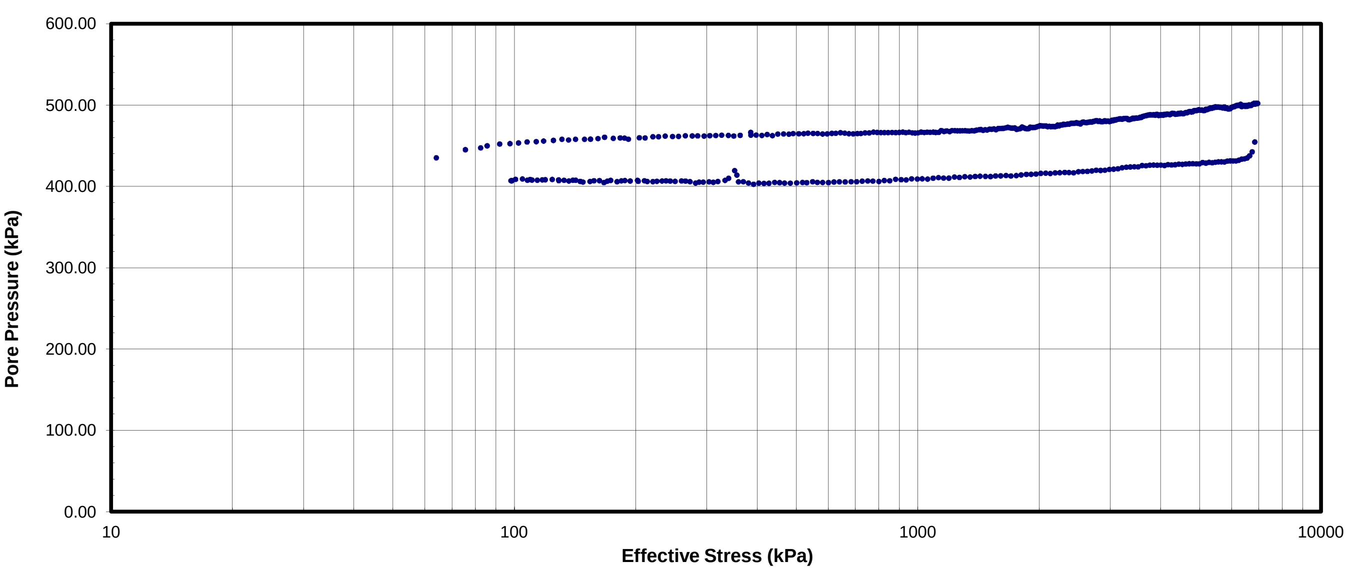
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 6, 2012
Borehole:	BH-003-12	Station:	CRS #3
Sample No.:	ST-15	Depth (m):	42.82

Weight of Ring (g):	211.63	**Ring + Wet Weight (g):**	371.55	**Initial Void Ratio, e:**	0.69
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	342.77	**Height of Soil, Hs (mm):**	15.06
Diameter of Ring (mm):	63.50	**Water Content (%):**	21.9	**Height of Void, Hv (mm):**	10.34
Unit Weight (kN/m^3)	19.50	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 9, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

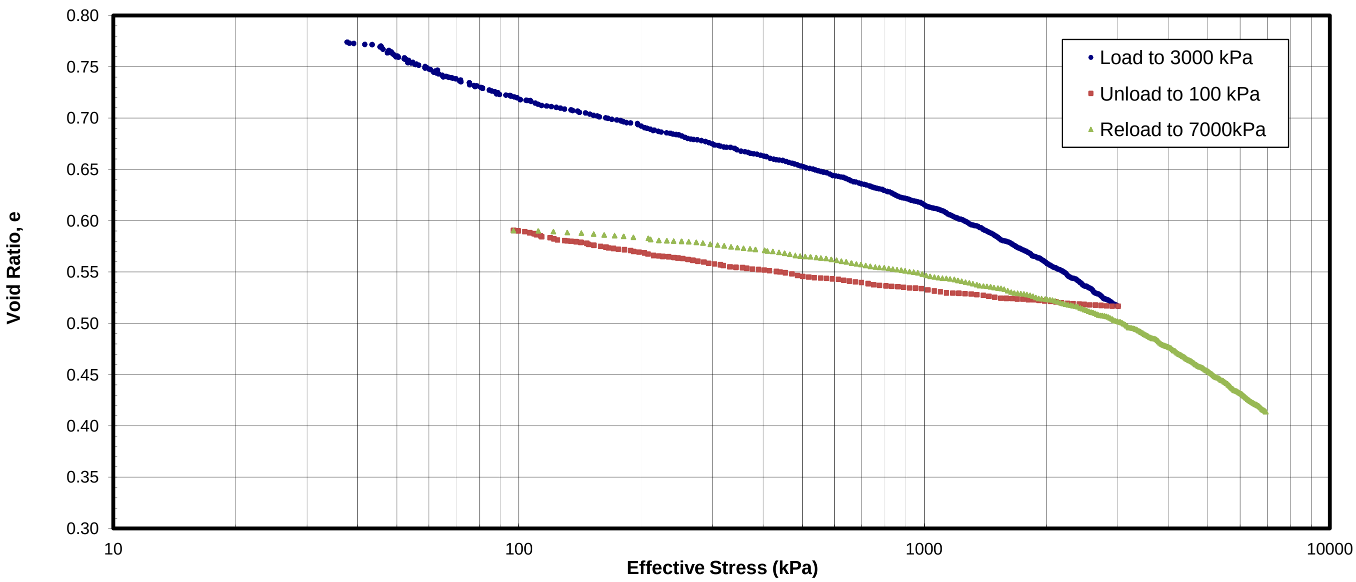
(A Division of MEG Consulting Limited)

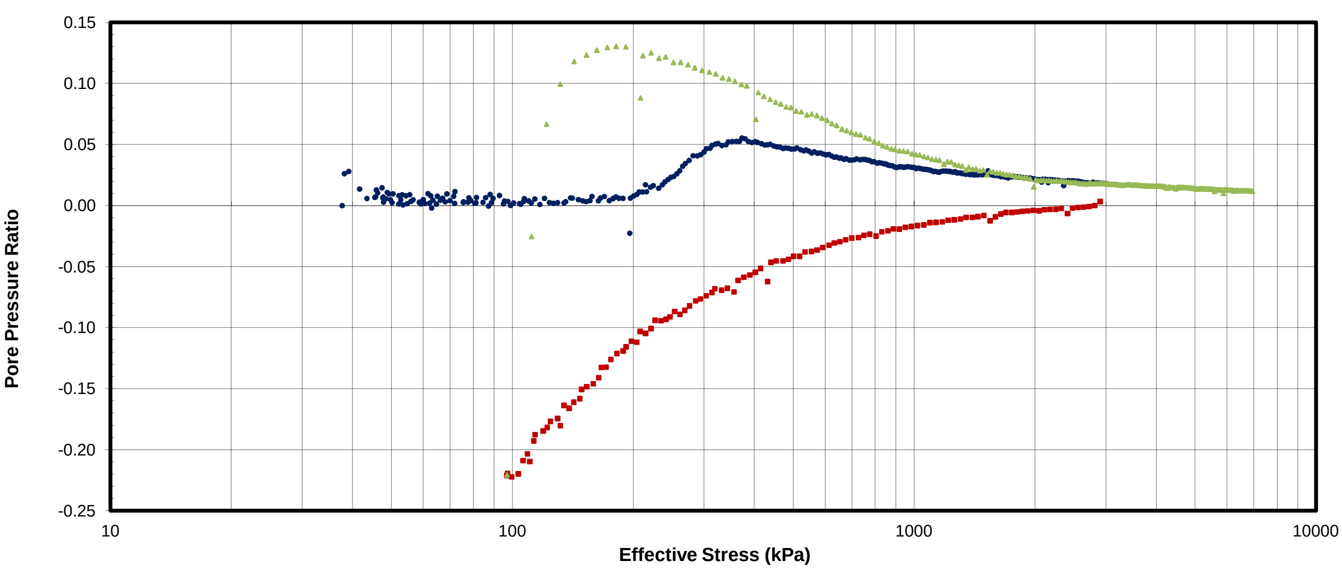
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-16	Depth (m):	42.98

Weight of Ring (g):	214.37	**Ring + Wet Weight (g):**	373.43	**Initial Void Ratio, e:**	0.77
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	339.23	**Height of Soil, Hs (mm):**	14.34
Diameter of Ring (mm):	63.50	**Water Content (%):**	27.4	**Height of Void, Hv (mm):**	11.06
Unit Weight (kN/m^3)	19.40	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 11, 2012	Date:	August 24, 2012	Date:	August 27, 2012

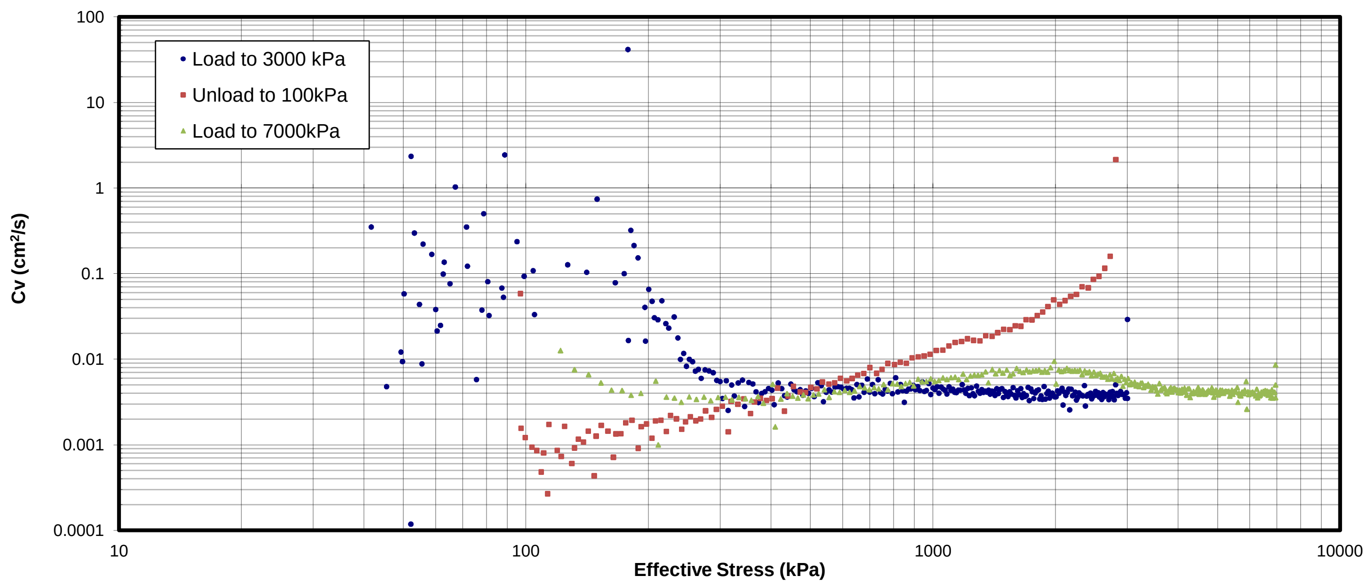
MEG TECHNICAL SERVICES
(A Division of MEG Consulting Limited)

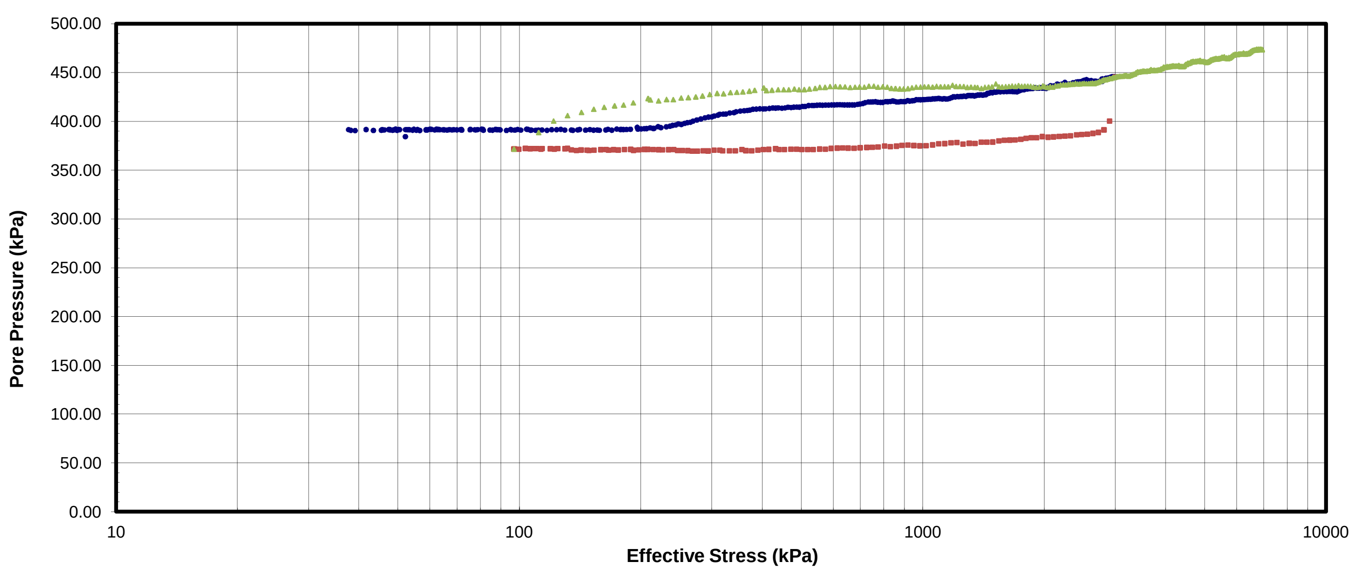
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	CRS #1
Sample No.:	ST-16	Depth (m):	42.98

Weight of Ring (g):	214.37	**Ring + Wet Weight (g):**	373.43	**Initial Void Ratio, e:**	0.77
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	339.23	**Height of Soil, Hs (mm):**	14.34
Diameter of Ring (mm):	63.50	**Water Content (%):**	27.4	**Height of Void, Hv (mm):**	11.06
Unit Weight (kN/m^3)	19.40	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	June 11, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

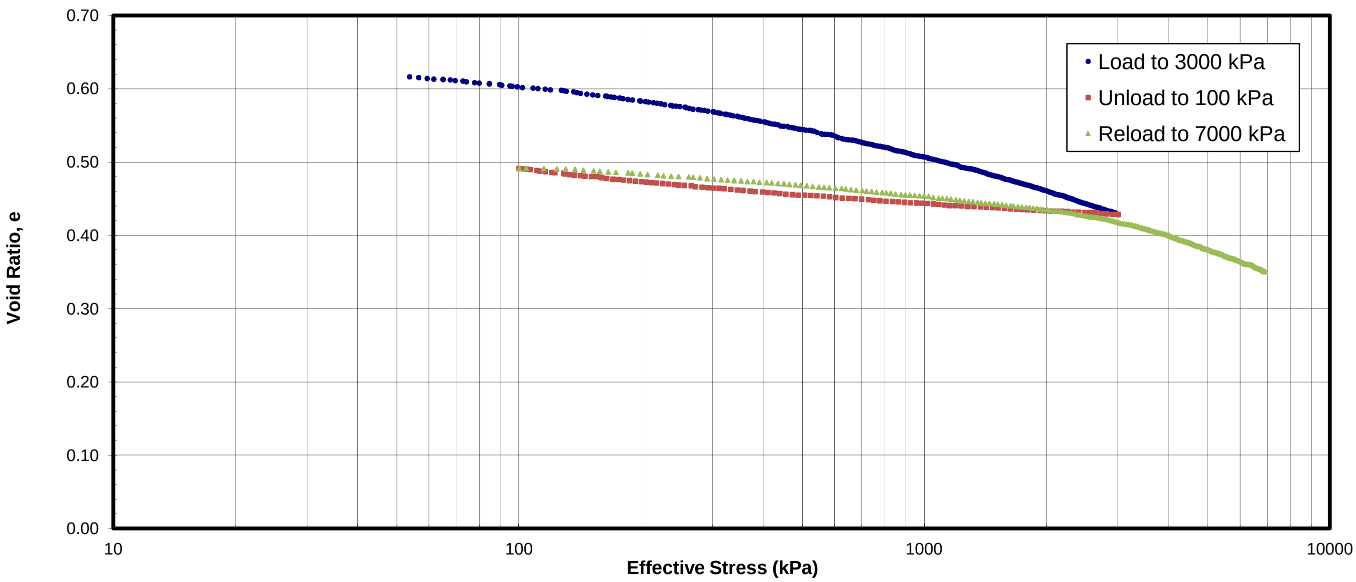
Marine + Earth MEG Geosciences

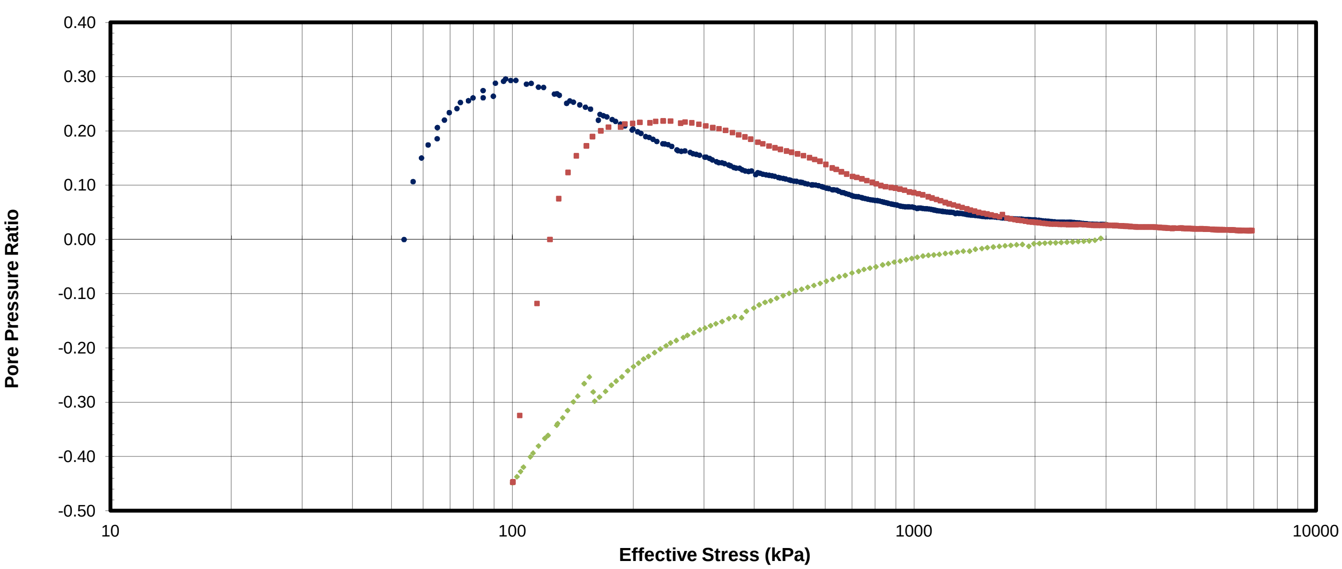
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 20, 2012
Borehole:	BH-004-12	Station:	CRS #2
Sample No.:	ST-3	Depth (m):	19.80

Weight of Ring (g):	215.99	**Ring + Wet Weight (g):**	381.31	**Initial Void Ratio, e:**	0.62
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	350.77	**Height of Soil, Hs (mm):**	15.70
Diameter of Ring (mm):	63.50	**Water Content (%):**	22.7	**Height of Void, Hv (mm):**	9.70
Unit Weight (kN/m^3)	20.16	**Specific Gravity, Gs:**	2.71		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 26, 2012	Date:	July 3, 2012	Date:	July 3, 2012

MEG TECHNICAL SERVICES

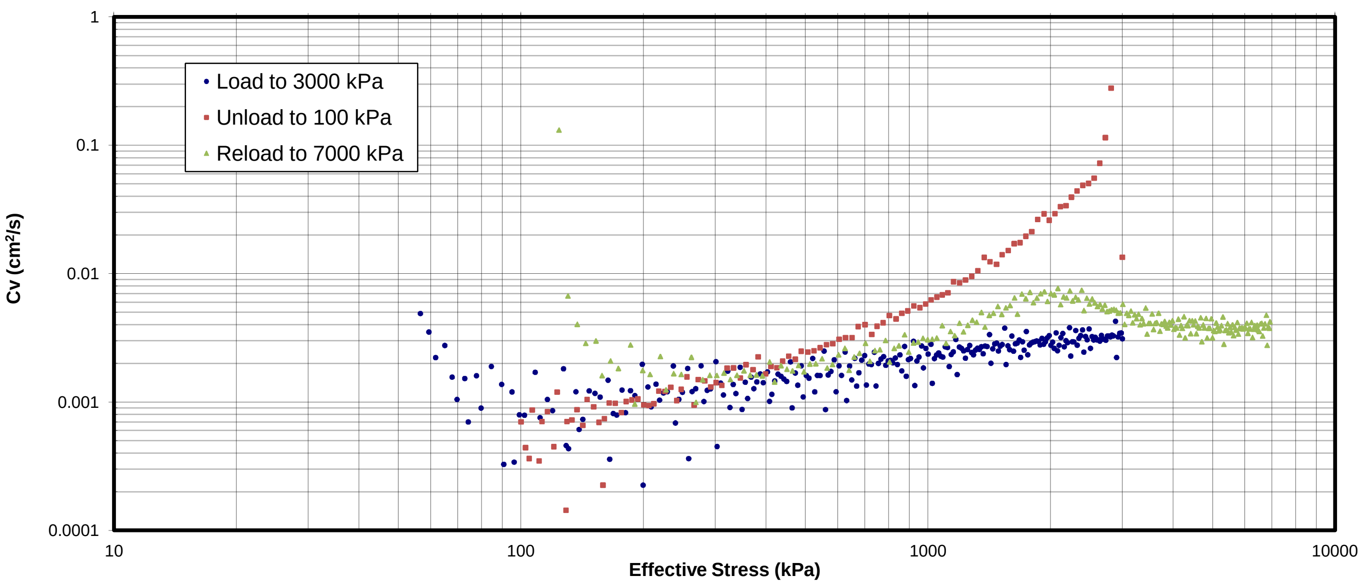
(A Division of MEG Consulting Limited)

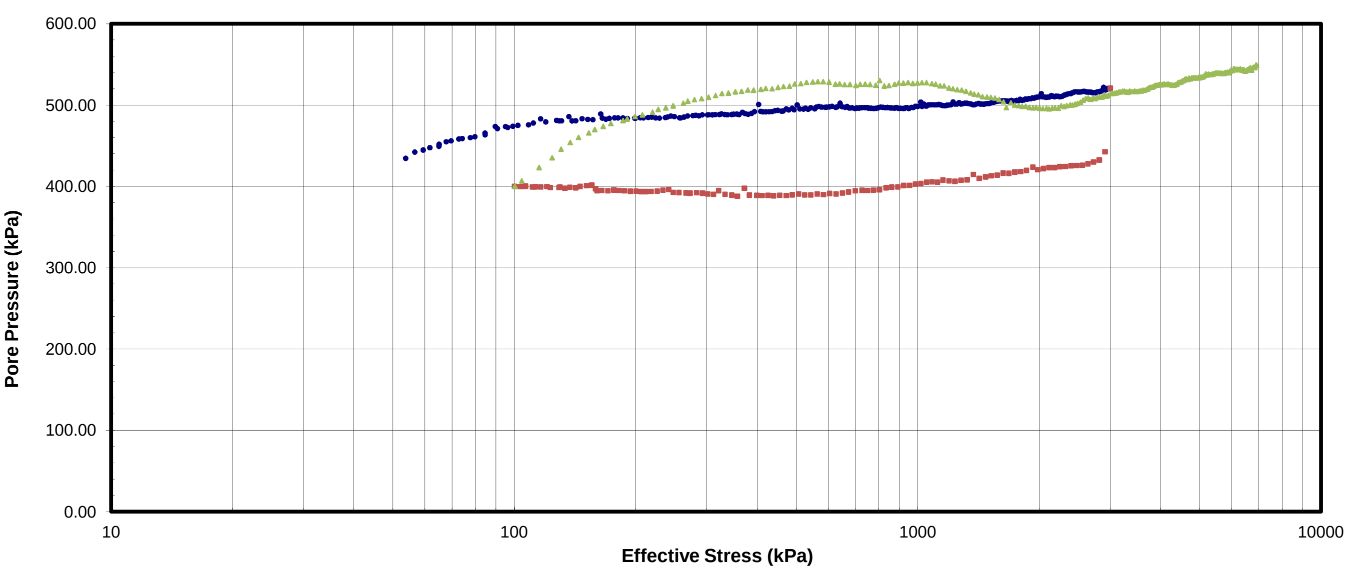
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 20, 2012
Borehole:	BH-004-12	Station:	CRS #2
Sample No.:	ST-3	Depth (m):	19.80

Weight of Ring (g):	215.99	**Ring + Wet Weight (g):**	381.31	**Initial Void Ratio, e:**	0.62
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	350.77	**Height of Soil, Hs (mm):**	15.70
Diameter of Ring (mm):	63.50	**Water Content (%):**	22.7	**Height of Void, Hv (mm):**	9.70
Unit Weight (kN/m^3)	20.16	**Specific Gravity, Gs:**	2.71		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 26, 2012	Date:	July 3, 2012	Date:	July 3, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

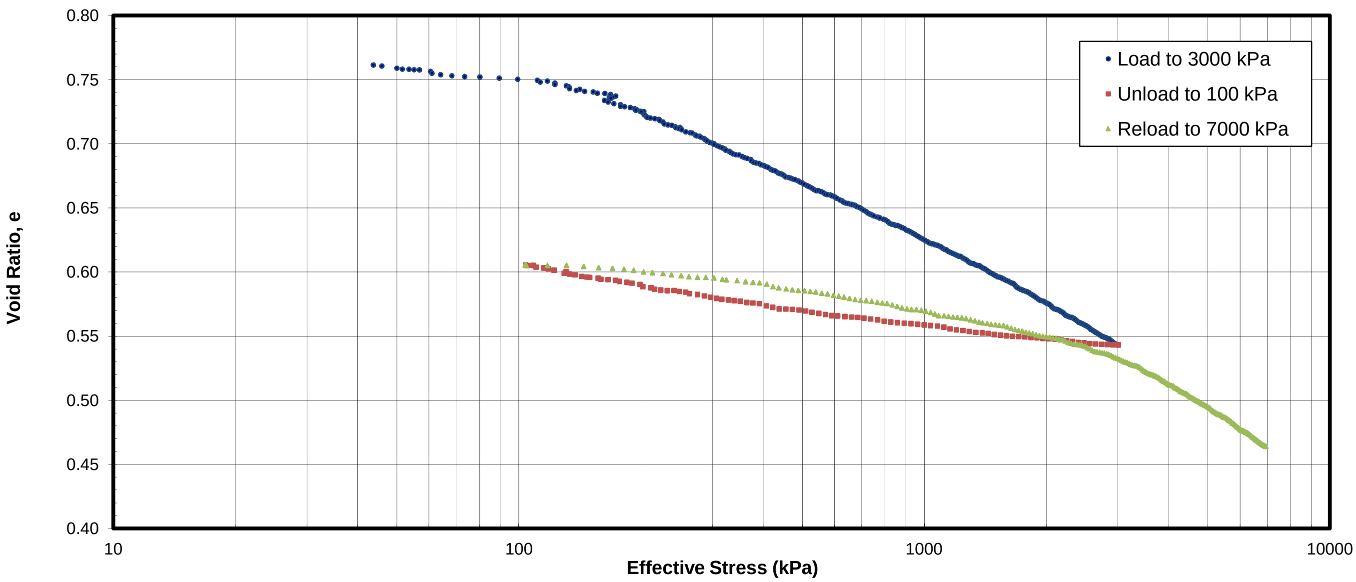
Marine + Earth MEG Geosciences

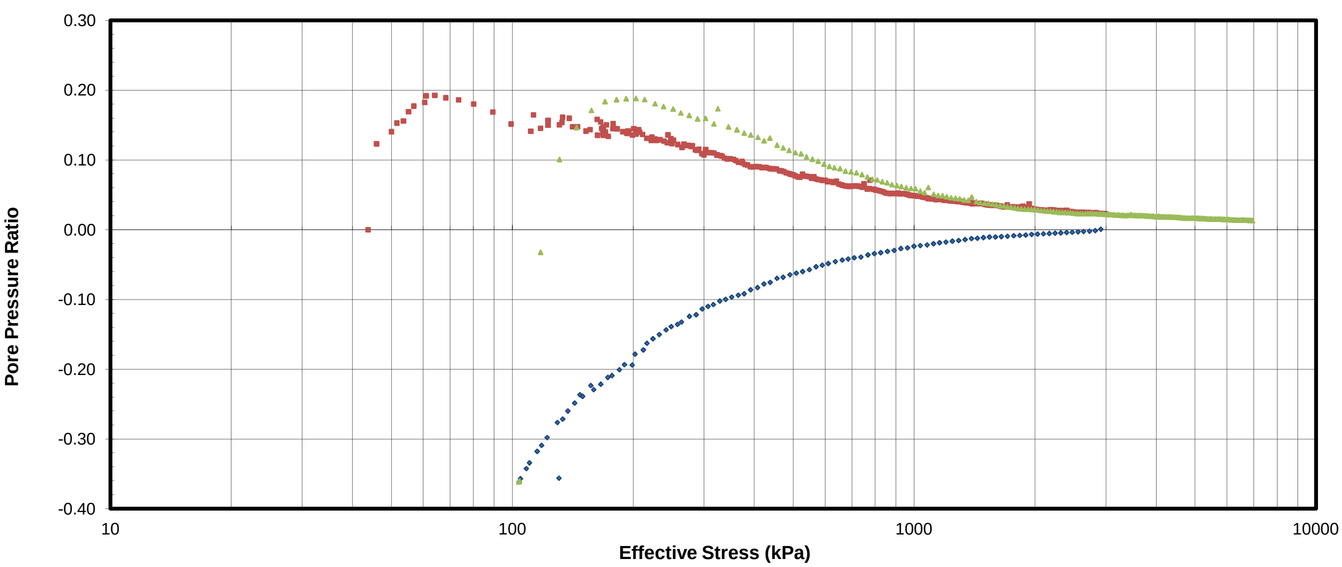
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole:	BH-004-12	Station:	CRS #1
Sample No.:	ST-7	Depth (m):	24.62

Weight of Ring (g):	211.27	**Ring + Wet Weight (g):**	373.75	**Initial Void Ratio, e:**	0.76
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	340.48	**Height of Soil, Hs (mm):**	14.42
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.8	**Height of Void, Hv (mm):**	10.98
Unit Weight (kN/m^3)	19.82	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 28, 2012	Date:	June 29, 2012	Date:	June 29, 2012

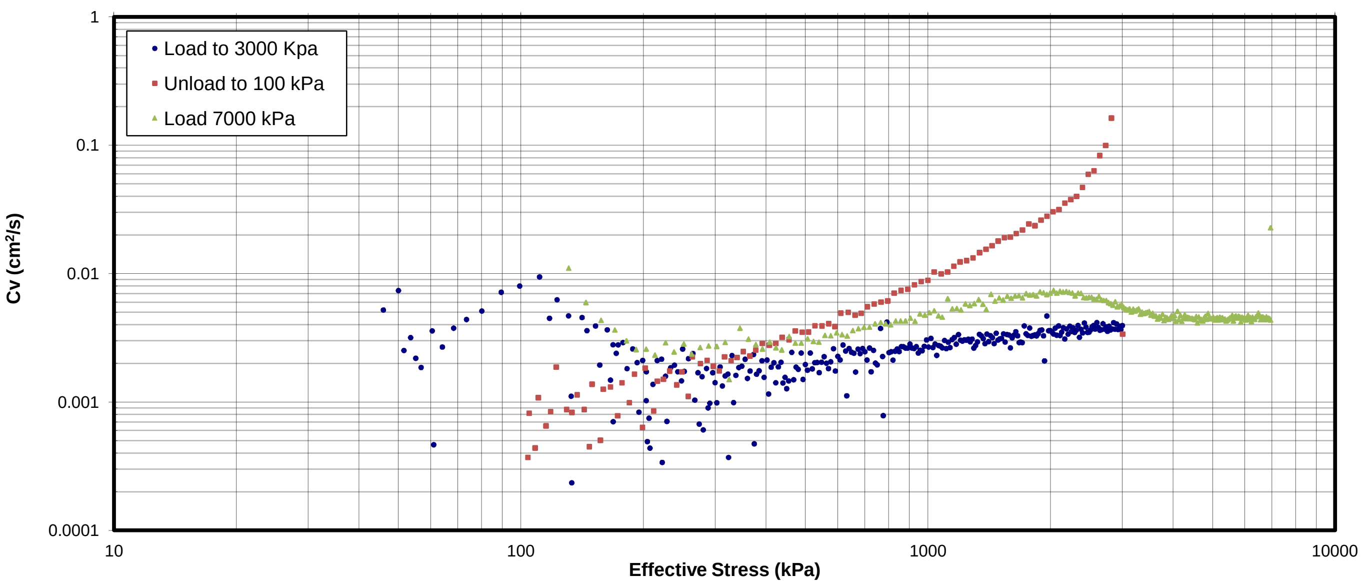
MEG TECHNICAL SERVICES
(A Division of MEG Consulting Limited)

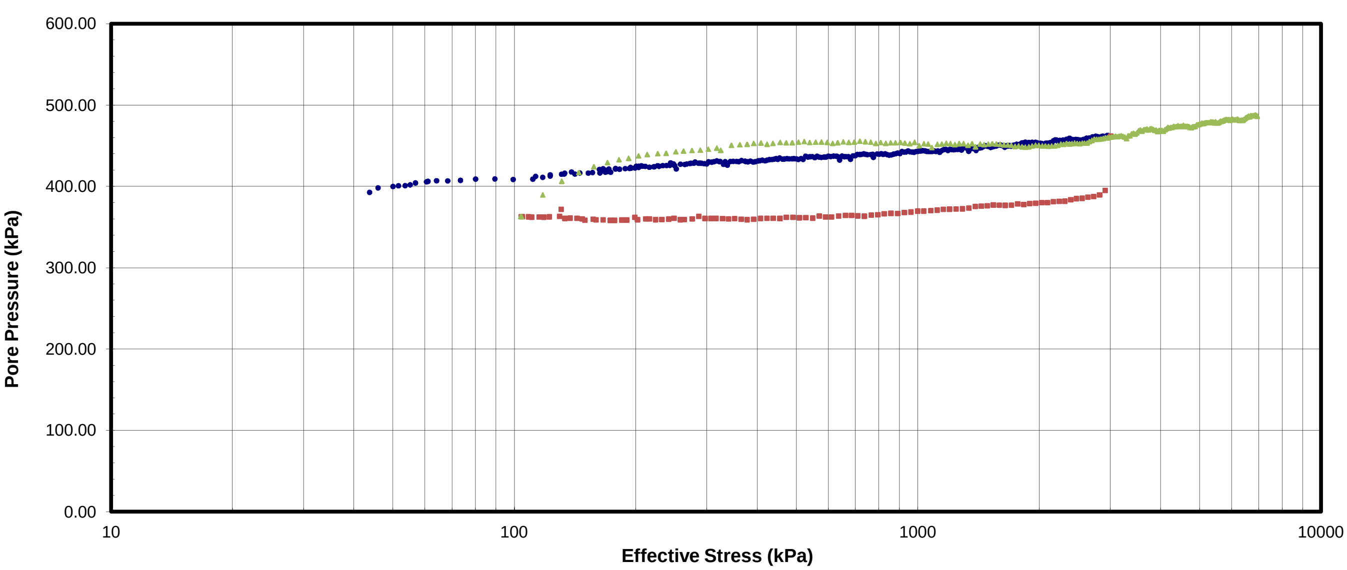
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 21, 2012
Borehole:	BH-004-12	Station:	CRS #1
Sample No.:	ST-7	Depth (m):	24.62

Weight of Ring (g):	211.27	**Ring + Wet Weight (g):**	373.75	**Initial Void Ratio, e:**	0.76
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	340.48	**Height of Soil, Hs (mm):**	14.42
Diameter of Ring (mm):	63.50	**Water Content (%):**	25.8	**Height of Void, Hv (mm):**	10.98
Unit Weight (kN/m^3)	19.82	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	June 28, 2012	Date:	June 29, 2012	Date:	June 29, 2012

MEG TECHNICAL SERVICES

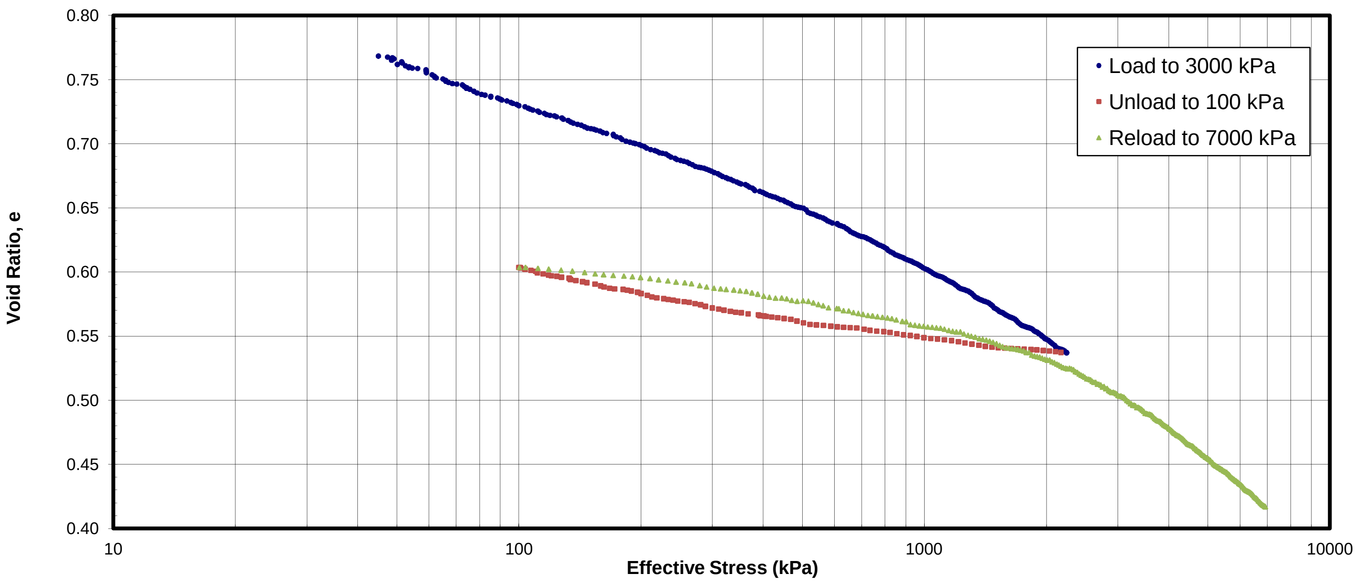
(A Division of MEG Consulting Limited)

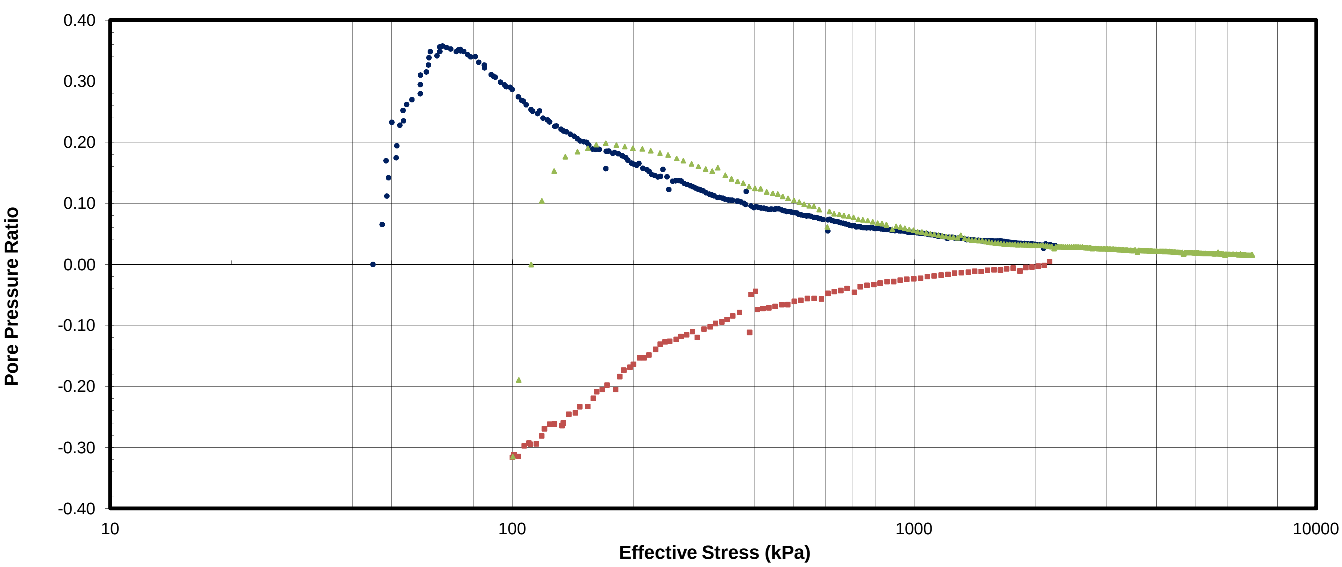
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 23, 2012
Borehole:	BH-004-12	Station:	CRS #3
Sample No.:	ST-9	Depth (m):	27.67

Weight of Ring (g):	211.62	**Ring + Wet Weight (g):**	370.32	**Initial Void Ratio, e:**	0.77
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	336.29	**Height of Soil, Hs (mm):**	14.37
Diameter of Ring (mm):	63.50	**Water Content (%):**	27.3	**Height of Void, Hv (mm):**	11.03
Unit Weight (kN/m^3)	19.35	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 23, 2012	Date:	June 25, 2012	Date:	June 25, 2012

MEG TECHNICAL SERVICES

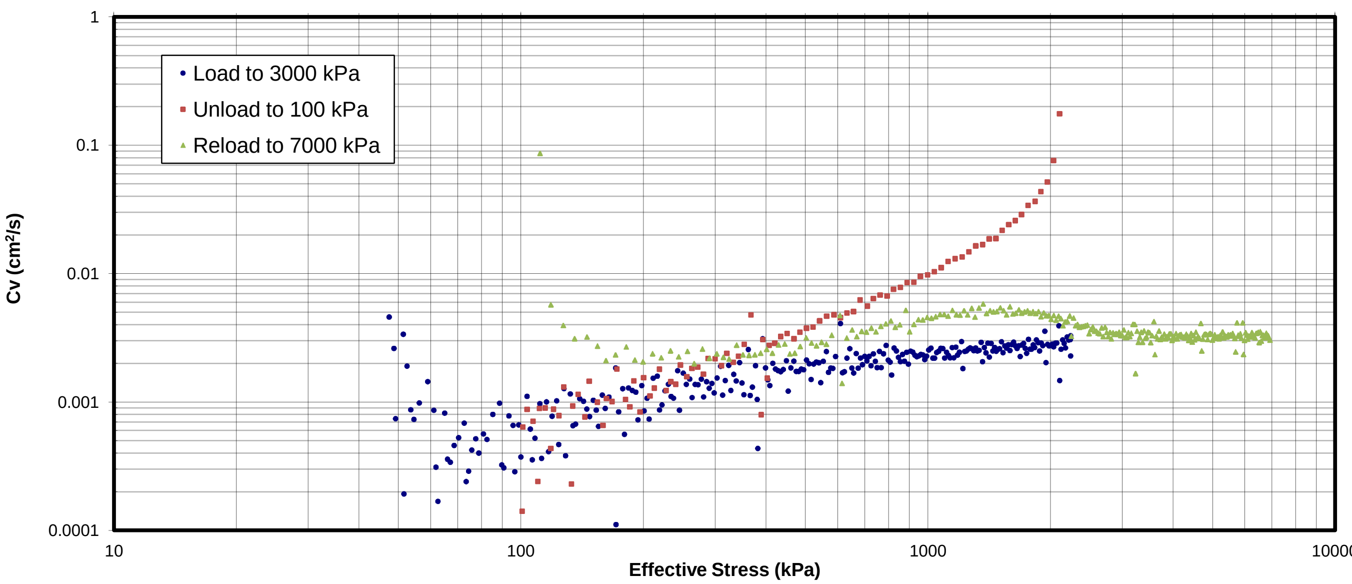
(A Division of MEG Consulting Limited)

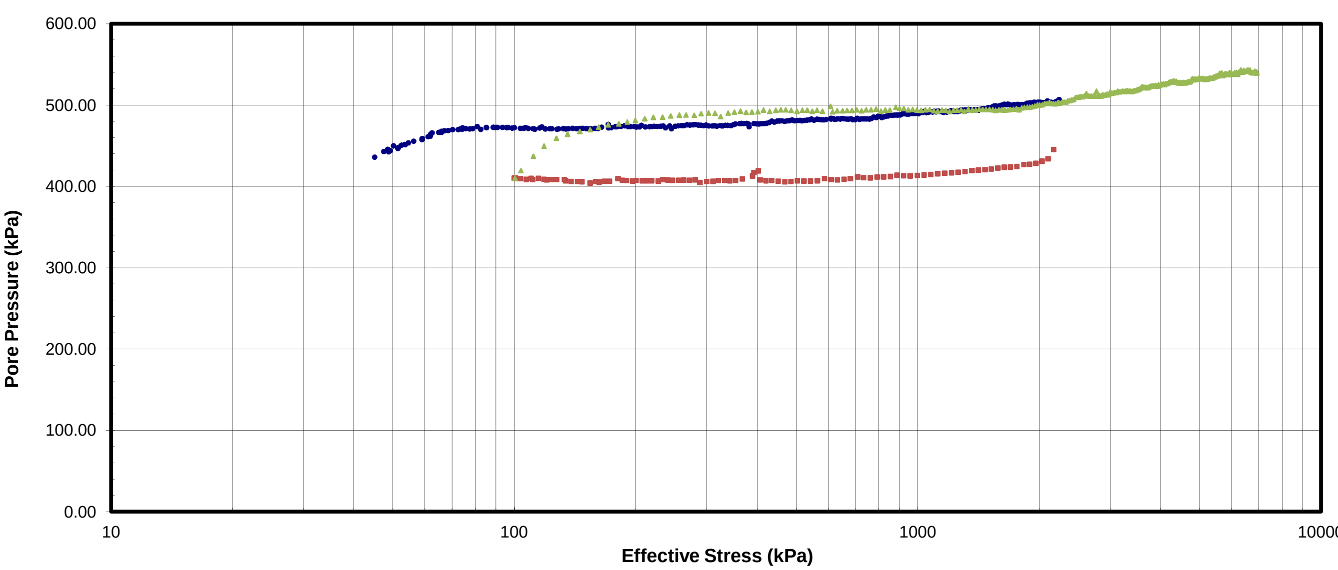
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 23, 2012
Borehole:	BH-004-12	Station:	CRS #3
Sample No.:	ST-9	Depth (m):	27.67

Weight of Ring (g):	211.62	**Ring + Wet Weight (g):**	370.32	**Initial Void Ratio, e:**	0.77
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	336.29	**Height of Soil, Hs (mm):**	14.37
Diameter of Ring (mm):	63.50	**Water Content (%):**	27.3	**Height of Void, Hv (mm):**	11.03
Unit Weight (kN/m³)	19.35	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 23, 2012	Date:	June 25, 2012	Date:	June 25, 2012

MEG TECHNICAL SERVICES

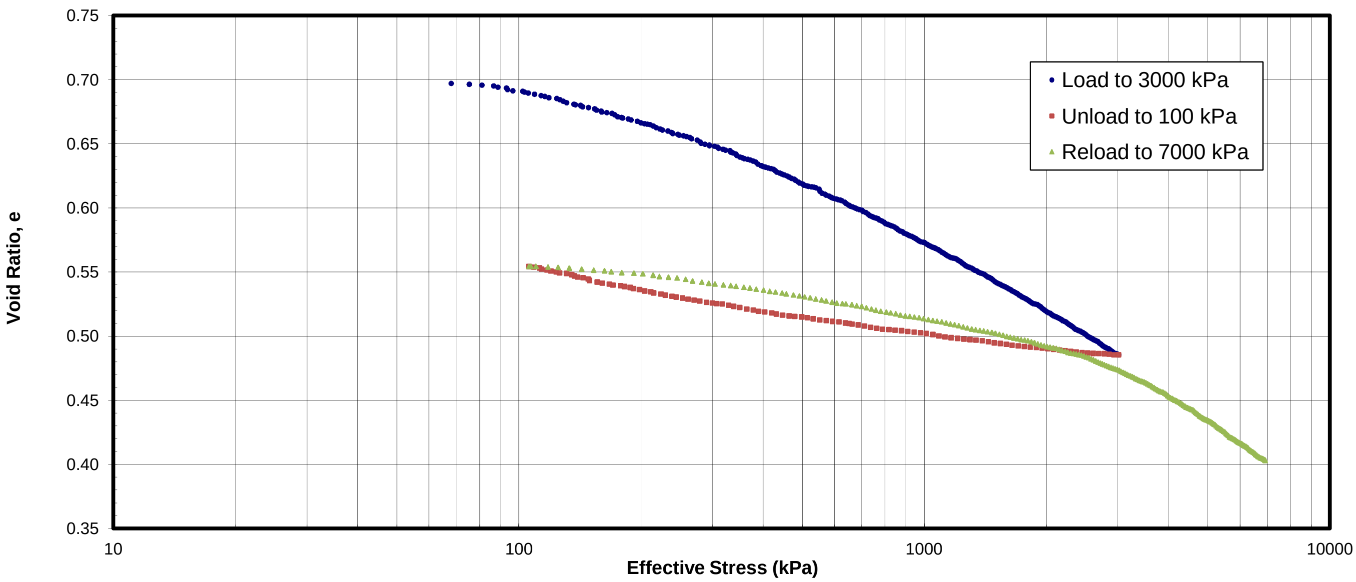
(A Division of MEG Consulting Limited)

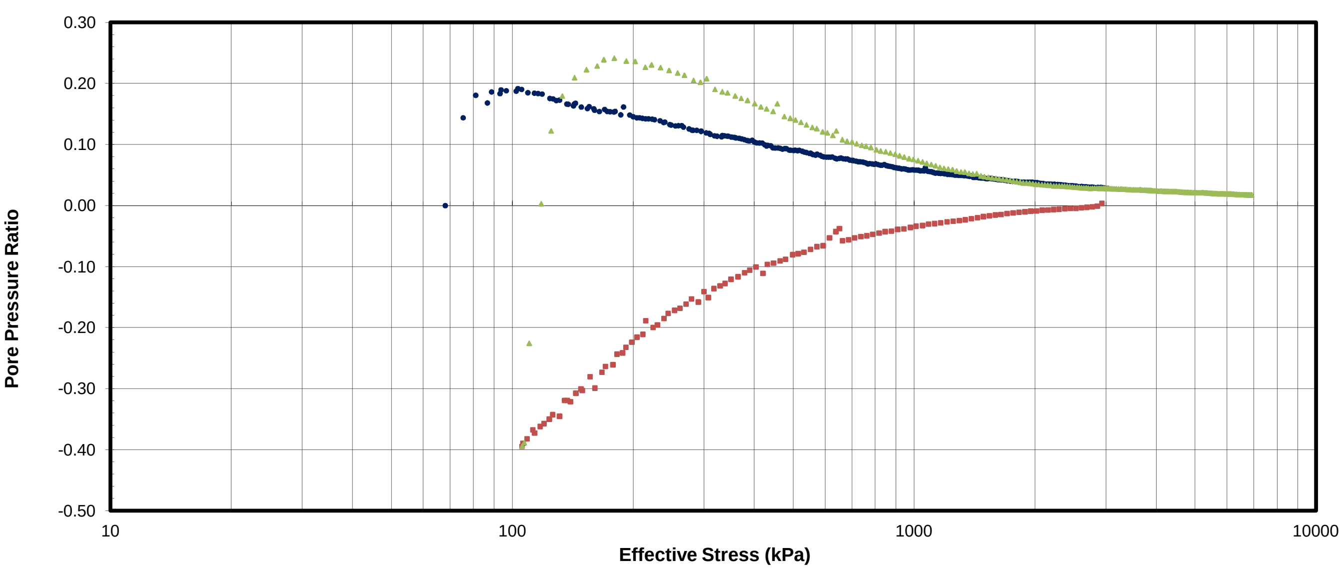
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 17, 2012
Borehole:	BH-004-12	Station:	CRS #2
Sample No.:	ST-11	Depth (m):	29.26

Weight of Ring (g):	211.95	**Ring + Wet Weight (g):**	373.48	**Initial Void Ratio, e:**	0.70
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	342.04	**Height of Soil, Hs (mm):**	14.94
Diameter of Ring (mm):	63.50	**Water Content (%):**	24.2	**Height of Void, Hv (mm):**	10.46
Unit Weight (kN/m^3)	19.70	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	17.47		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 24, 2012	Date:	July 25, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

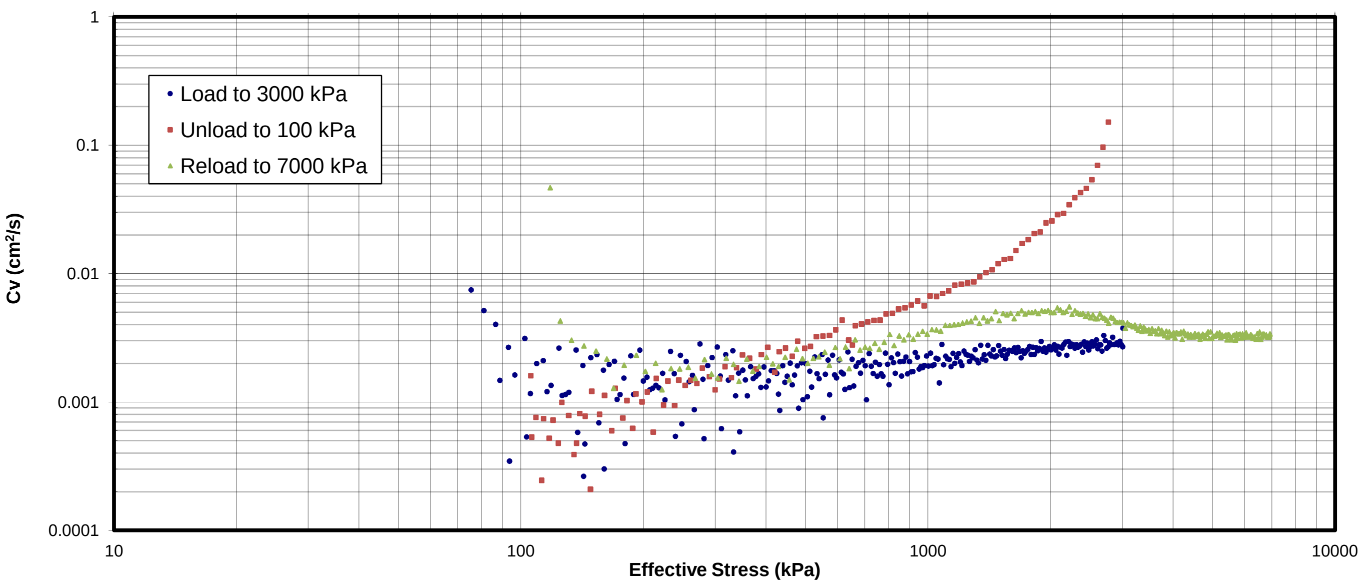
(A Division of MEG Consulting Limited)

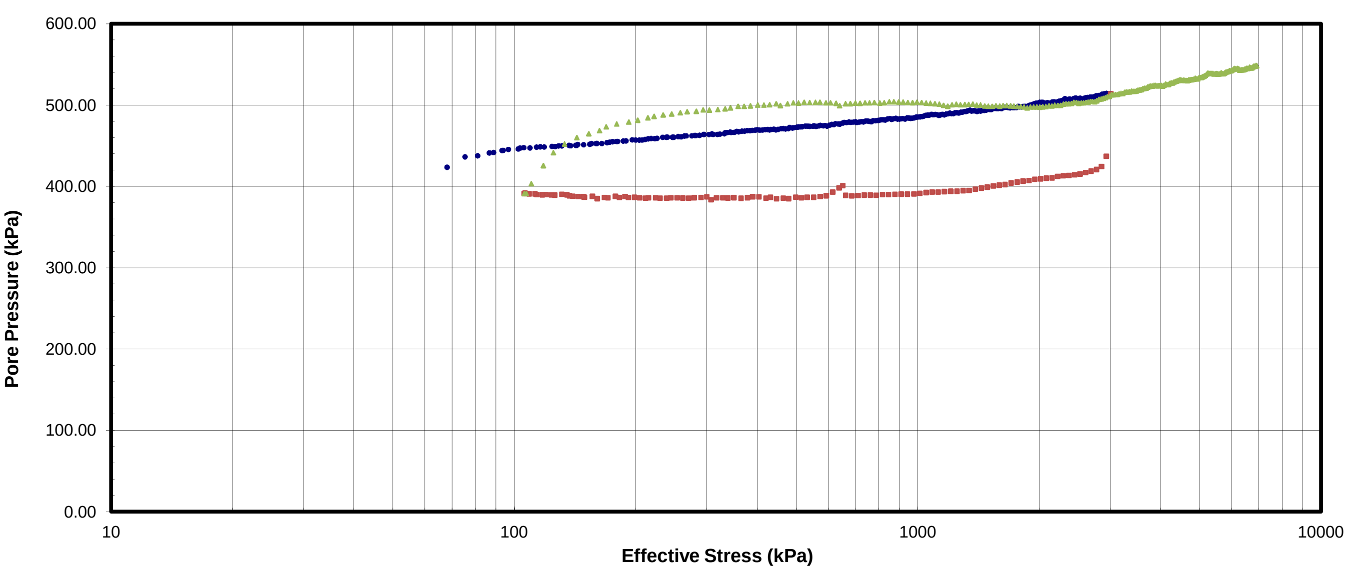
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 17, 2012
Borehole:	BH-004-12	Station:	CRS #2
Sample No.:	ST-11	Depth (m):	29.26

Weight of Ring (g):	211.95	**Ring + Wet Weight (g):**	373.48	**Initial Void Ratio, e:**	0.70
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	342.04	**Height of Soil, Hs (mm):**	14.94
Diameter of Ring (mm):	63.50	**Water Content (%):**	24.2	**Height of Void, Hv (mm):**	10.46
Unit Weight (kN/m^3)	19.70	**Specific Gravity, Gs:**	2.75		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	17.47		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 24, 2012	Date:	July 25, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

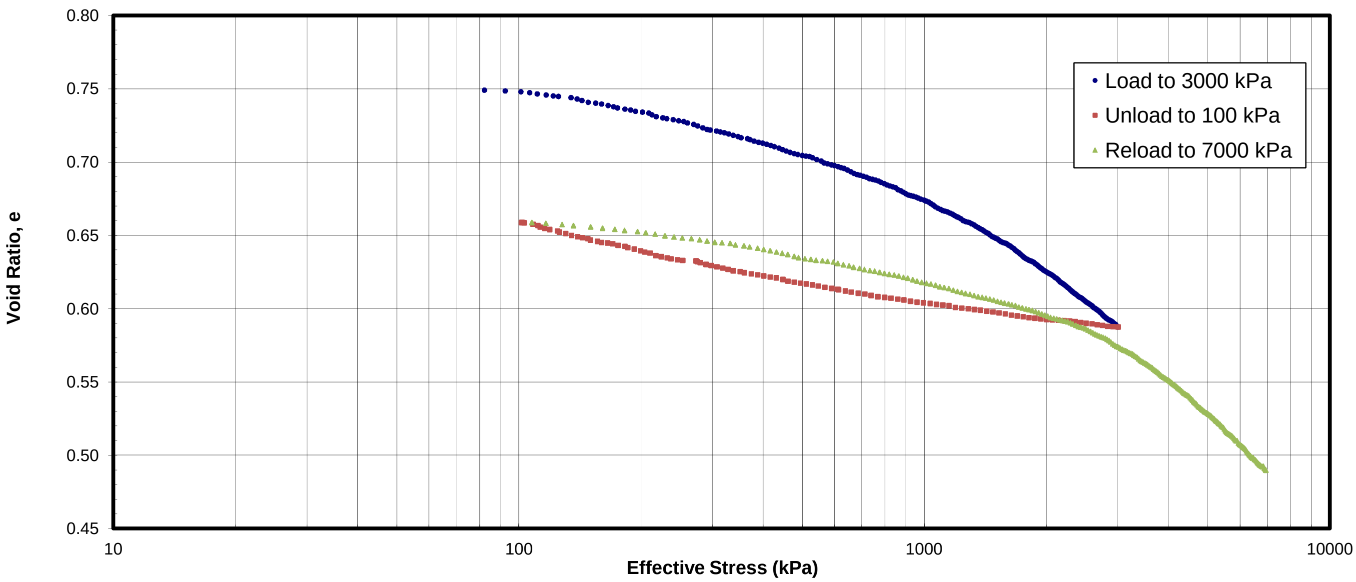
Marine + Earth MEG Geosciences

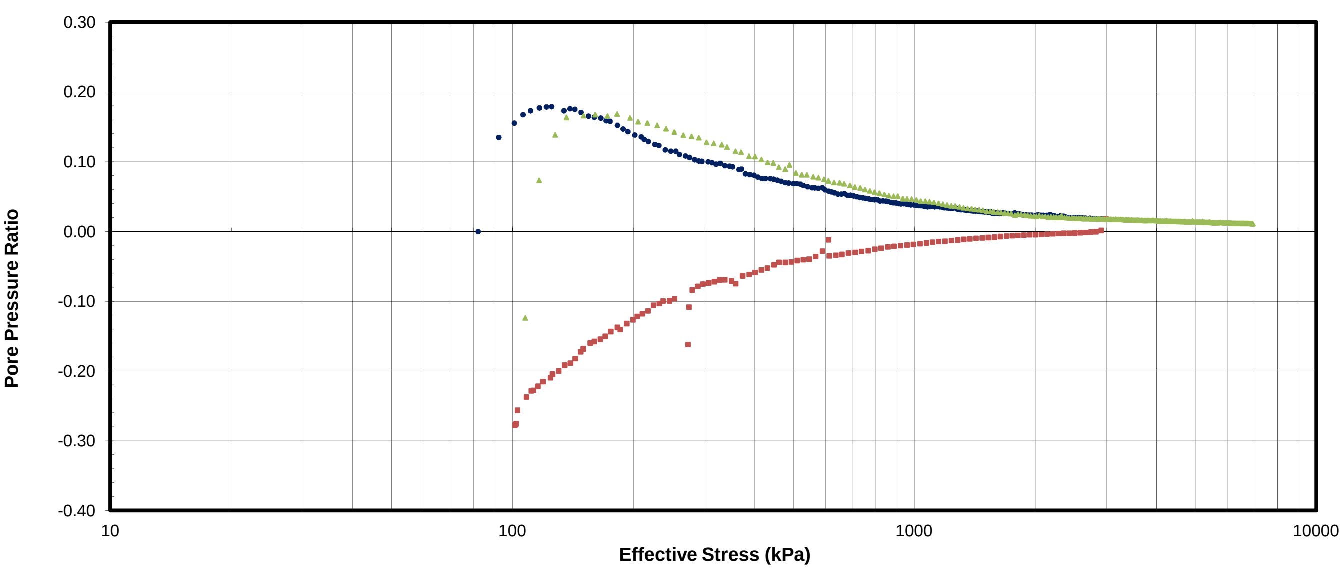
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 11, 2012
Borehole:	BH-004-12	Station:	CRS #2
Sample No.:	ST-13	Depth (m):	30.63

Weight of Ring (g):	216.63	**Ring + Wet Weight (g):**	379.69	**Initial Void Ratio, e:**	0.75
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	348.03	**Height of Soil, Hs (mm):**	14.51
Diameter of Ring (mm):	63.50	**Water Content (%):**	24.1	**Height of Void, Hv (mm):**	10.89
Unit Weight (kN/m^3)	19.89	**Specific Gravity, Gs:**	2.86		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	14.9		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 17, 2012	Date:	July 17, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

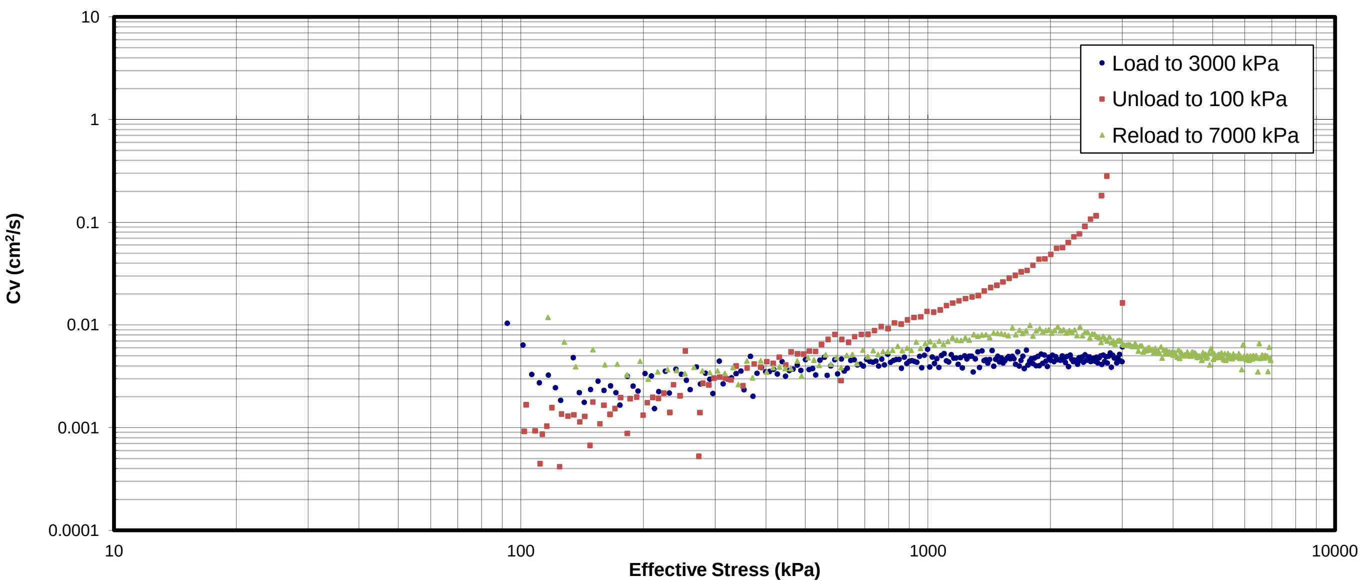
(A Division of MEG Consulting Limited)

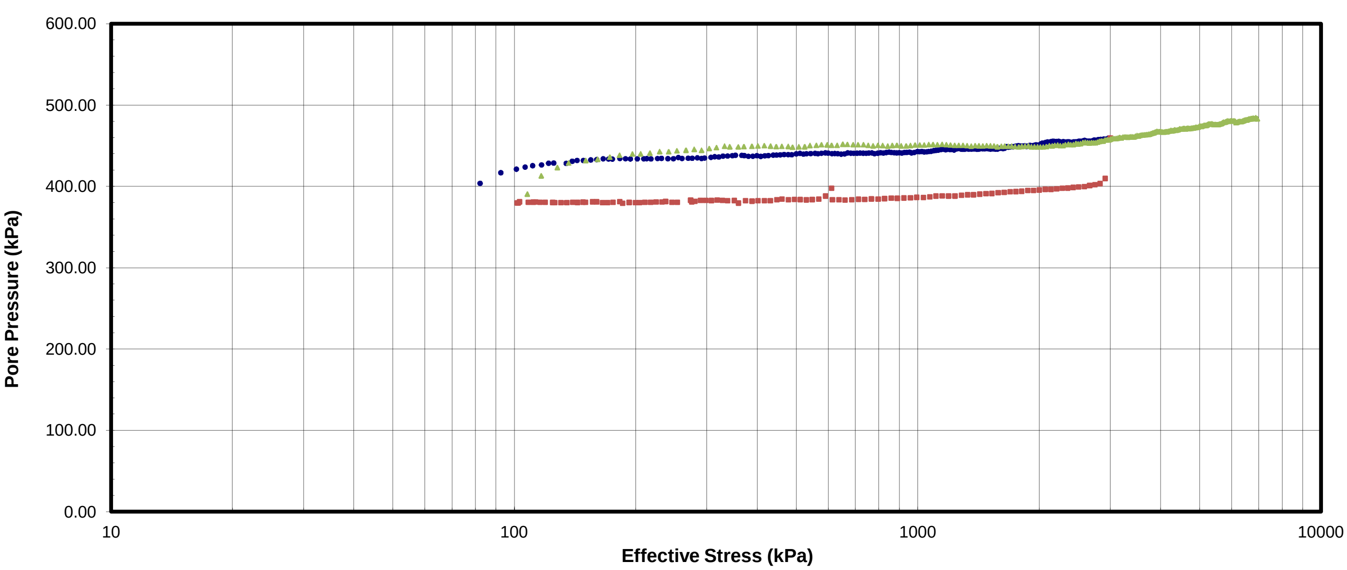
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 11, 2012
Borehole:	BH-004-12	Station:	CRS #2
Sample No.:	ST-13	Depth (m):	30.63

Weight of Ring (g):	216.63	**Ring + Wet Weight (g):**	379.69	**Initial Void Ratio, e:**	0.75
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	348.03	**Height of Soil, Hs (mm):**	14.51
Diameter of Ring (mm):	63.50	**Water Content (%):**	24.1	**Height of Void, Hv (mm):**	10.89
Unit Weight (kN/m^3)	19.89	**Specific Gravity, Gs:**	2.86		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	14.9		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 17, 2012	Date:	July 17, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

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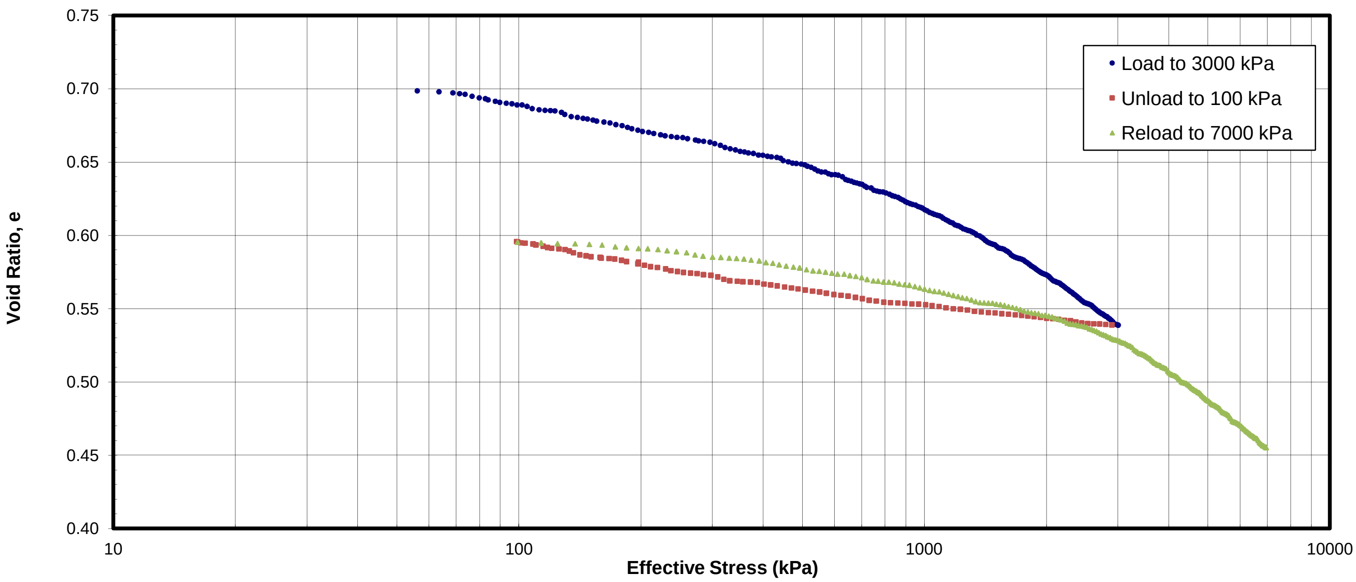
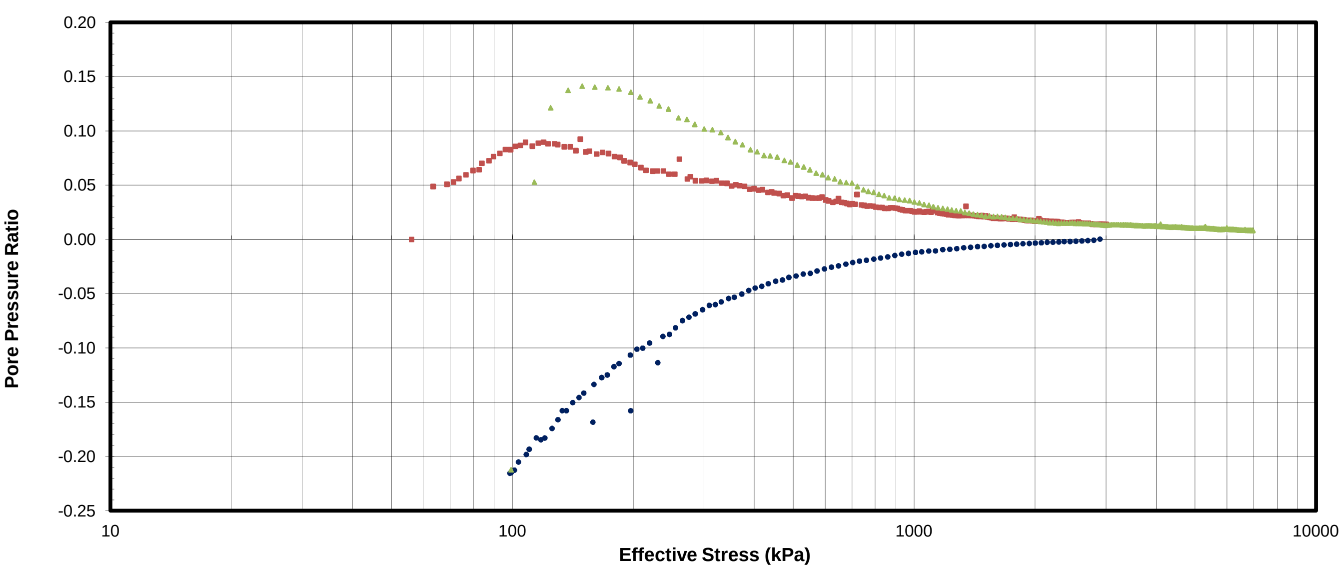
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 27, 2012
Borehole:	BH-005-12	Station:	CRS #1
Sample No.:	ST-3	Depth (m):	14.83

Weight of Ring (g):	211.27	**Ring + Wet Weight (g):**	375.42	**Initial Void Ratio, e:**	0.70
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	345.25	**Height of Soil, Hs (mm):**	14.95
Diameter of Ring (mm):	63.50	**Water Content (%):**	22.5	**Height of Void, Hv (mm):**	10.45
Unit Weight (kN/m^3)	20.02	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	July 4, 2012	Date:	July 5, 2012	Date:	July 5, 2012

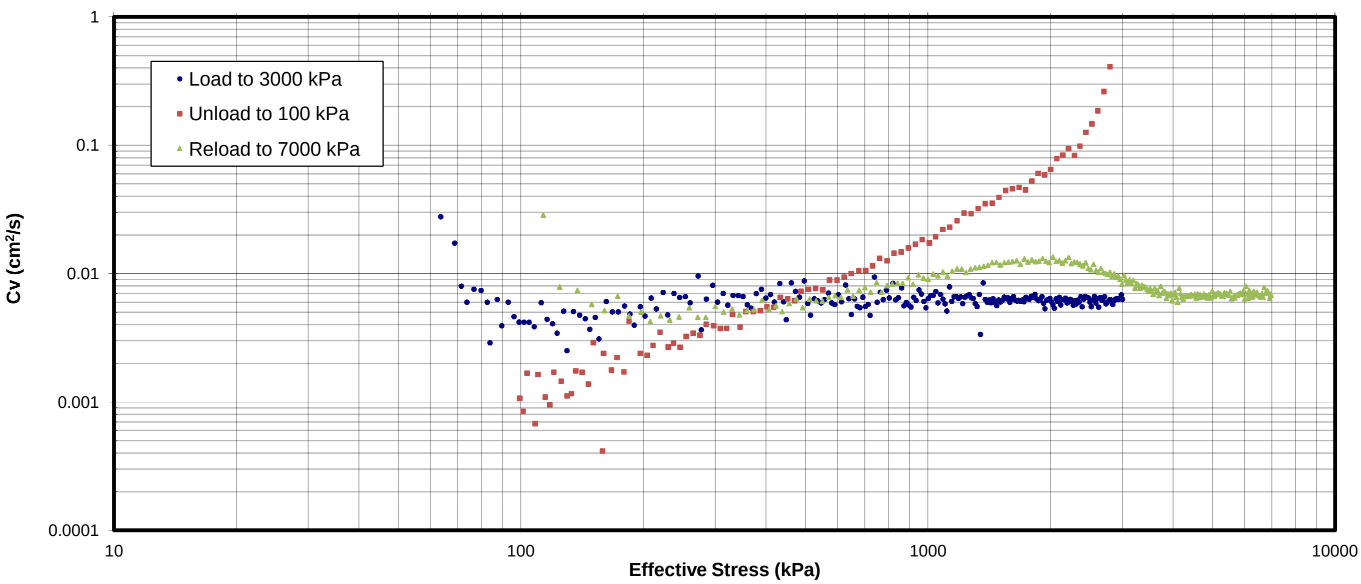
MEG TECHNICAL SERVICES
(A Division of MEG Consulting Limited)

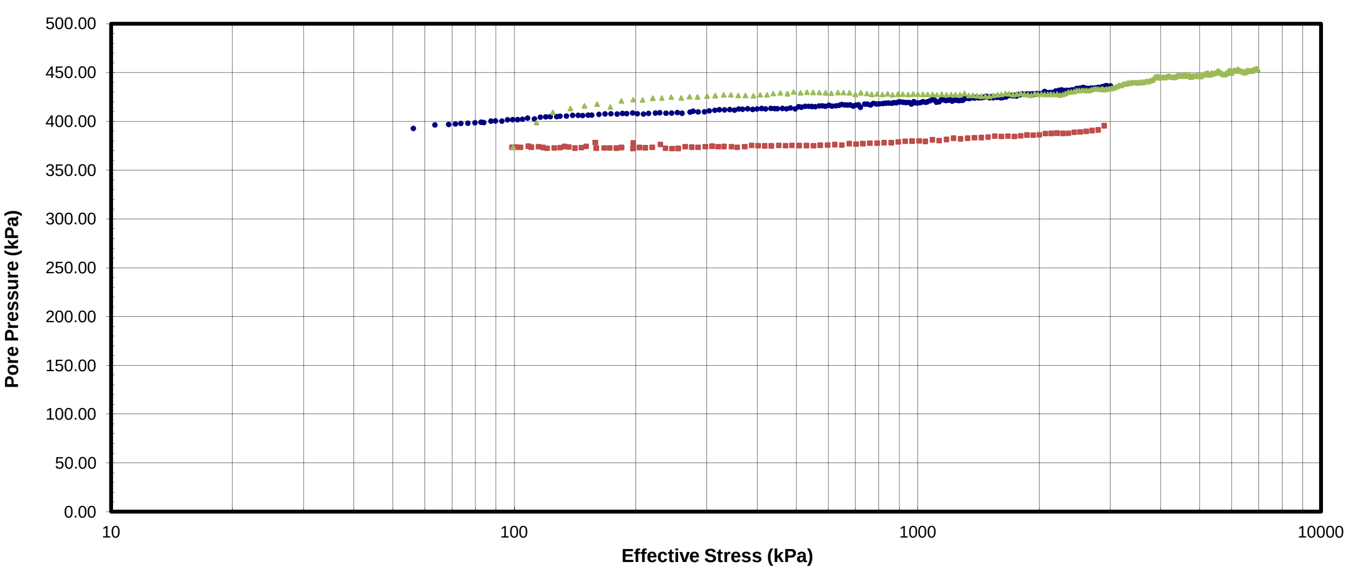
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 27, 2012
Borehole:	BH-005-12	Station:	CRS #1
Sample No.:	ST-3	Depth (m):	14.83

Weight of Ring (g):	211.27	**Ring + Wet Weight (g):**	375.42	**Initial Void Ratio, e:**	0.70
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	345.25	**Height of Soil, Hs (mm):**	14.95
Diameter of Ring (mm):	63.50	**Water Content (%):**	22.5	**Height of Void, Hv (mm):**	10.45
Unit Weight (kN/m^3)	20.02	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MF	Checked By:	PS	Approved By:	JPS
Date:	July 4, 2012	Date:	July 5, 2012	Date:	July 5, 2012

MEG TECHNICAL SERVICES

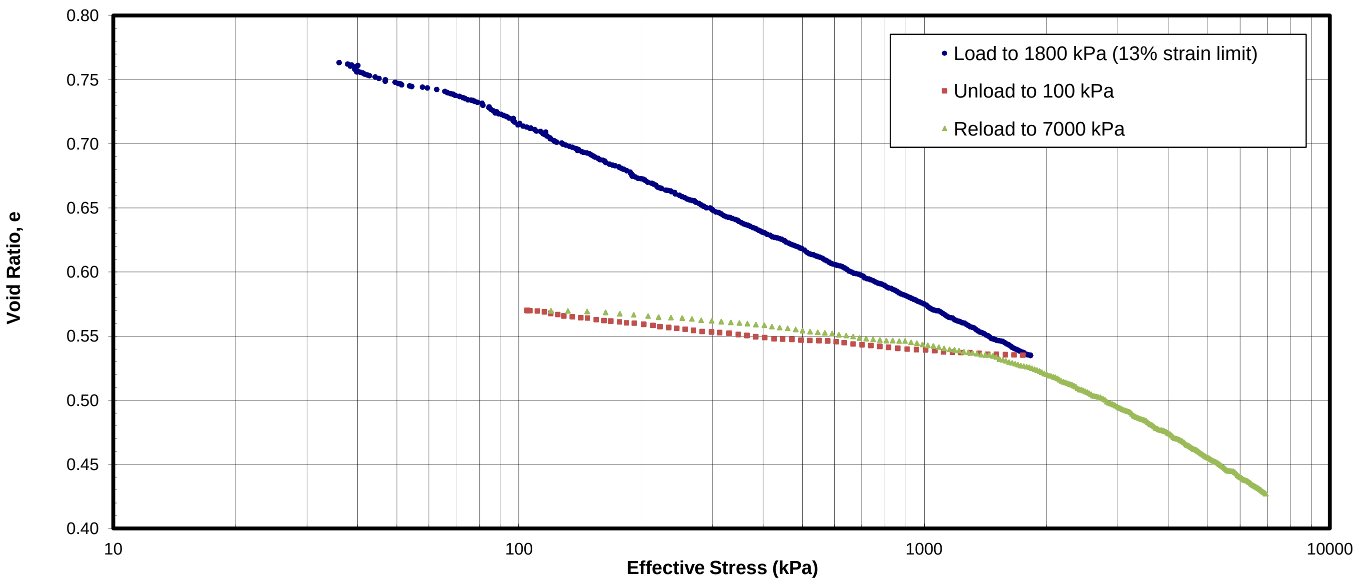
(A Division of MEG Consulting Limited)

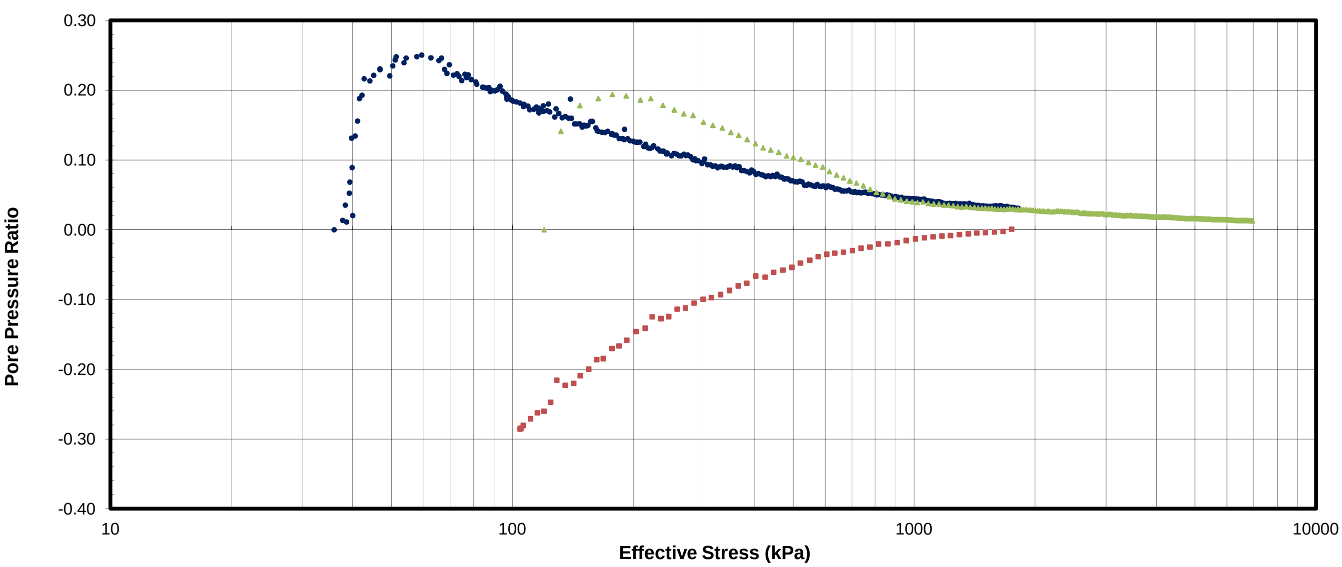
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 17, 2012
Borehole:	BH-005-12	Station:	CRS #1
Sample No.:	ST-8	Depth (m):	19.20

Weight of Ring (g):	215.97	**Ring + Wet Weight (g):**	374.47	**Initial Void Ratio, e:**	0.76
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	340.87	**Height of Soil, Hs (mm):**	14.39
Diameter of Ring (mm):	63.50	**Water Content (%):**	26.9	**Height of Void, Hv (mm):**	11.01
Unit Weight (kN/m^3)	19.33	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	19.12		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 24, 2012	Date:	July 25, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

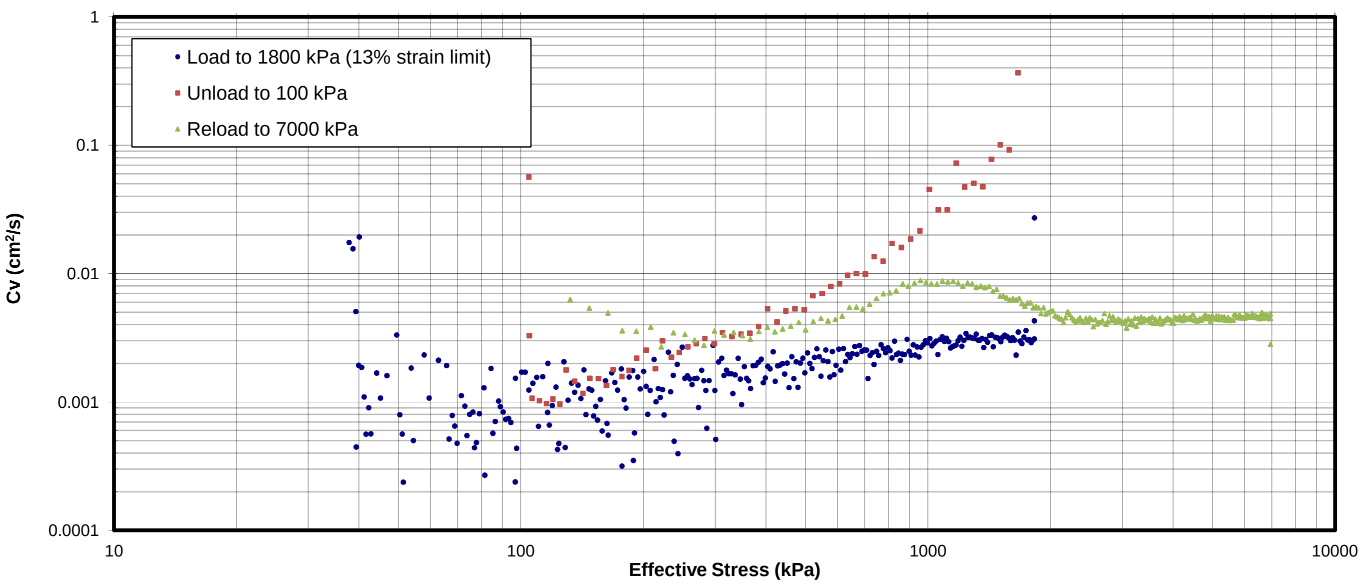
(A Division of MEG Consulting Limited)

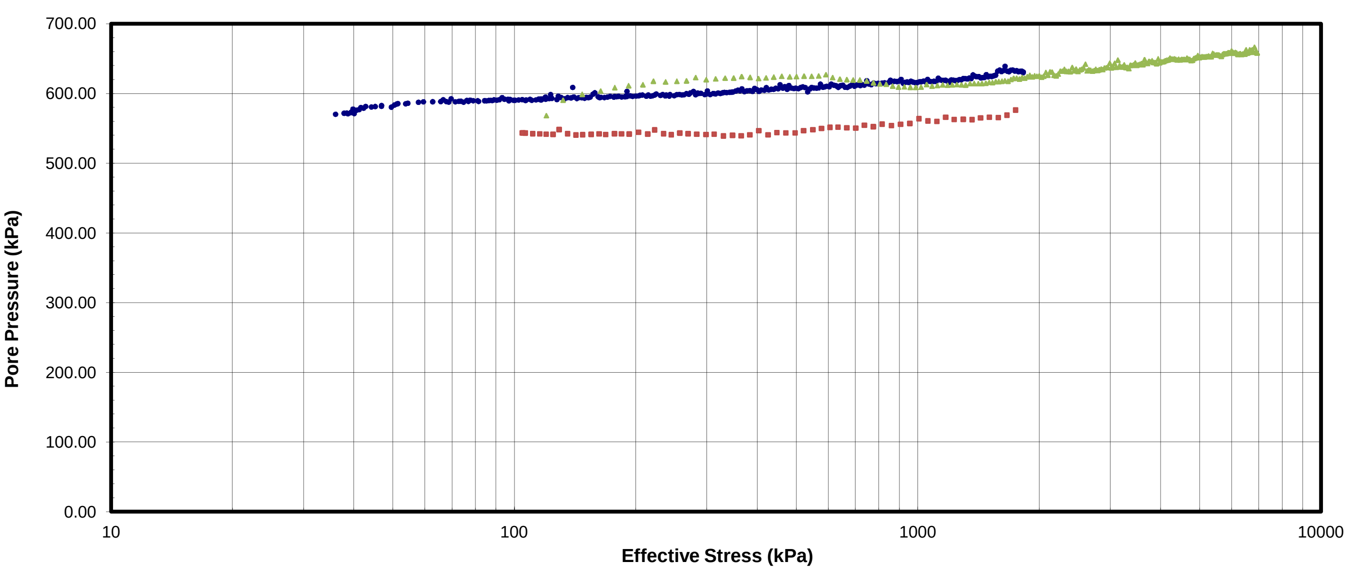
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 17, 2012
Borehole:	BH-005-12	Station:	CRS #1
Sample No.:	ST-8	Depth (m):	19.20

Weight of Ring (g):	215.97	**Ring + Wet Weight (g):**	374.47	**Initial Void Ratio, e:**	0.76
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	340.87	**Height of Soil, Hs (mm):**	14.39
Diameter of Ring (mm):	63.50	**Water Content (%):**	26.9	**Height of Void, Hv (mm):**	11.01
Unit Weight (kN/m^3)	19.33	**Specific Gravity, Gs:**	2.74		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	7000	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	19.12081163		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 24, 2012	Date:	July 25, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

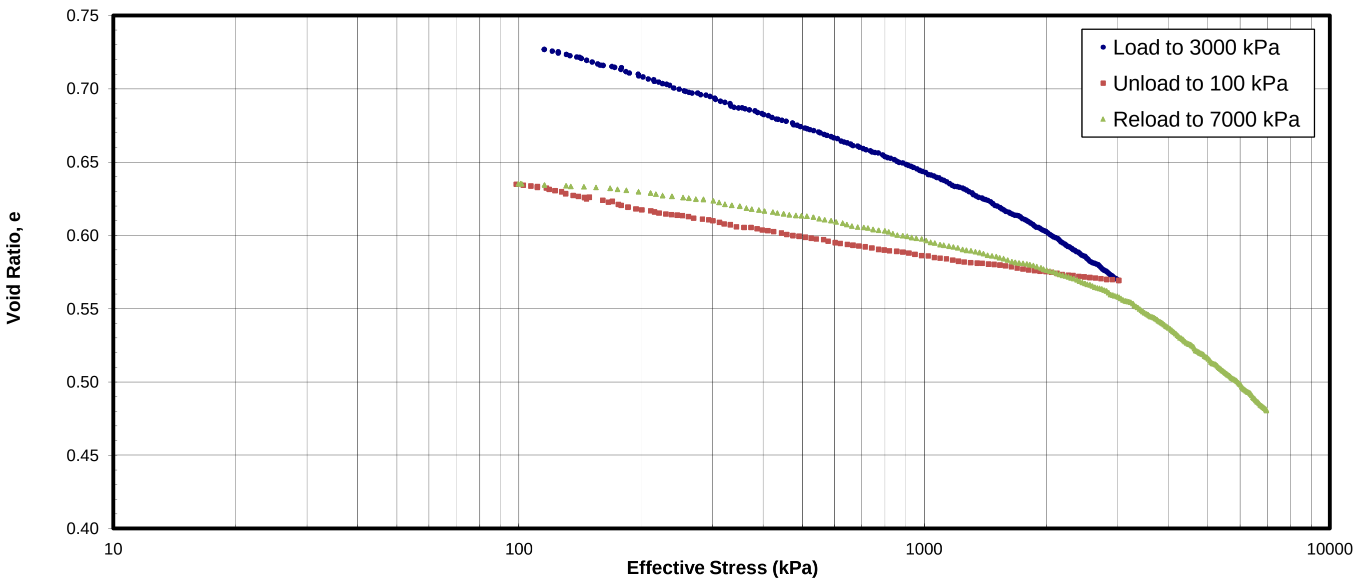
Marine + Earth
M | E | G
Geosciences

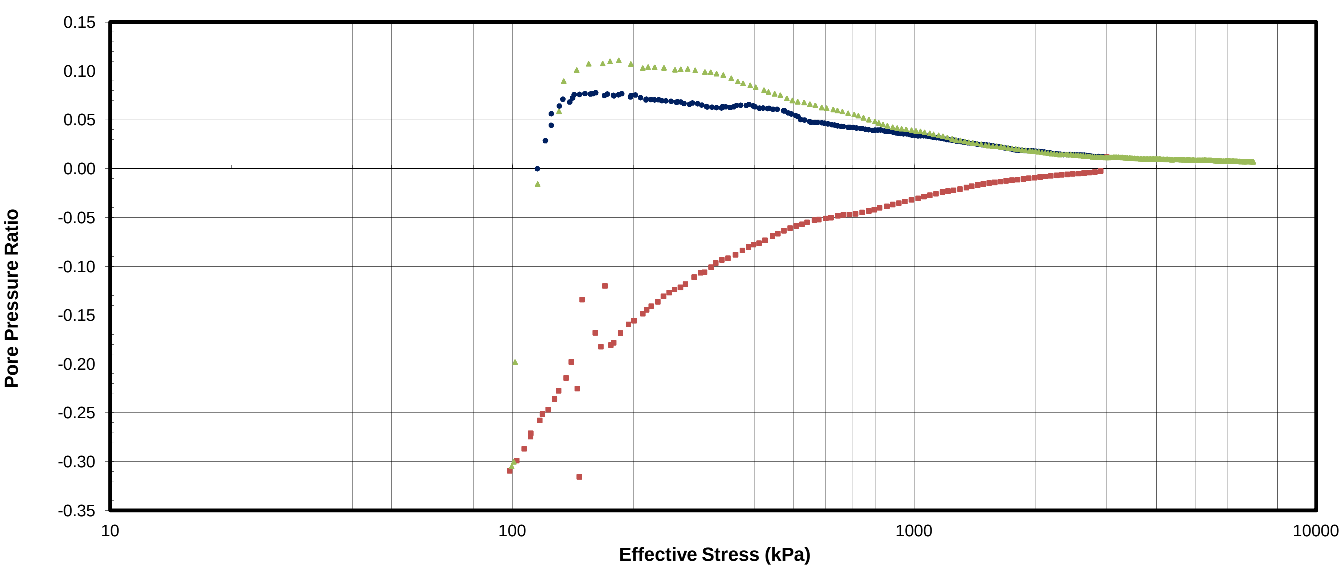
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 5, 2012
Borehole:	BH-005-12	Station:	CRS #2
Sample No.:	ST-11	Depth (m):	22.53

Weight of Ring (g):	216.64	**Ring + Wet Weight (g):**	380.99	**Initial Void Ratio, e:**	0.73
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	348.47	**Height of Soil, Hs (mm):**	14.71
Diameter of Ring (mm):	63.50	**Water Content (%):**	24.7	**Height of Void, Hv (mm):**	10.69
Unit Weight (kN/m^3)	20.04	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 9, 2012	Date:	July 10, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

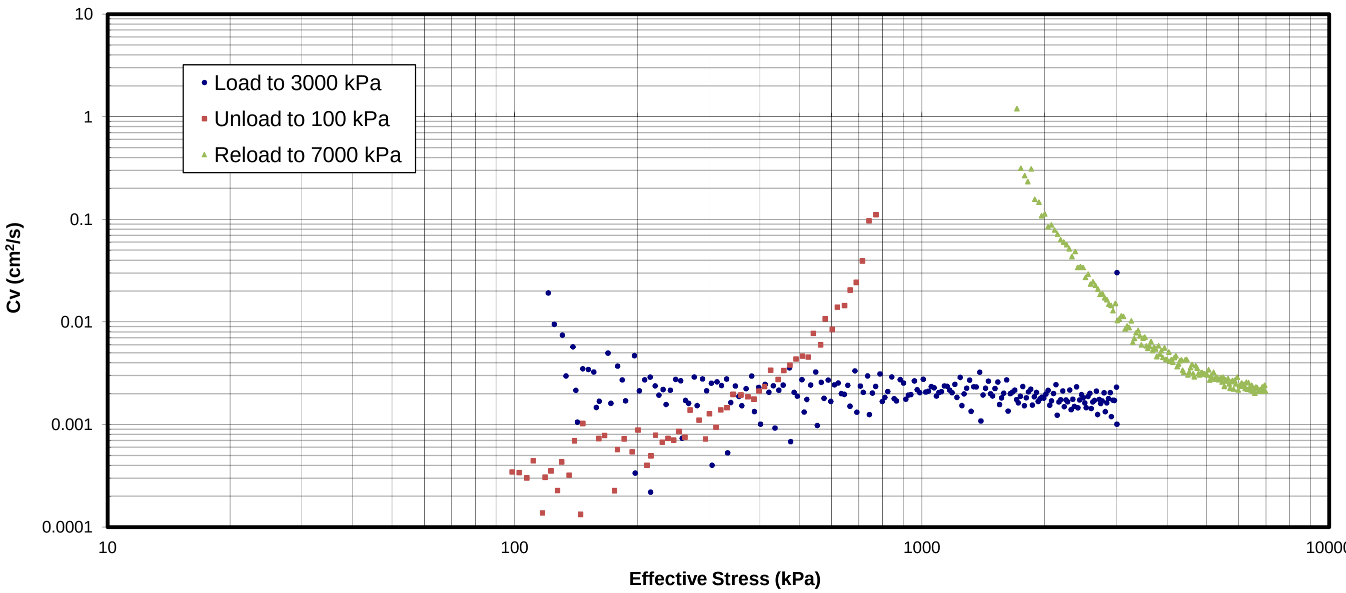
(A Division of MEG Consulting Limited)

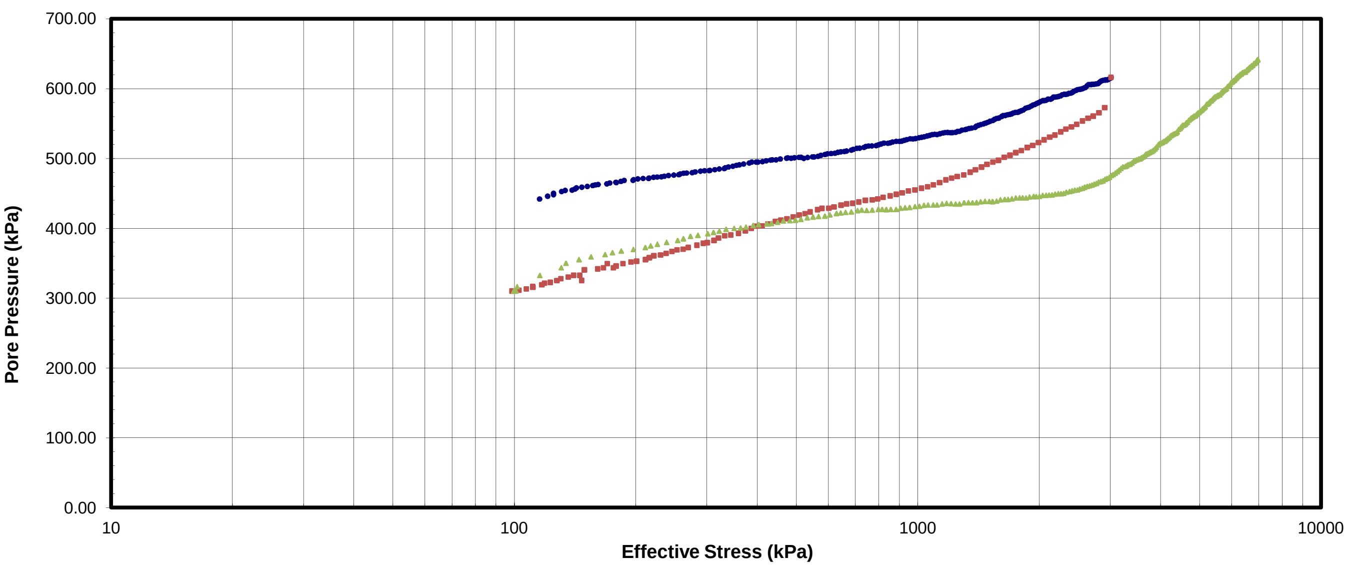
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 5, 2012
Borehole:	BH-005-12	Station:	CRS #2
Sample No.:	ST-11	Depth (m):	22.53

Weight of Ring (g):	216.64	**Ring + Wet Weight (g):**	380.99	**Initial Void Ratio, e:**	0.73
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	348.47	**Height of Soil, Hs (mm):**	14.71
Diameter of Ring (mm):	63.50	**Water Content (%):**	24.7	**Height of Void, Hv (mm):**	10.69
Unit Weight (kN/m^3)	20.04	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 9, 2012	Date:	July 10, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

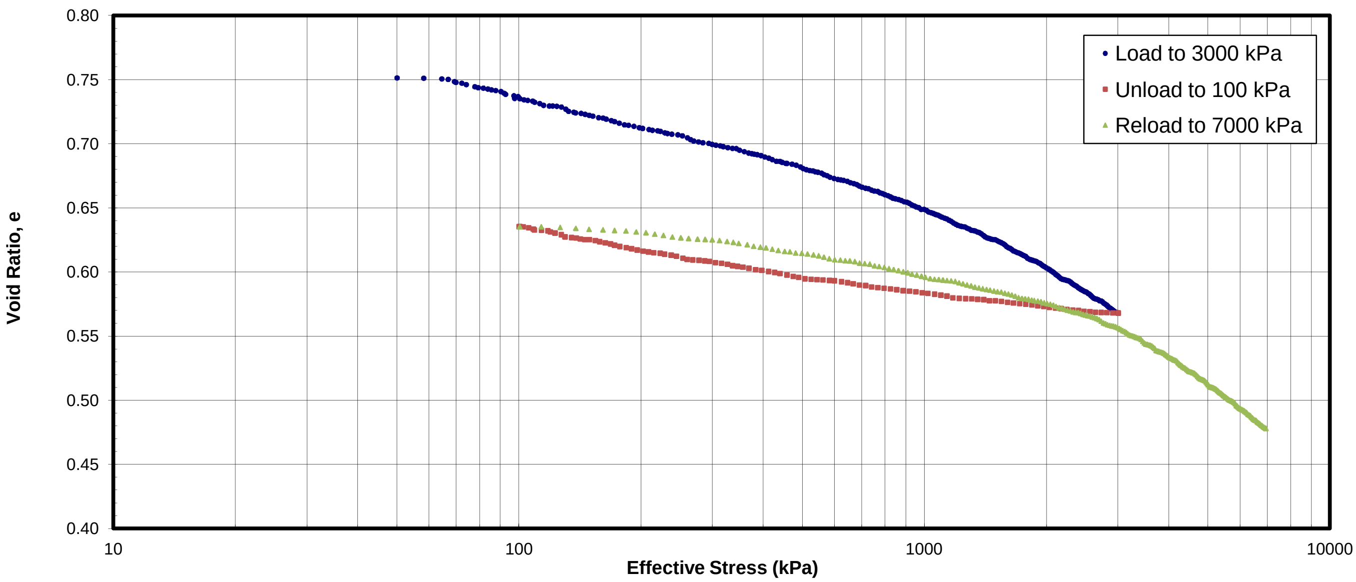
(A Division of MEG Consulting Limited)

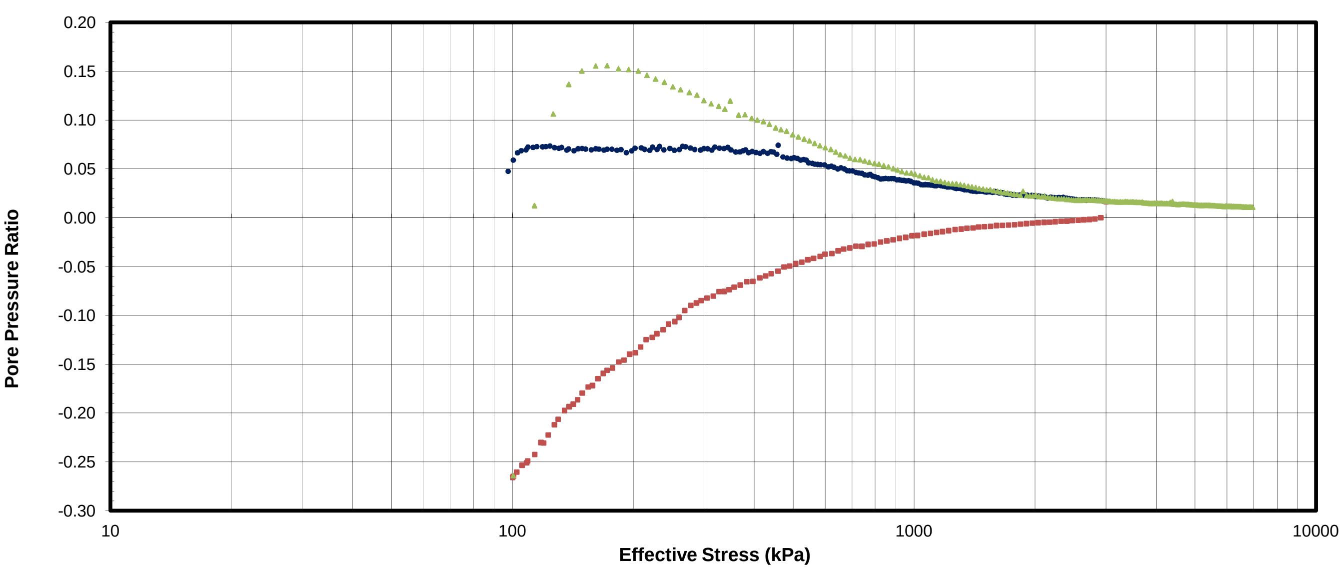
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 5, 2012
Borehole:	BH-005-12	Station:	CRS #1
Sample No.:	ST-13	Depth (m):	24.31

Weight of Ring (g):	211.25	**Ring + Wet Weight (g):**	371.99	**Initial Void Ratio, e:**	0.75
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	341.26	**Height of Soil, Hs (mm):**	14.51
Diameter of Ring (mm):	63.50	**Water Content (%):**	23.6	**Height of Void, Hv (mm):**	10.89
Unit Weight (kN/m^3)	19.60	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 9, 2012	Date:	July 10, 2012	Date:	July 12, 2012

MEG TECHNICAL SERVICES

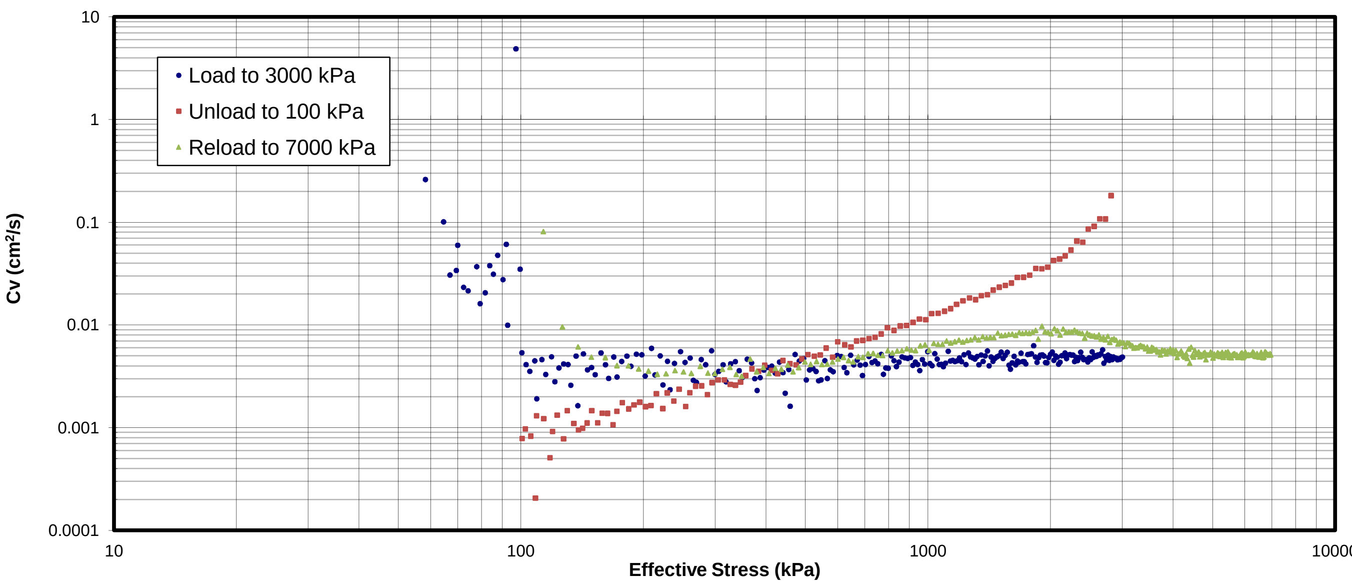
(A Division of MEG Consulting Limited)

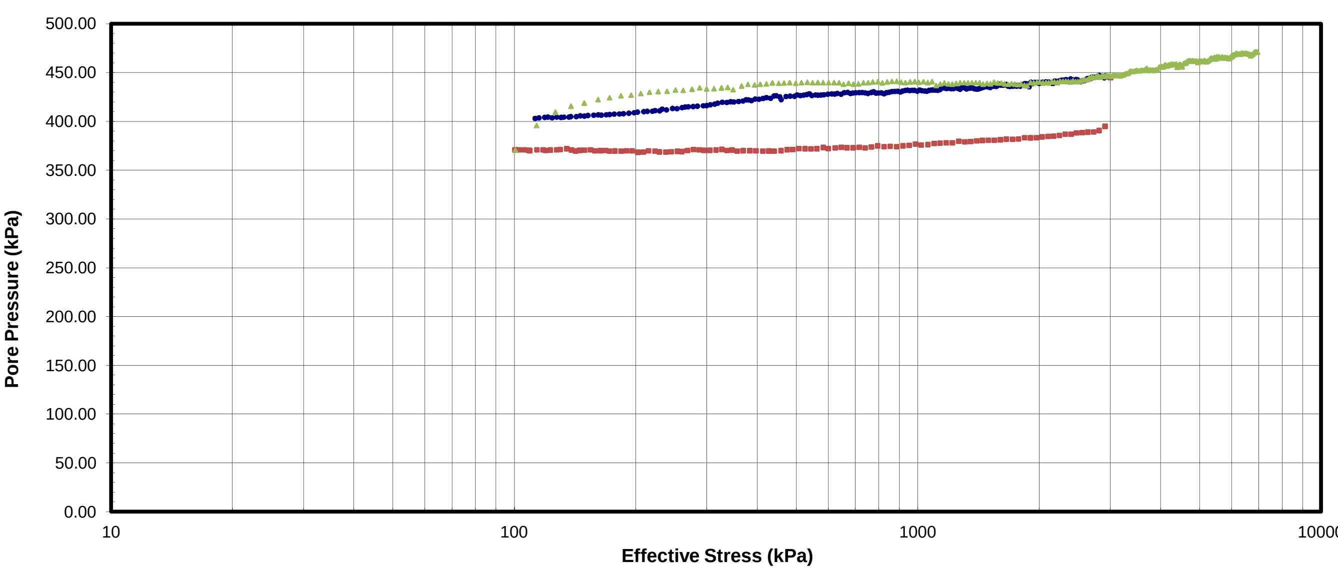
Constant Rate of Strain Consolidation (ASTM D4186)

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 5, 2012
Borehole:	BH-005-12	Station:	CRS #1
Sample No.:	ST-13	Depth (m):	24.31

Weight of Ring (g):	211.25	**Ring + Wet Weight (g):**	371.99	**Initial Void Ratio, e:**	0.75
Initial Height (mm):	25.40	**Ring + Dry Weight (g):**	341.26	**Height of Soil, Hs (mm):**	14.51
Diameter of Ring (mm):	63.50	**Water Content (%):**	23.6	**Height of Void, Hv (mm):**	10.89
Unit Weight (kN/m^3)	19.60	**Specific Gravity, Gs:**	2.83		

Loading Strain Rate (%/hr):	0.8	**Max Stress (kPa):**	2800	**Backpressure (kPa):**	414
Unloading Strain Rate (%/hr):	0.4	**Max Strain (%):**	11.85		





Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 9, 2012	Date:	July 10 ,2012	Date:	August 12, 2012