



Surfactant Analysis for SDA Sediment Taskforce Study

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by

Martin A Selby

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Summary

Analysis has been carried out on surface water, Pore water and sediment from the Trinity river in Texas, USA for the presence of three specific surfactants; Linear Alkylbenzene Sulphonates (LAS), Alkyl Ethoxy Sulphates (AES) and Alcohol Ethoxylates (AE). Total suspended solids data were also obtained for pore water samples.

These analyses form part of a comprehensive study of the Trinity river which includes assessment of biological data and water quality.

The surfactant analysis involved extraction and cleanup of samples using solid phase extraction cartridges followed by liquid chromatography-mass spectrometry.

Specifically the surfactants for which levels were obtained are C₁₀₋₁₄ LAS, C₁₂₋₁₅ EO₀₋₆ AES and C₁₂₋₁₆₊₁₈ EO₀₋₁₈ AE. It is believed that this is the first study to provide such a comprehensive fingerprint of the levels of three surfactant types from a number of locations in a single river.

Results were obtained from all samples although there is some doubt as to the levels at one sampling site (site 10)

No obvious trends were observed although a few individual high and low concentrations were observed.

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1. Introduction

The Soap and Detergent Association (SDA) carry out a number of studies in order to obtain analytical data regarding the environmental fate and effect of surfactant products.

The data are used for regulatory submissions and risk assessment purposes.

One such study was undertaken on the Trinity river which rises in North Texas and flows into Galveston bay.

This report details the analysis of surface water, Pore water and sediment taken from various sample points for the presence of three specific surfactants; Linear Alkylbenzene Sulphonates (LAS), Alkyl Ethoxy Sulphates (AES) and Alcohol Ethoxylates (AE).

The analysis itself involves the extraction, cleanup and concentration of water and sediment samples followed by Liquid Chromatography-Mass Spectrometry (LC-MS).

The surfactant analysis itself is extremely complex. One extraction is required for LAS and AES which are then analysed by two subtly different LC-MS methods.

For AE analysis extraction is followed by extensive cleanup using Solid Phase extraction cartridges before a third LC-MS method completes the analysis. This final method is known in the literature as the "Pyridinium method" and was developed by the Soap and Detergent Association members. It is one of the few methods able to provide a profile of a wide range of ethoxylates in one analysis; EO₀₋₁₈.

Additional analysis of Pore water for Total Suspended Solids was carried out on certain pore water samples. This data is provided for use in the calculation of available surfactant.

As the interpretation and use of the data generated in this study is being carried out by other taskforce members this report concentrates on detailing what was done with the samples, the data generated and analytical/statistical boundaries which should be placed on the data.

2. Experimental

2.1 Reference Materials

A number of reference materials and reagents were used in the analysis. Detail is given below.

Solvents and reagents:

All solvents used were HPLC grade purchased from Rathburns (1). The solvents used will be detailed in the preparation sections of this report

Ammonium Acetate was Analar grade from VWR(2)

Formic acid and triethylamine were Analar grade from Sigma-Aldrich(3).

Water was obtained from a commercial deionisation instrument manufactured by ELGA(4). The water was 18 Megohm at point of delivery and was drawn fresh each day into glass containers. This water was used for all blanks, spiked recoveries and sample preparation as well as the chromatographic system of the LC-MS.

2-fluoro-1-methyl pyridinium toluene sulphonate (>95%) from Sigma –Aldrich(3).

Standard materials:

The following materials were used to prepare spiking solutions, internal standards and analytical standards:

NANSA 90% LAS from Albright and Wilson(5)

Sodium Dodecyl Sulphate 98.5% from QMx labs Ltd(6)

Neodol 25/S3 ex. Shell. This material has been previously characterised as 16.2% active material.

GENAPOL C100 (contains mainly C12 and C14 alcohol ethoxylates, from Clariant (7)

GENAPOL T110 (contains mainly C16 and C18 alcohol ethoxylates, from Clariant (7)

LUTENSOL AO7 (contains mainly C13 and C15 alcohol ethoxylates, from BTC(8)

Deuterated C13 alcohol ethoxylate ex. Shell. Previously characterised as to content of each ethoxamer.

2.2 Apparatus

A range of beakers, cylinders, pipettes, flasks and stoppers were used in the analysis. All such items were washed in a commercial glass washer modified in that only steam and acid washing was employed. The machine was only used for this projects' glassware.

Prior to lab use all glassware was further rinsed with methanol and dried in an oven at 65° C.

Soxhlet extractors were further washed with methanol for 4 hrs prior to first use and then used for the cleaning of extraction thimbles prior to sample extraction.

Soxhlet extraction thimbles were pre-extracted with methanol for 8 hr (LAS & AES) or Acetonitrile for 16 hr (AE). The thimbles were stored in an oven at 65° C until used.

The flasks used for Soxhlet extraction were further cleaned by Autoclaving prior to use and again rinsed with methanol.

Water jars used for blanks and recoveries were further rinsed with ELGA water prior to use.

Solid-phase extraction apparatus was washed with methanol prior to each batch of extractions.

Aspiration tubes were washed before each aspiration with water, methanol and acetone and then air dried.

Solid phase extraction (SPE) cartridges were all sourced from IST via Jones Chromatography.

Details of the LC-MS chromatographic systems are given in Tables 1-3. The LC-MS used for all analysis was a Waters Quattro Micro triple quadrupole operated in Electrospray mode.

For LAS and AES analysis the HPLC eluent was fed directly into the mass spectrometer. For AE analysis the eluent was split with approx. 20% of the flow going to the mass spectrometer.

2.3 Standard Preparation

A stock solution of the deuterated Sodium Dodecyl Sulphate internal standard was prepared in 50% Acetonitrile: Water by dissolving 20mg of material in 100ml solvent. 10µl of this internal standard was added to each final extract prior to analysis for LAS and AES.

2.3.1 LAS

A stock solution of NANSA 90% was prepared by dissolving 100mg material in 100ml of 50% Acetonitrile: Water. This stock solution was diluted to give a range of standards with concentrations of 100, 40, 20, 10, 5, 2, 1, 0.4 and 0.1 µg/ml nominal concentration. The actual amounts of active material were adjusted in the quantitation calculations to account for the 90% active matter.

2.3.2 AES

A stock solution of Neodol 25/3S was prepared by dissolving 100mg material in 100ml of 50% Acetonitrile: Water. This stock solution was diluted to give a range of standards with concentrations of 200, 100, 40, 20 and 10 µg/ml nominal concentration. The actual amounts of active material were adjusted in the quantitation calculations to reflect the 16.2% active matter.

2.3.3 AE

A stock solution of the deuterated C₁₃ AE internal standard was prepared at a concentration of 1500 µg/ml by diluting 15 mg material in 10 ml of acetonitrile. This was then diluted in acetonitrile to give a 15 µg/ml solution. 1ml of this solution was added to each extract prior to derivatisation.

Separate stock solutions of GENAPOL C100 and GENAPOL T110 were prepared by weighing out 650 mg and dissolving in 100 ml acetonitrile, to give solutions of 6.5 mg/ml each.

A stock solution of LUTENSOL AO7 was prepared by dissolving 600 mg in 100 ml acetonitrile.

A dilution was made of the above three components by diluting 1 ml of each of the three stock solutions together in a 100 ml volumetric flask with acetonitrile to give a solution of total alcohol ethoxylate composition of 190 µg/ml. This solution was then diluted with acetonitrile to give a solution of 19 µg/ml.

A set of calibration standards was prepared by derivatising a range of volumes of the 190 or 19 µg/ml solution to give standards in the range required for analysis. In the case of the Trinity River samples, standards from 76 to 0.475 µg/ml were prepared.

2.4 Sample Preparation

One extraction of water or sediment was carried out for LAS and AES. A separate extraction, cleanup and derivatisation was used for the AEs; this follows the published Pyridinium method (9) A number of publications have successfully used this methodology (12,13,)

2.4.1 Sediment extraction for LAS and AES

Analysis loosely follows methodology previously followed by workers in the field(14).

Sediment samples were first warmed to room temperature. Supernatant liquid was discarded. The sample was stirred with a clean steel rod.

20g sediment was weighed into a cellulose soxhlet. Any large debris (sticks, pebbles above approx. 5mm diameter) was discarded prior to weighing.

The sediment was soxhlet extracted for 4 hr with 150ml methanol.

40ml water is added to the vessel and the solvent stripped by rotary evaporation to a minimum volume; typically 30ml.

The extract is quantitatively transferred to a 250ml glass vessel using water to a final volume of 200ml.

2.4.2 Water extraction for LAS and AES

Either a 200ml aliquot of water sample (previously shaken for 1 hr) or a 200ml sediment extract, as prepared in 2.4.1, were extracted by the following method:

a) 2 x 2g C2 SPE cartridges are prepared as follows:

Wash with 10ml MeOH
 10ml 80/20 MeOH/IPA
 10ml Water

b) The samples (200ml water) were aspirated at approx. 1 drop/sec through the two C2 cartridges connected in series and then air dried for 1 hr.

c) Elution

The cartridges were eluted separately with the following, collecting eluent into glass vessels

10ml 80/20 MeOH/IPA
10ml MeOH

The eluent was combined and evaporated to dryness under dry nitrogen at ambient temp.

1ml of 50% CH₃CN/H₂O is added to the dry vessel and the vessel agitated to dissolve sample. 10ul of internal standard is added (2ug) and the solution placed into an HPLC vial for LC-MS.

Should the sample appear cloudy or contain solids it may be filtered through a 0.2μ syringe filter prior to addition of internal standard.

2.4.3 Sediment Extraction for AE

Sediment samples were first warmed to room temperature. Supernatant liquid was discarded. The sample was stirred with a clean steel rod.

20g sediment was weighed into cellulose soxhlet thimbles. Any large debris (sticks, pebbles above approx. 5mm diameter) was discarded prior to weighing.

The sediment was extracted for 16 hr with 150ml Acetonitrile.

40ml water was added to vessel and the solvent stripped by rotary evaporation to a minimum volume; typically 30ml.

The extract was quantitatively transferred to a 250ml glass vessel using water to a final volume of 200ml.

2.4.4 Water Extraction , cleanup and derivatisation for AE

This is a three stage process where water samples are extracted onto C2 cartridges, cleaned up using ion exchange cartridges (SAX+SCX) and then Derivatised prior to LC-MS

As this procedure is extremely complex the detail is given as an appendix to this report (Appendix 1)

2.4.5 Total Suspended Solids

A proprietary method UK1611.04, (10) was used for this analysis. This follows the spirit of ASTM D 5907-03 (11) but is not identical. Basically sample water is filtered through a pre-weighed filter paper and the paper dried to constant weight. The mass difference represents the suspended solids.

2.5 Blanks and recoveries

In order to assess the recovery efficiency of the extraction and cleanup procedures employed in this study and number of blank and recovery experiments were carried out.

A series of “ initial” samples of both sediment and water were obtained prior to the main study samples. These were used for preliminary recovery work with additional recoveries carried out once the main study samples arrived at our laboratory.

2.5.1 Blanks

Water blanks for all three classes of surfactant were obtained by taking 200ml (LAS & AES) or 4l (AE) aliquots of ELGA water and processing them as for samples.

Whilst a sediment “blank” is not possible in real terms the initial sediment sample, sent for use in recovery experiments, has been processed and presented in the data.

Blanks were also run for the LAS sediment extraction process using an empty extraction thimble.

2.5.2 Recoveries

Recoveries were obtained by spiking the appropriate volume of water or sediment with aliquots of the analytical standards prior to extraction onto the SPE cartridges.

In the case of LAS and AES the internal standard (2.3) was added prior to analysis by LC-MS.

For AE analysis the internal standard (2.3.3) was added prior to derivatisation; detailed in appendix 1.

Sediment recoveries were obtained by addition of volumes of standard solution to sediment in extraction thimbles.

Water recoveries were obtained by spiking aliquots of blank or sample water with volumes of standard followed by mixing prior to extraction onto SPE cartridges.

2.5.2.1 LAS

For sediments, levels of 2667ng/g and 6000 ng/g dry weight were used, the 6000ng/g being used for the main study samples where levels were expected to be higher than those in the initial sediment sample.

For water recoveries 200ml aliquots of water were spiked at two levels; 90,000ng/l for spiked blanks and 180,000ng/l for surface water spikes and the cleanup-step recovery.

2.5.2.2 AES

The recovery of the initial sediment sample was carried out at 2160ng/g dry Wt. The level used for the main study samples was 10,800 ng/g dry Wt.

Water samples were spiked at 405,000 ng/l and 162,000 ng/l.

2.5.2.3 AE

Sediment recoveries were carried out at 2533ng/g dry Wt.

Water recoveries were carried out at 19,000ng/l and 118,750 ng/l in sample and blank water.

3. Results and Discussion

Table 4 gives an overview of the samples which were analysed. As can be seen a number of replicate analyses were carried out during the study. These were curtailed somewhat as some of the excess surface water which had been received was sent to another laboratory for Chlorine analysis at the sponsors request. Some excess pore water was also analysed for Total Suspended Solids; see section 3.4.

All results given are in ng/l or ng/g dry sediment weight. Results are not corrected for recovery.

Whilst raw data are presented it is considered prudent to rely only on data after application of LOQs. Comments on trends and outliers reflects these filtered data alone.

The filtered data will be passed to the University of North Texas, another participant in the Trinity river study. They will be carrying multi-variate analysis on the whole data set including the surfactant data presented in this report.

3.1 Blanks and Recoveries

For all three detergent types (LAS, AES & AE) the recovery in samples is generally lower than in blank water. This is presumably due to interference in the extraction process by other materials present in the samples.

Sediment recoveries are generally a little lower than ideal, particularly for LAS, but are considered acceptable. The range measured was 29-77% for LAS, 40-144% for AES and 26-2199% for AE. High levels made AE₀ recoveries unreliable for some samples hence the 2199%; see tables of results for detail as indicated below.

Results are briefly described below together with discussion on significant features.

3.1.1 LAS

Table 5 gives blank and initial sample data for LAS analysis.

The blank level in water of approx. 4000 ng/l reflects the background surfactant levels derived from apparatus, solvents and reagents.

Table 6 gives LAS recovery data.

3.1.2 AES

Table 7 gives the blank water data for AES analysis.

Tables 8 and 9 give AES recovery data for sediments and water respectively.

3.1.3 AE

Tables 10 and 11 give blank data for sediment and water analysis respectively.

Tables 12 to 14 give recovery data of sediments, water samples and ELGA blank water.

It is noticeable that the alcohol (E00) recoveries in sediment are extremely high. This is due to significant levels being present in the sediment compared to the spike level used. This was adjusted for water recovery experiments.

3.2 Limits of Detection and Quantitation

For each detergent class we have determined the Limit of Detection (LOD) and Limit of Quantitation (LOQ)

The LOD is defined here as the concentration at which the signal:noise ratio is equal or greater than 5:1. This is considered to be the smallest amount of material which should be considered to be a positive response. LODs were determined by replicate injection of standards and calculation of the concentration at which the signal to noise would be 5:1.

The LOQ is defined in a number of ways in the literature. These vary between the LOD (at a s:n of 3:1 or 5:1), 10 X Standard Deviation (SD), 3 X SD, LOD+3XSD and others. We consider that the definition of $LOQ = LOD + 3 \times SD$ represents a good compromise between the inherent variability of the methodologies involved and the absolute detection limit of the instrumentation.

Standard Deviations were obtained by replicate injections of water-derived spiked blanks. For sediment calculations the equivalent concentration was calculated assuming 15g dry Wt. per sediment sample of 20g wet Wt. LOQs were then calculated from the SDs and LOD.

Tables 15a and 15b show the replicate analysis which enabled us to define the LOD and LOQ for LAS in sediment and water. The spike level for replicate injections was 180,000 ng/l.

Tables 16 and 17 show the LOD and LOQ values assigned for AES with Table 18 giving statistical data used to derive the LOQs. The spike level here was 81,000 ng/l.

Tables 19a and 19b show the LOD and LOQ values for AE with Table 20 giving the percentage Standard Deviation of replicate AE analysis. For the replicate analysis a water samples with total AE concentration of 61875 ng/l was used.

3.3 Repeatability

The standard deviations of replicate LC-MS analyses (analysis of the same extract) are good. For example the LAS results are all less than 8% SD and those for the wide range of AE species quantified are all less than 5%SD.

The replicate sample analysis, where complete extraction and analysis are carried out in replicate, are less good, showing considerable variation, particularly in sediment samples.

As considerable care was taken to ensure that representative samples were used for replicate analysis this too is attributed to the range of extraneous materials present in the samples. This is likely to be particularly true of the sediment samples where small changes in the aggregate content may affect results greatly. It may be possible in future studies to separate sediments in a physical sense using mesh filters and process more closely defined samples. Indeed sediment fines were collected but, for operational reasons, were added to the bulk sediment samples.

3.4 Sample Data

For completeness the raw data and data filtered by assigning LOQs are given. These are detailed in the following sections.

Table 38, the last table in this report, summarises the surfactant levels found for each sample and illustrates the main features of the data. Only samples where data were available for all three surfactants are included so some individual surfactant replicates are not present.

Care should be taken when viewing this table; totals reflect only those values above the LOQs so a value just above the LOQ adds to the total whilst one just below the LOQ does not. This is responsible for the apparent poor replication in some cases.

3.4.1 LAS Results

Tables 21 and 22 give the raw data for LAS analysis of water and sediment with tables 23 and 24 showing the effect of applying LOQs. Table 38 summarises all surfactant levels.

Surface water results range between 2500 and 6100 ng/l and are not significantly above background levels given in Table 5.

SDA05-SW-04 and SDA05-SW-06 appear significantly higher than the other samples of this type when looking at the totals (Table 23) in that both give totals above 6000 ng/l.

Pore water concentrations range between 12,000 and 3000 ng/l. It is noted that the SDA05-PW-10 sample is significantly lower than all other samples. As re-analysis gave similar data it is assumed that there is something about this sample or location which affects the LAS levels. These aspects of any outliers will hopefully be explained by the multivariate analysis being carried out at the University of North Texas.

Sediment results vary considerably, ranging from 40 to 500 ng/g. Samples SDA05-SD-04 and SDA05-SD-14 are significantly lower than other samples. Replicate analysis of sample SDA05-SD-14 shows this to be real; again we assume site-specific issues caused this.

In general there are few outliers and they do not correspond to each other in terms of surface water, pore water and sediment from the same location being consistently high or low.

3.4.2 AES Results

Tables 25-27 give the raw data for AES analysis of surface water, pore water and sediment with tables 28-30 giving the data with LOQ applied. Table 38 summarises all surfactant levels.

Surface water results range from zero to 30,000 ng/l. The zero figure was obtained from sample SDA05-SW-11. This is interesting as the actual sample extract was also used for LAS analysis where the value found was similar to adjacent samples; see table 38 for summary data.

Sample SDA05-SW-12 was significantly higher than all other surface water samples.

The percentage of total AES which is the alkyl sulphate (AS) is between 60% and 100% with no obvious outliers; again this is clearly shown in Table 38.

Pore water results range from 21,000 to 24,000 ng/l. Here the percentage AS is slightly lower than in surface waters, being between 40% and 80%.

Sediment results range from 800 to 4300 ng/g with samples SDA05-SD-04 and SDA05-SD-10 giving the lowest values, similar to the initial sediment sample. The percentage AS is between 30 and 50%, again lower than in surface waters.

3.4.3 AE Results

Tables 31-33 give the raw data for AE analysis of surface water, pore water and sediment with tables 34-36 giving the data with LOQ applied. Table 38 summarises all surfactant levels.

Surface sample results range between 130 and 1500 ng/l. Sample SDA05-SW-15 stands out as significantly higher than all other samples.

Between 50% and 90% of the values represent the fatty alcohols (AE0); see Table 38. These are of particular interest due to their toxicity. Indeed SDA together with other industry bodies are currently funding projects to further determine the source of the fatty alcohols as their levels are inconsistent with the expected profile of AE surfactant products as manufactured and also their expected degradation profile.

Pore water samples range from 450 to 4500 ng/l with SDA05-PW-06 standing out as particularly high. Fatty alcohol percentages vary between 16% and 70% which is a broader and slightly lower range than in surface water samples.

Sediment results range from 30 to 1700ng/g with SDA05-SD-14 particularly low and SDA05-SD003 particularly high. The fatty alcohol percentages are in the 30% to 95% range with no obvious trends or outliers.

3.5 General comments

As has been stated above the data will be further processed by the customer in order to obtain risk factors for the levels of the three detergents in the environment.

In so doing it is suggested that information on the range of product types used in the areas around the Trinity river is obtained. This may be important in explaining relative amounts of the various species. For example it is noted that the Surface water and Sediment C₁₆₊₁₈ alcohol levels are significantly higher than the lower carbon numbers. This may well relate to specific products use.

Looking at the total surfactant concentrations found (Table 38) there are no clear trends through the sample locations visible to the eye.

One location does stand out as being particularly low in surfactant concentration in both pore water and sediment; sample point 10. Interestingly the surface water from this point looks similar to others; it is sample point 11 which is significantly lower than all other surface water samples. It is suggested that all other data from these sample points are interrogated and, if all data are low and no explanation forthcoming, the data are disregarded as being unreliable.

The percentage of AE which is present as fatty alcohol (AE0) is rarely lower than 40%. This was expected from numerous previous studies (e.g. 12-14).

The percentage AES which is present as alkyl sulphate is also significant.

Further studies, aimed at explaining the source of alkyl material which does not fit the production or degradation profile of the AE and AES surfactant are in hand.

3.6 Total Suspended Solids

The data are given in table 37.

These data were obtained from pore water samples which had been stored refrigerated since arrival from the USA.

4. Conclusions

A number of conclusions may be made based on the experimentation carried out here and the results obtained.

- ❖ Analysis of water and sediment samples for LAS and AES may be carried out using one extraction procedure for the two detergents.
- ❖ The effect of extraneous materials in water and sediment on recovery and reproducibility of analysis for surfactants is not fully understood but appears to affect surfactant recovery from sediment and water.
- ❖ Fingerprint data on C₁₂₋₁₆₊₁₈ EO₀₋₁₈ content of water and sediment samples may be obtained from sediment and water samples using the Pyridinium method.
- ❖ Fatty alcohol levels in relation to alcohol ethoxylates are not explained by the total concentration of AE in sediment and water samples.

It is left to other SDA taskforce members to further process these results as part of the Trinity River Project.

5. Tables

Table 1
Linear Alkylbenzene Sulphonate Analysis

Ionisation:	Negative ion Electrospray, monitoring SO_3^- ions for C_{10-14} LAS
Column:	25cm x 2mm 5 μ Prodigy C8 ex. Phenomenex
Temperature:	40 $\pm$ 2°C
Flow rate:	0.2 ml/min
Injection:	50 μ l
Mobile Phase:	Solvent A = 80:20 10mMol Ammonium Acetate:Acetonitrile Solvent B = 20:80 10mMol Ammonium Acetate:Acetonitrile

Gradient programme

Time / Min	% A	% B
0	70	30
30	25	75
30.1	0	100
48	0	100
48.1	70	30
65	70	30

Table 2
Alkyl Ethoxy Sulphate Analysis

Ionisation:	Negative ion Electrospray, monitoring SO_3^- ions for $\text{C}_{12-15}\text{EO}_{0-6}$ Alcohol Ethoxy Sulphates.
Column:	25cm x 2mm 5 μ Prodigy C8 ex. Phenomenex
Temperature:	40 $\pm$ 2°C
Flow rate:	0.2 ml/min
Injection:	50 μ l
Mobile Phase:	Solvent A = 80:20 10mMol Ammonium Acetate:Acetonitrile Solvent B = 20:80 10mMol Ammonium Acetate:Acetonitrile

Gradient programme

Time / Min	% A	% B
0	70	30
30	25	75
30.1	0	100
48	0	100
48.1	70	30
65	70	30

Table 3**Alcohol Ethoxylate Analysis**

Ionisation:	Positive ion Electrospray, monitoring Pyridinium ions for C ₁₂₋₁₆₊₁₈ EO ₀₋₁₈ Alcohol Ethoxylates.
Column:	15 cm x 3 mm Supelcogel TPR-100 with 2 cm guard column ex Supelco.
Temperature:	40± 2°C
Flow rate:	0.75 ml/min
Injection:	50 µl
Mobile Phase:	Solvent A = 10 mmol formic acid in acetonitrile Solvent B = 10 mmol formic acid in water (ELGA)

Gradient programme

Time / Min	% A	% B
0	40	60
5	40	60
60	90	10
61	100	0
68	100	0
68.1	40	60
75	40	60

Table 4
Overview of Analysis of Samples

Location Description	Sample Media	Sample ID	Analysis carried out		
			LAS	AES	AE
Clear Creek Headwaters - St. Jo	Whole Sediment	SDA05-SD-01	X	X	X
	Water/effluent	SDA05-SW-01	X	X	X
Elm Fork below Lake Lewisville Dam	Pore Water	SDA05-PW-02	X	X	X
	Pore Water	SDA05-PW-02MS			
	Pore Water	SDA05-PW-02REP			X
	Centrifuged Sediment	SDA05-SD-02	X	X	X
	Centrifuged Sediment	SDA05-SD-02MS	X	X	X
	Centrifuged Sediment	SDA05-SD-02REP	X	X	X (6 REPs)
	Water/effluent	SDA05-SW-02	X	X	X
	Water/effluent	SDA05-SW-02MS	X		X
	Water/effluent	SDA05-SW-02REP		X	X
	Pore Water	SDA05-PW-03	X	X	X
West Fork TR1 (downstream of Lake Worth)	Centrifuged Sediment	SDA05-SD-03	X	X	X
	Water/effluent	SDA05-SW-03	X	X	X
	Pore Water	SDA05-PW-04	X	X	X
West Fork (upstream of Village Creek)	Centrifuged Sediment	SDA05-SD-04	X	X	X
	Water/effluent	SDA05-SW-04	X	X	X
	Water/effluent	SDA05-SW-05	X	X	X
Village Creek Effluent	Water/effluent	SDA05-SW-05MS	X	X	
	Water/effluent	SDA05-SW-05REP	X	X(2)	X
	Pore Water	SDA05-PW-06	X	X	X
Upstream TRA Central	Centrifuged Sediment	SDA05-SD-06	X	X	X
	Water/effluent	SDA05-SW-06	X	X	X
TRA central Effluent	Water/effluent	SDA05-SW-07	X	X	X
Above Dallas Central Effluent	Pore Water	SDA05-PW-08	X	X	X
	Pore Water	SDA05-PW-08MS			X
	Pore Water	SDA05-PW-08REP			X
	Centrifuged Sediment	SDA05-SD-08	X	X	X
	Centrifuged Sediment	SDA05-SD-08MS	X	X	X
	Centrifuged Sediment	SDA05-SD-08REP			X (5 REPS)
	Water/effluent	SDA05-SW-08	X	X	X
	Water/effluent	SDA05-SW-08MS	X		
	Water/effluent	SDA05-SW-08REP	X	X	X
Dallas Central Effluent	Water/effluent	SDA05-SW-09	X	X	X
Above Dallas South Effluent	Pore Water	SDA05-PW-10	X	X (2 REPS)	X
	Centrifuged Sediment	SDA05-SD-10	X (2 REPS)	X (2 REPS)	X
	Water/effluent	SDA05-SW-10	X	X	X
Dallas South Effluent	Water/effluent	SDA05-SW-11	X	X	X
E. Fork Trinity upstream confluence	Pore Water	SDA05-PW-12	X	X	X
	Centrifuged Sediment	SDA05-SD-12	X (2 REPS)	X	X
	Water/effluent	SDA05-SW-12	X	X	X
Downstream Dallas South	Pore Water	SDA05-PW-13	X	X	X
	Centrifuged Sediment	SDA05-SD-13	X (2 REPS)	X (2 REPS)	X
	Water/effluent	SDA05-SW-13	X	X	X
Downstream E. Fork, Main confluence	Pore Water	SDA05-PW-14	X	X	X
	Centrifuged Sediment	SDA05-SD-14	X (2 REPS)	X	X
	Water/effluent	SDA05-SW-14	X	X	X
Palastine	Pore Water	SDA05-PW-15	X	X	X
	Centrifuged Sediment	SDA05-SD-15	X (2 REPS)	X (2 REPS)	X
	Water/effluent	SDA05-SW-15	X	X	X
Trinity initial Surface water	Water/effluent				X
Trinity initial Pore water	Pore Water				
Trinity initial Sediment	Centrifuged Sediment		X	X	X

Table 5

Blank data – LAS analysis

Water Blanks ng/l						
Sample	C10 LAS	C11 LAS	C12 LAS	C13 LAS	C14 LAS	Total
ELGA Blank	2227.52	577.89	519.64	366.71	82.39	3774.15
ELGA BLANK 2	2218.98	571.73	516.07	366.52	65.25	3738.56

Sediment Blanks ng/g						
Sample	C10 LAS	C11 LAS	C12 LAS	C13 LAS	C14 LAS	Total
Initial Sediment sample	52.59	75.83	73.56	69.18	9.53	280.68
BLANK SOXHLET 1	39.97	7.39	6.74	10.91	nd	65.01
BLANK SOXHLET 2	40.31	7.80	7.37	15.40	1.77	72.64

nd = not detected

Table 6

LAS recovery Data

Recovery Data LAS Water and Sediment										Mean	
	Initial Sed	SD-07	SD-02	SW-02	SW-05	SW-08	4L ELGA	4L ELGA	Cleanup step	Water	Sediment
C10 LAS	79	45	39	103	105	100	81	46	60	82	54
C11 LAS	46	26	21	62	46	57	110	45	75	66	31
C12 LAS	44	27	16	51	39	47	108	68	73	64	29
C13 LAS	46	30	15	37	31	34	80	75	65	54	30
C14 LAS	122	70	38	46	43	44	81	76	65	59	77

Table 7

AES Elga Water Blanks

	ELGA Blanks				
	C12	C13	C14	C15	Total
E00	67.521		37.978		105.499
E01	13.462		12.788		26.250
E02	9.464		10.134		19.598
E03					
E04	10.522				10.522
E05					
E06					
				Total	161.869

	C12	C13	C14	C15	Total
E00	32.768		25.754		58.522
E01					
E02					
E03					
E04	9.032				9.032
E05					
E06					
				Total	67.553

	C12	C13	C14	C15	Total
E00	37.280	34.450	35.101	24.792	131.624
E01		9.834	10.250		20.084
E02	0.287		6.836		7.123
E03					
E04					
E05					
E06					
				Total	158.831

Table 8
AES Sediment Recovery Data

SDA05-SD-15				
	C12	C13	C14	C15
EO0	101	55	52	47
EO1	82	57	58	51
EO2	101	52	51	49
EO3	98	60	57	59
EO4	50	46	51	52
EO5	91	61	52	43
EO6	92	55	51	40
Mean	61			

SDA05-SD-02				
	C12	C13	C14	C15
EO0	106	58	54	58
EO1	73	58	63	71
EO2	124	63	57	60
EO3	108	78	81	114
EO4	53	55	72	99
EO5	121	87	89	80
EO6	115	78	84	71
Mean	80			

SDA05-SD-08				
	C12	C13	C14	C15
EO0	107	62	63	68
EO1	82	64	77	86
EO2	144	73	74	72
EO3	116	87	91	134
EO4	57	60	78	127
EO5	131	90	94	90
EO6	118	80	85	78
Mean	89			

Initial Trinity Sediment				
	C12	C13	C14	C15
EO0	263	185	176	163
EO1	247	198	194	161
EO2	290	208	146	143
EO3	248	195	193	212
EO4	160	162	155	170
EO5	350	235	279	162
EO6	242	170	243	151
Mean	204			

Note that the above used too low a spike level : Subsequent spikes at a higher level showed a more representative recovery figures

Table 9

AES Water Recovery Data

ELGA Water Replicates

	C12	C13	C14	C15
EO0	93	70	112	120
EO1	76	112	131	129
EO2	115	119	128	127
EO3	128	122	136	161
EO4	113	121	127	185
EO5	149	129	136	218
EO6	146	121	136	228
Mean	132			

SDA05-SW-05

	C12	C13	C14	C15
EO0	117	70	65	57
EO1	77	64	60	57
EO2	64	58	60	60
EO3	56	52	54	45
EO4	65	58	60	48
EO5	67	58	51	52
EO6	66	58	52	55
Mean	61			

SDA05-SD-02

	C12	C13	C14	C15
EO0	85	76	111	119
EO1	84	114	126	126
EO2	132	131	136	138
EO3	144	135	155	141
EO4	123	131	131	138
EO5	174	138	147	145
EO6	159	133	149	146
Mean	131			

	C12	C13	C14	C15
EO0	106	58	54	58
EO1	73	58	63	71
EO2	124	63	57	60
EO3	108	78	81	114
EO4	53	55	72	99
EO5	121	87	89	80
EO6	115	78	84	71
Mean	80			

SDA05-SD-08

	C12	C13	C14	C15
EO0	110	109	121	109
EO1	122	127	121	119
EO2	147	118	116	115
EO3	143	125	127	125
EO4	114	115	111	128
EO5	155	122	131	136
EO6	141	125	126	138
Mean	125			

	C12	C13	C14	C15
EO0	107	62	63	68
EO1	82	64	77	86
EO2	144	73	74	72
EO3	116	87	91	134
EO4	57	60	78	127
EO5	131	90	94	90
EO6	118	80	85	78
Mean	89			

Table 10**AE Initial Sediment Data**

	C12	C13	C14	C15	C16	C18
EO 0	1.417	1.431	0.361	0.339	11.542	33.637
EO 1	0.083	0.062	0.037	0.032	0.029	0.060
EO 2	0.076	0.087	0.026	nd	0.007	0.268
EO 3	0.059	0.110	0.038	0.051	0.006	0.065
EO 4	0.043	0.199	0.011	0.020	0.052	0.105
EO 5	0.085	nd	0.047	0.073	0.062	0.138
EO 6	nd	4.162	0.051	nd	0.034	0.169
EO 7	nd	0.229	0.024	nd	0.084	0.212
EO 8	nd	nd	0.007	nd	0.096	0.312
EO 9	nd	0.194	nd	nd	0.201	0.453
EO 10	nd	nd	nd	nd	0.133	0.529
EO 11	0.105	nd	nd	nd	0.054	0.895
EO 12	nd	nd	nd	nd	0.035	0.885
EO 13	nd	0.029	0.006	0.045	0.071	1.007
EO 14	0.129	nd	0.009	0.043	0.136	1.192
EO 15	0.086	0.162	0.055	0.016	0.229	1.210
EO 16	nd	0.206	0.065	nd	0.144	1.372
EO 17	nd	0.187	nd	nd	0.079	1.235
EO 18	nd	0.162	nd	nd	0.249	1.133
					Total	68.780

Table 11

AE Water Blank Data

	ELGA 4L Blank					
	C12	C13	C14	C15	C16	C18
EO 0	10.568	13.875	8.576	4.721	78.778	166.058
EO 1	0.812	0.732	0.248	0.404	0.122	0.316
EO 2	0.511	0.616	0.094	0.145	0.035	1.006
EO 3	0.280	0.937	0.125	0.127	0.074	0.399
EO 4	0.109	1.271	0.045	0.173	0.224	0.648
EO 5	0.312	nd	0.125	0.674	0.123	0.719
EO 6	nd	11.639	0.036	0.348	0.379	0.567
EO 7	nd	0.897	0.271	nd	0.317	0.383
EO 8	nd	nd	0.269	nd	0.541	1.529
EO 9	nd	0.178	0.307	nd	1.320	0.965
EO 10	nd	nd	nd	0.072	0.540	1.908
EO 11	0.197	0.948	nd	0.507	0.660	2.539
EO 12	2.823	0.691	nd	1.164	0.320	1.035
EO 13	0.159	6.570	0.009	0.143	2.018	2.097
EO 14	0.319	0.116	0.862	0.800	0.626	1.068
EO 15	0.413	0.590	0.862	2.549	1.091	12.154
EO 16	0.544	0.739	0.321	nd	17.237	1.875
EO 17	0.702	nd	0.081	0.304	1.913	3.609
EO 18	1.441	0.778	nd	0.682	1.215	16.005
					Total	407.222

	ELGA 4L Blank replicate					
	C12	C13	C14	C15	C16	C18
EO 0	11.659	14.321	9.293	4.320	69.697	138.916
EO 1	0.741	0.795	0.279	0.315	0.138	0.400
EO 2	0.500	0.697	0.175	0.067	0.031	1.006
EO 3	0.282	0.677	0.131	0.192	0.081	0.172
EO 4	0.090	1.127	0.054	0.156	0.178	0.333
EO 5	0.231	nd	0.363	0.324	0.202	0.572
EO 6	nd	0.830	0.180	0.266	0.136	0.618
EO 7	nd	1.583	0.148	nd	0.274	0.770
EO 8	nd	nd	0.200	nd	0.323	1.090
EO 9	nd	nd	0.196	nd	0.443	1.764
EO 10	nd	nd	nd	nd	0.543	2.900
EO 11	0.161	nd	nd	nd	0.267	1.968
EO 12	0.034	nd	nd	nd	0.229	2.117
EO 13	nd	0.386	nd	0.176	0.325	1.415
EO 14	0.144	0.074	0.057	0.114	0.031	1.305
EO 15	0.289	0.692	0.100	nd	0.131	5.934
EO 16	0.034	nd	0.140	nd	0.324	1.397
EO 17	nd	nd	nd	nd	0.316	1.618
EO18	0.188	0.139	nd	nd	0.133	2.416
Total	14.354	21.322	11.315	5.931	73.803	166.710
					Total	586.868

Table 12**AE Sediment Recovery**

	SDA05-SD-02 spiked at 2.53ug/g					
	C12	C13	C14	C15	C16	C18
EO 0	300	436	1514	1357	2176	1870
EO 1	182	87	194	86	65	26
EO 2	169	169	1035	1081	114	*
EO 3	119	92	122	63	57	27
EO 4	126	131	132	85	72	33
EO 5	121	119	124	83	60	31
EO 6	112	114	102	70	58	30
EO 7	106	120	101	78	61	32
EO 8	106	150	98	76	51	32
EO 9	109	114	94	82	58	33
EO 10	102	100	103	104	67	32
EO 11	105	111	105	64	65	33
EO 12	103	106	97	80	64	31
EO 13	105	106	96	94	71	32
EO 14	105	107	97	75	68	32
EO 15	104	114	89	111	66	33
EO 16	93	104	89	135	71	33
EO 17	98	112	89	103	61	29
EO 18	85	133	80	96	63	30

	SDA05-SD-08 spiked at 2.53ug/g					
	C12	C13	C14	C15	C16	C18
EO 0	320	435	1546	1213	2199	2064
EO 1	215	92	199	98	78	37
EO 2	193	188	339	1013	118	70
EO 3	121	100	133	75	71	41
EO 4	134	104	130	97	73	49
EO 5	123	109	127	88	74	51
EO 6	110	105	118	94	72	52
EO 7	104	102	105	96	78	53
EO 8	105	100	111	93	77	57
EO 9	105	104	112	95	85	60
EO 10	112	99	111	102	91	68
EO 11	105	103	112	86	91	71
EO 12	100	108	106	81	102	77
EO 13	97	113	116	101	114	75
EO 14	100	122	115	105	119	87
EO 15	95	118	92	144	109	78
EO 16	87	109	106	136	112	87
EO 17	92	117	113	198	127	86
EO 18	94	120	98	107	117	74

* = interference

Table 13**AE Water Recovery**

	SDA05-SW-02					
	C12	C13	C14	C15	C16	C18
EO 0	108	55	118	53	219	224
EO 1	63	41	31	28	25	23
EO 2	68	50	36	34	26	*
EO 3	66	45	37	27	31	25
EO 4	68	46	42	37	29	27
EO 5	64	51	40	34	27	28
EO 6	63	48	54	36	28	29
EO 7	59	50	38	34	28	27
EO 8	57	50	37	36	27	26
EO 9	58	44	39	37	26	26
EO 10	56	48	42	36	29	27
EO 11	59	49	45	39	28	27
EO 12	58	49	41	35	29	26
EO 13	55	49	42	33	29	27
EO 14	59	55	43	37	29	28
EO 15	53	55	41	33	28	27
EO 16	48	38	35	35	26	25
EO 17	42	40	32	23	27	22
EO 18	40	50	34	31	25	22
Mean	43					

	SDA05-PW-02					
	C12	C13	C14	C15	C16	C18
EO 0	91	71	84	57	73	52
EO 1	92	61	58	52	43	29
EO 2	125	80	73	59	53	36
EO 3	85	81	76	69	57	39
EO 4	104	104	90	83	74	52
EO 5	93	88	80	78	70	48
EO 6	91	81	86	65	74	58
EO 7	89	89	83	70	74	53
EO 8	92	101	84	75	73	62
EO 9	92	90	81	80	70	61
EO 10	87	88	81	74	70	60
EO 11	89	91	84	75	72	62
EO 12	89	92	76	69	73	63
EO 13	87	85	80	68	75	62
EO 14	77	75	71	62	68	56
EO 15	74	74	70	57	66	56
EO 16	71	69	64	53	61	53
EO 17	62	61	59	49	57	49
EO 18	52	56	53	46	52	44
Mean	71					

Table 14

AE Recovery from ELGA Water

	ELGA 1					
	C12	C13	C14	C15	C16	C18
EO 0	86	62	49	52	37	16
EO 1	88	66	42	45	29	10
EO 2	97	72	56	48	40	13
EO 3	95	94	75	63	53	17
EO 4	90	88	82	66	63	22
EO 5	91	85	83	75	68	29
EO 6	96	105	93	72	80	42
EO 7	93	91	91	77	83	45
EO 8	95	102	90	84	83	55
EO 9	102	98	92	88	86	63
EO 10	95	94	89	84	86	66
EO 11	94	98	90	86	88	73
EO 12	95	96	88	79	93	76
EO 13	97	96	91	82	93	81
EO 14	89	90	84	75	91	76
EO 15	89	91	89	74	91	81
EO 16	96	91	88	76	89	84
EO 17	93	88	89	77	91	85
EO 18	91	89	87	77	89	89
Mean	78					

	ELGA 2					
	C12	C13	C14	C15	C16	C18
EO 0	98	64	121	53	285	427
EO 1	83	67	58	47	49	62
EO 2	121	99	98	49	49	*
EO 3	82	70	69	50	50	54
EO 4	87	75	74	70	59	55
EO 5	90	77	74	65	61	58
EO 6	87	76	80	74	63	56
EO 7	80	70	68	66	61	58
EO 8	76	75	66	62	59	57
EO 9	72	66	69	62	60	56
EO 10	70	67	70	66	61	57
EO 11	70	72	68	55	64	56
EO 12	76	65	70	65	63	59
EO 13	76	62	66	82	64	57
EO 14	76	76	64	83	65	61
EO 15	76	84	74	71	66	61
EO 16	74	78	66	88	64	57
EO 17	78	84	76	93	69	57
EO 18	74	92	76	92	70	60
Mean	74					

* = interference

Table 15a**LAS – LOD and LOQ Levels for Sediment**

	1	2	3	4	5	6	7	mean	sd	%SD	LOD	LOD+3*SD
C10 LAS	196.94	187.42	192.04	195.41	194.52	191.99	195.94	193.47	3.26	1.69	23.60	33.38
C11 LAS	359.68	344.48	345.87	343.44	342.16	334.85	333.76	343.46	8.56	2.49	6.96	32.64
C12 LAS	334.16	325.38	321.54	321.08	316.59	312.78	309.65	320.17	8.20	2.56	4.50	29.11
C13 LAS	236.10	231.36	236.11	227.66	227.40	226.55	224.76	229.99	4.62	2.01	12.43	26.28
C14 LAS	32.02	29.27	31.57	29.44	29.80	29.45	29.82	30.19	1.12	3.70	138.89	142.24

Table 15b**LAS – LOD and LOQ for Water Samples**

	1	2	3	4	5	6	7	mean	SD	%SD	LOD	LOD+3*SD
C10 LAS	5849.4	5801.2	5909.4	5684.9	5811.6	5744.9	5749.6	5793	74.18	1.3	159.5	382.05
C11 LAS	22311	23228	23289	23498	21791	21241	20458	22259	1157.33	5.2	404.5	3876.48
C12 LAS	18571	19064	18703	19972	17941	17478	16677	18344	1083.23	5.9	602.5	3852.18
C13 LAS	12874	13338	13030	13976	12256	12025	11209	12673	917.05	7.2	52	2803.16
C14 LAS	572.87	580.96	557.89	590.8	547.2	528.38	495.6	553.39	33.07	6.0	3311.5	3410.72

Table 16**AES – LOD**

	LOD - Sediment			
	C12	C13	C14	C15
E00	8.533	1.821	1.651	3.310
E01	2.529	0.874	1.034	0.494
E02	3.400	3.135	0.515	0.717
E03	3.043	1.730	1.169	6.181
E04	1.543	1.556	0.828	7.400
E05	2.116	3.832	2.749	1.284
E06	1.538	0.634	1.969	3.321

	LOD - Water			
	C12	C13	C14	C15
E00	640.009	136.612	123.823	248.249
E01	189.642	65.555	77.538	37.013
E02	254.994	235.109	38.628	53.762
E03	228.198	129.773	87.701	463.556
E04	115.715	116.710	62.110	554.981
E05	158.715	287.428	206.191	96.329
E06	115.378	47.586	147.655	249.071

Units are ng/g and ng/l respectively.

Table 17**AES LOQ**

Sediment LOQ-AES				
EO	C12	C13	C14	C15
0	22.743	4.234	4.798	6.386
1	7.123	13.070	6.009	7.265
2	10.485	6.735	15.661	5.493
3	7.496	5.936	5.284	9.493
4	7.530	4.662	3.294	11.450
5	5.096	6.935	4.001	1.608
6	3.404	2.353	3.220	3.674

Water LOQ - AES				
EO	C12	C13	C14	C15
0	1705.752	317.529	359.880	478.938
1	534.188	980.235	450.712	544.884
2	786.369	505.133	1174.557	412.011
3	562.165	445.165	396.315	712.005
4	564.754	349.632	247.021	858.722
5	382.185	520.124	300.060	120.598
6	255.272	176.472	241.469	275.538

Units are ng/g and ng/l respectively.

Table 18**AES Statistical data used for LOQ calculations**

	%SD	LOQ		LOD	
		Water	Sed	Water	Sed
c12eo0	10	1705.752	22.743	640.009	8.533
c13eo0	3	317.529	4.234	136.612	1.821
c14eo0	3	359.880	4.798	123.823	1.651
c15eo0	3	478.938	6.386	248.249	3.310
c12eo1	6	534.188	7.123	189.642	2.529
c13eo1	4	980.235	13.070	65.555	0.874
c14eo1	6	450.712	6.009	77.538	1.034
c15eo1	7	544.884	7.265	37.013	0.494
c12eo2	15	786.369	10.485	254.994	3.400
c13eo2	6	505.133	6.735	235.109	3.135
c14eo2	11	1174.557	15.661	38.628	0.515
c15eo2	10	412.011	5.493	53.762	0.717
c12eo3	9	562.165	7.496	228.198	3.043
c13eo3	8	445.165	5.936	129.773	1.730
c14eo3	10	396.315	5.284	87.701	1.169
c15eo3	9	712.005	9.493	463.556	6.181
c12eo4	3	564.754	7.530	115.715	1.543
c13eo4	6	349.632	4.662	116.710	1.556
c14eo4	6	247.021	3.294	62.110	0.828
c15eo4	14	858.722	11.450	554.981	7.400
C12EO5	6	382.185	5.096	158.715	2.116
C13EO5	3	520.124	6.935	287.428	3.832
C14EO5	2	300.060	4.001	206.191	2.749
C15EO5	1	120.598	1.608	96.329	1.284
C12EO6	4	255.272	3.404	115.378	1.538
C13EO6	3	176.472	2.353	47.586	0.634
C14EO6	2	241.469	3.220	147.655	1.969
C15EO6	1	275.538	3.674	249.071	3.321
Units are ng/g dry Wt or ng/l					

Table 19**LOD AE**

	LOD in ng/l water					
	C12	C13	C14	C15	C16	C18
EO0	0.01297	0.04261	0.00553	0.01842	0.01087	0.02442
EO1	0.01563	0.06170	0.00664	0.02673	0.01105	0.02413
EO2	0.02139	0.36372	0.00908	0.15764	0.01409	0.03036
EO3	0.03415	0.13559	0.01452	0.05873	0.02536	0.05587
EO4	0.02497	0.17779	0.01076	0.07732	0.03192	0.07521
EO5	0.06707	0.17826	0.02851	0.07687	0.04796	0.10509
EO6	0.08457	0.43649	0.03598	0.09407	0.06330	0.13980
EO7	0.11785	2.34516	0.05005	0.10065	0.07917	0.17161
EO8	0.14214	0.24092	0.06039	0.10307	0.09785	0.21312
EO9	0.16578	0.23473	0.07041	0.19999	0.11150	0.24186
EO10	0.17833	0.22244	0.07575	0.09442	0.12038	0.26136
EO11	0.19184	0.20815	0.08175	0.17590	0.15401	0.34430
EO12	0.18126	0.16844	0.07708	0.28307	0.13033	0.28624
EO13	0.17078	0.13928	0.07266	0.11637	0.12542	0.27649
EO14	0.15433	0.10473	0.06568	0.43340	0.11504	0.25426
EO15	0.12741	0.07513	0.10856	0.61650	0.10043	0.22398
EO16	0.10723	0.04940	0.18269	0.39794	0.08345	0.18575
EO17	0.23070	0.03177	0.19568	0.12069	0.07022	0.14950
EO18	0.11730	0.01965	0.09989	0.30652	0.04468	0.09914

	LOD Sediment ng/g (nominal 15g dry Wt samples)					
	C12	C13	C14	C15	C16	C18
EO 0	0.00346	0.01136	0.00147	0.00491	0.00290	0.00651
EO 1	0.00417	0.01645	0.00177	0.00713	0.00295	0.00643
EO 2	0.00570	0.09699	0.00242	0.04204	0.00376	0.00810
EO 3	0.00911	0.03616	0.00387	0.01566	0.00676	0.01490
EO 4	0.00666	0.04741	0.00287	0.02062	0.00851	0.02006
EO 5	0.01788	0.04754	0.00760	0.02050	0.01279	0.02802
EO 6	0.02255	0.11640	0.00959	0.02508	0.01688	0.03728
EO 7	0.03143	0.62538	0.01335	0.02684	0.02111	0.04576
EO 8	0.03790	0.06425	0.01610	0.02749	0.02609	0.05683
EO 9	0.04421	0.06260	0.01878	0.05333	0.02973	0.06450
EO 10	0.04755	0.05932	0.02020	0.02518	0.03210	0.06970
EO 11	0.05116	0.05551	0.02180	0.04691	0.04107	0.09181
EO 12	0.04834	0.04492	0.02055	0.07549	0.03475	0.07633
EO 13	0.04554	0.03714	0.01937	0.03103	0.03345	0.07373
EO 14	0.04116	0.02793	0.01751	0.11557	0.03068	0.06780
EO 15	0.03398	0.02004	0.02895	0.16440	0.02678	0.05973
EO 16	0.02859	0.01317	0.04872	0.10612	0.02225	0.04953
EO 17	0.06152	0.00847	0.05218	0.03219	0.01873	0.03987
EO 18	0.03128	0.00524	0.02664	0.08174	0.01192	0.02644

Table 19a

LOQ – AE

	LOQ ng/l					
	C12	C13	C14	C15	C16	C18
EO 0	0.42805	2.20395	0.33944	1.02256	0.40979	1.02654
EO 1	0.75474	3.32660	0.32128	0.33188	0.51887	0.69343
EO 2	1.20829	5.82303	0.47500	2.52702	0.62937	0.02493
EO 3	0.62392	2.62357	0.61167	1.77847	0.88718	2.24997
EO 4	0.35740	15.73328	0.36706	3.35475	0.66885	2.25214
EO 5	3.19378	4.49882	1.75258	6.28158	2.37784	5.93208
EO 6	4.14814	8.05496	1.94633	9.38828	2.00758	6.62989
EO 7	4.41773	12.27263	2.21133	3.67704	2.11070	3.85931
EO 8	3.40620	9.38125	2.88038	6.72530	1.78950	8.32483
EO 9	6.49498	7.32881	1.44834	5.66708	2.59331	10.75272
EO 10	3.70405	10.93367	1.88827	4.29441	3.95061	8.02703
EO 11	6.23214	5.07711	2.20359	3.14639	3.73329	5.73166
EO 12	5.05896	11.42108	1.46279	3.94899	3.43445	8.30279
EO 13	6.27254	6.50284	1.88261	2.13606	2.52101	7.42321
EO 14	1.04957	4.67819	1.58669	2.16325	1.89238	5.29851
EO 15	1.55405	4.26924	0.92348	1.00228	1.53421	4.95284
EO 16	2.86228	0.58132	0.96929	1.00917	1.12800	2.43187
EO 17	2.84164	1.43537	1.92560	0.69598	2.20842	3.19822
EO 18	1.42212	0.97674	0.76316	0.41867	0.82896	2.73904

	LOQ ng/g dry wt					
	C12	C13	C14	C15	C16	C18
EO 0	0.11351	0.58564	0.09025	0.27178	0.10875	0.27255
EO 1	0.20050	0.88408	0.08535	0.08720	0.13782	0.18373
EO 2	0.32116	1.53503	0.12622	0.66616	0.16714	0.00516
EO 3	0.16471	0.69299	0.16240	0.47139	0.23534	0.59726
EO 4	0.09408	4.18685	0.09736	0.89082	0.17680	0.59689
EO 5	0.84840	1.19097	0.46596	1.67133	0.63175	1.57675
EO 6	1.10204	2.12665	0.51726	2.49894	0.53226	1.76114
EO 7	1.17230	3.15805	0.58724	0.97562	0.55898	1.02076
EO 8	0.90137	2.48989	0.76515	1.78838	0.47242	2.20953
EO 9	1.72389	1.94287	0.38278	1.50144	0.68610	2.85557
EO 10	0.97903	2.90477	0.49984	1.14056	1.04761	2.12776
EO 11	1.65253	1.34372	0.58363	0.83044	0.98802	1.51161
EO 12	1.34019	3.03739	0.38631	1.03922	0.90948	2.20008
EO 13	1.66433	1.72728	0.49848	0.56393	0.66614	1.96601
EO 14	0.27234	1.24240	0.41991	0.55568	0.49901	1.40050
EO 15	0.40818	1.13479	0.24095	0.23713	0.40421	1.30981
EO 16	0.75803	0.15260	0.24955	0.24966	0.29672	0.63942
EO 17	0.74649	0.38121	0.50393	0.17969	0.58548	0.84555
EO 18	0.37350	0.25950	0.19863	0.09666	0.21887	0.72556

Table 20**Percentage Standard deviation for AE analysis**

	% SD Values					
	C12	C13	C14	C15	C16	C18
EO 0	2	3	4	3	3	3
EO 1	3	3	3	1	3	2
EO 2	3	4	3	4	3	1
EO 3	1	1	3	2	2	3
EO 4	1	4	2	2	1	2
EO 5	3	1	4	4	3	4
EO 6	3	2	3	5	2	3
EO 7	2	2	3	2	2	2
EO 8	2	2	3	3	1	3
EO 9	3	1	1	3	2	3
EO 10	1	3	2	3	2	2
EO 11	2	1	2	3	2	1
EO 12	2	3	1	4	2	2
EO 13	2	2	2	3	2	2
EO 14	0	2	2	4	1	2
EO 15	1	3	1	2	1	2
EO 16	2	1	2	4	1	1
EO 17	2	3	3	5	3	2
EO 18	2	3	2	4	2	3

Table 21

LAS Water Results- Raw Data

	C10 LAS	C11 LAS	C12 LAS	C13 LAS	C14 LAS	Total
SDA05-SW-01	2940.380	1192.134	1148.238	481.871	85.972	5848.594
SDA05-SW-02	2710.117	816.639	680.971	382.792	106.483	4697.001
SDA05-SW-03	2914.392	1146.591	957.315	420.572	181.332	5620.200
SDA05-SW-04	3578.496	2507.532	1227.263	516.395	229.653	8059.338
SDA05-SW-05	3751.708	1684.214	958.566	425.706	232.756	7052.950
SDA05-SW-05 REPLICATE	3632.482	1047.305	794.564	362.593	166.063	6003.006
SDA05-SW-06	3623.349	2427.204	938.189	440.702	159.355	7588.799
SDA05-SW-07	2510.572	720.152	608.361	362.148	83.417	4284.650
SDA05-SW-08	2693.515	793.750	659.819	368.697	nd	4515.780
SDA05-SW-08 REPLICATE	2605.208	777.779	594.674	357.165	nd	4334.825
SDA05-SW-09	2592.767	836.578	726.541	376.962	94.143	4626.989
SDA05-SW-10	2668.338	961.865	731.744	359.704	nd	4721.651
SDA05-SW-11	2516.497	1139.734	848.569	372.026	nd	4876.825
SDA05-SW-12	3288.150	1897.193	1331.067	485.983	163.898	7166.289
SDA05-SW-13	2681.806	1688.227	1249.423	405.418	125.060	6149.934
SDA05-SW-14	2748.883	929.745	756.361	377.511	76.847	4889.346
SDA05-SW-15	3035.593	2292.274	1040.095	604.871	206.815	7179.648
SDA05-PW-02	5538.425	6735.247	4298.346	2365.249	177.739	19115.004
SDA05-PW-03	6139.172	4353.408	2132.274	1348.849	311.964	14285.666
SDA05-PW-04	6964.469	5340.642	2163.913	759.739	233.980	15462.743
SDA05-PW-06	6772.841	4825.966	2039.198	757.393	269.389	14664.786
SDA05-PW-08	4931.261	4022.553	1145.338	406.790	253.007	10758.948
SDA05-PW-10	3149.634	979.616	855.398	414.092	141.242	5539.981
SDA05-PW-12	4903.261	4275.085	2737.148	743.966	331.911	12991.370
SDA05-PW-13	5791.118	4085.746	1152.900	423.768	98.095	11551.626
SDA05-PW-14	3910.450	2476.564	889.491	391.033	211.250	7878.787
SDA05-PW-15	6115.658	4527.820	2210.933	890.602	212.113	13957.125

Table 22

LAS Sediment Results- Raw data

	C10 LAS	C11 LAS	C12 LAS	C13 LAS	C14 LAS	Total
SDA05-SD-01	50.392	20.465	12.999	18.095	3.542	105.493
SDA05-SD-02	63.823	60.112	71.138	61.180	7.789	264.041
SDA05-SD-02 replicate	104.525	59.326	85.617	80.262	10.408	340.137
SDA05-SD-03	113.458	106.821	116.594	94.558	10.320	441.751
SDA05-SD-04	37.692	10.522	9.785	15.901	2.878	76.778
SDA05-SD-06	77.746	126.364	168.110	104.162	10.668	487.049
SDA05-SD-08 A	110.172	105.131	126.087	115.515	11.488	468.394
SDA05-SD-10	50.322	25.581	35.930	47.877	6.531	166.240
SDA05-SD-10 replicate	60.480	39.519	44.201	56.594	3.122	203.915
SDA05-SD-12	67.033	52.740	74.529	71.726	8.247	274.276
SDA05-SD-12 replicate	110.341	34.911	69.612	74.361	10.844	300.069
SDA05-SD-13	58.810	41.519	39.401	50.801	6.354	196.885
SDA05-SD-13 replicate	102.182	156.178	173.829	106.777	10.863	549.829
SDA05-SD-14	43.850	10.755	12.070	24.845	3.219	94.739
SDA05-SD-14 replicate	49.432	25.751	30.111	34.768	4.297	144.357
SDA05-SD-15	60.734	47.653	47.731	54.419	4.915	215.452
SDA05-SD-15 replicate	56.085	44.640	48.617	55.526	5.347	210.214

Table 23

LAS Water results with LOQ applied

	C10 LAS	C11 LAS	C12 LAS	C13 LAS	C14 LAS	Total
SDA05-SW-01	2940.38	<3877	<3852	<2803	<3411	2940.3795
SDA05-SW-02	2710.117	<3877	<3852	<2803	<3411	2710.117
SDA05-SW-03	2914.392	<3877	<3852	<2803	<3411	2914.3915
SDA05-SW-04	3578.496	<3877	<3852	<2803	<3411	3578.496
SDA05-SW-05	3751.708	<3877	<3852	<2803	<3411	3751.708
SDA05-SW-05 REPLICATE	3632.482	<3877	<3852	<2803	<3411	3632.4815
SDA05-SW-06	3623.349	<3877	<3852	<2803	<3411	3623.3485
SDA05-SW-07	2510.572	<3877	<3852	<2803	<3411	2510.572
SDA05-SW-08	2693.515	<3877	<3852	<2803	nd	2693.515
SDA05-SW-08 REPLICATE	2605.208	<3877	<3852	<2803	nd	2605.208
SDA05-SW-09	2592.767	<3877	<3852	<2803	<3411	2592.7665
SDA05-SW-10	2668.338	<3877	<3852	<2803	nd	2668.338
SDA05-SW-11	2516.497	<3877	<3852	<2803	nd	2516.4965
SDA05-SW-12	3288.15	<3877	<3852	<2803	<3411	3288.1495
SDA05-SW-13	2681.806	<3877	<3852	<2803	<3411	2681.806
SDA05-SW-14	2748.883	<3877	<3852	<2803	<3411	2748.883
SDA05-SW-15	3035.593	<3877	<3852	<2803	<3411	3035.593
SDA05-PW-02	5538.425	6735.247	4298.346	<2803	<3411	16572.017
SDA05-PW-03	6139.172	4353.408	<3852	<2803	<3411	10492.58
SDA05-PW-04	6964.469	5340.642	<3852	<2803	<3411	12305.111
SDA05-PW-06	6772.841	4825.966	<3852	<2803	<3411	11598.807
SDA05-PW-08	4931.261	4022.553	<3852	<2803	<3411	8953.813
SDA05-PW-10	3149.634	<3877	<3852	<2803	<3411	3149.634
SDA05-PW-12	4903.261	4275.085	<3852	<2803	<3411	9178.3455
SDA05-PW-13	5791.118	4085.746	<3852	<2803	<3411	9876.8635
SDA05-PW-14	3910.45	<3877	<3852	<2803	<3411	3910.45
SDA05-PW-15	6115.658	4527.82	<3852	<2803	<3411	10643.478

Table 24**LAS sediment with LOQ applied**

	C10 LAS	C11 LAS	C12 LAS	C13 LAS	C14 LAS	Total
SDA05-SD-01	50.392	<33	<29	<26	<142	50.392
SDA05-SD-02	63.823	60.112	71.138	61.180	<142	256.253
SDA05-SD-02 replicate	104.525	59.326	85.617	80.262	<142	329.730
SDA05-SD-03	113.458	106.821	116.594	94.558	<142	431.431
SDA05-SD-04	37.692	<33	<29	<26	<142	37.692
SDA05-SD-06	77.746	126.364	168.110	104.162	<142	476.382
SDA05-SD-08	110.172	105.131	126.087	115.515	<142	456.906
SDA05-SD-10	50.322	<33	35.930	47.877	<142	134.129
SDA05-SD-10 replicate	60.480	39.519	44.201	56.594	<142	200.793
SDA05-SD-12	67.033	52.740	74.529	71.726	<142	266.029
SDA05-SD-12 replicate	110.341	34.911	69.612	74.361	<142	289.225
SDA05-SD-13	58.810	41.519	39.401	50.801	<142	190.531
SDA05-SD-13 replicate	102.182	156.178	173.829	106.777	<142	538.967
SDA05-SD-14	43.850	<33	<29	<26	<142	43.850
SDA05-SD-14 replicate	49.432	<33	30.111	34.768	<142	114.310
SDA05-SD-15	60.734	47.653	47.731	54.419	<142	210.537
SDA05-SD-15 replicate	56.085	44.640	48.617	55.526	<142	204.867

Table 25a
AES Raw Data – Surface Water

	SDA05-SW-01				
	C12	C13	C14	C15	Total
EO0	5081.2	nd	4921.0	nd	10002.2
EO1	1856.1	nd	1330.4	nd	3186.4
EO2	nd	nd	nd	1045.5	1045.5
EO3	nd	nd	nd	nd	nd
EO4	1656.4	nd	nd	nd	1656.4
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	856.2	nd	856.2

	SDA05-SW-02				
	C12	C13	C14	C15	Total
EO0	5512.7	nd	4617.0	nd	10129.7
EO1	1282.9	nd	nd	nd	1282.9
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	1348.7	nd	nd	nd	1348.7
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-02 replicate				
	C12	C13	C14	C15	Total
EO0	4658.5	nd	1452.4	nd	6110.9
EO1	1030.7	nd	nd	nd	1030.7
EO2	520.1	nd	nd	nd	520.1
EO3	198.3	nd	nd	nd	198.3
EO4	nd	nd	nd	nd	nd
EO5	3.0	nd	nd	nd	3.0
EO6	nd	nd	nd	nd	nd

	SDA05-SW-03				
	C12	C13	C14	C15	Total
EO0	4151.0	nd	4531.7	nd	8682.8
EO1	1786.9	nd	nd	nd	1786.9
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	1489.6	nd	nd	nd	1489.6
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

Table 25b
AES Raw Data – Surface Water

	SDA05-SW-04				
	C12	C13	C14	C15	Total
EO0	6585.1	nd	4034.8	nd	10619.9
EO1	2465.9	nd	1337.2	nd	3803.1
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	1288.7	nd	nd	nd	1288.7
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-05				
	C12	C13	C14	C15	Total
EO0	6810.7	nd	nd	nd	6810.7
EO1	1593.9	nd	nd	nd	1593.9
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-05 replicate				
	C12	C13	C14	C15	Total
EO0	10773.7	nd	1605.9	nd	12379.6
EO1	1965.4	nd	nd	nd	1965.4
EO2	245.4	nd	nd	nd	245.4
EO3	107.9	nd	nd	nd	107.9
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-05 Replicate				
	C12	C13	C14	C15	Total
EO0	12734.3	nd	nd	nd	12734.3
EO1	2119.5	nd	nd	nd	2119.5
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	1485.4	nd	nd	nd	1485.4
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

Table 25c
AES Raw Data – Surface Water

	SDA05-SW-06				
	C12	C13	C14	C15	Total
EO0	5192.4	nd	3548.7	nd	8741.1
EO1	2408.5	nd	1979.7	nd	4388.2
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-07				
	C12	C13	C14	C15	Total
EO0	4713.0	nd	nd	nd	4713.0
EO1	nd	nd	nd	nd	nd
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-08				
	C12	C13	C14	C15	Total
EO0	5692.7	nd	3193.4	nd	8886.1
EO1	1807.7	nd	nd	nd	1807.7
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-08 replicate				
	C12	C13	C14	C15	Total
EO0	8412.3	nd	5260.7	nd	13673.0
EO1	2025.3	nd	nd	nd	2025.3
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	1613.9	nd	nd	nd	1613.9
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

Table 25d
AES Raw Data – Surface Water

	SDA05-SW-09				
	C12	C13	C14	C15	Total
EO0	5905.2	nd	3940.5	nd	9845.7
EO1	1171.1	nd	nd	nd	1171.1
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-10				
	C12	C13	C14	C15	Total
EO0	5917.2	3834.7	nd	nd	9751.9
EO1	1219.3	nd	nd	nd	1219.3
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-11				
	C12	C13	C14	C15	Total
EO0	nd	nd	nd	nd	nd
EO1	nd	nd	nd	nd	nd
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-12				
	C12	C13	C14	C15	Total
EO0	12564.8	nd	6135.8	nd	18700.6
EO1	3372.0	1467.9	2701.6	nd	7541.4
EO2	nd	nd	1725.0	nd	1725.0
EO3	nd	nd	nd	nd	nd
EO4	1796.5	nd	nd	nd	1796.5
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

Table 25e
AES Raw Data – Surface Water

	SDA05-SW-13				
	C12	C13	C14	C15	Total
EO0	5633.2	nd	3844.4	nd	9477.6
EO1	2091.9	nd	nd	nd	2091.9
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-14				
	C12	C13	C14	C15	Total
EO0	4933.1	nd	4474.3	nd	9407.4
EO1	1345.8	nd	nd	nd	1345.8
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	nd	nd	nd	nd	nd
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-SW-15				
	C12	C13	C14	C15	Total
EO0	7363.6	nd	4656.0	nd	12019.7
EO1	2886.1	nd	1670.4	nd	4556.5
EO2	nd	nd	1458.1	nd	1458.1
EO3	nd	nd	nd	nd	nd
EO4	1440.0	nd	1103.6	nd	2543.5
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

Table 26a

AES Raw Data – Pore water

	SDA05-PW-02				
	C12	C13	C14	C15	Total
EO0	23706.4	11927.5	10670.6	5020.3	51324.8
EO1	15645.3	6679.4	5415.3	1440.0	29180.0
EO2	9570.3	4384.2	2673.6	3722.0	20350.1
EO3	6591.7	3935.0	2717.2	1490.3	14734.2
EO4	6568.5	3928.2	1913.8	934.2	13344.8
EO5	2805.5	2251.3	nd	nd	5056.8
EO6	811.4	920.8	1022.7	nd	2754.9

	SDA05-PW-03				
	C12	C13	C14	C15	Total
EO0	24938.6	9687.5	6806.5	5429.6	46862.1
EO1	11164.9	4364.6	4872.0	1541.8	21943.3
EO2	7592.7	4348.3	2760.9	3205.7	17907.6
EO3	6457.9	4779.5	4365.3	1748.2	17350.9
EO4	4105.2	4318.6	2073.3	1352.2	11849.3
EO5	2574.5	3252.7	1948.9	507.1	8283.2
EO6	712.7	1270.6	1776.8	319.7	4079.8

	SDA05-PW-04				
	C12	C13	C14	C15	Total
EO0	76150.0	17134.5	14771.1	4490.8	112546.5
EO1	23452.5	5901.0	6324.9	1487.7	37166.0
EO2	19841.6	4040.4	4750.9	1890.5	30523.4
EO3	14846.5	3655.2	5987.6	1511.0	26000.3
EO4	7968.7	3308.7	2357.9	1179.3	14814.6
EO5	6239.7	2637.3	1601.7	413.1	10891.8
EO6	2345.9	832.9	1804.6	nd	4983.4

	SDA05-PW-06				
	C12	C13	C14	C15	Total
EO0	29904.1	12371.9	8869.1	4171.1	55316.2
EO1	13711.4	5105.7	4660.1	1647.9	25125.2
EO2	8314.6	4207.3	3172.6	2610.7	18305.2
EO3	6914.6	4827.7	4613.3	1866.6	18222.2
EO4	5178.5	4115.6	2142.9	1332.7	12769.6
EO5	3834.3	3312.5	1498.7	589.4	9235.0
EO6	1407.0	1099.2	1763.5	342.8	4612.5

Table 26b

AES Raw Data – Pore water

	SDA05-PW-08				
	C12	C13	C14	C15	Total
EO0	45298.7	8921.2	8279.0	3841.7	66340.5
EO1	20426.8	3533.9	3870.4	1561.8	29392.8
EO2	24744.1	3515.9	2811.1	2632.0	33703.2
EO3	12324.9	5057.5	4058.3	nd	21440.6
EO4	5867.7	2660.7	2224.7	nd	10753.1
EO5	2939.8	1429.9	1082.7	nd	5452.4
EO6	1265.5	916.1	894.0	nd	3075.6

	SDA05-PW-10				
	C12	C13	C14	C15	Total
EO0	12348.6	nd	4111.7	nd	16460.2
EO1	2649.3	nd	nd	nd	2649.3
EO2	nd	nd	nd	nd	nd
EO3	nd	nd	nd	nd	nd
EO4	1785.9	nd	nd	nd	1785.9
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-PW-10 replicate				
	C12	C13	C14	C15	Total
EO0	10537.6	nd	1265.1	nd	11802.8
EO1	1811.0	nd	nd	nd	1811.0
EO2	701.4	nd	nd	nd	701.4
EO3	345.2	nd	nd	nd	345.2
EO4	2651.4	nd	nd	nd	2651.4
EO5	nd	nd	nd	nd	nd
EO6	nd	nd	nd	nd	nd

	SDA05-PW-12				
	C12	C13	C14	C15	Total
EO0	28570.7	10142.3	8929.6	4133.3	51775.9
EO1	10317.3	4920.8	4625.4	1632.9	21496.3
EO2	6373.4	4188.6	3513.5	1832.9	15908.5
EO3	4689.2	4256.0	4455.3	904.0	14304.6
EO4	3864.2	2904.2	2013.4	820.9	9602.8
EO5	2380.2	2346.7	1185.6	nd	5912.5
EO6	nd	847.6	1181.4	nd	2029.0

Table 26c

AES Raw Data – Pore water

	SDA05-PW-13				
	C12	C13	C14	C15	Total
EO0	73436.5	11519.3	9711.7	2537.1	97204.7
EO1	18993.0	4055.7	3132.5	1021.9	27203.0
EO2	20548.1	4047.9	2498.1	2025.9	29120.0
EO3	13722.3	4495.4	3749.5	nd	21967.2
EO4	6238.5	2554.0	1674.5	nd	10467.0
EO5	3731.0	2313.2	nd	nd	6044.2
EO6	1419.3	1101.2	1061.1	nd	3581.6

	SDA05-PW-14				
	C12	C13	C14	C15	Total
EO0	22913.8	8517.1	7140.6	nd	38571.6
EO1	10719.2	3373.5	2601.2	818.1	17512.0
EO2	9319.2	3616.9	2524.7	1337.6	16798.5
EO3	5917.3	3159.0	1513.3	nd	10589.6
EO4	3672.5	1996.5	1349.7	nd	7018.7
EO5	1565.6	1110.5	nd	nd	2676.2
EO6	nd	1071.6	nd	nd	1071.6

	SDA05-PW-15				
	C12	C13	C14	C15	Total
EO0	59890.4	12229.1	16041.0	4768.7	92929.2
EO1	20994.2	5486.7	7013.4	2012.6	35506.9
EO2	20757.4	4592.9	5745.5	1951.5	33047.2
EO3	15370.0	5064.2	6483.5	1735.4	28653.2
EO4	7235.7	3425.4	2915.9	1083.0	14659.9
EO5	6633.9	2894.0	2226.0	285.2	12039.1
EO6	2489.2	1130.2	1561.1	nd	5180.6

Table 27a

AES Raw Data – Sediment

	SDA05-SD-01				
	C12	C13	C14	C15	Total
EO0	213.10	96.85	115.17	60.76	485.88
EO1	54.71	32.07	42.29	23.26	152.33
EO2	55.99	48.64	50.51	30.74	185.89
EO3	46.73	0.00	34.76	23.45	104.94
EO4	34.10	29.05	32.46	19.38	114.99
EO5	23.81	nd	23.14	10.72	57.68
EO6	13.83	nd	16.44	nd	30.27

	SDA05-SD-02				
	C12	C13	C14	C15	Total
EO0	310.88	129.35	160.02	122.72	722.98
EO1	81.01	62.91	92.46	55.79	292.17
EO2	115.03	99.58	77.39	58.33	350.33
EO3	130.26	75.39	75.19	56.75	337.59
EO4	51.22	45.20	46.98	31.10	174.50
EO5	35.05	39.56	37.55	15.15	127.32
EO6	21.88	19.97	23.10	12.34	77.29

	SDA05-SD-02 replicate				
	C12	C13	C14	C15	Total
EO0	407.90	20.79	48.61	40.92	518.22
EO1	96.50	131.23	52.69	56.10	336.52
EO2	130.73	24.77	95.11	28.35	278.96
EO3	71.11	23.46	20.04	15.39	130.00
EO4	71.66	14.47	17.12	7.46	110.70
EO5	16.64	24.92	18.83	4.28	64.66
EO6	14.19	10.36	10.52	3.83	38.90

	SDA05-SD-03				
	C12	C13	C14	C15	Total
EO0	502.53	254.23	285.00	196.26	1238.03
EO1	153.86	113.15	138.69	95.13	500.83
EO2	182.46	156.09	114.36	82.49	535.40
EO3	172.37	121.16	93.87	90.30	477.69
EO4	75.46	69.87	73.03	46.58	264.95
EO5	50.25	58.94	51.70	19.58	180.47
EO6	32.03	26.47	32.47	16.04	107.00

Table 27b

AES Raw Data – Sediment

	SDA05-SD-04				
	C12	C13	C14	C15	Total
EO0	110.82	92.63	96.47	50.65	350.56
EO1	38.63	28.30	34.69	17.71	119.33
EO2	33.00	nd	35.99	24.26	93.24
EO3	30.98	nd	28.51	nd	59.48
EO4	29.01	23.91	23.41	16.48	92.81
EO5	9.82	nd	23.89	9.40	43.11
EO6	5.76	nd	nd	8.27	14.03

	SDA05-SD-06				
	C12	C13	C14	C15	Total
EO0	214.59	173.26	249.87	201.03	838.75
EO1	100.59	103.02	124.21	74.29	402.12
EO2	112.61	125.84	96.53	78.04	413.02
EO3	93.62	102.57	83.11	74.43	353.73
EO4	52.75	58.53	53.12	40.78	205.17
EO5	38.26	51.95	38.85	17.19	146.25
EO6	26.99	24.71	26.14	14.01	91.85

	SDA05-SD-08				
	C12	C13	C14	C15	Total
EO0	307.68	189.90	283.45	173.85	954.89
EO1	195.28	86.59	151.64	58.51	492.02
EO2	256.15	121.85	131.17	62.43	571.60
EO3	232.72	94.28	100.48	58.54	486.02
EO4	93.45	57.00	61.64	35.43	247.53
EO5	70.82	48.44	46.70	17.58	183.54
EO6	42.25	24.15	29.11	13.97	109.48

	SDA05-SD-10				
	C12	C13	C14	C15	Total
EO0	183.94	98.47	123.22	63.31	468.94
EO1	42.49	31.30	40.71	21.35	135.85
EO2	38.41	40.59	40.03	26.47	145.51
EO3	35.94	nd	30.39	nd	66.32
EO4	30.96	26.35	24.66	nd	81.97
EO5	12.99	nd	19.21	9.93	42.12
EO6	10.72	11.43	nd	8.79	30.94

Table 27c

AES Raw Data – Sediment

	SDA05-SD-10 replicate				
	C12	C13	C14	C15	Total
EO0	295.64	114.93	149.10	67.68	627.35
EO1	71.10	33.60	49.92	23.31	177.94
EO2	73.51	44.74	43.38	24.56	186.19
EO3	58.92	32.07	34.54	20.15	145.69
EO4	36.14	26.97	27.37	14.28	104.77
EO5	19.19	nd	21.37	10.05	50.61
EO6	15.38	nd	13.60	9.15	38.13

	SDA05-SD-12				Total
	C12	C13	C14	C15	
EO0	241.92	143.62	208.07	159.48	753.09
EO1	80.08	72.32	103.99	58.93	315.33
EO2	78.59	99.42	86.32	73.01	337.33
EO3	70.46	78.88	77.41	57.30	284.05
EO4	53.32	55.01	51.89	34.43	194.65
EO5	29.98	48.60	39.12	17.29	134.98
EO6	24.78	25.41	27.83	14.88	92.90

	SDA05-SD-13				
	C12	C13	C14	C15	Total
EO0	458.84	284.76	457.83	274.72	1476.16
EO1	233.75	161.46	200.90	94.37	690.48
EO2	263.06	194.08	166.86	115.28	739.28
EO3	238.85	151.50	131.76	102.27	624.37
EO4	118.03	93.86	82.37	57.44	351.70
EO5	93.09	83.14	63.94	25.43	265.59
EO6	55.04	40.97	40.45	19.86	156.32

	SDA05-SD-13 replicate				
	C12	C13	C14	C15	Total
EO0	413.68	188.24	297.44	168.22	1067.58
EO1	134.69	67.44	111.35	52.08	365.55
EO2	135.08	96.67	83.77	57.32	372.84
EO3	118.85	73.90	74.83	50.16	317.74
EO4	65.79	50.65	50.50	31.05	198.00
EO5	42.24	41.52	39.05	16.39	139.19
EO6	36.00	22.52	25.84	13.86	98.23

Table 27d

AES Raw Data – Sediment

	SDA05-SD-14				
	C12	C13	C14	C15	Total
EO0	265.07	132.27	195.97	117.80	711.10
EO1	82.07	53.39	82.50	38.19	256.16
EO2	78.04	70.62	67.94	48.31	264.92
EO3	68.45	53.94	58.44	39.46	220.28
EO4	46.81	40.30	37.63	25.16	149.89
EO5	26.16	34.81	29.84	13.67	104.49
EO6	23.06	17.36	20.97	11.67	73.07

	SDA05-SD-15				
	C12	C13	C14	C15	Total
EO0	391.64	186.01	271.18	143.55	992.37
EO1	135.10	65.64	110.29	45.63	356.65
EO2	137.54	90.30	84.09	52.59	364.52
EO3	112.87	66.67	73.44	43.15	296.13
EO4	60.57	45.87	47.14	28.43	182.02
EO5	36.87	38.26	35.17	14.80	125.11
EO6	29.66	19.84	24.01	12.68	86.19

	SDA05-SD-15 replicate				
	C12	C13	C14	C15	Total
EO0	255.55	127.76	210.34	121.69	715.34
EO1	116.06	52.04	98.07	41.25	307.41
EO2	125.34	74.87	70.30	46.50	317.01
EO3	100.79	57.62	62.35	41.21	261.98
EO4	53.87	39.88	41.44	25.45	160.65
EO5	31.65	32.56	30.90	13.00	108.11
EO6	25.57	17.49	20.50	11.16	74.73

	Initial sediment				
	C12	C13	C14	C15	Total
EO0	283.09	17.55	49.59	31.00	381.23
EO1	66.33	53.76	44.81	18.53	183.44
EO2	86.29	0.94	78.35	16.96	182.53
EO3	36.64	8.84	9.24	8.23	62.94
EO4	56.70	7.69	10.67	0.00	75.05
EO5	9.01	nd	7.86	nd	16.87
EO6	6.64	nd	nd	nd	6.64

Table 28a

AES Surface Water with LOQ Applied

	SDA05-SW-01				
	C12	C13	C14	C15	Total
EO0	5081.192	<318	4920.963	<479	10002.155
EO1	1856.055	<980	1330.355	<545	3186.410
EO2	<786	<505	<1175	1045.518	1045.518
EO3	<562	<445	<396	<712	nd
EO4	1656.397	<350	<247	<859	1656.397
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	856.198	<276	856.198

	SDA05-SW-04				
	C12	C13	C14	C15	Total
EO0	6585.115	<318	4034.792	<479	10619.907
EO1	2465.898	<980	1337.228	<545	3803.126
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	1288.704	<350	<247	<859	1288.704
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-02				
	C12	C13	C14	C15	Total
EO0	5512.706	<318	4616.984	<479	10129.691
EO1	1282.934	<980	<451	<545	1282.934
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	1348.681	<350	<247	<859	1348.681
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-05				
	C12	C13	C14	C15	Total
EO0	6810.702	<318	<360	<479	6810.702
EO1	1593.924	<980	<451	<545	1593.924
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-02 replicate				
	C12	C13	C14	C15	Total
EO0	4658.534	<318	1452.398	<479	6110.932
EO1	1030.717	<980	<451	<545	1030.717
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-05 replicate				
	C12	C13	C14	C15	Total
EO0	10773.716	<318	1605.882	<479	12379.598
EO1	1965.364	<980	<451	<545	1965.364
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-03				
	C12	C13	C14	C15	Total
EO0	4151.033	<318	4531.733	<479	8682.766
EO1	1786.893	<980	<451	<545	1786.893
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	1489.555	<350	<247	<859	1489.555
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-05 Replicate				
	C12	C13	C14	C15	Total
EO0	12734.280	<318	<360	<479	12734.280
EO1	2119.545	<980	<451	<545	2119.545
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	1485.389	<350	<247	<859	1485.389
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

Table 28b

AES Surface Water with LOQ Applied

	SDA05-SW-06				
	C12	C13	C14	C15	Total
EO0	5192.382	<318	3548.692	<479	8741.074
EO1	2408.481	<980	1979.749	<545	4388.230
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-09				
	C12	C13	C14	C15	Total
EO0	5905.196	<318	3940.491	<479	9845.687
EO1	1171.081	<980	<451	<545	1171.081
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-07				
	C12	C13	C14	C15	Total
EO0	4712.960	<318	<360	<479	4712.960
EO1	<534	<980	<451	<545	nd
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-10				
	C12	C13	C14	C15	Total
EO0	5917.241	3834.698	<360	<479	9751.939
EO1	1219.286	<980	<451	<545	1219.286
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-08				
	C12	C13	C14	C15	Total
EO0	5692.694	<318	3193.428	<479	8886.122
EO1	1807.703	<980	<451	<545	1807.703
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-11				
	C12	C13	C14	C15	Total
EO0	<1706	<318	<360	<479	nd
EO1	<534	<980	<451	<545	nd
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-08 replicate				
	C12	C13	C14	C15	Total
EO0	8412.307	<318	5260.691	<479	13672.999
EO1	2025.283	<980	<451	<545	2025.283
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	1613.937	<350	<247	<859	1613.937
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-12				
	C12	C13	C14	C15	Total
EO0	12564.802	<318	6135.827	<479	18700.630
EO1	3371.972	1467.870	2701.592	<545	7541.435
EO2	<786	<505	1724.969	<412	1724.969
EO3	<562	<445	<396	<712	nd
EO4	1796.479	<350	<247	<859	1796.479
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

Table 28c

AES Surface Water with LOQ Applied

	SDA05-SW-13				
					11569.537
	C12	C13	C14	C15	Total
EO0	5633.227	<318	3844.405	<479	9477.632
EO1	2091.905	<980	<451	<545	2091.905
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-15				
					20577.713
	C12	C13	C14	C15	Total
EO0	7363.637	<318	4656.037	<479	12019.674
EO1	2886.069	<980	1670.393	<545	4556.462
EO2	<786	<505	1458.072	<412	1458.072
EO3	<562	<445	<396	<712	nd
EO4	1439.951	<350	1103.554	<859	2543.505
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-SW-14				
					10753.269
	C12	C13	C14	C15	Total
EO0	4933.149	<318	4474.278	<479	9407.427
EO1	1345.842	<980	<451	<545	1345.842
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	<565	<350	<247	<859	nd
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

Table 29a

AES Pore Water with LOQ Applied

	SDA05-PW-02				
	C12	C13	C14	C15	Total
EO0	23706.424	11927.535	10670.570	5020.277	51324.805
EO1	15645.307	6679.365	5415.317	1439.969	29179.958
EO2	9570.313	4384.155	2673.556	3722.041	20350.065
EO3	6591.673	3935.043	2717.193	1490.252	14734.161
EO4	6568.536	3928.248	1913.766	934.240	13344.790
EO5	2805.511	2251.285	<300	<121	5056.796
EO6	811.411	920.844	1022.653	<276	2754.907

	SDA05-PW-08				
	C12	C13	C14	C15	Total
EO0	45298.670	8921.170	8279.020	3841.686	66340.546
EO1	20426.755	3533.870	3870.388	1561.785	29392.797
EO2	24744.118	3515.949	2811.111	2632.030	33703.207
EO3	12324.920	5057.461	4058.255	<712	21440.636
EO4	5867.651	2660.697	2224.734	<859	10753.082
EO5	2939.772	1429.904	1082.700	<121	5452.375
EO6	1265.460	916.131	894.029	<276	3075.619

	SDA05-PW-03				
	C12	C13	C14	C15	Total
EO0	24938.589	9687.499	6806.464	5429.594	46862.146
EO1	11164.909	4364.625	4872.010	1541.757	21943.302
EO2	7592.679	4348.331	2760.863	3205.730	17907.603
EO3	6457.926	4779.469	4365.320	1748.228	17350.942
EO4	4105.248	4318.555	2073.288	1352.165	11849.256
EO5	2574.537	3252.674	1948.910	507.073	8283.194
EO6	712.686	1270.575	1776.794	319.736	4079.790

	SDA05-PW-10				
	C12	C13	C14	C15	Total
EO0	12348.579	<318	4111.653	<479	16460.232
EO1	2649.328	<980	<451	<545	2649.328
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	1785.880	<350	<247	<859	1785.880
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-PW-04				
	C12	C13	C14	C15	
EO0	76150.026	17134.504	14771.142	4490.800	112546.472
EO1	23452.454	5900.963	6324.857	1487.718	37165.991
EO2	19841.649	4040.380	4750.868	1890.515	30523.411
EO3	14846.513	3655.171	5987.648	1510.988	26000.321
EO4	7968.695	3308.668	2357.880	1179.342	14814.585
EO5	6239.722	2637.277	1601.690	413.071	10891.759
EO6	2345.889	832.918	1804.636	<276	4983.443

	SDA05-PW-10 replicate				
	C12	C13	C14	C15	Total
EO0	10537.623	<318	1265.148	<479	11802.771
EO1	1810.962	<980	<451	<545	1810.962
EO2	<786	<505	<1175	<412	nd
EO3	<562	<445	<396	<712	nd
EO4	2651.381	<350	<247	<859	2651.381
EO5	<382	<520	<300	<121	nd
EO6	<255	<177	<242	<276	nd

	SDA05-PW-06				
	C12	C13	C14	C15	Total
EO0	29904.119	12371.896	8869.074	4171.079	55316.167
EO1	13711.424	5105.711	4660.141	1647.929	25125.205
EO2	8314.584	4207.278	3172.572	2610.720	18305.154
EO3	6914.628	4827.718	4613.297	1866.573	18222.216
EO4	5178.479	4115.576	2142.902	1332.675	12769.631
EO5	3834.336	3312.542	1498.718	589.371	9234.967
EO6	1407.027	1099.212	1763.458	342.796	4612.493

	SDA05-PW-12				
	C12	C13	C14	C15	Total
EO0	28570.659	10142.299	8929.641	4133.317	51775.915
EO1	10317.258	4920.776	4625.444	1632.869	21496.347
EO2	6373.402	4188.641	3513.520	1832.946	15908.510
EO3	4689.236	4255.997	4455.312	904.015	14304.559
EO4	3864.224	2904.170	2013.419	820.950	9602.763
EO5	2380.228	2346.682	1185.615	<121	5912.524
EO6	<255	847.575	1181.403	<276	2028.977

Table 29b

AES Pore Water with LOQ Applied

	SDA05-PW-13				
	C12	C13	C14	C15	Total
EO0	73436.537	11519.344	9711.706	2537.145	97204.731
EO1	18992.963	4055.678	3132.493	1021.900	27203.035
EO2	20548.054	4047.921	2498.069	2025.934	29119.978
EO3	13722.296	4495.369	3749.513	<712	21967.177
EO4	6238.463	2554.019	1674.511	<859	10466.994
EO5	3731.031	2313.192	<300	<121	6044.224
EO6	1419.270	1101.218	1061.087	<276	3581.575

	SDA05-PW-14				
	C12	C13	C14	C15	Total
EO0	22913.774	8517.131	7140.647	<479	38571.552
EO1	10719.151	3373.535	2601.160	818.116	17511.962
EO2	9319.203	3616.943	2524.687	1337.645	16798.478
EO3	5917.349	3158.986	1513.258	<712	10589.593
EO4	3672.491	1996.491	1349.691	<859	7018.672
EO5	1565.643	1110.538	<300	<121	2676.181
EO6	<255	1071.647	<242	<276	1071.647

	SDA05-PW-15				
	C12	C13	C14	C15	Total
EO0	59890.360	12229.089	16040.995	4768.748	92929.192
EO1	20994.156	5486.743	7013.374	2012.587	35506.859
EO2	20757.377	4592.858	5745.534	1951.469	33047.238
EO3	15370.040	5064.246	6483.478	1735.435	28653.198
EO4	7235.716	3425.352	2915.862	1082.970	14659.899
EO5	6633.853	2894.041	2225.974	285.224	12039.091
EO6	2489.233	1130.233	1561.114	<276	5180.580

Table 30a

AES Sediments with LOQ Applied

SDA05-SD-01					
	C12	C13	C14	C15	Total
EO0	213.104	96.851	115.167	60.758	485.880
EO1	54.709	32.068	42.291	23.265	152.332
EO2	55.991	48.639	50.513	30.744	185.887
EO3	46.726	<6	34.764	23.447	104.937
EO4	34.098	29.055	32.460	19.381	114.993
EO5	23.810	<7	23.142	10.724	57.677
EO6	13.827	<2	16.444	<4	30.271

SDA05-SD-03 replicate					
	C12	C13	C14	C15	Total
EO0	502.530	254.235	285.000	196.262	1238.027
EO1	153.859	113.152	138.694	95.125	500.830
EO2	182.463	156.086	114.358	82.490	535.398
EO3	172.373	121.156	93.865	90.295	477.690
EO4	75.463	69.867	73.034	46.582	264.946
EO5	50.254	58.945	51.695	19.579	180.473
EO6	32.031	26.467	32.467	16.039	107.003

SDA05-SD-02					
	C12	C13	C14	C15	Total
EO0	310.883	129.352	160.021	122.724	722.980
EO1	81.014	62.910	92.455	55.791	292.170
EO2	115.032	99.578	77.386	58.335	350.331
EO3	130.259	75.385	75.187	56.755	337.586
EO4	51.220	45.197	46.978	31.104	174.499
EO5	35.054	39.563	37.549	15.150	127.316
EO6	21.882	19.969	23.098	12.341	77.291

SDA05-SD-04					
	C12	C13	C14	C15	Total
EO0	110.821	92.629	96.468	50.645	350.563
EO1	38.631	28.295	34.693	17.714	119.333
EO2	32.999	<7	35.986	24.259	93.244
EO3	30.976	<6	28.507	<9	59.483
EO4	29.014	23.905	23.411	16.481	92.811
EO5	9.818	<7	23.891	9.403	43.111
EO6	5.757	<2	<3	8.273	14.030

SDA05-SD-02 replicate					
	C12	C13	C14	C15	Total
EO0	407.896	20.794	48.612	40.921	518.223
EO1	96.500	131.226	52.693	56.101	336.521
EO2	130.735	24.767	95.107	28.352	278.960
EO3	71.111	23.458	20.036	15.394	129.998
EO4	71.661	14.465	17.120	<11	103.246
EO5	16.636	24.921	18.825	4.281	64.664
EO6	14.190	10.357	10.517	3.835	

SDA05-SD-06					
	C12	C13	C14	C15	Total
EO0	214.587	173.264	249.869	201.030	838.750
EO1	100.589	103.024	124.212	74.293	402.119
EO2	112.607	125.835	96.534	78.041	413.018
EO3	93.618	102.569	83.113	74.435	353.735
EO4	52.749	58.525	53.119	40.780	205.174
EO5	38.259	51.950	38.855	17.186	146.250
EO6	26.986	24.712	26.139	14.009	

SDA05-SD-03					
	C12	C13	C14	C15	Total
EO0	502.530	254.235	285.000	196.262	1238.027
EO1	153.859	113.152	138.694	95.125	500.830
EO2	182.463	156.086	114.358	82.490	535.398
EO3	172.373	121.156	93.865	90.295	477.690
EO4	75.463	69.867	73.034	46.582	264.946
EO5	50.254	58.945	51.695	19.579	180.473
EO6	32.031	26.467	32.467	16.039	107.003

SDA05-SD-08					
	C12	C13	C14	C15	Total
EO0	307.684	189.901	283.450	173.854	954.889
EO1	195.281	86.588	151.641	58.511	492.022
EO2	256.147	121.854	131.168	62.427	571.596
EO3	232.723	94.281	100.477	58.539	486.020
EO4	93.451	57.001	61.642	35.434	247.528
EO5	70.816	48.444	46.698	17.578	183.536
EO6	42.247	24.154	29.107	13.968	109.476

Table 30a
AES Sediments with LOQ Applied

	SDA05-SD-10				
	C12	C13	C14	C15	Total
EO0	183.939	98.473	123.219	63.310	468.941
EO1	42.493	31.303	40.712	21.345	135.853
EO2	38.411	40.590	40.031	26.473	145.505
EO3	35.937	<6	30.387	<9	66.324
EO4	30.961	26.351	24.659	<11	81.971
EO5	12.986	<7	19.208	9.929	42.123
EO6	10.718	11.428	<3	8.794	30.940

	SDA05-SD-13 replicate				
	C12	C13	C14	C15	Total
EO0	413.684	188.240	297.436	168.225	1067.584
EO1	134.686	67.442	111.351	52.076	365.555
EO2	135.076	96.673	83.770	57.318	372.838
EO3	118.848	73.896	74.834	50.158	317.736
EO4	65.785	50.655	50.503	31.055	197.998
EO5	42.239	41.517	39.048	16.387	139.190
EO6	36.004	22.520	25.841	13.861	98.226

	SDA05-SD-10 replicate				
	C12	C13	C14	C15	Total
EO0	295.636	114.930	149.104	67.684	627.353
EO1	71.104	33.599	49.925	23.309	177.937
EO2	73.509	44.743	43.384	24.555	186.191
EO3	58.921	32.075	34.543	20.153	145.692
EO4	36.142	26.973	27.370	14.284	104.768
EO5	19.191	<7	21.369	10.049	50.610
EO6	15.380	<2	13.596	9.151	38.127

	SDA05-SD-14				
	C12	C13	C14	C15	Total
EO0	265.066	132.270	195.970	117.798	711.104
EO1	82.069	53.390	82.505	38.194	256.158
EO2	78.043	70.624	67.939	48.311	264.917
EO3	68.449	53.940	58.440	39.456	220.284
EO4	46.810	40.295	37.625	25.161	149.892
EO5	26.156	34.814	29.845	13.673	104.489
EO6	23.059	17.363	20.974	11.675	73.071

	SDA05-SD-12				
	C12	C13	C14	C15	Total
EO0	241.919	143.623	208.074	159.480	753.095
EO1	80.079	72.324	103.994	58.931	315.327
EO2	78.585	99.421	86.316	73.013	337.335
EO3	70.459	78.883	77.407	57.298	284.047
EO4	53.324	55.006	51.891	34.429	194.650
EO5	29.977	48.598	39.115	17.292	134.983
EO6	24.779	25.407	27.829	14.882	92.897

	SDA05-SD-15				
	C12	C13	C14	C15	Total
EO0	391.637	186.005	271.177	143.549	992.368
EO1	135.103	65.639	110.287	45.625	356.655
EO2	137.542	90.305	84.088	52.586	364.520
EO3	112.868	66.667	73.441	43.153	296.129
EO4	60.573	45.872	47.141	28.430	182.017
EO5	36.872	38.259	35.171	14.805	125.106
EO6	29.660	19.837	24.013	12.683	86.193

	SDA05-SD-13				
	C12	C13	C14	C15	Total
EO0	458.840	284.763	457.834	274.723	1476.160
EO1	233.748	161.462	200.900	94.366	690.476
EO2	263.064	194.077	166.863	115.280	739.284
EO3	238.845	151.500	131.762	102.266	624.373
EO4	118.027	93.864	82.369	57.436	351.695
EO5	93.088	83.141	63.940	25.426	265.593
EO6	55.038	40.974	40.449	19.856	156.317

	SDA05-SD-15 replicate				
	C12	C13	C14	C15	Total
EO0	255.545	127.762	210.342	121.690	715.340
EO1	116.060	52.036	98.068	41.249	307.414
EO2	125.340	74.866	70.300	46.504	317.010
EO3	100.793	57.621	62.353	41.208	261.975
EO4	53.868	39.881	41.445	25.455	160.648
EO5	31.651	32.563	30.904	12.996	108.114
EO6	25.574	17.491	20.496	11.164	74.726

	Initial sediment				
	C12	C13	C14	C15	Total
EO0	283.094	17.555	49.585	30.998	381.231
EO1	66.333	53.764	44.810	18.530	183.437
EO2	86.293	<7	78.346	16.956	181.595
EO3	36.639	8.842	9.235	<9	54.717
EO4	56.696	7.692	10.665	<11	75.053
EO5	9.015	<7	7.857	<2	16.872
EO6	6.644	<2	<3	<4	6.644

Table 31a
AE Raw Data – Surface Water

	Initial Trinity Sample					
	C12	C13	C14	C15	C16	C18
EO 0	44.08	13.09	22.14	16.79	46.74	254.35
EO 1	2.78	6.58	0.95	1.50	0.33	0.72
EO 2	2.28	1.86	1.38	1.24	2.42	1.02
EO 3	1.91	3.19	2.64	0.47	2.69	0.00
EO 4	0.94	2.02	0.44	0.60	1.52	1.13
EO 5	2.16	0.00	1.53	0.88	4.75	0.33
EO 6	0.64	0.79	1.25	0.37	0.13	0.88
EO 7	1.19	0.77	1.29	0.00	0.37	0.71
EO 8	2.09	1.07	2.20	0.00	0.47	1.09
EO 9	2.38	0.61	2.84	0.00	0.92	1.32
EO 10	3.74	0.00	2.26	0.10	0.36	1.58
EO 11	3.48	1.05	2.49	0.00	0.53	1.24
EO 12	6.04	0.45	1.64	0.17	0.53	1.28
EO 13	1.76	3.40	1.09	0.49	0.82	2.28
EO 14	1.26	0.24	0.75	0.41	0.05	1.72
EO 15	0.55	0.90	0.62	1.48	0.54	2.17
EO 16	0.93	1.12	0.06	0.08	0.15	1.41
EO 17	0.26	0.18	0.11	0.00	0.08	0.74
EO 18	0.43	0.20	0.65	0.00	0.20	0.43
					Total	525.35

	SDA05-SW-01					
	C12	C13	C14	C15	C16	C18
EO 0	14.72	17.16	11.19	12.77	78.20	199.76
EO 1	3.39	1.64	0.90	0.83	0.31	0.55
EO 2	4.40	3.37	1.50	3.48	0.21	1.06
EO 3	4.71	3.44	1.75	1.15	1.63	1.21
EO 4	2.73	4.30	0.88	1.29	0.90	0.71
EO 5	6.33	nd	2.35	1.74	0.46	0.79
EO 6	4.95	2.32	2.75	1.61	0.40	0.95
EO 7	5.56	1.60	3.47	0.08	0.84	1.01
EO 8	7.13	0.45	4.97	nd	0.48	1.47
EO 9	7.80	2.63	7.47	nd	0.66	1.73
EO 10	7.45	0.76	8.19	0.75	0.84	1.99
EO 11	8.32	2.05	7.68	0.91	0.39	2.96
EO 12	6.26	1.94	6.50	0.25	0.71	2.26
EO 13	4.41	2.03	4.19	0.94	0.81	2.78
EO 14	2.72	1.02	1.98	0.16	0.10	1.89
EO 15	1.56	1.46	1.47	nd	0.25	2.85
EO 16	0.70	1.88	0.38	nd	0.29	3.19
EO 17	1.22	1.36	0.20	nd	0.70	2.33
EO 18	0.53	0.41	nd	nd	0.29	1.85
					Total	558.31

Table 31b
AE Raw Data– Surface Water

	SDA05-SW-02					
	C12	C13	C14	C15	C16	C18
EO 0	17.86	10.88	10.37	15.99	41.37	186.15
EO 1	3.80	1.42	1.30	0.73	0.35	0.53
EO 2	4.26	3.20	1.74	1.75	0.51	1.01
EO 3	4.45	2.56	3.71	1.11	2.04	1.50
EO 4	2.06	3.03	1.08	1.05	1.16	1.59
EO 5	4.77	nd	1.57	1.75	4.77	1.00
EO 6	3.02	0.79	5.78	0.61	0.55	1.09
EO 7	4.14	1.11	3.27	nd	0.55	1.02
EO 8	6.43	0.11	5.01	nd	0.86	1.07
EO 9	9.55	1.26	11.50	nd	1.03	1.52
EO 10	9.05	nd	8.60	0.02	0.97	1.72
EO 11	10.86	0.90	8.13	0.09	0.56	3.27
EO 12	8.29	1.16	6.54	0.19	0.22	2.32
EO 13	5.22	0.65	3.82	0.66	0.25	2.42
EO 14	2.94	0.79	1.82	0.01	0.31	2.61
EO 15	1.10	0.63	0.98	nd	nd	2.09
EO 16	0.29	1.71	0.54	0.33	0.08	1.98
EO 17	0.01	0.47	0.03	0.46	nd	1.53
EO 18	0.40	nd	nd	0.75	0.46	nd
					Total	500.92

	SDA05-SW-02 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	12.30	9.36	9.80	9.21	51.50	96.78
EO 1	2.48	2.02	0.90	1.09	0.19	0.23
EO 2	5.18	4.45	1.15	1.51	0.36	1.01
EO 3	7.47	7.21	2.76	1.63	1.18	0.83
EO 4	6.10	10.86	1.41	1.72	0.40	0.52
EO 5	17.10	9.37	3.88	2.41	0.23	0.65
EO 6	19.10	16.56	8.76	2.92	0.23	0.71
EO 7	23.97	19.09	5.92	2.39	0.46	0.74
EO 8	25.78	23.54	7.27	3.38	0.50	1.13
EO 9	25.77	28.48	8.94	4.67	0.96	1.67
EO 10	22.94	29.41	9.12	5.25	1.13	1.95
EO 11	23.32	32.18	8.40	5.15	0.70	3.03
EO 12	15.86	25.06	5.37	2.67	0.57	2.70
EO 13	13.64	17.68	5.12	2.28	0.33	3.37
EO 14	9.93	15.59	4.04	2.12	0.57	3.58
EO 15	4.32	7.39	3.75	1.75	0.01	3.27
EO 16	1.84	1.96	1.33	1.56	0.64	3.30
EO 17	1.50	0.53	1.52	0.22	0.92	3.30
EO 18	0.55	0.11	0.32	nd	0.26	2.53
					Total	834.15

Table 31c
AE Raw Data– Surface Water

	SDA05-SW-03					
	C12	C13	C14	C15	C16	C18
EO 0	21.64	39.29	16.20	34.80	46.56	65.74
EO 1	2.58	2.28	0.83	0.50	0.17	0.37
EO 2	2.99	3.15	1.11	3.39	0.10	0.44
EO 3	4.76	5.86	1.71	0.82	12.37	2.97
EO 4	3.36	6.82	0.53	1.03	0.56	2.14
EO 5	9.29	2.06	2.26	2.74	0.54	0.43
EO 6	9.21	5.85	5.95	1.61	0.31	0.57
EO 7	11.17	5.34	3.29	0.59	0.93	0.63
EO 8	11.27	1.41	2.34	0.90	0.42	1.11
EO 9	13.88	4.73	3.73	1.36	0.70	4.13
EO 10	7.52	4.78	2.89	0.20	0.77	2.42
EO 11	9.22	5.50	1.97	0.43	0.74	2.34
EO 12	4.90	4.49	0.98	nd	0.51	1.91
EO 13	3.65	3.83	1.31	0.03	0.61	2.54
EO 14	2.51	1.19	0.83	0.17	nd	1.64
EO 15	1.25	1.65	0.64	nd	0.24	2.19
EO 16	1.76	1.51	0.10	0.05	0.28	2.08
EO 17	nd	0.50	0.73	nd	0.29	2.03
EO 18	0.94	0.18	nd	0.65	0.30	1.37
					Total	482.41

	SDA05-SW-04					
	C12	C13	C14	C15	C16	C18
EO 0	17.05	26.54	13.79	39.19	74.83	226.47
EO 1	1.47	1.50	0.57	0.55	0.18	0.56
EO 2	1.25	1.97	0.49	4.39	0.12	1.01
EO 3	1.36	3.98	3.05	1.05	2.67	1.04
EO 4	0.74	2.60	0.31	0.57	1.39	1.21
EO 5	2.10	nd	0.76	2.66	9.57	1.12
EO 6	0.72	0.95	3.42	0.62	1.09	0.94
EO 7	0.76	0.90	1.30	nd	0.52	1.18
EO 8	1.92	nd	1.46	nd	0.77	1.41
EO 9	9.18	0.35	4.50	nd	0.43	2.21
EO 10	4.00	nd	1.51	nd	0.81	3.03
EO 11	3.47	nd	1.78	1.91	0.38	3.39
EO 12	3.03	0.16	0.98	0.58	0.89	3.08
EO 13	0.30	5.44	0.38	0.38	0.80	3.68
EO 14	0.37	0.18	0.73	0.15	0.31	3.33
EO 15	1.01	0.74	1.15	0.51	0.75	5.58
EO 16	1.55	1.55	0.89	nd	0.56	4.35
EO 17	0.13	0.25	0.41	0.50	0.36	3.70
EO 18	0.33	0.13	nd	0.85	0.21	2.60
					Total	555.91

Table 31d
AE Raw Data– Surface Water

	SDA05-SW-05					
	C12	C13	C14	C15	C16	C18
EO 0	12.82	9.34	6.89	8.58	22.78	66.94
EO 1	2.11	3.70	1.14	1.68	0.28	0.43
EO 2	1.46	1.37	1.28	1.79	1.83	1.01
EO 3	1.47	1.09	1.21	1.25	1.55	0.38
EO 4	1.04	1.56	0.54	1.24	0.86	0.45
EO 5	1.99	nd	1.06	1.40	5.04	0.86
EO 6	0.52	0.47	0.66	0.97	0.30	1.06
EO 7	0.69	0.96	0.90	nd	0.98	0.94
EO 8	0.81	nd	0.93	nd	0.59	2.11
EO 9	0.76	0.25	0.69	nd	0.55	1.36
EO 10	0.62	nd	nd	0.27	0.27	1.49
EO 11	0.97	0.41	1.10	0.89	0.38	1.36
EO 12	5.73	0.18	0.24	1.92	1.12	3.34
EO 13	0.81	11.54	0.34	1.58	3.15	1.25
EO 14	0.61	0.19	1.25	1.07	0.15	2.74
EO 15	0.41	2.42	0.60	1.00	0.18	6.85
EO 16	0.91	1.99	0.84	1.71	1.48	2.63
EO 17	0.70	0.70	0.70	nd	1.02	0.60
EO 18	0.35	0.25	0.30	nd	0.31	3.45
					Total	259.27

	SDA05-SW-05 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	5.64	6.24	6.06	4.78	71.47	112.22
EO 1	1.26	2.18	0.68	1.06	0.17	0.33
EO 2	0.84	0.77	0.86	1.48	0.57	1.01
EO 3	1.45	1.24	0.88	1.07	0.47	0.97
EO 4	0.69	1.57	0.55	1.19	0.22	0.26
EO 5	1.64	nd	1.06	1.33	3.05	0.42
EO 6	0.39	0.66	0.89	1.02	nd	0.57
EO 7	0.14	1.15	0.99	nd	0.35	0.63
EO 8	0.58	nd	0.77	nd	0.48	1.23
EO 9	0.49	nd	0.84	0.09	0.59	1.35
EO 10	0.05	nd	nd	2.37	0.68	1.62
EO 11	1.08	0.68	0.22	0.30	0.19	1.98
EO 12	1.63	0.06	0.76	0.74	0.64	1.48
EO 13	nd	1.64	1.33	1.21	0.57	2.02
EO 14	0.52	0.06	1.62	1.45	0.31	2.51
EO 15	0.84	0.57	0.98	1.96	0.90	4.54
EO 16	0.46	nd	0.66	0.92	1.19	2.77
EO 17	1.13	0.23	0.31	0.01	1.14	3.42
EO 18	0.39	0.03	0.43	1.72	0.47	2.25
					Total	303.92

Table 31e
AE Raw Data– Surface Water

	SDA05-SW-06					
	C12	C13	C14	C15	C16	C18
EO 0	17.76	19.12	9.64	10.22	46.11	120.25
EO 1	2.07	2.68	0.93	0.56	0.28	0.42
EO 2	1.94	1.65	1.26	1.79	0.22	0.80
EO 3	2.08	5.07	1.60	0.60	4.19	1.44
EO 4	1.12	3.32	0.40	0.42	0.64	1.13
EO 5	2.69	nd	1.18	1.06	0.53	0.92
EO 6	1.77	1.49	1.46	0.71	0.46	0.89
EO 7	1.69	1.07	0.88	nd	0.35	1.23
EO 8	1.42	nd	1.07	nd	0.79	1.59
EO 9	1.74	1.37	1.13	nd	0.69	2.44
EO 10	1.06	nd	0.25	nd	1.12	2.89
EO 11	2.12	0.73	0.46	0.22	0.90	3.82
EO 12	1.05	0.22	0.33	nd	0.79	3.51
EO 13	0.28	0.44	0.17	0.32	0.70	3.62
EO 14	0.50	0.80	0.03	0.19	nd	2.54
EO 15	0.47	0.98	0.13	nd	0.36	3.71
EO 16	1.01	0.06	0.54	nd	0.38	3.56
EO 17	0.18	0.06	nd	0.09	nd	2.50
EO 18	1.08	0.07	nd	1.68	0.41	1.76
					Total	338.44

	SDA05-SW-07					
	C12	C13	C14	C15	C16	C18
EO 0	14.16	19.46	1.06	15.42	86.01	190.48
EO 1	2.64	3.01	1.25	1.39	0.17	0.41
EO 2	2.35	2.19	1.36	2.59	2.22	1.01
EO 3	2.40	1.96	0.80	1.24	0.56	0.94
EO 4	1.33	2.74	1.78	1.53	0.49	0.66
EO 5	3.58	nd	1.90	1.39	7.43	0.51
EO 6	2.63	1.58	1.98	1.42	0.32	0.59
EO 7	2.70	2.45	2.13	0.48	0.86	0.60
EO 8	2.74	nd	1.82	0.55	0.63	0.77
EO 9	3.18	2.69	1.11	0.38	0.50	1.76
EO 10	2.70	2.57	1.25	0.93	0.77	2.08
EO 11	2.44	3.26	1.81	1.42	0.42	1.98
EO 12	4.42	2.60	1.25	0.12	1.47	1.75
EO 13	1.55	0.65	1.34	3.34	1.49	2.82
EO 14	1.49	1.89	1.29	0.73	0.52	1.90
EO 15	1.31	1.96	1.89	1.49	0.16	2.43
EO 16	1.37	2.28	0.72	nd	2.15	3.74
EO 17	0.24	1.11	0.45	0.05	0.31	2.24
EO 18	1.37	1.08	nd	1.05	1.87	0.46
					Total	494.25

Table 31f
AE Raw Data– Surface Water

	SDA05-SW-08					
	C12	C13	C14	C15	C16	C18
EO 0	8.42	5.39	5.52	5.62	75.56	137.03
EO 1	1.59	2.81	0.64	0.74	0.28	0.46
EO 2	1.93	4.08	1.09	1.40	0.37	1.01
EO 3	2.99	9.92	1.68	2.27	1.49	1.36
EO 4	2.58	6.80	0.45	1.75	1.33	2.15
EO 5	5.34	3.45	1.12	1.99	0.89	2.92
EO 6	4.52	6.89	2.50	2.21	1.44	3.34
EO 7	4.79	6.46	1.38	0.83	2.27	3.79
EO 8	5.61	3.18	2.25	1.72	2.29	5.92
EO 9	7.08	6.72	2.21	1.67	3.03	7.12
EO 10	6.24	5.40	1.30	1.79	3.50	7.22
EO 11	7.83	6.22	2.51	1.68	3.98	10.47
EO 12	6.25	5.56	1.73	nd	3.91	9.91
EO 13	5.77	4.22	1.96	2.20	3.46	10.96
EO 14	6.48	5.02	1.93	0.57	4.15	10.16
EO 15	4.87	4.72	2.02	3.38	4.71	10.81
EO 16	4.16	2.61	1.46	1.12	2.91	8.24
EO 17	3.83	1.26	2.00	0.08	2.89	7.14
EO 18	1.89	0.33	0.55	0.16	2.42	5.19
					Total	614.77

	SDA05-SW-08 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	15.80	11.75	11.96	10.30	48.05	565.03
EO 1	3.56	2.67	1.39	1.02	0.18	0.40
EO 2	4.63	5.41	2.31	10.79	nd	1.01
EO 3	5.50	6.12	3.32	1.80	1.08	0.51
EO 4	4.13	11.98	1.20	2.84	0.73	1.45
EO 5	9.36	3.56	4.55	3.26	0.57	1.43
EO 6	8.37	8.08	5.19	3.57	0.41	1.97
EO 7	10.47	9.32	5.94	2.40	0.56	2.00
EO 8	12.86	8.16	6.80	3.00	0.99	2.66
EO 9	14.86	3.82	8.18	2.85	1.18	4.12
EO 10	11.89	6.67	7.92	2.64	0.94	4.64
EO 11	11.07	6.68	6.08	2.13	1.82	7.47
EO 12	6.39	4.06	3.70	1.92	1.56	6.54
EO 13	3.64	2.08	2.04	1.14	1.52	7.07
EO 14	1.88	0.79	1.01	0.62	1.01	5.66
EO 15	0.79	0.77	0.44	nd	nd	5.47
EO 16	0.21	nd	0.30	nd	0.69	4.27
EO 17	nd	nd	nd	nd	0.35	3.25
EO 18	0.26	nd	nd	nd	0.50	2.21
					Total	1029.57

Table 31g
AE Raw Data– Surface Water

	SDA05-SW-09					
	C12	C13	C14	C15	C16	C18
EO 0	13.22	10.60	10.17	8.54	31.13	107.39
EO 1	2.21	1.75	1.07	1.18	0.15	0.42
EO 2	2.66	3.61	1.44	14.11	0.22	1.01
EO 3	3.92	3.07	1.39	0.74	0.74	0.33
EO 4	2.44	4.08	0.56	1.11	1.24	0.44
EO 5	5.67	0.11	2.38	1.02	0.61	0.65
EO 6	3.98	3.30	1.87	1.20	0.33	0.92
EO 7	4.38	6.94	1.79	0.07	0.34	0.82
EO 8	5.33	1.51	2.16	0.39	0.33	1.02
EO 9	5.72	nd	2.47	0.64	0.66	1.84
EO 10	4.12	1.49	2.06	0.76	0.51	2.23
EO 11	4.26	3.34	2.56	0.76	0.33	2.65
EO 12	3.11	1.67	1.46	0.85	0.75	2.39
EO 13	1.81	1.77	1.32	1.04	0.61	2.65
EO 14	1.43	0.85	0.94	0.84	0.51	2.05
EO 15	1.01	0.51	0.74	nd	0.03	3.17
EO 16	0.61	nd	0.39	nd	0.37	2.40
EO 17	0.11	nd	0.05	nd	0.21	2.56
EO 18	0.28	nd	nd	0.07	0.43	1.70
					Total	355.09

	SDA05-SW-10					
	C12	C13	C14	C15	C16	C18
EO 0	10.88	10.50	7.36	9.35	30.36	104.96
EO 1	1.81	1.24	0.56	0.68	0.13	0.45
EO 2	2.09	4.06	1.32	15.00	0.25	1.01
EO 3	2.69	4.92	1.68	0.80	1.08	0.27
EO 4	1.91	3.71	0.55	1.05	0.50	1.00
EO 5	4.66	nd	2.10	1.40	0.33	0.55
EO 6	3.41	2.70	1.94	1.07	0.23	1.09
EO 7	4.38	6.44	1.72	nd	0.32	1.04
EO 8	4.46	0.43	2.04	0.35	0.38	1.50
EO 9	4.65	nd	2.00	0.18	0.86	2.04
EO 10	3.06	0.33	1.12	0.31	0.71	2.53
EO 11	3.02	1.39	1.22	0.68	0.55	3.01
EO 12	1.90	0.51	0.85	nd	0.43	2.46
EO 13	0.56	0.32	0.46	0.28	0.58	2.83
EO 14	0.49	nd	0.36	0.21	0.17	1.78
EO 15	0.31	0.26	0.26	nd	0.07	2.15
EO 16	0.06	nd	0.09	0.04	0.09	1.68
EO 17	nd	nd	nd	nd	nd	1.25
EO 18	0.33	nd	nd	nd	0.25	0.66
					Total	314.09

Table 31h
AE Raw Data– Surface Water

	SDA05-SW-11					
	C12	C13	C14	C15	C16	C18
EO 0	16.49	16.59	10.27	13.92	28.00	67.69
EO 1	4.98	6.68	2.15	2.61	0.27	0.54
EO 2	2.82	4.50	2.15	15.32	0.55	1.01
EO 3	1.96	1.74	1.51	2.07	0.17	0.79
EO 4	0.88	1.76	0.65	1.99	0.38	0.42
EO 5	1.90	nd	1.58	1.72	0.50	0.54
EO 6	0.48	1.17	1.16	1.37	0.48	1.16
EO 7	0.46	1.08	1.14	0.16	0.59	1.10
EO 8	0.91	5.29	0.94	0.03	0.53	1.10
EO 9	0.93	nd	0.87	0.05	0.60	1.92
EO 10	0.33	nd	0.73	6.77	0.75	2.28
EO 11	0.70	nd	0.40	1.38	0.69	2.45
EO 12	2.24	nd	0.42	4.60	0.39	2.67
EO 13	0.15	nd	0.49	0.39	0.68	3.57
EO 14	0.66	nd	1.61	1.01	0.74	3.04
EO 15	0.82	0.32	1.26	0.89	1.06	6.80
EO 16	0.71	nd	0.47	1.96	0.41	2.14
EO 17	0.68	0.03	0.55	0.27	0.35	2.41
EO 18	0.65	nd	0.38	0.54	0.62	1.77
					Total	304.80

	SDA05-SW-12					
	C12	C13	C14	C15	C16	C18
EO 0	16.78	13.43	11.50	15.41	43.14	176.42
EO 1	4.31	2.76	1.19	0.62	0.22	0.44
EO 2	4.09	5.40	2.47	11.97	0.29	0.75
EO 3	4.10	5.23	2.26	1.79	2.16	0.61
EO 4	2.05	4.54	1.07	0.97	0.53	0.98
EO 5	5.54	nd	2.52	1.98	0.45	0.67
EO 6	4.17	2.51	2.60	1.50	0.49	0.94
EO 7	5.67	2.81	3.80	0.19	0.98	0.84
EO 8	7.19	5.94	6.37	0.43	0.64	1.44
EO 9	8.10	3.14	7.80	1.44	1.09	2.14
EO 10	6.87	1.64	6.10	0.48	1.00	2.55
EO 11	7.21	2.78	7.35	nd	1.31	3.31
EO 12	3.85	0.59	4.27	0.39	0.51	2.80
EO 13	1.58	1.14	1.53	0.72	0.48	2.79
EO 14	1.52	0.54	0.32	0.02	0.34	1.36
EO 15	0.50	1.33	0.28	nd	nd	2.04
EO 16	0.50	0.45	0.43	0.12	0.15	1.58
EO 17	0.26	0.15	0.69	nd	nd	2.02
EO 18	nd	0.22	nd	0.31	0.50	1.12
					Total	498.82

Table 31i
AE Raw Data– Surface Water

	SDA05-SW-13					
	C12	C13	C14	C15	C16	C18
EO 0	17.29	19.05	19.95	11.58	290.50	532.47
EO 1	2.82	4.74	1.80	1.84	0.35	0.79
EO 2	3.86	6.27	2.23	22.83	0.90	2.65
EO 3	3.72	6.12	3.07	2.11	2.29	1.77
EO 4	2.33	5.85	1.08	2.15	0.33	1.93
EO 5	5.38	0.58	2.93	2.60	0.89	1.43
EO 6	4.12	2.84	3.04	2.10	0.85	1.72
EO 7	4.44	2.43	3.30	1.02	1.37	1.77
EO 8	4.66	0.44	3.73	1.12	1.02	2.40
EO 9	4.54	3.53	3.69	1.45	1.35	3.65
EO 10	3.52	1.90	3.08	0.70	1.29	4.41
EO 11	4.53	3.94	3.49	0.88	1.70	6.69
EO 12	3.00	3.54	2.94	1.77	1.86	6.52
EO 13	1.58	1.96	1.91	0.97	2.23	7.64
EO 14	1.39	1.58	1.01	0.59	1.89	7.97
EO 15	0.81	1.81	0.33	nd	2.11	8.54
EO 16	0.37	2.68	0.55	1.23	1.88	8.82
EO 17	0.20	0.20	0.36	nd	0.92	7.63
EO 18	0.46	0.85	nd	0.07	1.80	6.48
					Total	1183.62

	SDA05-SW-14					
	C12	C13	C14	C15	C16	C18
EO 0	12.68	15.82	10.04	11.67	43.30	129.78
EO 1	3.32	2.21	0.96	0.81	0.22	0.54
EO 2	3.27	2.04	1.00	1.38	0.57	0.86
EO 3	2.90	5.84	1.64	0.36	2.58	0.80
EO 4	1.81	3.20	0.46	0.65	0.21	0.92
EO 5	4.68	nd	1.31	1.89	0.44	0.76
EO 6	3.16	1.01	1.05	0.34	0.46	1.19
EO 7	4.18	1.33	1.32	nd	0.89	1.25
EO 8	4.07	2.94	1.87	nd	0.76	1.61
EO 9	4.14	0.01	2.41	nd	1.01	1.95
EO 10	3.75	nd	2.37	nd	0.74	1.98
EO 11	3.68	0.67	2.29	nd	1.00	3.25
EO 12	1.43	0.54	0.97	0.31	0.77	2.32
EO 13	0.66	0.55	0.97	0.25	0.50	2.80
EO 14	0.25	0.28	0.50	0.02	0.15	1.78
EO 15	0.55	0.85	0.33	nd	0.53	2.26
EO 16	0.48	nd	0.29	0.28	0.13	1.89
EO 17	nd	0.12	nd	nd	0.31	1.33
EO 18	0.47	0.62	nd	0.56	0.89	0.38
					Total	354.89

Table 31j
AE Raw Data– Surface Water

	SDA05-SW-15					
	C12	C13	C14	C15	C16	C18
EO 0	23.92	52.50	27.96	122.62	452.90	840.77
EO 1	7.67	5.07	1.98	1.61	0.50	1.03
EO 2	9.52	45.70	8.87	307.95	0.40	1.36
EO 3	8.26	6.10	3.25	41.04	2.04	1.42
EO 4	4.28	6.19	1.18	1.26	0.46	2.11
EO 5	7.71	1.39	2.38	2.49	0.87	1.24
EO 6	5.33	3.28	1.82	1.70	0.89	2.12
EO 7	4.66	2.84	1.79	0.11	1.19	2.09
EO 8	5.46	0.65	1.67	0.18	1.36	3.38
EO 9	3.68	2.15	1.17	0.27	1.49	4.67
EO 10	2.75	3.31	0.58	0.42	2.51	5.93
EO 11	3.63	2.55	0.96	0.38	4.15	10.40
EO 12	1.33	1.15	0.64	0.68	3.64	8.77
EO 13	0.40	2.37	0.37	0.42	3.80	12.06
EO 14	0.59	0.92	0.12	0.55	4.77	15.49
EO 15	0.50	3.37	1.33	nd	5.96	18.05
EO 16	1.59	2.78	0.64	0.24	5.76	16.03
EO 17	0.58	0.97	0.87	nd	5.88	16.84
EO 18	1.19	1.77	0.31	nd	16.67	14.68
					Total	2271.65

Table 32a
AE Raw Data– Pore Water

	SDA05-PW-02					
	C12	C13	C14	C15	C16	C18
EO 0	40.660	27.395	28.478	38.256	72.653	93.664
EO 1	10.140	6.650	2.413	1.279	0.199	0.134
EO 2	12.070	9.908	2.822	10.072	0.709	0.416
EO 3	18.036	8.685	2.345	1.622	0.185	0.624
EO 4	9.864	9.960	0.896	0.980	0.667	0.361
EO 5	19.714	5.177	1.733	0.984	1.155	1.051
EO 6	10.416	3.536	6.245	0.655	0.121	0.575
EO 7	8.265	2.555	0.808	0.269	0.331	0.472
EO 8	3.409	0.980	1.139	0.265	0.188	0.656
EO 9	2.468	nd	1.465	0.278	0.406	0.855
EO 10	2.193	1.809	1.107	0.244	0.497	1.007
EO 11	1.198	0.648	0.881	0.584	0.362	1.405
EO 12	0.742	0.392	0.815	0.207	0.405	1.421
EO 13	0.523	0.649	0.412	0.392	0.304	1.257
EO 14	0.294	0.085	0.234	0.179	nd	0.463
EO 15	0.240	0.557	0.322	0.061	nd	0.605
EO 16	0.204	nd	0.079	0.035	nd	0.596
EO 17	0.021	nd	nd	nd	nd	0.377
EO 18	0.193	0.022	nd	nd	0.058	0.334
					Total	512.722

	SDA05-PW-02 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	97.738	60.680	70.313	83.962	197.883	119.367
EO 1	31.461	17.884	6.125	4.668	0.526	0.284
EO 2	40.554	25.923	6.919	14.360	8.642	1.010
EO 3	62.603	31.965	7.128	6.525	0.384	0.730
EO 4	40.222	37.713	3.964	3.451	1.348	1.303
EO 5	69.613	31.251	5.778	3.582	0.440	1.016
EO 6	42.976	17.206	9.324	2.791	0.266	0.680
EO 7	27.738	10.628	2.388	1.142	0.512	1.109
EO 8	14.231	3.928	1.895	1.879	0.443	2.657
EO 9	4.756	nd	1.906	1.053	1.021	1.562
EO 10	5.202	5.857	0.889	1.303	1.355	1.600
EO 11	2.177	2.376	3.060	1.230	1.055	2.348
EO 12	1.241	2.294	1.677	0.492	0.786	2.532
EO 13	0.151	1.996	1.056	0.922	1.238	2.904
EO 14	1.559	nd	1.574	0.607	1.269	3.072
EO 15	0.798	2.463	0.111	0.353	0.440	3.396
EO 16	1.107	nd	0.584	0.260	1.239	2.673
EO 17	0.256	nd	0.495	nd	0.635	3.022
EO 18	1.299	nd	nd	0.480	0.140	1.045
					Total	1324.019

Table 32b
AE Raw Data– Pore Water

	SDA05-PW-03					
	C12	C13	C14	C15	C16	C18
EO 0	162.521	180.126	78.439	131.942	111.229	85.310
EO 1	40.832	41.250	8.208	5.115	0.219	0.230
EO 2	68.778	49.070	9.933	7.946	0.666	1.007
EO 3	117.057	80.575	11.905	9.186	0.208	1.173
EO 4	85.132	98.502	7.639	9.600	2.139	0.887
EO 5	207.148	95.566	12.474	7.267	0.604	0.561
EO 6	157.731	82.008	17.102	4.734	0.452	1.315
EO 7	119.569	53.848	5.607	3.155	0.440	1.026
EO 8	67.241	22.079	4.567	2.595	0.659	1.438
EO 9	33.316	8.237	2.865	2.494	1.318	3.106
EO 10	24.390	6.191	2.438	3.297	1.540	3.123
EO 11	18.162	7.752	2.837	1.553	1.435	4.537
EO 12	10.036	5.277	2.494	2.307	2.021	4.988
EO 13	2.136	2.120	1.304	1.466	1.794	4.602
EO 14	1.821	0.492	1.292	nd	1.343	5.182
EO 15	1.443	1.322	0.493	0.303	1.071	5.191
EO 16	1.359	0.531	0.712	1.125	1.190	4.079
EO 17	0.401	0.451	0.660	0.422	1.712	4.356
EO 18	0.991	0.739	0.132	1.103	1.456	2.686
					Total	2489.200

	SDA05-PW-04					
	C12	C13	C14	C15	C16	C18
EO 0	174.920	47.231	28.843	25.479	40.424	112.697
EO 1	45.813	14.708	4.542	1.558	0.201	0.361
EO 2	63.010	22.765	6.820	3.136	0.124	1.008
EO 3	87.943	33.796	8.358	2.414	0.207	0.288
EO 4	46.961	37.841	3.748	1.881	0.594	0.814
EO 5	79.813	14.357	5.567	1.276	0.808	0.626
EO 6	39.593	8.924	4.896	0.872	0.206	0.966
EO 7	22.749	3.477	1.791	nd	0.379	0.835
EO 8	10.521	0.578	1.297	0.790	0.746	0.837
EO 9	5.619	nd	1.017	nd	0.958	2.014
EO 10	2.530	nd	0.555	0.006	1.079	1.983
EO 11	1.430	1.599	0.699	nd	1.059	2.729
EO 12	1.296	0.871	1.022	0.616	0.538	3.952
EO 13	nd	0.748	0.489	0.104	0.508	4.258
EO 14	1.124	0.091	0.452	0.502	0.054	2.944
EO 15	0.303	1.000	0.622	nd	0.683	2.512
EO 16	2.037	0.330	0.844	nd	0.112	2.095
EO 17	0.382	0.464	0.446	0.048	0.678	2.091
EO 18	1.641	nd	0.158	nd	0.499	1.066
					Total	1081.241

Table 32c
AE Raw Data– Pore Water

	SDA05-PW-06					
	C12	C13	C14	C15	C16	C18
EO 0	235.790	220.914	61.002	37.222	30.276	118.122
EO 1	101.627	93.086	13.275	7.896	0.217	0.349
EO 2	242.347	131.319	20.546	10.924	0.366	1.006
EO 3	389.402	206.026	27.446	14.760	0.273	0.282
EO 4	273.882	252.027	14.806	13.970	1.204	0.926
EO 5	569.993	248.000	25.336	7.846	0.510	0.306
EO 6	347.130	147.239	13.260	5.322	0.435	0.775
EO 7	233.028	71.880	7.486	2.358	0.414	0.753
EO 8	125.937	36.234	5.231	2.064	0.796	1.379
EO 9	57.048	10.715	2.848	0.609	0.924	1.927
EO 10	25.338	8.694	2.588	1.171	1.296	1.851
EO 11	14.322	6.354	2.264	0.741	1.273	3.118
EO 12	9.419	3.163	0.795	0.104	1.461	3.997
EO 13	2.032	2.452	0.997	0.599	1.514	4.097
EO 14	1.458	0.468	0.773	0.619	1.458	3.446
EO 15	1.402	1.421	0.109	0.584	0.701	4.004
EO 16	1.578	0.159	nd	2.158	1.690	2.986
EO 17	0.957	0.828	0.746	nd	1.756	2.258
EO 18	1.093	0.534	nd	nd	1.023	2.076
					Total	4584.996

	SDA05-PW-08					
	C12	C13	C14	C15	C16	C18
EO 0	353.101	79.020	68.920	36.189	118.146	252.309
EO 1	116.649	18.313	9.948	2.234	0.295	0.299
EO 2	70.100	19.459	6.955	5.066	0.902	1.018
EO 3	81.023	26.560	9.306	3.504	0.558	0.884
EO 4	52.484	41.259	4.865	5.793	3.830	1.943
EO 5	119.398	34.361	8.520	4.009	5.292	0.955
EO 6	81.614	28.595	7.433	3.399	0.851	1.236
EO 7	59.765	16.588	5.158	2.226	0.709	1.154
EO 8	38.816	7.108	4.631	0.555	1.314	1.594
EO 9	20.614	4.782	3.666	1.350	0.966	2.270
EO 10	10.872	1.053	1.604	1.558	1.693	2.644
EO 11	6.977	2.375	1.974	nd	1.696	4.341
EO 12	3.388	0.856	1.412	nd	2.145	3.931
EO 13	0.932	0.778	0.096	0.798	1.407	4.574
EO 14	0.754	0.109	0.245	0.288	0.714	4.305
EO 15	2.005	0.986	0.225	3.245	0.428	3.604
EO 16	1.018	0.900	0.737	0.084	0.538	4.075
EO 17	nd	0.340	0.164	0.174	1.788	2.701
EO 18	1.003	0.328	0.257	0.333	1.171	1.632
					Total	1951.116

Table 32d
AE Raw Data– Pore Water

	SDA05-PW-08					
	C12	C13	C14	C15	C16	C18
EO 0	184.369	46.363	45.168	17.590	46.083	96.104
EO 1	82.608	15.693	8.583	2.234	0.343	0.405
EO 2	85.961	20.831	7.874	2.678	0.456	1.010
EO 3	105.350	31.471	7.722	2.374	0.395	0.631
EO 4	58.318	38.717	4.200	3.021	2.501	1.266
EO 5	121.054	26.741	6.299	2.081	1.568	0.637
EO 6	64.928	16.192	5.103	0.797	0.379	0.687
EO 7	43.578	8.085	2.185	0.112	0.555	1.202
EO 8	22.285	2.448	2.326	nd	0.944	1.211
EO 9	10.698	0.463	1.458	nd	1.367	2.441
EO 10	4.154	0.158	0.736	0.380	0.965	2.210
EO 11	2.603	1.070	0.366	nd	0.900	3.693
EO 12	1.467	0.542	0.580	0.558	0.971	3.355
EO 13	nd	0.548	0.087	0.979	1.363	3.900
EO 14	0.276	0.103	0.174	0.213	1.448	3.244
EO 15	0.670	0.651	0.658	2.119	0.419	4.240
EO 16	0.638	0.163	0.366	0.737	2.157	3.999
EO 17	0.773	0.340	0.102	0.564	1.591	3.303
EO 18	nd	0.334	0.525	1.056	1.165	3.118
					Total	1334.874

	SDA05-PW-10					
	C12	C13	C14	C15	C16	C18
EO 0	43.111	36.689	22.454	66.100	115.880	211.828
EO 1	3.715	2.466	2.428	2.731	0.687	1.742
EO 2	3.411	1.748	0.970	1.488	0.048	1.318
EO 3	4.721	4.070	1.726	1.257	0.540	0.206
EO 4	4.638	14.830	0.486	0.561	1.256	2.012
EO 5	7.741	0.000	1.640	3.891	1.448	5.491
EO 6	nd	3.053	2.292	2.545	1.425	6.864
EO 7	nd	8.349	1.368	nd	3.523	8.115
EO 8	nd	nd	2.111	nd	4.841	11.270
EO 9	0.194	nd	0.818	nd	5.237	15.826
EO 10	nd	nd	nd	nd	4.852	18.194
EO 11	3.468	nd	nd	nd	3.677	26.398
EO 12	2.858	nd	nd	nd	5.083	23.670
EO 13	nd	1.483	nd	0.599	3.077	25.704
EO 14	1.434	nd	nd	nd	2.061	20.363
EO 15	2.122	2.061	0.728	nd	3.118	26.812
EO 16	1.107	nd	0.973	nd	4.975	26.242
EO 17	nd	nd	nd	nd	4.520	25.474
EO 18	2.194	nd	nd	nd	5.808	17.540
					Total	919.756

Table 32e
AE Raw Data– Pore Water

	SDA05-PW-12					
	C12	C13	C14	C15	C16	C18
EO 0	29.995	25.006	16.002	11.011	26.510	63.536
EO 1	19.034	13.775	4.105	2.828	0.204	0.250
EO 2	44.819	21.655	6.340	2.530	0.119	1.006
EO 3	60.288	31.055	7.789	2.293	1.386	0.284
EO 4	28.085	28.215	2.560	2.483	0.168	0.248
EO 5	39.006	11.345	3.162	1.540	2.017	0.391
EO 6	15.438	6.253	1.691	0.999	0.076	0.625
EO 7	8.097	2.360	1.250	0.061	0.295	0.429
EO 8	3.605	nd	1.083	nd	0.523	0.905
EO 9	1.023	nd	1.364	nd	0.628	1.220
EO 10	0.689	nd	nd	nd	0.534	1.348
EO 11	0.433	nd	0.324	0.060	0.470	2.157
EO 12	nd	0.375	nd	1.290	0.169	2.221
EO 13	nd	0.123	nd	nd	0.358	1.833
EO 14	0.278	nd	0.305	0.323	0.055	1.442
EO 15	0.489	0.401	0.076	nd	nd	1.690
EO 16	0.182	nd	0.397	1.110	0.436	1.048
EO 17	0.194	nd	0.298	nd	0.786	1.248
EO 18	0.417	nd	nd	0.692	0.750	0.785
					Total	584.752

	SDA05-PW-13					
	C12	C13	C14	C15	C16	C18
EO 0	637.483	110.927	49.218	14.537	33.449	132.553
EO 1	97.662	32.181	8.823	3.046	0.208	0.417
EO 2	73.742	26.416	7.104	3.155	0.070	1.061
EO 3	108.061	40.669	7.618	2.613	0.161	0.391
EO 4	67.487	55.859	5.344	4.194	0.164	0.516
EO 5	124.244	38.731	9.188	2.408	2.567	0.463
EO 6	75.639	25.758	4.253	1.669	0.342	0.625
EO 7	47.955	11.117	3.649	0.171	0.616	0.685
EO 8	21.513	6.216	2.694	0.179	0.351	0.871
EO 9	8.861	nd	1.455	nd	0.868	1.760
EO 10	4.203	nd	0.746	nd	0.790	1.677
EO 11	2.358	0.137	0.228	0.164	0.850	2.629
EO 12	0.754	0.800	0.469	nd	0.991	3.068
EO 13	nd	0.528	0.196	1.433	0.549	3.370
EO 14	0.808	nd	0.111	0.871	0.199	2.184
EO 15	0.355	0.933	0.566	nd	0.284	2.807
EO 16	0.734	nd	0.645	nd	0.453	2.392
EO 17	0.668	nd	0.296	1.186	0.426	1.477
EO 18	0.744	0.015	nd	1.479	0.291	1.392
					Total	1967.237

Table 32f
AE Raw Data– Pore Water

	SDA05-PW-14					
	C12	C13	C14	C15	C16	C18
EO 0	117.340	39.337	17.985	12.109	27.164	85.432
EO 1	37.813	12.135	4.242	1.814	0.220	0.339
EO 2	46.496	11.913	3.776	1.344	0.183	1.059
EO 3	45.255	12.881	3.752	1.954	0.964	0.331
EO 4	18.870	13.548	1.331	1.308	2.043	0.337
EO 5	25.700	3.815	1.866	0.676	0.416	0.823
EO 6	10.521	3.353	1.186	0.087	0.347	1.332
EO 7	4.940	1.443	0.640	nd	0.319	1.048
EO 8	1.920	nd	0.509	nd	0.832	1.415
EO 9	0.774	nd	0.268	nd	1.038	1.781
EO 10	0.116	nd	nd	nd	1.425	2.415
EO 11	0.660	0.530	0.209	nd	1.015	3.887
EO 12	0.092	nd	0.005	0.436	1.183	3.438
EO 13	nd	1.232	nd	0.454	1.251	4.001
EO 14	0.553	0.988	0.208	0.409	0.633	4.054
EO 15	0.808	0.336	0.270	nd	0.640	3.572
EO 16	0.402	1.121	0.223	nd	0.871	2.454
EO 17	0.415	0.656	nd	nd	0.852	2.396
EO 18	0.702	0.892	0.123	nd	1.212	1.037
					Total	638.505

	SDA05-PW-15					
	C12	C13	C14	C15	C16	C18
EO 0	108.306	26.349	18.696	14.742	44.256	136.871
EO 1	45.829	9.599	4.498	1.583	0.288	0.329
EO 2	48.898	12.136	4.720	2.046	0.145	1.006
EO 3	58.174	19.592	4.900	1.716	0.268	0.643
EO 4	26.594	20.266	2.611	2.049	0.289	0.623
EO 5	39.715	6.943	3.079	1.409	0.845	0.740
EO 6	17.151	5.070	2.707	0.514	0.307	0.932
EO 7	7.959	1.889	1.567	nd	0.487	0.863
EO 8	2.733	nd	1.031	nd	0.542	1.259
EO 9	1.747	nd	0.981	nd	1.256	2.078
EO 10	0.762	nd	0.187	nd	1.611	1.992
EO 11	1.039	0.405	1.222	0.402	1.217	2.788
EO 12	0.248	nd	0.173	0.118	0.986	2.015
EO 13	0.171	0.339	nd	0.742	0.850	1.942
EO 14	0.438	nd	0.675	0.876	0.502	1.765
EO 15	0.541	0.618	0.387	0.678	0.162	2.311
EO 16	0.143	nd	0.437	1.291	0.859	2.416
EO 17	0.473	nd	nd	nd	0.232	2.118
EO 18	0.546	nd	nd	0.761	0.431	1.132
					Total	760.831

Table 33
AE Raw Data– Sediment

	Initial Trinity Sediment					
	C12	C13	C14	C15	C16	C18
EO 0	4.426	13.509	3.249	6.733	9.752	43.803
EO 1	1.642	3.299	0.447	0.271	0.106	0.134
EO 2	1.435	0.910	0.271	0.428	0.006	0.270
EO 3	0.513	0.484	0.181	0.260	0.044	0.262
EO 4	0.110	0.348	0.056	0.084	0.213	0.080
EO 5	0.295	nd	0.155	0.305	1.462	0.226
EO 6	nd	0.184	0.436	0.190	0.060	0.378
EO 7	nd	0.306	0.133	nd	0.073	2.235
EO 8	0.093	nd	0.422	nd	0.019	0.144
EO 9	0.854	0.088	0.653	1.146	0.141	0.313
EO 10	0.136	nd	0.001	0.227	0.241	0.367
EO 11	1.093	0.239	0.343	0.173	0.513	0.393
EO 12	1.269	1.255	0.407	3.061	16.409	0.312
EO 13	0.198	0.468	0.390	0.161	0.107	0.510
EO 14	0.341	1.391	0.718	0.975	nd	1.015
EO 15	0.292	0.340	0.764	0.793	0.389	3.576
EO 16	0.418	0.115	0.074	0.413	1.478	1.214
EO 17	nd	0.146	0.661	0.259	0.058	2.297
EO 18	0.116	0.202	0.047	0.412	0.208	1.294
					Total	151.919

	SDA05-SD-01					
	C12	C13	C14	C15	C16	C18
EO 0	2.935	14.051	5.314	10.054	20.867	41.855
EO 1	0.810	0.795	0.359	0.728	0.234	0.165
EO 2	0.582	1.555	0.544	0.565	0.207	0.266
EO 3	0.560	0.287	0.464	0.483	0.453	0.569
EO 4	0.126	0.511	0.104	0.385	0.288	0.667
EO 5	0.736	nd	0.077	1.959	0.270	0.387
EO 6	0.335	3.717	0.380	0.154	0.503	0.271
EO 7	0.017	2.907	0.096	nd	0.129	0.241
EO 8	0.115	1.589	0.100	0.220	0.172	0.390
EO 9	0.371	0.025	0.228	nd	0.286	0.276
EO 10	4.657	1.962	0.269	0.363	0.295	0.212
EO 11	0.216	0.601	0.024	0.483	0.084	0.391
EO 12	0.251	0.109	0.266	0.644	0.367	0.299
EO 13	0.398	0.570	0.420	0.082	0.152	0.494
EO 14	0.503	0.471	0.147	0.274	0.051	0.090
EO 15	0.249	1.032	0.569	0.353	0.028	0.291
EO 16	0.163	0.225	0.093	0.106	0.244	0.506
EO 17	0.154	0.097	0.330	0.172	0.059	0.191
EO 18	0.084	0.036	0.011	0.152	0.270	0.202
					Total	143.505

Table 33b
AE Raw Data– Sediment

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	17.038	53.291	50.581	100.644	173.053	138.769
EO 1	6.893	8.790	4.014	1.408	0.286	0.151
EO 2	4.815	5.937	2.803	12.541	0.615	0.281
EO 3	4.541	5.823	2.439	2.121	0.680	nd
EO 4	2.606	7.824	1.672	2.840	0.745	0.587
EO 5	7.198	7.357	4.118	3.498	3.965	2.345
EO 6	7.635	10.933	4.033	4.796	0.870	0.461
EO 7	9.446	11.192	5.820	5.645	0.427	0.695
EO 8	10.188	13.271	6.555	5.442	0.422	0.773
EO 9	12.206	10.861	8.258	6.123	0.639	0.907
EO 10	8.449	8.140	7.319	5.345	0.835	1.164
EO 11	9.471	13.703	7.080	4.784	0.489	2.078
EO 12	7.889	12.781	6.526	4.464	0.701	1.886
EO 13	6.084	9.503	4.978	3.661	0.640	2.351
EO 14	4.512	9.872	3.855	2.635	0.602	1.930
EO 15	4.212	6.488	3.036	2.315	0.211	2.069
EO 16	1.934	3.680	1.725	1.241	0.556	1.731
EO 17	2.492	2.445	1.564	0.838	0.580	1.900
EO 18	1.164	1.604	0.559	0.649	0.411	1.405
					Total	978.402

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	24.268	59.436	45.997	88.876	85.514	104.676
EO 1	7.364	10.861	5.239	1.338	0.196	0.132
EO 2	5.547	6.767	2.622	8.996	0.431	0.279
EO 3	4.345	4.686	2.634	1.637	0.310	0.843
EO 4	2.842	8.482	1.714	2.525	0.427	0.665
EO 5	7.581	8.113	4.362	3.354	4.353	2.161
EO 6	7.893	10.549	4.094	4.884	0.351	0.307
EO 7	9.215	12.019	5.077	4.948	0.295	0.307
EO 8	10.241	12.867	6.590	4.720	0.406	1.317
EO 9	11.685	13.863	7.346	5.309	0.464	0.766
EO 10	8.144	10.787	6.936	5.409	0.441	0.780
EO 11	9.477	13.944	7.389	4.745	0.461	1.036
EO 12	7.678	11.670	6.000	4.617	0.282	1.014
EO 13	6.603	9.965	4.702	3.657	0.305	0.972
EO 14	4.329	10.307	3.512	2.666	0.325	1.184
EO 15	4.333	5.028	2.783	1.892	0.250	0.971
EO 16	2.418	3.479	1.747	1.268	0.372	1.123
EO 17	2.228	2.194	1.209	0.848	0.423	1.107
EO 18	0.961	1.396	0.391	0.773	0.386	0.759
					Total	842.759

Table 33c
AE Raw Data– Sediment

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	18.548	51.729	45.488	93.328	214.802	140.563
EO 1	7.301	8.345	3.978	1.319	0.183	0.113
EO 2	4.347	5.216	2.456	12.908	0.629	0.280
EO 3	4.824	6.163	2.556	1.238	0.130	0.207
EO 4	2.526	7.627	1.611	2.854	0.371	0.800
EO 5	6.288	7.233	4.045	4.107	3.511	1.133
EO 6	7.340	10.304	3.672	4.631	13.580	0.710
EO 7	9.301	12.658	5.160	5.424	0.669	0.598
EO 8	10.710	14.696	6.525	4.931	0.334	0.486
EO 9	11.259	14.134	8.379	6.388	0.763	0.503
EO 10	8.040	6.119	7.499	5.419	0.930	0.419
EO 11	8.549	12.525	7.359	5.807	0.942	0.678
EO 12	7.558	11.265	5.997	5.202	0.955	0.521
EO 13	5.477	9.762	4.859	4.672	0.905	0.531
EO 14	3.782	6.948	3.773	3.976	0.736	0.503
EO 15	2.994	4.698	2.578	2.158	1.127	0.486
EO 16	2.031	3.488	1.879	3.044	1.269	0.758
EO 17	2.224	2.308	2.445	1.947	0.819	0.668
EO 18	1.224	2.050	0.546	0.331	0.621	0.472
					Total	1005.786

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	24.888	60.147	46.652	85.975	186.906	127.352
EO 1	7.553	9.697	4.380	1.384	0.242	0.119
EO 2	5.484	6.465	2.961	12.947	0.591	0.280
EO 3	4.391	5.734	2.266	0.783	0.090	0.192
EO 4	2.600	7.929	1.743	3.132	0.519	1.098
EO 5	7.584	7.967	4.867	4.146	4.475	1.669
EO 6	7.446	11.455	4.096	5.654	12.998	0.401
EO 7	9.596	12.176	5.862	5.225	0.523	0.301
EO 8	10.986	14.212	8.527	6.347	0.459	1.308
EO 9	11.011	15.226	8.652	6.279	0.480	0.645
EO 10	8.591	9.553	8.057	5.867	0.600	0.681
EO 11	9.329	15.255	8.264	5.106	0.338	0.708
EO 12	7.957	13.094	6.929	4.292	0.530	0.714
EO 13	5.734	10.345	5.867	4.110	0.559	0.633
EO 14	4.579	10.569	4.073	3.008	0.347	0.352
EO 15	3.423	6.779	3.173	1.740	0.058	0.536
EO 16	2.175	2.898	2.082	2.548	0.273	0.638
EO 17	2.157	2.367	2.269	0.752	0.422	0.368
EO 18	1.040	1.472	0.787	0.485	0.336	0.370
					Total	1000.263

Table 33d
AE Raw Data– Sediment

	SDA05-SD-03					
	C12	C13	C14	C15	C16	C18
EO 0	32.671	143.890	75.658	205.783	151.434	90.880
EO 1	9.630	10.673	3.216	2.121	0.131	0.558
EO 2	7.773	11.917	4.336	5.040	0.475	0.323
EO 3	7.919	11.574	4.330	3.649	0.406	2.453
EO 4	5.535	16.992	3.422	7.872	0.606	4.123
EO 5	15.379	17.391	2.581	9.692	0.725	0.807
EO 6	15.718	23.022	1.499	14.770	0.432	0.563
EO 7	21.753	25.004	14.683	15.258	1.894	0.384
EO 8	27.431	28.251	19.643	16.557	0.909	0.311
EO 9	26.859	26.021	20.757	19.127	0.843	0.696
EO 10	24.581	29.154	20.125	22.213	0.558	0.425
EO 11	27.242	34.412	22.867	19.185	0.968	0.624
EO 12	21.120	28.389	17.380	16.826	0.818	0.445
EO 13	17.557	19.307	12.921	13.455	0.503	0.451
EO 14	12.492	18.630	9.334	7.996	0.301	0.237
EO 15	8.679	13.682	5.706	8.285	0.123	0.379
EO 16	6.006	6.845	4.512	4.763	0.108	0.465
EO 17	5.472	5.340	3.870	2.683	0.309	0.573
EO 18	2.401	3.088	1.422	1.241	0.503	0.102
					Total	1681.421

	SDA05-SD-04					
	C12	C13	C14	C15	C16	C18
EO 0	1.288	6.407	2.556	10.120	12.595	53.569
EO 1	0.816	1.298	0.389	0.405	0.076	0.087
EO 2	0.572	0.407	0.259	0.385	0.070	0.240
EO 3	0.216	0.302	0.196	0.199	0.063	0.419
EO 4	0.149	0.359	0.093	0.106	0.082	0.403
EO 5	0.262	nd	0.170	0.643	0.210	0.106
EO 6	0.002	0.204	0.585	0.107	0.045	0.170
EO 7	nd	2.850	0.147	0.033	0.098	0.179
EO 8	0.025	2.121	0.181	nd	0.048	0.192
EO 9	0.529	0.107	0.285	nd	0.171	0.401
EO 10	0.118	nd	nd	nd	0.199	0.413
EO 11	0.221	nd	nd	0.472	0.145	0.594
EO 12	0.271	0.330	0.050	nd	0.189	0.550
EO 13	0.024	0.079	0.062	0.003	0.114	0.664
EO 14	0.221	0.202	0.062	0.143	0.092	0.327
EO 15	0.059	0.330	0.108	0.759	0.214	0.569
EO 16	0.161	0.013	0.182	0.257	0.195	0.533
EO 17	0.366	0.091	0.058	0.286	0.200	0.719
EO 18	0.089	0.036	nd	0.048	0.247	0.397
					Total	115.455

Table 33e
AE Raw Data– Sediment

	SDA05-SD-06					
	C12	C13	C14	C15	C16	C18
EO 0	5.297	18.751	10.178	19.597	56.080	179.367
EO 1	2.118	3.829	1.805	2.301	0.150	0.132
EO 2	5.087	8.079	2.770	9.744	0.260	0.534
EO 3	6.237	8.910	3.222	2.886	0.179	0.102
EO 4	4.026	11.458	2.129	4.730	0.550	0.178
EO 5	10.269	11.606	5.038	5.076	0.843	0.334
EO 6	12.333	16.930	4.787	6.223	0.296	0.232
EO 7	16.018	16.013	6.351	6.053	0.307	0.302
EO 8	16.752	18.262	8.306	6.105	0.402	0.566
EO 9	16.439	17.984	9.691	5.749	0.928	0.686
EO 10	15.734	17.204	11.302	6.414	0.596	1.033
EO 11	17.542	18.831	10.318	5.507	0.571	1.105
EO 12	15.645	18.128	7.894	4.218	0.444	2.006
EO 13	9.646	12.130	6.244	3.464	0.600	1.869
EO 14	6.851	9.489	4.979	3.440	0.765	2.650
EO 15	4.369	6.818	2.862	1.917	1.199	1.866
EO 16	3.012	4.090	1.731	2.695	1.679	2.295
EO 17	2.410	2.947	1.586	0.825	0.515	1.674
EO 18	1.273	1.087	0.835	0.450	0.429	1.546
					Total	858.297

	SDA05-SD-08					
	C12	C13	C14	C15	C16	C18
EO 0	8.587	38.039	14.595	28.624	40.462	108.533
EO 1	6.964	4.529	2.633	1.602	0.162	0.190
EO 2	4.565	3.759	1.897	3.267	0.429	0.603
EO 3	3.027	2.577	1.520	1.084	0.227	0.404
EO 4	1.417	5.744	0.849	1.505	0.677	1.485
EO 5	4.314	2.232	1.881	2.049	0.350	0.528
EO 6	3.293	4.096	1.907	2.166	0.279	0.373
EO 7	3.536	3.712	2.360	1.647	0.140	0.816
EO 8	4.909	3.912	3.390	1.563	0.525	0.525
EO 9	5.581	4.394	3.523	1.460	0.704	0.896
EO 10	4.235	3.883	3.306	1.677	0.399	1.208
EO 11	5.205	5.819	3.604	1.884	0.190	1.111
EO 12	5.499	5.476	3.008	1.642	1.444	1.169
EO 13	3.010	4.467	2.523	1.679	0.818	1.400
EO 14	3.162	2.819	1.888	1.835	0.380	1.223
EO 15	1.531	2.485	1.371	0.953	0.386	1.193
EO 16	1.343	1.032	1.020	1.594	0.271	1.556
EO 17	1.588	1.284	1.169	0.347	0.409	0.326
EO 18	0.541	0.355	0.656	0.434	0.200	0.628
					Total	455.656

Table 33f
AE Raw Data– Sediment

	SDA05-SD-08					
	C12	C13	C14	C15	C16	C18
EO 0	8.559	37.948	17.736	31.655	52.637	128.868
EO 1	6.807	5.892	2.463	1.702	0.271	0.197
EO 2	4.062	3.255	1.852	4.381	0.375	0.326
EO 3	2.553	2.750	1.639	1.300	0.187	0.001
EO 4	1.309	2.765	0.833	1.790	0.533	0.509
EO 5	3.274	1.927	1.992	2.056	2.219	0.535
EO 6	2.997	3.579	1.755	1.988	0.256	0.572
EO 7	3.224	3.636	2.264	1.570	0.502	0.639
EO 8	3.791	5.017	3.520	1.619	0.362	0.875
EO 9	4.915	3.674	3.518	1.647	0.804	0.732
EO 10	3.068	4.087	3.573	2.104	0.441	1.527
EO 11	4.743	5.249	3.998	2.030	0.567	0.479
EO 12	4.618	5.491	3.240	2.000	0.719	0.951
EO 13	2.222	3.916	2.763	1.989	0.690	1.799
EO 14	3.373	2.686	3.093	2.086	0.489	1.439
EO 15	1.523	2.864	1.622	0.223	0.428	1.401
EO 16	1.026	1.158	1.285	1.076	0.415	1.221
EO 17	1.426	0.379	1.397	0.634	1.380	1.495
EO 18	0.664	1.235	0.361	0.509	0.613	1.024
					Total	491.398

	SDA05-SD-08					
	C12	C13	C14	C15	C16	C18
EO 0	9.200	38.135	21.917	29.744	44.168	142.541
EO 1	8.355	3.872	3.751	3.033	0.383	0.197
EO 2	4.956	4.087	2.524	2.982	0.587	0.685
EO 3	3.653	3.768	2.126	1.758	0.258	0.791
EO 4	1.827	4.566	1.194	2.269	0.570	1.745
EO 5	4.567	3.437	2.732	2.452	0.359	1.096
EO 6	3.487	4.922	2.452	3.249	0.508	0.333
EO 7	4.494	5.925	3.471	3.272	0.286	0.826
EO 8	5.266	6.021	4.848	2.732	0.935	0.888
EO 9	6.525	4.704	5.301	3.180	1.158	0.927
EO 10	5.163	4.985	5.759	3.191	0.513	1.695
EO 11	7.321	6.826	6.295	3.081	0.493	0.874
EO 12	4.553	8.101	4.940	3.105	0.760	1.457
EO 13	3.944	5.066	4.148	2.756	1.073	1.880
EO 14	3.941	3.978	4.074	3.917	0.911	1.779
EO 15	2.496	4.111	1.982	1.431	0.304	2.073
EO 16	2.168	1.958	2.383	1.487	0.860	2.293
EO 17	1.865	1.376	1.282	0.519	0.540	1.495
EO 18	1.112	1.342	0.713	0.972	0.259	1.394
					Total	579.001

Table 33g
AE Raw Data– Sediment

	SDA05-SD-08					
	C12	C13	C14	C15	C16	C18
EO 0	7.288	16.598	12.002	17.756	38.539	129.087
EO 1	4.962	1.555	2.460	0.702	0.745	0.135
EO 2	2.907	1.912	1.609	2.590	0.238	0.336
EO 3	2.524	2.155	1.456	1.272	0.153	0.171
EO 4	1.369	2.917	0.864	1.941	0.573	0.522
EO 5	3.344	1.624	0.270	1.263	0.585	0.315
EO 6	3.363	3.062	2.004	2.154	0.454	0.164
EO 7	4.305	3.642	2.891	1.814	0.515	0.348
EO 8	5.620	3.164	4.688	1.992	0.078	0.427
EO 9	7.871	3.321	5.747	2.372	0.135	0.330
EO 10	5.515	1.760	5.628	2.992	0.454	0.500
EO 11	8.680	4.567	6.104	2.004	0.616	1.414
EO 12	7.329	6.068	4.924	2.676	1.022	0.606
EO 13	4.953	3.470	3.857	2.422	1.269	0.919
EO 14	3.161	3.096	3.567	1.273	0.705	0.273
EO 15	2.692	3.023	2.261	2.041	0.536	0.631
EO 16	1.592	1.264	1.609	0.601	0.709	0.969
EO 17	2.758	0.905	1.666	1.837	0.689	0.359
EO 18	0.952	0.550	0.407	0.161	0.591	0.489
					Total	446.309

	SDA05-SD-08					
	C12	C13	C14	C15	C16	C18
EO 0	9.872	39.283	18.905	33.866	55.016	145.848
EO 1	8.211	6.412	3.366	2.374	0.416	0.185
EO 2	5.287	3.993	2.534	3.018	0.652	0.330
EO 3	3.633	3.242	2.496	2.018	0.287	0.004
EO 4	1.747	4.438	1.366	2.918	0.322	0.473
EO 5	4.804	3.563	2.844	2.227	1.763	0.862
EO 6	3.732	5.396	2.579	2.892	0.512	0.713
EO 7	4.649	6.564	3.529	2.874	0.548	0.893
EO 8	5.778	7.495	5.469	2.059	1.004	0.677
EO 9	6.314	5.678	5.155	3.039	0.877	0.960
EO 10	5.052	7.873	5.344	3.181	0.551	1.526
EO 11	6.869	9.278	5.289	4.198	0.589	0.552
EO 12	4.882	7.410	4.582	3.728	0.715	1.477
EO 13	3.126	5.574	4.970	3.379	0.927	1.503
EO 14	3.142	3.220	4.261	2.799	1.160	1.322
EO 15	2.053	2.287	2.167	2.420	0.292	1.496
EO 16	1.825	2.515	2.101	1.594	0.807	2.537
EO 17	1.923	1.672	1.138	1.557	1.747	1.453
EO 18	1.277	1.390	0.496	0.267	0.947	1.475
					Total	603.880

Table 33h
AE Raw Data– Sediment

	SDA05-SD-10					
	C12	C13	C14	C15	C16	C18
EO 0	6.022	23.358	7.200	14.007	27.322	67.842
EO 1	1.172	0.931	0.589	0.652	0.148	0.172
EO 2	1.167	1.353	0.618	4.496	0.198	0.080
EO 3	0.474	0.420	0.425	0.950	0.109	nd
EO 4	0.282	0.531	0.113	1.558	0.617	0.462
EO 5	0.721	nd	0.257	0.525	0.757	0.323
EO 6	nd	0.354	0.246	0.170	0.224	0.342
EO 7	0.125	3.306	0.178	nd	0.175	0.290
EO 8	0.481	1.997	0.458	0.050	0.122	0.329
EO 9	0.531	0.606	0.230	0.166	0.316	0.652
EO 10	0.803	0.258	0.032	0.498	0.171	0.500
EO 11	1.088	0.856	0.222	0.131	0.355	0.355
EO 12	1.543	0.470	0.201	0.105	0.597	0.705
EO 13	0.476	2.660	0.301	0.264	0.117	0.875
EO 14	1.249	0.921	0.530	0.281	0.110	0.454
EO 15	0.700	0.690	0.329	0.513	nd	1.797
EO 16	1.013	0.035	0.374	0.337	0.885	0.442
EO 17	0.540	0.507	0.182	0.481	0.051	0.633
EO 18	0.294	0.371	0.333	nd	0.091	0.944
					Total	205.870

	SDA05-SD-12					
	C12	C13	C14	C15	C16	C18
EO 0	4.292	18.699	9.376	17.863	26.029	108.455
EO 1	3.959	6.475	2.729	2.674	0.154	0.136
EO 2	3.991	4.169	2.423	2.083	0.177	0.348
EO 3	4.085	4.579	2.812	1.976	0.214	nd
EO 4	2.437	6.364	1.697	3.137	0.507	0.539
EO 5	6.189	4.568	3.776	2.548	0.289	0.232
EO 6	7.675	5.877	4.231	2.802	0.255	0.201
EO 7	8.877	6.774	4.887	3.294	0.322	0.319
EO 8	9.515	5.027	6.860	2.466	0.350	0.309
EO 9	11.108	6.462	7.171	1.855	0.581	0.627
EO 10	9.007	6.886	9.060	3.532	0.595	0.762
EO 11	10.480	5.488	8.342	1.830	0.821	1.679
EO 12	8.897	5.110	5.830	1.547	0.593	1.368
EO 13	5.840	3.679	4.826	1.857	0.666	1.168
EO 14	3.539	2.804	3.316	1.774	0.040	0.798
EO 15	2.769	1.810	2.937	0.949	0.386	1.092
EO 16	1.265	1.647	1.080	1.317	0.196	1.183
EO 17	1.650	0.469	1.024	0.299	0.346	0.927
EO 18	1.121	0.356	0.434	0.092	0.344	0.659
					Total	494.308

Table 33i
AE Raw Data– Sediment

	SDA05-SD-13					
	C12	C13	C14	C15	C16	C18
EO 0	2.959	5.784	1.788	5.785	11.587	97.874
EO 1	1.635	2.063	0.737	0.767	0.155	0.297
EO 2	1.162	0.913	0.331	0.478	0.084	0.325
EO 3	0.519	0.414	0.149	0.164	0.110	0.078
EO 4	0.259	0.640	0.097	0.199	0.148	0.443
EO 5	0.466	nd	0.374	1.371	0.325	0.147
EO 6	0.260	0.333	0.155	0.153	0.051	0.534
EO 7	0.235	2.845	0.245	nd	0.133	0.243
EO 8	0.343	1.660	0.366	nd	0.082	0.316
EO 9	0.358	0.262	0.302	nd	0.338	0.441
EO 10	0.380	0.651	0.033	nd	0.216	0.459
EO 11	0.384	0.523	0.484	0.347	0.130	0.761
EO 12	0.282	0.223	0.141	0.142	0.176	0.670
EO 13	0.231	0.129	0.125	0.108	0.021	0.704
EO 14	0.449	0.203	0.191	0.412	0.061	0.399
EO 15	0.333	0.305	0.117	0.210	0.058	0.768
EO 16	0.392	0.058	0.140	0.142	0.038	0.626
EO 17	nd	0.020	0.368	nd	0.736	0.674
EO 18	0.178	0.049	0.250	0.117	0.203	0.411
					Total	165.507

	SDA05-SD-14					
	C12	C13	C14	C15	C16	C18
EO 0	1.548	1.640	0.669	0.607	7.817	17.849
EO 1	0.138	0.118	0.060	0.115	0.028	0.055
EO 2	0.154	0.170	0.065	0.058	0.032	0.265
EO 3	0.197	0.158	0.076	0.027	0.039	0.018
EO 4	0.085	0.252	0.039	0.166	0.431	0.626
EO 5	0.241	nd	0.184	0.199	0.485	0.101
EO 6	nd	0.134	0.098	nd	0.098	0.247
EO 7	nd	0.258	0.150	nd	0.069	0.161
EO 8	0.048	nd	0.179	nd	0.073	0.179
EO 9	0.128	0.027	0.164	nd	0.159	0.364
EO 10	0.041	nd	nd	nd	0.179	0.440
EO 11	0.138	0.007	nd	0.033	0.097	0.357
EO 12	0.025	nd	0.084	0.078	0.036	0.394
EO 13	0.128	0.148	nd	0.178	0.036	0.542
EO 14	0.104	0.045	nd	0.093	nd	0.509
EO 15	0.085	0.159	0.118	0.557	0.008	0.206
EO 16	0.120	0.288	0.136	nd	0.072	0.453
EO 17	0.208	0.135	0.139	nd	0.320	0.319
EO 18	0.067	0.254	0.080	0.021	0.057	0.309
					Total	45.054

Table 33j
AE Raw Data– Sediment

	SDA05-SD-15					
	C12	C13	C14	C15	C16	C18
EO 0	2.700	4.384	5.696	8.989	27.105	57.584
EO 1	2.647	1.588	1.614	2.249	0.133	0.263
EO 2	2.650	1.463	1.455	1.014	0.029	0.301
EO 3	2.135	1.803	1.281	0.976	0.124	0.319
EO 4	0.878	1.858	0.652	0.918	0.209	1.047
EO 5	2.286	0.634	1.116	6.715	12.335	0.263
EO 6	1.832	1.752	1.565	1.548	0.188	0.767
EO 7	2.699	1.687	1.926	1.099	0.497	0.166
EO 8	3.123	1.562	2.624	0.694	0.181	0.273
EO 9	4.641	2.577	2.054	0.667	0.343	0.629
EO 10	3.335	2.509	3.184	1.268	0.169	0.321
EO 11	3.220	2.649	3.462	0.672	0.342	0.817
EO 12	3.201	2.028	2.926	0.874	0.186	0.517
EO 13	2.261	1.595	1.954	1.023	0.474	0.632
EO 14	1.665	1.421	1.466	0.767	nd	0.635
EO 15	0.969	1.373	0.792	0.595	0.361	0.701
EO 16	0.715	0.920	0.698	0.221	0.164	0.805
EO 17	0.577	0.723	0.422	0.115	0.075	0.612
EO 18	0.328	0.226	0.255	0.083	0.031	0.779
					Total	250.621

Table 34a
AE Surface water with LOQ Applied

	Initial Trinity Sample					
	C12	C13	C14	C15	C16	C18
EO 0	44.08	13.09	22.14	16.79	46.74	254.35
EO 1	2.78	6.58	0.95	1.50	<0.52	0.72
EO 2	2.28	<5.82	1.38	<2.53	2.42	1.02
EO 3	1.91	3.19	2.64	<1.78	2.69	<2.25
EO 4	0.94	<15.73	0.44	<3.35	1.52	<2.25
EO 5	<3.19	<4.5	<1.75	<6.28	4.75	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	2.84	<5.67	<2.59	<10.75
EO 10	3.74	<10.93	2.26	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	2.49	<3.15	<3.73	<5.73
EO 12	6.04	<11.42	1.64	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.26	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	1.48	<1.53	<4.95
EO 16	<2.86	1.12	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	457.79

	SDA05-SW-01					
	C12	C13	C14	C15	C16	C18
EO 0	14.72	17.16	11.19	12.77	78.20	199.76
EO 1	3.39	<3.33	0.90	0.83	<0.52	<0.69
EO 2	4.40	<5.82	1.50	3.48	<0.63	1.06
EO 3	4.71	3.44	1.75	<1.78	1.63	<2.25
EO 4	2.73	<15.73	0.88	<3.35	0.90	<2.25
EO 5	6.33	<4.5	2.35	<6.28	<2.38	<5.93
EO 6	4.95	<8.05	2.75	<9.39	<2.01	<6.63
EO 7	5.56	<12.27	3.47	<3.68	<2.11	<3.86
EO 8	7.13	<9.38	4.97	<6.73	<1.79	<8.32
EO 9	7.80	<7.33	7.47	<5.67	<2.59	<10.75
EO 10	7.45	<10.93	8.19	<4.29	<3.95	<8.03
EO 11	8.32	<5.08	7.68	<3.15	<3.73	<5.73
EO 12	6.26	<11.42	6.50	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	4.19	<2.14	<2.52	<7.42
EO 14	2.72	<4.68	1.98	<2.16	<1.89	<5.3
EO 15	1.56	<4.27	1.47	<1.0	<1.53	<4.95
EO 16	<2.86	1.88	<0.97	<1.01	<1.13	3.19
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	479.57

Table 34b
AE Surface water with LOQ Applied

	SDA05-SW-02					
	C12	C13	C14	C15	C16	C18
EO 0	17.86	10.88	10.37	15.99	41.37	186.15
EO 1	3.80	<3.33	1.30	0.73	<0.52	<0.69
EO 2	4.26	<5.82	1.74	<2.53	<0.63	1.01
EO 3	4.45	<2.62	3.71	<1.78	2.04	<2.25
EO 4	2.06	<15.73	1.08	<3.35	1.16	<2.25
EO 5	4.77	<4.5	<1.75	<6.28	4.77	<5.93
EO 6	<4.15	<8.05	5.78	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	3.27	<3.68	<2.11	<3.86
EO 8	6.43	<9.38	5.01	<6.73	<1.79	<8.32
EO 9	9.55	<7.33	11.50	<5.67	<2.59	<10.75
EO 10	9.05	<10.93	8.60	<4.29	<3.95	<8.03
EO 11	10.86	<5.08	8.13	<3.15	<3.73	<5.73
EO 12	8.29	<11.42	6.54	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	3.82	<2.14	<2.52	<7.42
EO 14	2.94	<4.68	1.82	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	0.98	<1.0	<1.53	<4.95
EO 16	<2.86	1.71	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.75	<0.83	<2.74
					Total	424.53

	SDA05-SW-02 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	12.30	9.36	9.80	9.21	51.50	96.78
EO 1	2.48	<3.33	0.90	1.09	<0.52	<0.69
EO 2	5.18	<5.82	1.15	<2.53	<0.63	1.01
EO 3	7.47	7.21	2.76	<1.78	1.18	<2.25
EO 4	6.10	<15.73	1.41	<3.35	<0.67	<2.25
EO 5	17.10	9.37	3.88	<6.28	<2.38	<5.93
EO 6	19.10	16.56	8.76	<9.39	<2.01	<6.63
EO 7	23.97	19.09	5.92	<3.68	<2.11	<3.86
EO 8	25.78	23.54	7.27	<6.73	<1.79	<8.32
EO 9	25.77	28.48	8.94	<5.67	<2.59	<10.75
EO 10	22.94	29.41	9.12	5.25	<3.95	<8.03
EO 11	23.32	32.18	8.40	5.15	<3.73	<5.73
EO 12	15.86	25.06	5.37	<3.95	<3.43	<8.3
EO 13	13.64	17.68	5.12	2.28	<2.52	<7.42
EO 14	9.93	15.59	4.04	<2.16	<1.89	<5.3
EO 15	4.32	7.39	3.75	1.75	<1.53	<4.95
EO 16	<2.86	1.96	1.33	1.56	<1.13	3.30
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	3.30
EO 18	<1.42	<0.98	<0.76	0.75	<0.83	<2.74
					Total	750.19

Table 34c
AE Surface water with LOQ Applied

	SDA05-SW-03					
	C12	C13	C14	C15	C16	C18
EO 0	21.64	39.29	16.20	34.80	46.56	65.74
EO 1	2.58	<3.33	0.83	0.50	<0.52	<0.69
EO 2	2.99	<5.82	1.11	3.39	<0.63	0.44
EO 3	4.76	5.86	1.71	<1.78	12.37	2.97
EO 4	3.36	<15.73	0.53	<3.35	<0.67	<2.25
EO 5	9.29	<4.5	2.26	<6.28	<2.38	<5.93
EO 6	9.21	<8.05	5.95	<9.39	<2.01	<6.63
EO 7	11.17	<12.27	3.29	<3.68	<2.11	<3.86
EO 8	11.27	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	13.88	<7.33	3.73	<5.67	<2.59	<10.75
EO 10	7.52	<10.93	2.89	<4.29	<3.95	<8.03
EO 11	9.22	5.50	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	2.51	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	1.51	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.65	<0.83	<2.74
					Total	367.46

	SDA05-SW-04					
	C12	C13	C14	C15	C16	C18
EO 0	17.05	26.54	13.79	39.19	74.83	226.47
EO 1	1.47	<3.33	0.57	0.55	<0.52	<0.69
EO 2	1.25	<5.82	0.49	4.39	<0.63	1.01
EO 3	1.36	3.98	3.05	<1.78	2.67	<2.25
EO 4	0.74	<15.73	<0.37	<3.35	1.39	<2.25
EO 5	<3.19	<4.5	<1.75	<6.28	9.57	<5.93
EO 6	<4.15	<8.05	3.42	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	9.18	<7.33	4.50	<5.67	<2.59	<10.75
EO 10	4.00	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	1.15	<1.0	<1.53	5.58
EO 16	<2.86	1.55	<0.97	<1.01	<1.13	4.35
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	3.70
EO 18	<1.42	<0.98	<0.76	0.85	<0.83	<2.74
					Total	468.64

Table 34d
AE Surface water with LOQ Applied

	SDA05-SW-05					
	C12	C13	C14	C15	C16	C18
EO 0	12.82	9.34	6.89	8.58	22.78	66.94
EO 1	2.11	3.70	1.14	1.68	<0.52	<0.69
EO 2	1.46	<5.82	1.28	<2.53	1.83	1.01
EO 3	1.47	<2.62	1.21	<1.78	1.55	<2.25
EO 4	1.04	<15.73	0.54	<3.35	0.86	<2.25
EO 5	<3.19	<4.5	<1.75	<6.28	5.04	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	5.73	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	11.54	<1.88	<2.14	3.15	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	6.85
EO 16	<2.86	1.99	<0.97	1.71	1.48	2.63
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	3.45
					Total	191.80

	SDA05-SW-05 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	5.64	6.24	6.06	4.78	71.47	112.22
EO 1	1.26	<3.33	0.68	1.06	<0.52	<0.69
EO 2	<1.21	<5.82	0.86	<2.53	<0.63	1.01
EO 3	1.45	<2.62	0.88	<1.78	<0.89	<2.25
EO 4	0.69	<15.73	0.55	<3.35	<0.67	<2.25
EO 5	<3.19	<4.5	<1.75	<6.28	3.05	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	1.62	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	0.98	1.96	<1.53	<4.95
EO 16	<2.86	nd	<0.97	<1.01	1.19	2.77
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	3.42
EO 18	<1.42	<0.98	<0.76	1.72	<0.83	<2.74
					Total	231.55

Table 34e
AE Surface water with LOQ Applied

	SDA05-SW-06					
	C12	C13	C14	C15	C16	C18
EO 0	17.76	19.12	9.64	10.22	46.11	120.25
EO 1	2.07	<3.33	0.93	0.56	<0.52	<0.69
EO 2	1.94	<5.82	1.26	<2.53	<0.63	0.80
EO 3	2.08	5.07	1.60	<1.78	4.19	<2.25
EO 4	1.12	<15.73	0.40	<3.35	<0.67	<2.25
EO 5	<3.19	<4.5	<1.75	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	3.56
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	1.68	<0.83	<2.74
					Total	250.36

	SDA05-SW-07					
	C12	C13	C14	C15	C16	C18
EO 0	14.16	19.46	1.06	15.42	86.01	190.48
EO 1	2.64	<3.33	1.25	1.39	<0.52	<0.69
EO 2	2.35	<5.82	1.36	2.59	2.22	1.01
EO 3	2.40	<2.62	0.80	<1.78	<0.89	<2.25
EO 4	1.33	<15.73	1.78	<3.35	<0.67	<2.25
EO 5	3.58	<4.5	1.90	<6.28	7.43	<5.93
EO 6	<4.15	<8.05	1.98	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	3.34	<2.52	<7.42
EO 14	1.49	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	1.89	1.49	<1.53	<4.95
EO 16	<2.86	2.28	<0.97	<1.01	2.15	3.74
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	1.08	<0.76	1.05	1.87	<2.74
					Total	383.00

Table 34f
AE Surface water with LOQ Applied

	SDA05-SW-08					
	C12	C13	C14	C15	C16	C18
EO 0	8.42	5.39	5.52	5.62	75.56	137.03
EO 1	1.59	<3.33	0.64	0.74	<0.52	<0.69
EO 2	1.93	<5.82	1.09	<2.53	<0.63	1.01
EO 3	2.99	9.92	1.68	2.27	1.49	<2.25
EO 4	2.58	<15.73	0.45	<3.35	1.33	<2.25
EO 5	5.34	<4.5	<1.75	<6.28	<2.38	<5.93
EO 6	4.52	<8.05	2.50	<9.39	<2.01	<6.63
EO 7	4.79	<12.27	<2.21	<3.68	2.27	<3.86
EO 8	5.61	<9.38	<2.88	<6.73	2.29	<8.32
EO 9	7.08	<7.33	2.21	<5.67	3.03	<10.75
EO 10	6.24	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	7.83	6.22	2.51	<3.15	3.98	10.47
EO 12	6.25	<11.42	1.73	<3.95	3.91	9.91
EO 13	<6.27	<6.5	1.96	2.20	3.46	10.96
EO 14	6.48	5.02	1.93	<2.16	4.15	10.16
EO 15	4.87	4.72	2.02	3.38	4.71	10.81
EO 16	4.16	2.61	1.46	1.12	2.91	8.24
EO 17	3.83	<1.44	2.00	<0.7	2.89	7.14
EO 18	1.89	<0.98	<0.76	<0.42	2.42	5.19
					Total	488.62

	SDA05-SW-08 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	15.80	11.75	11.96	10.30	48.05	565.03
EO 1	3.56	<3.33	1.39	1.02	<0.52	<0.69
EO 2	4.63	<5.82	2.31	10.79	nd	1.01
EO 3	5.50	6.12	3.32	1.80	1.08	<2.25
EO 4	4.13	<15.73	1.20	<3.35	0.73	<2.25
EO 5	9.36	<4.5	4.55	<6.28	<2.38	<5.93
EO 6	8.37	8.08	5.19	<9.39	<2.01	<6.63
EO 7	10.47	<12.27	5.94	<3.68	<2.11	<3.86
EO 8	12.86	<9.38	6.80	<6.73	<1.79	<8.32
EO 9	14.86	<7.33	8.18	<5.67	<2.59	<10.75
EO 10	11.89	<10.93	7.92	<4.29	<3.95	<8.03
EO 11	11.07	6.68	6.08	<3.15	<3.73	7.47
EO 12	6.39	<11.42	3.70	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	2.04	<2.14	<2.52	<7.42
EO 14	1.88	<4.68	<1.59	<2.16	<1.89	5.66
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	5.47
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	4.27
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	3.25
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	889.94

Table 34g
AE Surface water with LOQ Applied

	SDA05-SW-09					
	C12	C13	C14	C15	C16	C18
EO 0	13.22	10.60	10.17	8.54	31.13	107.39
EO 1	2.21	<3.33	1.07	1.18	<0.52	<0.69
EO 2	2.66	<5.82	1.44	14.11	<0.63	1.01
EO 3	3.92	3.07	1.39	<1.78	<0.89	<2.25
EO 4	2.44	<15.73	0.56	<3.35	1.24	<2.25
EO 5	5.67	<4.5	2.38	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	5.33	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	2.47	<5.67	<2.59	<10.75
EO 10	4.12	<10.93	2.06	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	2.56	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.43	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	244.82

	SDA05-SW-10					
	C12	C13	C14	C15	C16	C18
EO 0	10.88	10.50	7.36	9.35	30.36	104.96
EO 1	1.81	<3.33	0.56	0.68	<0.52	<0.69
EO 2	2.09	<5.82	1.32	15.00	<0.63	1.01
EO 3	2.69	4.92	1.68	<1.78	1.08	<2.25
EO 4	1.91	<15.73	0.55	<3.35	<0.67	<2.25
EO 5	4.66	<4.5	2.10	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	4.46	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	2.00	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	221.94

Table 34h
AE Surface water with LOQ Applied

	SDA05-SW-11					
	C12	C13	C14	C15	C16	C18
EO 0	16.49	16.59	10.27	13.92	28.00	67.69
EO 1	4.98	6.68	2.15	2.61	<0.52	<0.69
EO 2	2.82	<5.82	2.15	15.32	<0.63	1.01
EO 3	1.96	<2.62	1.51	2.07	<0.89	<2.25
EO 4	0.88	<15.73	0.65	<3.35	<0.67	<2.25
EO 5	<3.19	<4.5	<1.75	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	6.77	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	4.60	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	1.61	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	1.26	<1.0	<1.53	6.80
EO 16	<2.86	<0.58	<0.97	1.96	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.54	<0.83	<2.74
					Total	221.27

	SDA05-SW-12					
	C12	C13	C14	C15	C16	C18
EO 0	16.78	13.43	11.50	15.41	43.14	176.42
EO 1	4.31	<3.33	1.19	0.62	<0.52	<0.69
EO 2	4.09	<5.82	2.47	11.97	<0.63	0.75
EO 3	4.10	5.23	2.26	1.79	2.16	<2.25
EO 4	2.05	<15.73	1.07	<3.35	<0.67	<2.25
EO 5	5.54	<4.5	2.52	<6.28	<2.38	<5.93
EO 6	4.17	<8.05	2.60	<9.39	<2.01	<6.63
EO 7	5.67	<12.27	3.80	<3.68	<2.11	<3.86
EO 8	7.19	<9.38	6.37	<6.73	<1.79	<8.32
EO 9	8.10	<7.33	7.80	<5.67	<2.59	<10.75
EO 10	6.87	<10.93	6.10	<4.29	<3.95	<8.03
EO 11	7.21	<5.08	7.35	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	4.27	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.52	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	407.78

Table 34i
AE Surface water with LOQ Applied

	SDA05-SW-13					
	C12	C13	C14	C15	C16	C18
EO 0	17.29	19.05	19.95	11.58	290.50	532.47
EO 1	2.82	4.74	1.80	1.84	<0.52	0.79
EO 2	3.86	6.27	2.23	22.83	0.90	2.65
EO 3	3.72	6.12	3.07	2.11	2.29	<2.25
EO 4	2.33	<15.73	1.08	<3.35	<0.67	<2.25
EO 5	5.38	<4.5	2.93	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	3.04	<9.39	<2.01	<6.63
EO 7	4.44	<12.27	3.30	<3.68	<2.11	<3.86
EO 8	4.66	<9.38	3.73	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	3.69	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	3.08	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	3.49	<3.15	<3.73	6.69
EO 12	<5.06	<11.42	2.94	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	1.91	<2.14	<2.52	7.64
EO 14	1.39	<4.68	<1.59	<2.16	<1.89	7.97
EO 15	<1.55	<4.27	<0.92	<1.0	2.11	8.54
EO 16	<2.86	2.68	<0.97	1.23	1.88	8.82
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	7.63
EO 18	<1.42	<0.98	<0.76	<0.42	1.80	6.48
					Total	1069.73

	SDA05-SW-14					
	C12	C13	C14	C15	C16	C18
EO 0	12.68	15.82	10.04	11.67	43.30	129.78
EO 1	3.32	<3.33	0.96	0.81	<0.52	<0.69
EO 2	3.27	<5.82	1.00	<2.53	<0.63	0.86
EO 3	2.90	5.84	1.64	<1.78	2.58	<2.25
EO 4	1.81	<15.73	0.46	<3.35	<0.67	<2.25
EO 5	4.68	<4.5	<1.75	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	<4.42	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	4.07	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	2.41	<5.67	<2.59	<10.75
EO 10	3.75	<10.93	2.37	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	2.29	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.56	0.89	<2.74
					Total	269.74

Table 34j
AE Surface water with LOQ Applied

	SDA05-SW-15					
	C12	C13	C14	C15	C16	C18
EO 0	23.92	52.50	27.96	122.62	452.90	840.77
EO 1	7.67	5.07	1.98	1.61	<0.52	1.03
EO 2	9.52	45.70	8.87	307.95	<0.63	1.36
EO 3	8.26	6.10	3.25	41.04	2.04	<2.25
EO 4	4.28	<15.73	1.18	<3.35	<0.67	<2.25
EO 5	7.71	<4.5	2.38	<6.28	<2.38	<5.93
EO 6	5.33	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	4.66	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	5.46	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	4.15	10.40
EO 12	<5.06	<11.42	<1.46	<3.95	3.64	8.77
EO 13	<6.27	<6.5	<1.88	<2.14	3.80	12.06
EO 14	<1.05	<4.68	<1.59	<2.16	4.77	15.49
EO 15	<1.55	<4.27	1.33	<1.0	5.96	18.05
EO 16	<2.86	2.78	<0.97	<1.01	5.76	16.03
EO 17	<2.84	<1.44	<1.93	<0.7	5.88	16.84
EO 18	<1.42	1.77	<0.76	<0.42	16.67	14.68
					Total	2171.96

Table 35a
AE Pore water with LOQ Applied

	SDA05-PW-02					
	C12	C13	C14	C15	C16	C18
EO 0	40.66	27.40	28.48	38.26	72.65	93.66
EO 1	10.14	6.65	2.41	1.28	<0.52	<0.69
EO 2	12.07	9.91	2.82	10.07	0.71	0.42
EO 3	18.04	8.68	2.34	<1.78	<0.89	<2.25
EO 4	9.86	<15.73	0.90	<3.35	<0.67	<2.25
EO 5	19.71	5.18	<1.75	<6.28	<2.38	<5.93
EO 6	10.42	<8.05	6.25	<9.39	<2.01	<6.63
EO 7	8.27	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	nd	1.46	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	452.10

	SDA05-PW-02 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	97.74	60.68	70.31	83.96	197.88	119.37
EO 1	31.46	17.88	6.13	4.67	0.53	<0.69
EO 2	40.55	25.92	6.92	14.36	8.64	1.01
EO 3	62.60	31.97	7.13	6.52	<0.89	<2.25
EO 4	40.22	37.71	3.96	3.45	1.35	<2.25
EO 5	69.61	31.25	5.78	<6.28	<2.38	<5.93
EO 6	42.98	17.21	9.32	<9.39	<2.01	<6.63
EO 7	27.74	<12.27	2.39	<3.68	<2.11	<3.86
EO 8	14.23	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	1.91	<5.67	<2.59	<10.75
EO 10	5.20	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	3.06	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	1.68	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.56	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	1.24	2.67
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.48	<0.83	<2.74
					Total	1221.24

Table 35b
AE Pore water with LOQ Applied

	SDA05-PW-03					
	C12	C13	C14	C15	C16	C18
EO 0	162.52	180.13	78.44	131.94	111.23	85.31
EO 1	40.83	41.25	8.21	5.11	<0.52	<0.69
EO 2	68.78	49.07	9.93	7.95	0.67	1.01
EO 3	117.06	80.58	11.91	9.19	<0.89	<2.25
EO 4	85.13	98.50	7.64	9.60	2.14	<2.25
EO 5	207.15	95.57	12.47	7.27	<2.38	<5.93
EO 6	157.73	82.01	17.10	<9.39	<2.01	<6.63
EO 7	119.57	53.85	5.61	<3.68	<2.11	<3.86
EO 8	67.24	22.08	4.57	<6.73	<1.79	<8.32
EO 9	33.32	8.24	2.86	<5.67	<2.59	<10.75
EO 10	24.39	<10.93	2.44	<4.29	<3.95	<8.03
EO 11	18.16	7.75	2.84	<3.15	<3.73	<5.73
EO 12	10.04	<11.42	2.49	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.82	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	5.19
EO 16	<2.86	<0.58	<0.97	1.12	1.19	4.08
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	4.36
EO 18	<1.42	<0.98	<0.76	1.10	1.46	<2.74
					Total	2389.16

	SDA05-PW-05					
	C12	C13	C14	C15	C16	C18
EO 0	174.92	47.23	28.84	25.48	40.42	112.70
EO 1	45.81	14.71	4.54	1.56	<0.52	<0.69
EO 2	63.01	22.77	6.82	3.14	<0.63	1.01
EO 3	87.94	33.80	8.36	2.41	<0.89	<2.25
EO 4	46.96	37.84	3.75	<3.35	<0.67	<2.25
EO 5	79.81	14.36	5.57	<6.28	<2.38	<5.93
EO 6	39.59	8.92	4.90	<9.39	<2.01	<6.63
EO 7	22.75	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	10.52	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.12	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	1.64	<0.98	<0.76	<0.42	<0.83	<2.74
					Total	1003.20

Table 35c
AE Pore water with LOQ Applied

	SDA05-PW-06					
	C12	C13	C14	C15	C16	C18
EO 0	235.79	220.91	61.00	37.22	30.28	118.12
EO 1	101.63	93.09	13.28	7.90	<0.52	<0.69
EO 2	242.35	131.32	20.55	10.92	<0.63	1.01
EO 3	389.40	206.03	27.45	14.76	<0.89	<2.25
EO 4	273.88	252.03	14.81	13.97	1.20	<2.25
EO 5	569.99	248.00	25.34	7.85	<2.38	<5.93
EO 6	347.13	147.24	13.26	<9.39	<2.01	<6.63
EO 7	233.03	71.88	7.49	<3.68	<2.11	<3.86
EO 8	125.94	36.23	5.23	<6.73	<1.79	<8.32
EO 9	57.05	10.71	2.85	<5.67	<2.59	<10.75
EO 10	25.34	<10.93	2.59	<4.29	<3.95	<8.03
EO 11	14.32	6.35	2.26	<3.15	<3.73	<5.73
EO 12	9.42	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	1.46	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	2.16	1.69	2.99
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	1.02	<2.74
					Total	4497.69

	SDA05-PW-08					
	C12	C13	C14	C15	C16	C18
EO 0	353.10	79.02	68.92	36.19	118.15	252.31
EO 1	116.65	18.31	9.95	2.23	<0.52	<0.69
EO 2	70.10	19.46	6.96	5.07	0.90	1.02
EO 3	81.02	26.56	9.31	3.50	<0.89	<2.25
EO 4	52.48	41.26	4.86	5.79	3.83	<2.25
EO 5	119.40	34.36	8.52	<6.28	5.29	<5.93
EO 6	81.61	28.59	7.43	<9.39	<2.01	<6.63
EO 7	59.77	16.59	5.16	<3.68	<2.11	<3.86
EO 8	38.82	<9.38	4.63	<6.73	<1.79	<8.32
EO 9	20.61	<7.33	3.67	<5.67	<2.59	<10.75
EO 10	10.87	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	6.98	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	2.00	<4.27	<0.92	3.25	<1.53	<4.95
EO 16	<2.86	0.90	<0.97	<1.01	<1.13	4.08
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	1.17	<2.74
					Total	1850.65

Table 35d
AE Pore water with LOQ Applied

	SDA05-PW-08 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	184.37	46.36	45.17	17.59	46.08	96.10
EO 1	82.61	15.69	8.58	2.23	<0.52	<0.69
EO 2	85.96	20.83	7.87	2.68	<0.63	1.01
EO 3	105.35	31.47	7.72	2.37	<0.89	<2.25
EO 4	58.32	38.72	4.20	<3.35	2.50	<2.25
EO 5	121.05	26.74	6.30	<6.28	<2.38	<5.93
EO 6	64.93	16.19	5.10	<9.39	<2.01	<6.63
EO 7	43.58	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	22.28	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	10.70	<7.33	1.46	<5.67	<2.59	<10.75
EO 10	4.15	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	2.12	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	2.16	4.00
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	3.30
EO 18	<1.42	<0.98	<0.76	1.06	1.17	3.12
					Total	1253.21

	SDA05-PW-10					
	C12	C13	C14	C15	C16	C18
EO 0	43.11	36.69	22.45	66.10	115.88	211.83
EO 1	3.71	<3.33	2.43	2.73	0.69	1.74
EO 2	3.41	<5.82	0.97	<2.53	<0.63	1.32
EO 3	4.72	4.07	1.73	<1.78	<0.89	<2.25
EO 4	4.64	<15.73	0.49	<3.35	1.26	<2.25
EO 5	7.74	<4.5	<1.75	<6.28	<2.38	<5.93
EO 6	<4.15	<8.05	2.29	<9.39	<2.01	6.86
EO 7	<4.42	<12.27	<2.21	<3.68	3.52	8.12
EO 8	<3.41	<9.38	<2.88	<6.73	4.84	11.27
EO 9	<6.49	<7.33	<1.45	<5.67	5.24	15.83
EO 10	<3.7	<10.93	<1.89	<4.29	4.85	18.19
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	26.40
EO 12	<5.06	<11.42	<1.46	<3.95	5.08	23.67
EO 13	<6.27	<6.5	<1.88	<2.14	3.08	25.70
EO 14	1.43	<4.68	<1.59	<2.16	2.06	20.36
EO 15	2.12	<4.27	<0.92	<1.0	3.12	26.81
EO 16	<2.86	<0.58	0.97	<1.01	4.98	26.24
EO 17	<2.84	<1.44	<1.93	<0.7	4.52	25.47
EO 18	2.19	<0.98	<0.76	<0.42	5.81	17.54
					Total	846.29

Table 35e
AE Pore water with LOQ Applied

	SDA05-PW-12					
	C12	C13	C14	C15	C16	C18
EO 0	30.00	25.01	16.00	11.01	26.51	63.54
EO 1	19.03	13.77	4.11	2.83	<0.52	<0.69
EO 2	44.82	21.66	6.34	2.53	<0.63	1.01
EO 3	60.29	31.06	7.79	2.29	1.39	<2.25
EO 4	28.09	28.22	2.56	<3.35	<0.67	<2.25
EO 5	39.01	11.34	3.16	<6.28	<2.38	<5.93
EO 6	15.44	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	8.10	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	3.60	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	1.11	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.69	<0.83	<2.74
					Total	532.28

	SDA05-PW-13					
	C12	C13	C14	C15	C16	C18
EO 0	637.48	110.93	49.22	14.54	33.45	132.55
EO 1	97.66	32.18	8.82	3.05	<0.52	<0.69
EO 2	73.74	26.42	7.10	3.15	<0.63	1.06
EO 3	108.06	40.67	7.62	2.61	<0.89	<2.25
EO 4	67.49	55.86	5.34	4.19	<0.67	<2.25
EO 5	124.24	38.73	9.19	<6.28	2.57	<5.93
EO 6	75.64	25.76	4.25	<9.39	<2.01	<6.63
EO 7	47.95	<12.27	3.65	<3.68	<2.11	<3.86
EO 8	21.51	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	8.86	<7.33	1.45	<5.67	<2.59	<10.75
EO 10	4.20	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	<0.58	<0.97	<1.01	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	1.19	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	1.48	<0.83	<2.74
					Total	1893.89

Table 35f
AE Pore water with LOQ Applied

	SDA05-PW-14					
	C12	C13	C14	C15	C16	C18
EO 0	117.34	39.34	17.99	12.11	27.16	85.43
EO 1	37.81	12.14	4.24	1.81	<0.52	<0.69
EO 2	46.50	11.91	3.78	<2.53	<0.63	1.06
EO 3	45.26	12.88	3.75	1.95	0.96	<2.25
EO 4	18.87	<15.73	1.33	<3.35	2.04	<2.25
EO 5	25.70	<4.5	1.87	<6.28	<2.38	<5.93
EO 6	10.52	<8.05	<1.95	<9.39	<2.01	<6.63
EO 7	4.94	<12.27	<2.21	<3.68	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	<6.73	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	<5.67	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	<4.29	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	<1.88	<2.14	<2.52	<7.42
EO 14	<1.05	<4.68	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	1.12	<0.97	<1.01	<1.13	2.45
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	<0.42	1.21	<2.74
					Total	553.48

	SDA05-PW-15					
	C12	C13	C14	C15	C16	C18
EO 0	108.31	26.35	18.70	14.74	44.26	136.87
EO 1	45.83	9.60	4.50	1.58	<0.52	<0.69
EO 2	48.90	12.14	4.72	<2.53	<0.63	1.01
EO 3	58.17	19.59	4.90	<1.78	<0.89	<2.25
EO 4	26.59	20.27	2.61	<3.35	<0.67	<2.25
EO 5	39.71	6.94	3.08	<6.28	<2.38	<5.93
EO 6	17.15	<8.05	2.71	<9.39	<2.01	<6.63
EO 7	7.96	<12.27	<2.21	nd	<2.11	<3.86
EO 8	<3.41	<9.38	<2.88	nd	<1.79	<8.32
EO 9	<6.49	<7.33	<1.45	nd	<2.59	<10.75
EO 10	<3.7	<10.93	<1.89	nd	<3.95	<8.03
EO 11	<6.23	<5.08	<2.2	<3.15	<3.73	<5.73
EO 12	<5.06	<11.42	<1.46	<3.95	<3.43	<8.3
EO 13	<6.27	<6.5	nd	<2.14	<2.52	<7.42
EO 14	<1.05	nd	<1.59	<2.16	<1.89	<5.3
EO 15	<1.55	<4.27	<0.92	<1.0	<1.53	<4.95
EO 16	<2.86	nd	<0.97	1.29	<1.13	<2.43
EO 17	<2.84	<1.44	<1.93	<0.7	<2.21	<3.2
EO 18	<1.42	<0.98	<0.76	0.76	<0.83	<2.74
					Total	689.23

Table 36a
AE Sediment with LOQ Applied

	Initial Trinity Sediment					
	C12	C13	C14	C15	C16	C18
EO 0	4.43	13.51	3.25	6.73	9.75	43.80
EO 1	1.64	3.30	0.45	0.27	<0.14	<0.18
EO 2	1.44	<1.54	0.27	<0.67	<0.17	0.27
EO 3	0.51	<0.69	0.18	<0.47	<0.24	<0.6
EO 4	0.11	<4.19	<0.1	<0.89	0.21	<0.6
EO 5	<0.85	<1.19	<0.47	<1.67	1.46	<1.58
EO 6	<1.1	<2.13	<0.52	<2.5	<0.53	<1.76
EO 7	<1.17	<3.16	<0.59	<0.98	<0.56	2.24
EO 8	<0.9	nd	<0.77	<1.79	<0.47	<2.21
EO 9	<1.72	<1.94	0.65	<1.5	<0.69	<2.86
EO 10	<0.98	nd	<0.5	<1.14	<1.05	<2.13
EO 11	<1.65	<1.34	<0.58	<0.83	<0.99	<1.51
EO 12	<1.34	<3.04	0.41	3.06	16.41	<2.2
EO 13	<1.66	<1.73	<0.5	<0.56	<0.67	<1.97
EO 14	0.34	1.39	0.72	0.98	<0.5	<1.4
EO 15	<0.41	<1.13	0.76	0.79	<0.4	3.58
EO 16	<0.76	<0.15	<0.25	0.41	1.48	1.21
EO 17	<0.75	<0.38	0.66	0.26	<0.59	2.30
EO 18	<0.37	<0.26	<0.2	0.41	<0.22	1.29
					Total	130.94

	SDA05-SD-01					
	C12	C13	C14	C15	C16	C18
EO 0	2.94	14.05	5.31	10.05	20.87	41.85
EO 1	0.81	<0.88	0.36	0.73	0.23	<0.18
EO 2	0.58	1.56	0.54	<0.67	0.21	0.27
EO 3	0.56	<0.69	0.46	0.48	0.45	<0.6
EO 4	0.13	<4.19	0.10	<0.89	0.29	0.67
EO 5	<0.85	<1.19	<0.47	1.96	<0.63	<1.58
EO 6	<1.1	3.72	<0.52	<2.5	<0.53	<1.76
EO 7	<1.17	<3.16	<0.59	<0.98	<0.56	<1.02
EO 8	<0.9	<2.49	<0.77	<1.79	<0.47	<2.21
EO 9	<1.72	<1.94	<0.38	nd	<0.69	<2.86
EO 10	4.66	<2.9	<0.5	<1.14	<1.05	<2.13
EO 11	<1.65	<1.34	<0.58	<0.83	<0.99	<1.51
EO 12	<1.34	<3.04	<0.39	<1.04	<0.91	<2.2
EO 13	<1.66	<1.73	<0.5	<0.56	<0.67	<1.97
EO 14	0.50	<1.24	<0.42	<0.56	<0.5	<1.4
EO 15	<0.41	<1.13	0.57	0.35	<0.4	<1.31
EO 16	<0.76	0.23	<0.25	<0.25	<0.3	<0.64
EO 17	<0.75	<0.38	<0.5	<0.18	<0.59	<0.85
EO 18	<0.37	<0.26	<0.2	0.15	0.27	<0.73
					Total	115.91

Table 36b
AE Sediment with LOQ Applied

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	17.04	53.29	50.58	100.64	173.05	138.77
EO 1	6.89	8.79	4.01	1.41	0.29	<0.18
EO 2	4.81	5.94	2.80	12.54	0.62	0.28
EO 3	4.54	5.82	2.44	2.12	0.68	nd
EO 4	2.61	7.82	1.67	2.84	0.74	<0.6
EO 5	7.20	7.36	4.12	3.50	3.96	2.34
EO 6	7.64	10.93	4.03	4.80	0.87	<1.76
EO 7	9.45	11.19	5.82	5.64	<0.56	<1.02
EO 8	10.19	13.27	6.56	5.44	<0.47	<2.21
EO 9	12.21	10.86	8.26	6.12	<0.69	<2.86
EO 10	8.45	8.14	7.32	5.34	<1.05	<2.13
EO 11	9.47	13.70	7.08	4.78	<0.99	2.08
EO 12	7.89	12.78	6.53	4.46	<0.91	<2.2
EO 13	6.08	9.50	4.98	3.66	<0.67	2.35
EO 14	4.51	9.87	3.85	2.63	0.60	1.93
EO 15	4.21	6.49	3.04	2.32	<0.4	2.07
EO 16	1.93	3.68	1.72	1.24	0.56	1.73
EO 17	2.49	2.45	1.56	0.84	<0.59	1.90
EO 18	1.16	1.60	0.56	0.65	0.41	1.41
					Total	966.83

	SDA05-SD-02 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	24.27	59.44	46.00	88.88	85.51	104.68
EO 1	7.36	10.86	5.24	1.34	0.20	<0.18
EO 2	5.55	6.77	2.62	9.00	0.43	0.28
EO 3	4.35	4.69	2.63	1.64	0.31	0.84
EO 4	2.84	8.48	1.71	2.53	0.43	0.67
EO 5	7.58	8.11	4.36	3.35	4.35	2.16
EO 6	7.89	10.55	4.09	4.88	<0.53	<1.76
EO 7	9.21	12.02	5.08	4.95	<0.56	<1.02
EO 8	10.24	12.87	6.59	4.72	<0.47	<2.21
EO 9	11.68	13.86	7.35	5.31	<0.69	<2.86
EO 10	8.14	10.79	6.94	5.41	<1.05	<2.13
EO 11	9.48	13.94	7.39	4.74	<0.99	<1.51
EO 12	7.68	11.67	6.00	4.62	<0.91	<2.2
EO 13	6.60	9.96	4.70	3.66	<0.67	<1.97
EO 14	4.33	10.31	3.51	2.67	<0.5	<1.4
EO 15	4.33	5.03	2.78	1.89	<0.4	<1.31
EO 16	2.42	3.48	1.75	1.27	0.37	1.12
EO 17	2.23	2.19	1.21	0.85	<0.59	1.11
EO 18	0.96	1.40	0.39	0.77	0.39	0.76
					Total	829.97

Table 36c
AE Sediment with LOQ Applied

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	18.55	51.73	45.49	93.33	214.80	140.56
EO 1	7.30	8.35	3.98	1.32	0.18	<0.18
EO 2	4.35	5.22	2.46	12.91	0.63	0.28
EO 3	4.82	6.16	2.56	1.24	<0.24	<0.6
EO 4	2.53	7.63	1.61	2.85	0.37	0.80
EO 5	6.29	7.23	4.04	4.11	3.51	<1.58
EO 6	7.34	10.30	3.67	4.63	13.58	<1.76
EO 7	9.30	12.66	5.16	5.42	0.67	<1.02
EO 8	10.71	14.70	6.52	4.93	<0.47	<2.21
EO 9	11.26	14.13	8.38	6.39	0.76	<2.86
EO 10	8.04	6.12	7.50	5.42	<1.05	<2.13
EO 11	8.55	12.52	7.36	5.81	<0.99	<1.51
EO 12	7.56	11.26	6.00	5.20	0.96	<2.2
EO 13	5.48	9.76	4.86	4.67	0.90	<1.97
EO 14	3.78	6.95	3.77	3.98	0.74	<1.4
EO 15	2.99	4.70	2.58	2.16	1.13	<1.31
EO 16	2.03	3.49	1.88	3.04	1.27	0.76
EO 17	2.22	2.31	2.44	1.95	0.82	<0.85
EO 18	1.22	2.05	0.55	0.33	0.62	<0.73
					Total	995.42

	SDA05-SD-02					
	C12	C13	C14	C15	C16	C18
EO 0	24.89	60.15	46.65	85.97	186.91	127.35
EO 1	7.55	9.70	4.38	1.38	0.24	<0.18
EO 2	5.48	6.47	2.96	12.95	0.59	0.28
EO 3	4.39	5.73	2.27	0.78	<0.24	<0.6
EO 4	2.60	7.93	1.74	3.13	0.52	1.10
EO 5	7.58	7.97	4.87	4.15	4.47	1.67
EO 6	7.45	11.46	4.10	5.65	13.00	<1.76
EO 7	9.60	12.18	5.86	5.23	<0.56	<1.02
EO 8	10.99	14.21	8.53	6.35	<0.47	<2.21
EO 9	11.01	15.23	8.65	6.28	<0.69	<2.86
EO 10	8.59	9.55	8.06	5.87	<1.05	<2.13
EO 11	9.33	15.25	8.26	5.11	<0.99	<1.51
EO 12	7.96	13.09	6.93	4.29	<0.91	<2.2
EO 13	5.73	10.35	5.87	4.11	<0.67	<1.97
EO 14	4.58	10.57	4.07	3.01	<0.5	<1.4
EO 15	3.42	6.78	3.17	1.74	<0.4	<1.31
EO 16	2.18	2.90	2.08	2.55	<0.3	<0.64
EO 17	2.16	2.37	2.27	0.75	<0.59	<0.85
EO 18	1.04	1.47	0.79	0.48	0.34	<0.73
					Total	987.62

Table 36d
AE Sediment with LOQ Applied

	SDA05-SD-03					
	C12	C13	C14	C15	C16	C18
EO 0	32.67	143.89	75.66	205.78	151.43	90.88
EO 1	9.63	10.67	3.22	2.12	0.13	0.56
EO 2	7.77	11.92	4.34	5.04	0.47	0.32
EO 3	7.92	11.57	4.33	3.65	0.41	2.45
EO 4	5.54	16.99	3.42	7.87	0.61	4.12
EO 5	15.38	17.39	2.58	9.69	0.73	0.81
EO 6	15.72	23.02	1.50	14.77	0.43	0.56
EO 7	21.75	25.00	14.68	15.26	1.89	0.38
EO 8	27.43	28.25	19.64	16.56	0.91	0.31
EO 9	26.86	26.02	20.76	19.13	0.84	0.70
EO 10	24.58	29.15	20.12	22.21	0.56	0.43
EO 11	27.24	34.41	22.87	19.18	0.97	0.62
EO 12	21.12	28.39	17.38	16.83	0.82	0.44
EO 13	17.56	19.31	12.92	13.45	0.50	0.45
EO 14	12.49	18.63	9.33	8.00	0.30	0.24
EO 15	8.68	13.68	5.71	8.29	0.12	0.38
EO 16	6.01	6.84	4.51	4.76	0.11	0.46
EO 17	5.47	5.34	3.87	2.68	0.31	0.57
EO 18	2.40	3.09	1.42	1.24	0.50	0.10
					Total	1681.42

	SDA05-SD-04					
	C12	C13	C14	C15	C16	C18
EO 0	1.29	6.41	2.56	10.12	12.59	53.57
EO 1	0.82	1.30	0.39	0.41	<0.14	<0.18
EO 2	0.57	<1.54	0.26	<0.67	<0.17	0.24
EO 3	0.22	<0.69	0.20	<0.47	<0.24	<0.6
EO 4	0.15	<4.19	<0.1	<0.89	<0.18	<0.6
EO 5	<0.85	<1.19	<0.47	<1.67	<0.63	<1.58
EO 6	<1.1	<2.13	0.58	<2.5	<0.53	<1.76
EO 7	<1.17	<3.16	<0.59	<0.98	<0.56	<1.02
EO 8	<0.9	<2.49	<0.77	<1.79	<0.47	<2.21
EO 9	<1.72	<1.94	<0.38	<1.5	<0.69	<2.86
EO 10	<0.98	<2.9	<0.5	<1.14	<1.05	<2.13
EO 11	<1.65	<1.34	<0.58	<0.83	<0.99	<1.51
EO 12	<1.34	<3.04	<0.39	nd	<0.91	<2.2
EO 13	<1.66	<1.73	<0.5	<0.56	<0.67	<1.97
EO 14	<0.27	<1.24	<0.42	<0.56	<0.5	<1.4
EO 15	<0.41	<1.13	<0.24	0.76	<0.4	<1.31
EO 16	<0.76	<0.15	<0.25	0.26	<0.3	<0.64
EO 17	<0.75	<0.38	<0.5	0.29	<0.59	<0.85
EO 18	<0.37	<0.26	<0.2	<0.1	0.25	<0.73
					Total	93.21

Table 36e
AE Sediment with LOQ Applied

	SDA05-SD-06					
	C12	C13	C14	C15	C16	C18
EO 0	5.30	18.75	10.18	19.60	56.08	179.37
EO 1	2.12	3.83	1.81	2.30	0.15	<0.18
EO 2	5.09	8.08	2.77	9.74	0.26	0.53
EO 3	6.24	8.91	3.22	2.89	<0.24	<0.6
EO 4	4.03	11.46	2.13	4.73	0.55	<0.6
EO 5	10.27	11.61	5.04	5.08	0.84	<1.58
EO 6	12.33	16.93	4.79	6.22	<0.53	<1.76
EO 7	16.02	16.01	6.35	6.05	<0.56	<1.02
EO 8	16.75	18.26	8.31	6.11	<0.47	<2.21
EO 9	16.44	17.98	9.69	5.75	0.93	<2.86
EO 10	15.73	17.20	11.30	6.41	<1.05	<2.13
EO 11	17.54	18.83	10.32	5.51	<0.99	<1.51
EO 12	15.64	18.13	7.89	4.22	<0.91	<2.2
EO 13	9.65	12.13	6.24	3.46	<0.67	<1.97
EO 14	6.85	9.49	4.98	3.44	0.76	2.65
EO 15	4.37	6.82	2.86	1.92	1.20	1.87
EO 16	3.01	4.09	1.73	2.69	1.68	2.30
EO 17	2.41	2.95	1.59	0.82	<0.59	1.67
EO 18	1.27	1.09	0.83	0.45	0.43	1.55
					Total	845.84

	SDA05-SD-08					
	C12	C13	C14	C15	C16	C18
EO 0	8.59	38.04	14.60	28.62	40.46	108.53
EO 1	6.96	4.53	2.63	1.60	0.16	0.19
EO 2	4.57	3.76	1.90	3.27	0.43	0.60
EO 3	3.03	2.58	1.52	1.08	<0.24	<0.6
EO 4	1.42	5.74	0.85	1.51	0.68	1.48
EO 5	4.31	2.23	1.88	2.05	<0.63	<1.58
EO 6	3.29	4.10	1.91	<2.5	<0.53	<1.76
EO 7	3.54	3.71	2.36	1.65	<0.56	<1.02
EO 8	4.91	3.91	3.39	<1.79	0.52	<2.21
EO 9	5.58	4.39	3.52	<1.5	0.70	<2.86
EO 10	4.24	3.88	3.31	1.68	<1.05	<2.13
EO 11	5.21	5.82	3.60	1.88	<0.99	<1.51
EO 12	5.50	5.48	3.01	1.64	1.44	<2.2
EO 13	3.01	4.47	2.52	1.68	0.82	<1.97
EO 14	3.16	2.82	1.89	1.84	<0.5	<1.4
EO 15	1.53	2.48	1.37	0.95	<0.4	<1.31
EO 16	1.34	1.03	1.02	1.59	<0.3	1.56
EO 17	1.59	1.28	1.17	0.35	<0.59	<0.85
EO 18	0.54	0.35	0.66	0.43	<0.22	<0.73
					Total	435.44

Table 36f
AE Sediment with LOQ Applied

	SDA05-SD-08 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	8.56	37.95	17.74	31.65	52.64	128.87
EO 1	6.81	5.89	2.46	1.70	0.27	0.20
EO 2	4.06	3.25	1.85	4.38	0.37	0.33
EO 3	2.55	2.75	1.64	1.30	<0.24	<0.6
EO 4	1.31	<4.19	0.83	1.79	0.53	<0.6
EO 5	3.27	1.93	1.99	2.06	2.22	<1.58
EO 6	3.00	3.58	1.76	<2.5	<0.53	<1.76
EO 7	3.22	3.64	2.26	1.57	<0.56	<1.02
EO 8	3.79	5.02	3.52	<1.79	<0.47	<2.21
EO 9	4.91	3.67	3.52	1.65	0.80	<2.86
EO 10	3.07	4.09	3.57	2.10	<1.05	<2.13
EO 11	4.74	5.25	4.00	2.03	<0.99	<1.51
EO 12	4.62	5.49	3.24	2.00	<0.91	<2.2
EO 13	2.22	3.92	2.76	1.99	0.69	<1.97
EO 14	3.37	2.69	3.09	2.09	<0.5	1.44
EO 15	1.52	2.86	1.62	<0.24	0.43	1.40
EO 16	1.03	1.16	1.29	1.08	0.42	1.22
EO 17	1.43	<0.38	1.40	0.63	1.38	1.50
EO 18	0.66	1.24	0.36	0.51	0.61	1.02
					Total	472.28

	SDA05-SD-08 replicate					
	C12	C13	C14	C15	C16	C18
EO 0	9.20	38.14	21.92	29.74	44.17	142.54
EO 1	8.35	3.87	3.75	3.03	0.38	0.20
EO 2	4.96	4.09	2.52	2.98	0.59	0.69
EO 3	3.65	3.77	2.13	1.76	0.26	0.79
EO 4	1.83	4.57	1.19	2.27	0.57	1.75
EO 5	4.57	3.44	2.73	2.45	<0.63	<1.58
EO 6	3.49	4.92	2.45	3.25	<0.53	<1.76
EO 7	4.49	5.93	3.47	3.27	<0.56	<1.02
EO 8	5.27	6.02	4.85	2.73	0.93	<2.21
EO 9	6.53	4.70	5.30	3.18	1.16	<2.86
EO 10	5.16	4.98	5.76	3.19	<1.05	<2.13
EO 11	7.32	6.83	6.30	3.08	<0.99	<1.51
EO 12	4.55	8.10	4.94	3.11	<0.91	<2.2
EO 13	3.94	5.07	4.15	2.76	1.07	<1.97
EO 14	3.94	3.98	4.07	3.92	0.91	1.78
EO 15	2.50	4.11	1.98	1.43	<0.4	2.07
EO 16	2.17	1.96	2.38	1.49	0.86	2.29
EO 17	1.86	1.38	1.28	0.52	<0.59	1.50
EO 18	1.11	1.34	0.71	0.97	0.26	1.39
					Total	565.26

Table 36g
AE Sediment with LOQ Applied

	SDA05-SD-08 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	7.29	16.60	12.00	17.76	38.54	129.09
EO 1	4.96	1.56	2.46	0.70	0.75	<0.18
EO 2	2.91	1.91	1.61	2.59	0.24	0.34
EO 3	2.52	2.15	1.46	1.27	<0.24	<0.6
EO 4	1.37	<4.19	0.86	1.94	0.57	<0.6
EO 5	3.34	1.62	<0.47	<1.67	<0.63	<1.58
EO 6	3.36	3.06	2.00	<2.5	<0.53	<1.76
EO 7	4.30	3.64	2.89	1.81	<0.56	<1.02
EO 8	5.62	3.16	4.69	1.99	<0.47	<2.21
EO 9	7.87	3.32	5.75	2.37	<0.69	<2.86
EO 10	5.51	<2.9	5.63	2.99	<1.05	<2.13
EO 11	8.68	4.57	6.10	2.00	<0.99	<1.51
EO 12	7.33	6.07	4.92	2.68	1.02	<2.2
EO 13	4.95	3.47	3.86	2.42	1.27	<1.97
EO 14	3.16	3.10	3.57	1.27	0.71	<1.4
EO 15	2.69	3.02	2.26	2.04	0.54	<1.31
EO 16	1.59	1.26	1.61	0.60	0.71	0.97
EO 17	2.76	0.90	1.67	1.84	0.69	<0.85
EO 18	0.95	0.55	0.41	0.16	0.59	<0.73
					Total	427.35

	SDA05-SD-08 Replicate					
	C12	C13	C14	C15	C16	C18
EO 0	9.87	39.28	18.90	33.87	55.02	145.85
EO 1	8.21	6.41	3.37	2.37	0.42	0.19
EO 2	5.29	3.99	2.53	3.02	0.65	0.33
EO 3	3.63	3.24	2.50	2.02	0.29	<0.6
EO 4	1.75	4.44	1.37	2.92	0.32	<0.6
EO 5	4.80	3.56	2.84	2.23	1.76	<1.58
EO 6	3.73	5.40	2.58	2.89	<0.53	<1.76
EO 7	4.65	6.56	3.53	2.87	<0.56	<1.02
EO 8	5.78	7.50	5.47	2.06	1.00	<2.21
EO 9	6.31	5.68	5.16	3.04	0.88	<2.86
EO 10	5.05	7.87	5.34	3.18	<1.05	<2.13
EO 11	6.87	9.28	5.29	4.20	<0.99	<1.51
EO 12	4.88	7.41	4.58	3.73	<0.91	<2.2
EO 13	3.13	5.57	4.97	3.38	0.93	<1.97
EO 14	3.14	3.22	4.26	2.80	1.16	<1.4
EO 15	2.05	2.29	2.17	2.42	<0.4	1.50
EO 16	1.83	2.52	2.10	1.59	0.81	2.54
EO 17	1.92	1.67	1.14	1.56	1.75	1.45
EO 18	1.28	1.39	0.50	0.27	0.95	1.47
					Total	589.71

Table 36h
AE Sediment with LOQ Applied

	SDA05-SD-10					
	C12	C13	C14	C15	C16	C18
EO 0	6.02	23.36	7.20	14.01	27.32	67.84
EO 1	1.17	0.93	0.59	0.65	0.15	<0.18
EO 2	1.17	<1.54	0.62	4.50	0.20	0.08
EO 3	0.47	<0.69	0.43	0.95	<0.24	nd
EO 4	0.28	<4.19	0.11	1.56	0.62	<0.6
EO 5	<0.85	nd	<0.47	<1.67	0.76	<1.58
EO 6	nd	<2.13	<0.52	<2.5	<0.53	<1.76
EO 7	<1.17	3.31	<0.59	nd	<0.56	<1.02
EO 8	<0.9	<2.49	<0.77	<1.79	<0.47	<2.21
EO 9	<1.72	<1.94	<0.38	<1.5	<0.69	<2.86
EO 10	<0.98	<2.9	<0.5	<1.14	<1.05	<2.13
EO 11	<1.65	<1.34	<0.58	<0.83	<0.99	<1.51
EO 12	1.54	<3.04	<0.39	<1.04	<0.91	<2.2
EO 13	<1.66	2.66	<0.5	<0.56	<0.67	<1.97
EO 14	1.25	<1.24	0.53	<0.56	<0.5	<1.4
EO 15	0.70	<1.13	0.33	0.51	nd	1.80
EO 16	1.01	<0.15	0.37	0.34	0.89	<0.64
EO 17	<0.75	0.51	<0.5	0.48	<0.59	<0.85
EO 18	<0.37	0.37	0.33	nd	<0.22	0.94
					Total	178.85

	SDA05-SD-12					
	C12	C13	C14	C15	C16	C18
EO 0	4.29	18.70	9.38	17.86	26.03	108.45
EO 1	3.96	6.48	2.73	2.67	0.15	<0.18
EO 2	3.99	4.17	2.42	2.08	0.18	0.35
EO 3	4.09	4.58	2.81	1.98	<0.24	nd
EO 4	2.44	6.36	1.70	3.14	0.51	<0.6
EO 5	6.19	4.57	3.78	2.55	<0.63	<1.58
EO 6	7.68	5.88	4.23	2.80	<0.53	<1.76
EO 7	8.88	6.77	4.89	3.29	<0.56	<1.02
EO 8	9.51	5.03	6.86	2.47	<0.47	<2.21
EO 9	11.11	6.46	7.17	1.85	<0.69	<2.86
EO 10	9.01	6.89	9.06	3.53	<1.05	<2.13
EO 11	10.48	5.49	8.34	1.83	<0.99	1.68
EO 12	8.90	5.11	5.83	1.55	<0.91	<2.2
EO 13	5.84	3.68	4.83	1.86	0.67	<1.97
EO 14	3.54	2.80	3.32	1.77	<0.5	<1.4
EO 15	2.77	1.81	2.94	0.95	<0.4	<1.31
EO 16	1.26	1.65	1.08	1.32	<0.3	1.18
EO 17	1.65	0.47	1.02	0.30	<0.59	0.93
EO 18	1.12	0.36	0.43	<0.1	0.34	<0.73
					Total	481.02

Table 36i
AE Sediment with LOQ Applied

	SDA05-SD-13					
	C12	C13	C14	C15	C16	C18
EO 0	2.96	5.78	1.79	5.78	11.59	97.87
EO 1	1.64	2.06	0.74	0.77	0.16	0.30
EO 2	1.16	<1.54	0.33	<0.67	<0.17	0.33
EO 3	0.52	<0.69	<0.16	<0.47	<0.24	<0.6
EO 4	0.26	<4.19	<0.1	<0.89	<0.18	<0.6
EO 5	<0.85	nd	<0.47	<1.67	<0.63	<1.58
EO 6	<1.1	<2.13	<0.52	<2.5	<0.53	<1.76
EO 7	<1.17	<3.16	<0.59	nd	<0.56	<1.02
EO 8	<0.9	<2.49	<0.77	nd	<0.47	<2.21
EO 9	<1.72	<1.94	<0.38	nd	<0.69	<2.86
EO 10	<0.98	<2.9	<0.5	nd	<1.05	<2.13
EO 11	<1.65	<1.34	<0.58	<0.83	<0.99	<1.51
EO 12	<1.34	<3.04	<0.39	<1.04	<0.91	<2.2
EO 13	<1.66	<1.73	<0.5	<0.56	<0.67	<1.97
EO 14	0.45	<1.24	<0.42	<0.56	<0.5	<1.4
EO 15	<0.41	<1.13	<0.24	<0.24	<0.4	<1.31
EO 16	<0.76	<0.15	<0.25	<0.25	<0.3	<0.64
EO 17	nd	<0.38	<0.5	nd	0.74	<0.85
EO 18	<0.37	<0.26	0.25	0.12	<0.22	<0.73
					Total	135.58

	SDA05-SD-14					
	C12	C13	C14	C15	C16	C18
EO 0	1.55	1.64	0.67	0.61	7.82	17.85
EO 1	<0.2	<0.88	<0.09	0.11	<0.14	<0.18
EO 2	<0.32	<1.54	<0.13	<0.67	<0.17	0.26
EO 3	0.20	<0.69	<0.16	<0.47	<0.24	<0.6
EO 4	<0.09	<4.19	<0.1	<0.89	0.43	0.63
EO 5	<0.85	<1.19	<0.47	<1.67	<0.63	<1.58
EO 6	<1.1	<2.13	<0.52	<2.5	<0.53	<1.76
EO 7	<1.17	<3.16	<0.59	<0.98	<0.56	<1.02
EO 8	<0.9	<2.49	<0.77	<1.79	<0.47	<2.21
EO 9	<1.72	<1.94	<0.38	<1.5	<0.69	<2.86
EO 10	<0.98	<2.9	<0.5	<1.14	<1.05	<2.13
EO 11	<1.65	<1.34	<0.58	<0.83	<0.99	<1.51
EO 12	<1.34	<3.04	<0.39	<1.04	<0.91	<2.2
EO 13	<1.66	<1.73	<0.5	<0.56	<0.67	<1.97
EO 14	<0.27	<1.24	<0.42	<0.56	<0.5	<1.4
EO 15	<0.41	<1.13	<0.24	0.56	<0.4	<1.31
EO 16	<0.76	0.29	<0.25	<0.25	<0.3	<0.64
EO 17	<0.75	<0.38	<0.5	<0.18	<0.59	<0.85
EO 18	<0.37	<0.26	<0.2	<0.1	<0.22	<0.73
					Total	32.61

Table 36j
AE Sediment with LOQ Applied

	SDA05-SD-15					
	C12	C13	C14	C15	C16	C18
EO 0	2.70	4.38	5.70	8.99	27.11	57.58
EO 1	2.65	1.59	1.61	2.25	<0.14	0.26
EO 2	2.65	<1.54	1.45	1.01	<0.17	0.30
EO 3	2.13	1.80	1.28	0.98	<0.24	<0.6
EO 4	0.88	<4.19	0.65	0.92	0.21	1.05
EO 5	2.29	<1.19	1.12	6.71	12.34	<1.58
EO 6	1.83	<2.13	1.57	<2.5	<0.53	<1.76
EO 7	2.70	<3.16	1.93	1.10	<0.56	<1.02
EO 8	3.12	<2.49	2.62	<1.79	<0.47	<2.21
EO 9	4.64	2.58	2.05	<1.5	<0.69	<2.86
EO 10	3.34	<2.9	3.18	1.27	<1.05	<2.13
EO 11	3.22	2.65	3.46	<0.83	<0.99	<1.51
EO 12	3.20	<3.04	2.93	<1.04	<0.91	<2.2
EO 13	2.26	<1.73	1.95	1.02	<0.67	<1.97
EO 14	1.67	1.42	1.47	0.77	nd	<1.4
EO 15	0.97	1.37	0.79	0.60	<0.4	<1.31
EO 16	<0.76	0.92	0.70	<0.25	<0.3	0.81
EO 17	<0.75	0.72	<0.5	<0.18	<0.59	<0.85
EO 18	<0.37	<0.26	0.25	<0.1	<0.22	0.78
					Total	218.44

Table 37**Total Suspended Solids**

Sample	Total Suspended Solids
	mg/L
SDA05-PW-02	30
SDA05-PW-03	15
SDA05-PW-04	26.5
SDA05- PW-06	39
SDA05-PW-08	37.5
SDA05-PW-10	19.5
SDA05-PW-12	34.5
SDA05-PW-15	28

Table 38
Summary of Results

Sample	Totals			Total AE0	AE0	Total AS	AS	Total
	LAS	AES	AE		as % AE		as % AES	Surfactant
SDA05-SW-01	2940.38	16747	480	334	70	10002	60	20167
SDA05-SW-02	2710.117	12761	425	283	67	10130	79	15896
SDA05-SW-03	2914.392	11959	367	224	61	8683	73	15241
SDA05-SW-04	3578.496	15712	469	398	85	10620	68	19759
SDA05-SW-05	3751.708	8405	192	127	66	6811	81	12348
SDA05-SW-05REP	3632.482	14345	232	206	89	12380	86	18209
SDA05-SW-06	3623.349	13129	250	223	89	8741	67	17003
SDA05-SW-07	2510.572	4713	383	327	85	4713	100	7607
SDA05-SW-08	2693.515	10694	489	238	49	8886	83	13876
SDA05-SW-08REP	2605.208	17312	890	663	74	13673	79	20807
SDA05-SW-09	2592.767	11017	245	181	74	9846	89	13854
SDA05-SW-10	2668.338	10971	222	173	78	9752	89	13862
SDA05-SW-11	2516.497	0	221	153	69	0	0	2738
SDA05-SW-12	3288.15	29764	408	277	68	18701	63	33459
SDA05-SW-13	2681.806	11570	1070	891	83	9478	82	15321
SDA05-SW-14	2748.883	10753	270	223	83	9407	87	13772
SDA05-SW-15	3035.593	20578	2172	1521	70	12020	58	25785
SDA05-PW-02	16572.02	136745	452	301	67	51325	38	153770
SDA05-PW-03	10492.58	128276	2389	750	31	46862	37	141158
SDA05-PW-04	12305.11	236926	1003	430	43	112546	48	250234
SDA05-PW-06	11598.81	143586	4498	703	16	55316	39	159682
SDA05-PW-08	8953.813	170158	1851	908	49	66341	39	180963
SDA05-PW-10	3149.634	20895	846	496	59	16460	79	24891
SDA05-PW-12	9178.346	121030	532	172	32	51776	43	130740
SDA05-PW-13	9876.864	195588	1894	978	52	97205	50	207358
SDA05-PW-14	3910.45	94238	553	299	54	38572	41	98702
SDA05-PW-15	10643.48	222016	689	349	51	92929	42	233349
SDA05-SD-01	50.39235	1132	116	95	82	486	43	1298
SDA05-SD-02	256.2525	2082	967	533	55	723	35	3305
SDA05-SD-02REP	329.7296	1432	830	409	49	518	36	2591
SDA05-SD-03	431.4309	3304	1681	700	42	1238	37	5417
SDA05-SD-04	37.69154	773	93	87	93	351	45	903
SDA05-SD-06	476.3815	2359	846	289	34	839	36	3681
SDA05-SD-08	456.9057	3045	435	239	55	955	31	3937
SDA05-SD-10	134.1286	972	179	146	81	469	48	1285
SDA05-SD-12	266.0288	2112	481	185	38	753	36	2859
SDA05-SD-13	190.5313	4304	136	126	93	1476	34	4630
SDA05-SD-14	43.84964	1780	33	30	92	711	40	1856
SDA05-SD-15	210.5371	2403	218	106	49	992	41	2832
Initial Sediment	281	900	131	81	62	381	42	1311
Water Blank	3774	162	359	283	79	105	65	4295

Units are ng/l for water and ng/g dry wt. for sediment

6. References

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4. Albright and Wilson, 210 Hagley Road West, West Midlands B68 0NN
5. ELGA-Veolia Water Systems Ltd, High Street, Lane end, High Wycombe, Buckinghamshire, HP14 3JH.
6. QMx Labs Ltd., 4 Bolford St., Thaxted, Essex, CM6 2PY.
7. Clariant UK Ltd, Calverley lane, Horsforth, Leeds, W. Yorkshire, LS18 4RP.
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7. Appendices

Appendix 1

The Pyridinium method as Applied Aqueous Samples

The following is the basic methodology used in the analysis of water samples for AE content.

Four litres of each sample are normally extracted to be able to reach the specified limit of determination. The extraction cartridges need to be thoroughly conditioned before use in order to avoid inclusion of compounds from the cartridge that may interfere with the analysis or inhibit the derivatisation process.

Cartridge conditioning

Connect one C2 cartridge, a SCX cartridge and a SAX cartridge in series. Two cartridge combinations (C2+SCX+SAX) will be required for each sample. Attach a reservoir to the top of the C2 cartridge and suck through the following solvents in succession at about 10 ml/min through each cartridge set. The solvent volumes can be measured using graduated cylinders or tilting dispensers.

- i) De-ionised water (75 ml)
- ii) Acetonitrile (30 ml)
- iii) Methanol/ethyl acetate/water (40:10:1, 20 ml)
- iv) Methanol (50 ml)
- v) Acetone/dichloromethane (3:2, 50 ml)
- vi) Acetonitrile (50 ml)

Detach the C2 cartridge from the SCX/SAX pair and draw water (75ml) through the C2. Leave about 4 ml water in the cartridge above the packing. The SCX/SAX cartridges remain in acetonitrile until required for the elution stage.

Sample Extraction

Effluent water samples are likely to contain suspended material which is not separated prior to the extraction. It is advisable to allow the effluent sample to settle for as long as is convenient before the extraction to avoid the solids reducing the flow through the cartridge, to an extent that extraction cannot be completed within 24 hours. A settling time of no more than 2 hours should be necessary.

Each four litre effluent sample is extracted with a pair of C2 cartridges.

Insert two aspiration tubes into each 4 litre sample vessel and connect to two cartridge systems. The tube inlet should be positioned a few centimetres from the bottom of the vessel to avoid sampling the sediment until near the end of the extraction. Turn on the vacuum and draw the water into the cartridge at a rate of about 10 ml/min. As fine suspended material is trapped on the frit on the top of the cartridge, the flow rate will decrease and it will be necessary to increase the suction. In the event of the flow decreasing to unacceptable levels for total extraction within 24 hours, remove the tubing connector and pierce the frit with a fine needle about 15 times. Fine solids will then be trapped in the packing as well as the frit. Towards the end of the sampling, tilt the sample vessel and draw up the sediment by lowering the sampling tubes. Rinse the inside of the vessel with 20 ml water and continue to aspirate.

After all the water has been sampled, the connector is removed from the top of the cartridge, a clean C18 cartridge is connected to act as an air filter and full vacuum is applied to the cartridges to dry them over a period of at least 16 hours. During this period the sample vessel should become dry.

Sample Elution

Reconnect a conditioned SCX/SAX cartridge pair below each C2 cartridge and connect a reservoir above the C2 cartridge. Rinse the inside of the dry sample vessel with 20 ml acetonitrile and pour into the reservoir. Collect the

eluent from each cartridge set in a 40 ml vial (fraction 1); when the acetonitrile has all eluted, add a further 15 ml to the reservoir and continue the collection. Elute the cartridge set then with 20 ml of methanol/ ethyl acetate/water (40 : 10 : 1 v/v) into another vial (fraction 2).

Evaporate fraction 1 to about 10 ml (analysis invalidated if extract goes dry), and fraction 2 to complete dryness under a gentle stream of nitrogen at about 30°C. For each water sample there are two acetonitrile fractions and two methanol/ethyl acetate fractions (i.e. two fractions 1 and two fractions 2) which must be combined into a single extract for derivatisation. Use one acetonitrile fraction to rinse out the dry fraction 2 vials into the other fraction 1 vial, and continue rinsing these three vials with further acetonitrile into the fourth vial until about 30 ml is reached.

Derivatisation

The 2-fluoro-N-methyl pyridinium toluene sulphonate reagent reacts with water which will decrease its efficacy for derivatising the alcohol ethoxylates. The weighing and dispensing of reagents should be performed as quickly as possible.

To the vial containing 30 ml acetonitrile extract add 1 ml of the internal standard solution (15 µg/ml) . Add then 0.200 g (± 0.01 g) 2-fluoro-N-methyl pyridinium toluene sulphonate reagent and 100 µl triethylamine. Cap the vial and shake steadily on an orbital shaker for 2 hours. Evaporate off the acetonitrile with a stream of nitrogen to leave a viscous yellow oil. During the day, this may be performed at ca. 30°C when the operation will take several hours. Alternatively the evaporation can be conducted overnight with a gentler stream of nitrogen at room temperature.

Pipette into the vial, a mixture of water and acetonitrile (3 : 2 v/v, 1 ml), and mix well. Transfer the solution to a small vial for LC-MS analysis. If the final extract is cloudy, then it should be filtered through a 0.2 µm PTFE syringe filter using a disposable syringe and needle.

The mass spectrometer is set up in multiple ion monitoring mode to acquire data from the relevant ions (target and internal standard) during the chromatographic run; time-windowing of the ions is required due to the large number of analyte ions.

The exact ions to be monitored may be calculated from the structures of the analyte and derivatisation agent, but are given below:

	C12	C13	C14	C15	C16	C18	C13 DEUT.
EO0	278.2484	292.2641	306.2798	320.2955	334.3112	362.3426	319.4308
EO1	322.2746	336.2903	350.3060	364.3217	378.3374	406.3688	363.4570
EO2	366.3008	380.3165	394.3322	408.3479	422.3636	450.3950	407.4832
EO3	410.3270	424.3427	438.3584	452.3741	466.3898	494.4212	451.5094
EO4	454.3532	468.3689	482.3846	496.4003	510.4160	538.4474	495.5356
EO5	498.3794	512.3951	526.4108	540.4265	554.4422	582.4736	539.5618
EO6	542.4056	556.4213	570.4370	584.4527	598.4684	626.4998	583.5880
EO7	586.4318	600.4475	614.4632	628.4789	642.4946	670.5260	627.6142
EO8	630.4580	644.4737	658.4894	672.5051	686.5208	714.5522	671.6404
EO9	674.4842	688.4999	702.5156	716.5313	730.5470	758.5784	715.6666
EO10	718.5104	732.5261	746.5418	760.5575	774.5732	802.6046	759.6928
EO11	762.5366	776.5523	790.5680	804.5837	818.5994	846.6308	803.7190
EO12	806.5628	820.5785	834.5942	848.6099	862.6256	890.6570	847.7452
EO13	850.5890	864.6047	878.6204	892.6361	906.6518	934.6832	891.7714
EO14	894.6152	908.6309	922.6466	936.6623	950.6780	978.7094	935.7976
EO15	938.6414	952.6571	966.6728	980.6885	994.7042	1022.7356	979.8238
EO16	982.6676	996.6833	1010.6990	1024.7147	1038.7304	1066.7618	1023.8500
EO17	1026.6938	1040.7095	1054.7252	1068.7409	1082.7566	1110.7880	1067.8762
EO18	1070.7200	1084.7357	1098.7514	1112.7671	1126.7828	1154.8142	1111.9024

For the calibration, a range of derivatised standards is prepared as described previously, containing the internal standard ($C_{13}D_{27}EO_{0-18}$) at 15 $\mu\text{g/ml}$ and mixed C_{12} to C_{18} alcohol ethoxylates over a concentration range suitable for the expected levels in samples, typically between about 60 and 0.5 $\mu\text{g/ml}$.

At least six standards within the range are then run on the MS. In general an injection volume of 50 μl is used. Calibration is carried out by constructing response factor calibration graphs where each alcohol ethoxylate target ion is measured relative to the internal standard with the same EO chain length i.e. $C_{12}EO_4$ is calibrated against $C_{13}D_{27}EO_4$. The resultant set of calibration files are used for the quantitation of unknown samples

This quantitation is carried out using the software available within the MS datasystem. Each peak measurement is viewed manually as it is possible for the datasystem to select the wrong peak should a significant artefact peak be present close to the analyte peaks

Calibration graphs are manually inspected and any obviously spurious data points deleted.

During sample analysis the quantitation is carried out using the calibration graphs previously obtained. The graphs may be used with a linear or quadratic fit.

The resultant quantitation output from the MS is saved in ASCII format and imported into Microsoft Excel in order that calculations and reports be prepared.

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London SE1 7NA

Customer Info

Name : The Soap and Detergent Association
Address : Suite 300
1500 K Street MW
Washington DC
20005

Phone : +202 662 2516
Fax : +202 347 4110
E-mail : kstanton@sdahq.org

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