A	ppendix C – Attachment 1
Automated Data Review (ADF	R) Reference Output Files by Sample Delivery Group

Appendix C – Attac	hment	1
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CASE NARRATIVE

Client: Sundance Consulting, Inc. Project: Fort Wingate, New Mexico Report Number: 280-67267-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for twenty-one water samples received April 2, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 2.6°C, 1.8°C, 4.2°C, 4.0°C, 3.2°C, 0.3°C, 4.0°C, 1.8°C, 1.9°C, 2.5°C, 3.3°C, 4.8°C, 2.3°C, 4.1°C, 1.1°C and 3.8°C.

Sample IDs on the chain-of-custody end with 042014; however, the sample IDs on the container labels end with 042015. The sample IDs were logged per the container labels. The client was notified on April 3, 2015.

Sample TMW07042015 (280-67267-6) lists collection time 1015 on the VOA chain-of-custody (COC), collection time 1130 on the container labels and collection time 1130 on the non-VOA COC. The collection time was logged as 1130. The client was notified on April 3. 2015.

No containers were received listing ID TMW22S042015, as listed on the VOA chain-of-custody (COC). The laboratory received VOA vials for sample TMW22042015 (no "S") collection time 1055, which was not listed on the VOA COC. Sample TMW22042015 (280-67267-21) was logged for 8260 VOC analysis per the containers received. The client was notified on April 3, 2015.

The Total Metals bottle received for sample TMW40S042015 (280-67267-22) was received unpreserved. The bottle was sent to the metals laboratory upon receipt for preservation. The client was notified on April 3, 2015.

Due to current capacity for 8270D, the turnaround time (TAT) has been changed from 15 business days to 17 business days. The client was contacted on April 13, 2015, and approved the TAT change.

Please note the Caprolactam data are reported under separate cover (280-67267-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TB-01-042015 (280-67267-13), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), FW35042015 (280-67267-20) and TMW22042015 (280-67267-21) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/07/2015, 04/08/2015 and 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate 1,2-Dichloroethane-d4 was recovered above the QC control limits in samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5) and TMW23042015 (280-67267-7). This is an indicator that data may be biased high. As the samples do not contain any detectable concentrations for constituents associated with this surrogate, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

MS/MSD analyses for analytical batches 280-271372, 280-271563 and 280-271756 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), BGMW03042015 (280-67267-9), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), FW35042015 (280-67267-20), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22) were analyzed for semivolatile

organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/03/2015 and analyzed on 04/10/2015 and 04/11/2015.

Please note the Caprolactam data are reported under separate cover (280-67267-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate 2-Fluorobiphenyl or Terphenyl-d14 was recovered below the QC control limits in samples TMW18042015 (280-67267-14), FW35042015 (280-67267-20), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22). These anomalies are due to obvious matrix interferences; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

The LCS/LCSD associated with prep batch 280-271075 exhibited a percent recovery and RPD data outside the QC control limits for Benzidine. Benzidine has been identified as a poor performing analyte when analyzed using this method; therefore, corrective action was deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-271075 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Gasoline Range Organics - 8015C

Samples MW01042015 (280-67267-10), MW22S042015 (280-67267-11), MW02042015 (280-67267-12) and TB-40-042015 (280-67267-19) were analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 04/06/2015.

Sample MW22S042015 (280-67267-11) was received at the laboratory with a pH value >2. The vials indicate the sample was preserved with hydrochloric acid. The sample was analyzed within 7 days as recommended in SW846 for unpreserved samples; therefore, there should be no bias to the reported results.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for analytical batch 280-271313 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Diesel Range Organics - 8015C

Samples MW01042015 (280-67267-10) and MW02042015 (280-67267-12) were analyzed for Diesel Range Organics in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 04/02/2015 and analyzed on 04/10/2015.

Samples MW01042015 (280-67267-10) and MW02042015 (280-67267-12) formed emulsion during the extraction procedure. The emulsions were broken up by using pour backs.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-270958 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW36042015 (280-67267-16) and TMW37042015 (280-67267-17) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/03/2015 and analyzed on 04/07/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Samples TMW41042015 (280-67267-1) and TMW23042015 (280-67267-7) formed emulsion during the extraction procedure. The emulsions were broken up using pour backs.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate 2-Fluorobiphenyl or Terphenyl-d14 was recovered below the QC control limits in samples TMW18042015 (280-67267-14), FW35042015 (280-67267-20), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22). These anomalies are due to obvious matrix interferences; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

Surrogate Decachlorobiphenyl was recovered below the QC control limits in samples TMW39S042015 (280-67267-4) and TMW44042015 (280-67267-5). These anomalies are due to obvious matrix interferences; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

The RPD between the primary and confirmation columns exceeded 40% for 4.4'-DDD in sample TMW23042015 (280-67267-7). The lower of the two values has been reported, as matrix interference is evident. The result in the analytical report has been flagged with "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-271082 were not requested.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-271432 exhibited a %Difference (%D) value out of range, biased high, for Endrin on the back column. As no detectable concentration of Endrin is present in the associated samples, the data have been reported from the front column which was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW22S042015 (280-67267-11), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), FW35042015 (280-67267-20) and TMW22042015 (280-67267-21) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/03/2015 and 04/09/2015 and analyzed on 04/07/2015, 04/09/2015 and 04/11/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW22S042015 (280-67267-11), MW02042015 (280-67267-12), FW35042015 (280-67267-20) and TMW22042015 (280-67267-21) required filtration to reduce matrix interferences.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: The cartridges were eluted with 0.1% Acetic Acid in ACN instead of ACN to increase Tetryl recovery. This deviation was performed with QA and supervisor approval. The SOP is currently under revision to capture this change.

Due to low surrogate recoveries, sample TMW37042015 (280-67267-17) was re-extracted out of the prescribed hold time and reanalyzed. In accordance with the client's instructions provided on April 28, 2015, both sets of data have been reported. Please note that the sample results should be considered estimated.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the linear calibration curve, sample TMW23042015 (280-67267-7) had to be analyzed at a dilution. Surrogate recoveries could not be accurately calculated for the diluted analysis because the extract was diluted beyond the ability to reliably quantitate recoveries. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

Surrogate 1,2-Dinitrobenzene was recovered above the QC control limits on the confirmation column in sample TMW23042015 (280-67267-7). This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

Surrogate 1,2-Dinitrobenzene was recovered below the QC control limits in sample TMW37042015 (280-67267-17). Upon re-extraction past hold time and reanalysis, surrogate recoveries were 100% in control. In accordance with the client's instructions provided on April 28, 2015, both sets of data have been reported. The associated data have been flagged "Q" in accordance with the DOD QSM.

The RPD between the primary and confirmation columns exceeded 40% for Nitrobenzene in sample TMW30042015 (280-67267-3). The RPD between the primary and confirmation columns exceeded 40% for o-Nitrotoluene in samples TMW39S042015 (280-67267-4) and MW02042015 (280-67267-12). The RPD between the primary and confirmation columns exceeded 40% for 2-Amino-4,6-dinitrotoluene and 4-Amino-2,6-dinitrotoluene in sample TMW44042015 (280-67267-5). The RPD between the primary and confirmation columns exceeded 40% for 1,2-Dinitrobenzene and 2-Amino-4,6-dinitrotoluene in sample TMW23042015 (280-67267-7). The lower of the two values has been reported, as matrix interference is evident. The results in the analytical report have been flagged with "J" in accordance with the DOD QSM.

2-Amino-4,6-dinitrotoluene was detected in method blank MB 280-271030/1-A at a level that was less than the reporting limit on the back column. The front column result is ND; therefore, the method blank is ND. Detections in the associated samples less than 10X the amount found in the blank are suspect due to potential interferences on the confirmation column. Samples with detections for 2-Amino-4,6-dinitrotoluene less than 10X the amount found in the blank were confirmed using method 8321. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

o-Nitrotoluene was detected in method blank MB 280-271030/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batches 280-271030 and 280-271968 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW41042015 (280-67267-1), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18) and TMW22042015 (280-67267-21) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/13/2015 and 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the linear calibration curve, samples TMW41042015 (280-67267-1), TMW30042015 (280-67267-3) and TMW39S042015 (280-67267-4) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

MS/MSD analyses for analytical batch 280-272464 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/03/2015 and analyzed on 04/06/2015, 04/07/2015 and 04/08/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Sodium was detected in method blank MB 280-270982/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-270982 was performed on sample FW31042015 (280-67267-2). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Aluminum. In addition, the MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-270982 was performed on sample FW31042015 (280-67267-2). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18) and TMW22042015 (280-67267-21) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/03/2015 and analyzed on 04/06/2015 and 04/07/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Sodium was detected in method blank MB 280-270974/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-270974 was performed on sample FW31042015 (280-67267-2). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four

times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD OSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-270974 was performed on sample FW31042015 (280-67267-2). The SD was not calculable and the PDS exhibited a percent recovery outside the control limits for Iron. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-270974 was performed on sample FW31042015 (280-67267-2). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/03/2015 and analyzed on 04/06/2015, 04/07/2015, 04/08/2015, 04/10/2015, 04/18/2015 and 04/20/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with prep batch 280-270983 was performed on sample TMW41042015 (280-67267-1). The MS/MSD exhibited a spike compound recovery outside the QC control limits for Beryllium. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The ICSA solution associated with analytical batch 280-273486 was above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium. The laboratory has confirmed with the vendor that this element is a trace impurity in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-270983 was performed on sample TMW41042015 (280-67267-1). The SD was not calculable and the PDS exhibited a percent recovery outside the control limits for Silver. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The low Continuing Calibration Verification (CCVL) standard associated with analytical batch 280-271626 exhibited a %Difference (%D) value out of range, biased high, for Barium. This is an indicator that data may be biased high. As the associated sample amounts are ten times greater than the CCVL concentration, corrective action was deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18) and TMW22042015 (280-67267-21) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/03/2015 and analyzed on 04/06/2015, 04/07/2015 and 04/08/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The ICSA solution associated with analytical batch 280-271413 was above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium. The laboratory has confirmed with the vendor that this element is a trace impurity in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/08/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-271100 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18) and TMW22042015 (280-67267-21) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), BGMW03042015 (280-67267-9), MW01042015 (280-67267-10), MW22S042015 (280-67267-11), MW02042015 (280-67267-12), TMW18042015 (280-67267-14), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17) and TMW22042015 (280-67267-21) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/02/2015 and 04/03/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Due to a required dilution, samples TMW44042015 (280-67267-5), TMW23042015 (280-67267-7), MW22S042015 (280-67267-11) and TMW22042015 (280-67267-21) were reanalyzed past holding time for Nitrate. The original analyses of the undiluted samples were performed within holding time. The diluted results have been reported and flagged accordingly.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or matrix interference, samples TMW30042015 (280-67267-3), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), TMW23042015 (280-67267-7), MW22S042015 (280-67267-11) and TMW22042015 (280-67267-21) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

MS/MSD analyses for analytical batch 280-271034 were not requested.

The MS/MSD associated with analytical batch 280-270843 was performed on sample TMW30042015 (280-67267-3). The MS/MSD exhibited a spike compound recovery outside the QC control limits for Nitrite as N. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67267-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC TB-01-042015		
QC Type: TB		
	BGMW03042015	4/1/2015 12:47:00 PM
	FW31042015	4/1/2015 8:20:00 AM
	FW35042015	4/1/2015 2:43:00 PM
	MW01042015	4/1/2015 10:50:00 AM
	MW02042015	4/1/2015 9:40:00 AM
	MW22S042015	4/1/2015 9:15:00 AM
	TMW07042015	4/1/2015 11:30:00 AM
	TMW16042015	4/1/2015 11:30:00 AW
	TMW18042015	4/1/2015 8:35:00 AM
	TMW19042015	4/1/2015 9:40:00 AM
	TMW22042015	4/1/2015 10:55:00 AM
	TMW23042015	4/1/2015 12:00:00 PM
	TMW30042015	4/1/2015 9:38:00 AM
	TMW36042015	4/1/2015 11:25:00 AM
	TMW37042015	4/1/2015 10:35:00 AM
	TMW39S042015	4/1/2015 9:10:00 AM
	TMW40S042015	4/1/2015 8:07:00 AM
	TMW41042015	4/1/2015 12:25:00 PM
	TMW44042015	4/1/2015 10:15:00 AM
Field QC TB-40-042015		
QC Type: TB		
	BGMW03042015	4/1/2015 12:47:00 PM
	FW31042015	4/1/2015 8:20:00 AM
	FW35042015	4/1/2015 2:43:00 PM
	MW01042015	4/1/2015 10:50:00 AM
	MW02042015	4/1/2015 9:40:00 AM
	MW22S042015	4/1/2015 9:15:00 AM
	TMW07042015	4/1/2015 11:30:00 AM
	TMW16042015	4/1/2015 12:25:00 PM
	TMW18042015	4/1/2015 8:35:00 AM
	TMW19042015	4/1/2015 9:40:00 AM
	TMW22042015	4/1/2015 10:55:00 AM
	. WITTELO ILO IO	4/1/2015 12:00:00 PM

Associated Samples	Sample Collection Date
TMW30042015	4/1/2015 9:38:00 AM
TMW36042015	4/1/2015 11:25:00 AM
TMW37042015	4/1/2015 10:35:00 AM
TMW39S042015	4/1/2015 9:10:00 AM
TMW40S042015	4/1/2015 8:07:00 AM
TMW41042015	4/1/2015 12:25:00 PM
TMW44042015	4/1/2015 10:15:00 AM



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: BGMW030	42015								
BARIUM	6020A	RE2/DIS	28	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
Reason for change:	CCVL high bias								
BARIUM	6020A	RE2/TOT	38	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
Reason for change:	CCVL high bias								
CHROMIUM	6020A	RES/TOT	0.88	ug/L	Equipment Blank Contamination		U	5/18/2015	14:44
Reason for change:	5X the blank > sample								
CHROMIUM	6020A	RES/TOT	0.88	ug/L	Equipment Blank Contamination	U		5/18/2015	14:45
Reason for change:	flagged in error								
IRON	6010C	RES/DIS	30	ug/L	Professional Judgment		UJ	5/18/2015	15:23
Reason for change:	post spike and serial DL out								
LEAD	6020A	RE2/TOT	0.74	ug/L	Field Blank Contamination		U	5/18/2015	14:41
Reason for change:	5X the blank > sample								
LEAD	6020A	RE2/TOT	0.74	ug/L	Field Blank Contamination	U		5/18/2015	14:42
Reason for change:	flagged in error								
LEAD	6020A	RE2/TOT	0.74	ug/L	Equipment Blank Contamination		U	5/18/2015	14:42
Reason for change:	5X the blank > sample								
LEAD	6020A	RE2/TOT	0.74	ug/L	Equipment Blank Contamination	U		5/18/2015	14:45
Reason for change:	flaggd in error								
MANGANESE	6020A	RE3/TOT	43	ug/L	Equipment Blank Contamination		U	5/18/2015	14:42
Reason for change:	5X the blank > sample								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: BGMW030	42015								
MANGANESE Reason for change:	6020A flagged in error	RE3/TOT	43	ug/L	Equipment Blank Contamination	U		5/18/2015	14:45
NICKEL Reason for change:	6020A 5X the blank > sample	RES/TOT	0.97	ug/L	Equipment Blank Contamination		U	5/18/2015	14:43
NICKEL Reason for change:	6020A flagged in error	RES/TOT	0.97	ug/L	Equipment Blank Contamination	U		5/18/2015	14:45
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	690000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	710000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
ZINC Reason for change:	6020A 5X the blank > sample	RES/DIS	2.3	ug/L	Field Blank Contamination		U	5/18/2015	14:41
ZINC Reason for change:	6020A flagged in error	RES/DIS	2.3	ug/L	Field Blank Contamination	U		5/18/2015	14:43
ZINC Reason for change:	6020A 5X the blank > sample	RES/DIS	2.3	ug/L	Equipment Blank Contamination		U	5/18/2015	14:43
ZINC Reason for change:	6020A flagged in error	RES/DIS	2.3	ug/L	Equipment Blank Contamination	U		5/18/2015	14:45
ZINC Reason for change:	6020A 5X the blank > sample	RES/TOT	5.2	ug/L	Equipment Blank Contamination		U	5/18/2015	14:44
ZINC Reason for change:	6020A flagged in error	RES/TOT	5.2	ug/L	Equipment Blank Contamination	U		5/18/2015	14:45

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: FW310420	15								
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	11	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	6020A CCVL high bias	RE2/TOT	56	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
CHROMIUM Reason for change:	6020A 5X the blank > sample	RES/TOT	2.0	ug/L	Equipment Blank Contamination		U	5/18/2015	14:49
IRON Reason for change:	6010C 5X the blank > sample	RES/TOT	590	ug/L	Field Blank Contamination		U	5/18/2015	14:39
IRON Reason for change:	6010C flagged in error	RES/TOT	590	ug/L	Field Blank Contamination	U		5/18/2015	14:47
IRON Reason for change:	6010C 5X the blank > sample	RES/TOT	590	ug/L	Equipment Blank Contamination		U	5/18/2015	14:47
Reason for change:	6020A 5X the blank > sample	RE2/TOT	0.64	ug/L	Equipment Blank Contamination		U	5/18/2015	14:48
MANGANESE Reason for change:	6020A 5X the blank > sample	RES/DIS	0.43	ug/L	Equipment Blank Contamination		U	5/18/2015	14:47
NICKEL Reason for change:	6020A 5X the blank > sample	RES/TOT	1.6	ug/L	Equipment Blank Contamination		U	5/18/2015	14:49
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	500000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	490000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: FW310420	15								
ZINC Reason for change:	6020A 5X the blank > sample	RES/TOT	6.5	ug/L	Equipment Blank Contamination		U	5/18/2015	14:49
Field Sample ID: MW010420	015								
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	21	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
BARIUM Reason for change:	6020A CCVL high bias	RE2/TOT	130	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	880000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	880000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: MW020420	015								
2-NITROTOLUENE Reason for change:	8330B >40% confirmation	RE2	0.33	ug/L	Professional Judgment		J	5/18/2015	15:17
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	29	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	6020A CCVL high bias	RE3/TOT	130	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	380000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	390000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Reason for change:	4X rule								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW07042	015								
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	21	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	6020A CCVL high bias	RE2/TOT	30	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	1200000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	1200000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW16042	015								
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	15	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	6020A CCVL high bias	RE3/TOT	34	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	420000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	440000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW18042	015								
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	12	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	6020A CCVL high bias	RE3/TOT	19	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW18042	015									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	640000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	670000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW19042	015									
BARIUM Reason for change:	CCVL high	6020A n bias	RE2/DIS	8.4	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
BARIUM Reason for change:	CCVL high	6020A n bias	RE4/TOT	12	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	640000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	680000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW22042	015									
BARIUM Reason for change:	CCVL high	6020A n bias	RE2/DIS	17	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
BARIUM Reason for change:	CCVL high	6020A n bias	RE3/TOT	28	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	780000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	820000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW23042	015									
2-AMINO-4,6-DINITROTOLU Reason for change:	ENE >40% confir	8330B mation	RES	0.55	ug/L	Professional Judgment		J	5/18/2015	15:18
4,4'-DDD Reason for change:	>40% confirm	8081A mation	RES	0.010	ug/L	Professional Judgment		J	5/18/2015	15:08
BARIUM Reason for change:	CCVL high b	6020A bias	RE2/DIS	18	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
BARIUM Reason for change:	CCVL high b	6020A pias	RE2/TOT	42	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	760000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	730000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW30042	015									
BARIUM Reason for change:	CCVL high b	6020A oias	RE2/DIS	8.6	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	CCVL high b	6020A pias	RE2/TOT	16	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
NITROBENZENE Reason for change:	>40% confirm	8330B mation	RE2	0.15	ug/L	Professional Judgment		J	5/18/2015	15:16
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	420000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	440000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW36042	015								
BARIUM Reason for change:	6020A CCVL high bias	RE2/DIS	8.4	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM	6020A	RE4/TOT	12	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
Reason for change:	CCVL high bias								
SODIUM Reason for change:	6010C 4X rule	RE2/DIS	620000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	6010C 4X rule	RE2/TOT	660000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW37042	015								
1,3,5-TRINITROBENZENE	8330B	RE	0.40	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample s	urr out low in the firs	t run but not	significar	itly so.				
1,3-DINITROBENZENE	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample s	urr out low in the firs	t run but not	significar	itly so.				
2,4,6-TRINITROTOLUENE	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample s	urr out low in the firs	t run but not	significar	ntly so.				
2-AMINO-4,6-DINITROTOLU	ENE 8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample s	urr out low in the firs	t run but not	significar	itly so.				
2-NITROTOLUENE	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample s	urr out low in the firs	t run but not	significar	ntly so.				
3-NITROTOLUENE	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample s	urr out low in the firs	t run but not	significar	itly so.				
3-NITROTOLUENE	8330B	RE2	0.15	ug/L	Surrogate/Tracer Recovery Low		UJ	5/18/2015	15:13
Reason for change:	59% R low bias								
5/18/2015 3:32:02 PM		ADR version 1.9	.0.325 (Licer	sed For I	Jse On USACE Projects Only)				Page 8 of 11

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW37042	015								
4-AMINO-2,6-DINITROTOLU	ENE 8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
4-NITROTOLUENE	8330B	RE	0.40	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
BARIUM	6020A	RE2/DIS	12	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
Reason for change:	CCVL high bias								
BARIUM	6020A	RE4/TOT	15	ug/L	Continuing Calibration Verification		J	5/18/2015	15:28
Reason for change:	CCVL high bias								
Dinitrotoluene, 2,4-	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
Dinitrotoluene, 2,6-	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
HEXAHYDRO-1,3,5-TRINITR	O-1,3,5- 8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
METHYL-2,4,6-	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
NITROBENZENE	8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
Octahydro-1,3,5,7-tetranitro	-1,3,5,7- 8330B	RE	0.15	ug/L	Sampling to Analysis Rejection		R	5/18/2015	15:12
Reason for change:	using 1st run, sample surr o	ut low in the first	run but not	significar	ntly so.				
SODIUM	6010C	RE2/DIS	520000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
Reason for change:	4X rule								

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW370420	015									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	510000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW39S04	2015									
2-NITROTOLUENE Reason for change:	>40% confir	8330B mation	RES	0.19	ug/L	Professional Judgment		J	5/18/2015	15:17
BARIUM Reason for change:	CCVL high I	6020A pias	RE2/DIS	15	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	CCVL high I	6020A pias	RE4/TOT	99	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	840000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	850000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW40S04	2015									
BARIUM Reason for change:	CCVL high I	6020A pias	RE3/TOT	1800	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	980000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW410420	015									
BARIUM Reason for change:	CCVL high I	6020A pias	RE2/DIS	11	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW41042	015									
BARIUM Reason for change:	CCVL high b	6020A pias	RE2/TOT	13	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
SILVER Reason for change:	post spike a	6020A nd serial DL out	RE2/TOT	0.10	ug/L	Professional Judgment		UJ	5/18/2015	15:26
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	810000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	790000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
Field Sample ID: TMW44042	015									
2-AMINO-4,6-DINITROTOLU Reason for change:	JENE >40% confir	8330B mation	RES	0.86	ug/L	Professional Judgment		J	5/18/2015	15:17
BARIUM Reason for change:	CCVL high t	6020A pias	RE2/DIS	15	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
BARIUM Reason for change:	CCVL high t	6020A pias	RE2/TOT	170	ug/L	Continuing Calibration Verificatic		J	5/18/2015	15:28
PERCHLORATE Reason for change:	5X the blank	6860 c > sample	RES	0.037	ug/L	Equipment Blank Contamination		U	5/18/2015	14:53
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	710000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:22
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	700000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	15:21
ZINC Reason for change:	5X the blank	6020A c > sample	RES/DIS	3.8	ug/L	Equipment Blank Contamination		U	5/18/2015	14:51



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	GENCHEM									
Method:	9056			Ma	ntrix:	AQ				
Sample ID:FW310420	15	Collec	ted:4/1/20	15 8:20:0	00 AM <i>A</i>	nalysis 1	Type:RES	утот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		0.099	J	0.10	LOD	0.50	LOQ	mg/L	J	RI
Sample ID:MW22S042	2015	Collec	ted:4/1/20	15 9:15:0	00 AM <i>A</i>	nalysis 1	Type:RE2	/тот	1	Dilution: 2
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		17	ΗD	0.20	LOD	1.0	LOQ	mg/L	J	StoA
Sample ID:TMW07042	2015	Collec	4/1/20 ted: AM	15 11:30		nalysis 1	<i>Type:</i> RES	/тот	1	Dilution: 2
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		0.19	JD	0.20	LOD	1.0	LOQ	mg/L	J	RI
Sample ID:TMW22042	2015	Collec	4/1/20 ted: AM	15 10:55	:00 <i>A</i>	nalysis 1	Гуре:RE2	/тот		Dilution: 2
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		11	H D	0.20	LOD	1.0	LOQ	mg/L	J	StoA
Sample ID:TMW23042	2015	Collec	4/1/20 ted:PM	15 12:00	:00 <i>A</i>	nalysis 1	Type:RE2	/тот	ı	Dilution: 5
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		27	H D	0.50	LOD	2.5	LOQ	mg/L	J	StoA
Sample ID:TMW44042	2015	Collec	4/1/20 ted: AM	15 10:15	:00 <i>A</i>	nalysis 1	Type:RE2	/тот		Dilution: 10
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		48	НD	1.0	LOD	5.0	LOQ	mg/L	J	StoA

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Sample ID:BGMW03042015

Project Name and Number: 102012 - FWDA 102012 GW

6010C

5/18/2015 3:48:29 PM

Method:

Analyte

ALUMINUM

DL

4/1/2015 12:47:00 Collected:PM

Lab

Qual

Lab

Result

1100

Matrix:

DL

Type

LOD

AQ

RL

Analysis Type: RE3/TOT

Type

LOQ

Dilution: 1

Reason

Code

Ms

Data

Review

Qual

Units

ug/L



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category	: METALS									
Method:	6010C			M	atrix:	AQ				
metriou.	00100		4/1/20	15 12:47		re.				
Sample ID:BGMW03	042015	Collec	ted:PM	13 12.47		nalysis 1	ype:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		30	U	30	LOD	100	LOQ	ug/L	UJ	ProfJudg
POTASSIUM		1700	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:BGMW03	042015	Collec	4/1/20 cted:PM	15 12:47		nalysis 1	ype:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		2200	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:FW31042	015	Collec	ted:4/1/20	15 8:20:	00 AM <i>A</i>	nalysis 1	ype:RE2	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		1300	J	31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:FW31042	015	Collec	ted:4/1/20	15 8:20:	00 AM <i>A</i>	nalysis 1	ype:RES	JDIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1700	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:FW31042	015	Collec	ted:4/1/20	15 8:20:	00 AM <i>A</i>	nalysis 1	ype:RES	утот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		590		30	LOD	100	LOQ	ug/L	U	Eb
POTASSIUM		2000	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW01042	2015	Collec	4/1/20 cted: AM	15 10:50		nalysis 1	ype:RE3	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		12000		31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:MW01042	2015	Collec	4/1/20 cted: AM	15 10:50	:00	nalysis 1	ype:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		690	J	250	LOD	3000	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

	01201					OQA	i i iii	o	igato_i i	a. y_12040
Method Category:	METALS									
Method:	6010C			Ma	atrix:	AQ				
Sample ID:MW01042015	i	Collec	4/1/20 ted: AM	15 10:50		nalysis 1	ype:RES	утот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		2500	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW02042015	5	Collec	ted:4/1/20	15 9:40:	00 AM <i>A</i>	nalysis 1	Type:RE2	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		36	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:MW02042015 Collected:4/1/2015 9:40:00 AM Analysis Type:RE2/TOT Dilution							Dilution: 1			
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		9200		31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:MW02042015	5	Collected:4/1/2015 9:40:00 AM Analysis Type:RES/DIS D					Dilution: 1			
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		34	J	30	LOD	100	LOQ	ug/L	J	RI
POTASSIUM		910	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW02042015	i .	Collec	ted:4/1/20	15 9:40:	00 AM <i>A</i>	nalysis 1	Type:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1800	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW0704201	15	Collec	4/1/20 ted: AM	15 11:30		nalysis 1	Type:RE3	/тот	_	Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		860		31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:TMW0704201	15	Collec	4/1/20 cted: AM	15 11:30		nalysis 1	Type:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		39	J	30	LOD	100	LOQ	ug/L	J	RI
		•	•	•					•	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Categor	y: METALS									
Method:	6010C			Má	atrix:	AQ				
0 / 10 Thinks	10015	0 "		15 12:25				/D10		B" 4
Sample ID:TMW160	J42015	Collec	ted:PM		A	nalysis i	<i>Type:</i> RE2 │	/DIS	Data	Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
ALUMINUM		93	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:TMW160	042015	Collec	4/1/20 cted:PM	15 12:25		nalysis	Type:RE2	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		1900	Quai	31	LOD	300	LOQ	ug/L	J	Ms
			4/1/20	15 12:25	:00					
Sample ID:TMW160	042015	Collec	ted:PM		<i>A</i>	nalysis ī	Type:RES	S/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		52	J	30	LOD	100	LOQ	ug/L	J	RI
MAGNESIUM		430	J	25	LOD	500	LOQ	ug/L	J	RI
POTASSIUM		720	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW160	042015	Collec	4/1/20 cted:PM	15 12:25		nalysis	Type:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1000	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW180	042015	Collec	ted:4/1/20	15 8:35:0	00 AM <i>A</i>	nalysis 1	Гуре:RE2	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		100	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:TMW180	042015	Collec	ted:4/1/20	15 8:35:	00 AM <i>A</i>	nalysis	Гуре:RE2	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		440		31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:TMW180	042015	Collec	ted:4/1/20	15 8:35:	00 AM A	nalysis	Type:RES	JDIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		29	J	30	LOD	100	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename. 200-0/207-1					EQA	rr Ivalli	e. FLVVII	igate_Fii	1111a1 y_1204		
Method Category: METALS											
Method: 6010C			Má	atrix:	AQ						
Sample ID:TMW19042015	Collec	ted:4/1/20	15 9:40:	00 AM <i>A</i>	nalysis 1	Гуре:RE2	/DIS	,	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	100	J	31	LOD	300	LOQ	ug/L	J	RI		
Sample ID:TMW19042015	Collec	ted:4/1/20	15 9:40:	00 AM <i>A</i>	nalysis 1	Гуре:RE2	/тот	,	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	1200		31	LOD	300	LOQ	ug/L	J	Ms		
Sample ID:TMW19042015	Collec	ted:4/1/20	15 9:40:	00 AM A	nalysis 1	Type:RES	JDIS		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
IRON	63	J	30	LOD	100	LOQ	ug/L	J	RI		
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW19042015	Collected:4/1/2015 9:40:00 AM Analysis Type:RES/TOT Dilution: 1										
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	1200	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW22042015	Collec	4/1/20 cted: AM	15 10:55	:00 <i>A</i>	nalysis 1	Гуре:RE2	/DIS	1	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	200	J	31	LOD	300	LOQ	ug/L	J	RI		
Sample ID:TMW22042015	Collec	4/1/20 cted: AM	15 10:55		nalysis 1	Гуре:RE2	/тот		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	530		31	LOD	300	LOQ	ug/L	J	Ms		
Sample ID:TMW22042015	Collec	4/1/20 cted: AM	15 10:55	:00 <i>A</i>	nalysis 1	Гуре:RES	JDIS	<u> </u>	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
DOTA COULTA	1100		050	1.00	0000	1.00					

POTASSIUM

250

LOD

3000

LOQ

ug/L

1100

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Categor	y: METALS									
Method:	6010C			Má	atrix:	AQ				
Sample ID:TMW220	042015	Collec	4/1/20 ted: AM	15 10:55		nalysis 1	ype:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		910	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW230	042015	Collec	4/1/20 ted:PM	15 12:00		nalysis 1	ype:RE2	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		45	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:TMW230	042015	Collec	4/1/20 ted:PM	15 12:00		nalysis 1	ype:RE3	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		1800		31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:TMW230	042015	4/1/2015 12:00:00 Collected: PM Analysis Type: RES/DIS L						Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		32	J	30	LOD	100	LOQ	ug/L	J	RI
POTASSIUM		750	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW230	042015	Collec	4/1/20 ted:PM	15 12:00		nalysis 1	ype:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1000	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW300	042015	Collec	ted:4/1/20	15 9:38:	00 AM <i>A</i>	nalvsis 1	vpe:RE2	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		23	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:TMW300	042015	Collec	ted:4/1/20	15 9:38:	00 AM <i>A</i>	nalysis 1	ype:RE3	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **METALS** Method: 6010C Matrix: AQ

Sample ID:TMW30042015	Collec	ted:4/1/20	15 9:38:0	00 AM A	nalysis 1	<i>Type:</i> RES	/DIS		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	870	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW30042015	Collec	ted:4/1/20	15 9:38:	00 AM A	nalysis 1	<i>ype:</i> RES	/TOT	Data Review	Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review	Reason Code	
POTASSIUM	940	J	250	LOD	3000	LOQ	ug/L	J	RI	
	•	4/1/20	15 11 25	-00	•	•	•	•		

Sample ID:TMW36042015	Collec	Collected: AM A			nalysis T	Type:RE2	/тот	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM	650		31	LOD	300	LOQ	ug/L	J	Ms	
	<u>'</u>	4/1/20	15 11:25	:00		•	•			

Sample ID:TMW36042015	Collec	Collected: AM			nalysis 1	<i>ype:</i> RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1000	J	250	LOD	3000	LOQ	ug/L	J	RI
		4/1/20	15 11:25	:00					

Sample ID:TMW36042015	Collec	Collected: AM			Analysis Type: RES/TOT				Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI		
	<u> </u>	4/1/20	15 10:35	:00							

Sample ID:TMW37042015	Collec	Collected: AM			nalysis T	Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	380		31	LOD	300	LOQ	ug/L	J	Ms
	•	4/1/20	15 10:35	:00		•	•		

Sample ID:TMW37042015	Collec	Collected: AM			nalysis 1	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	890	J	250	LOD	3000	LOQ	ug/L	J	RI

							1 -		
Sample ID:TMW37042015 Analyte	Collec	4/1/20 cted: AM	15 10:35		nalysis 1	Type:RES	утот		Dilution: 1
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	840	J	250	LOD	3000	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C Matrix: AQ	

Sample ID:TMW39S042015	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	30	J	31	LOD	300	LOQ	ug/L	J	RI

Sample ID:TMW39S042015	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	7300		31	LOD	300	LOQ	ug/L	J	Ms

Sample ID:TMW39S042015	Collec	Collected:4/1/2015 9:10:00 AM Analysis Type:RES/DIS								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON	24	J	30	LOD	100	LOQ	ug/L	J	RI	
POTASSIUM	940	J	250	LOD	3000	LOQ	ug/L	J	RI	

Sample ID:TMW39S042015	Collec	Collected:4/1/2015 9:10:00 AM Analysis Type:RES/TOT								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	1900	J	250	LOD	3000	LOQ	ug/L	J	RI	

Sample ID:TMW40S042015	Collec	Collected:4/1/2015 8:07:00 AM Analysis Type:RE2/TOT							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	120000		31	LOD	300	LOQ	ug/L	J	Ms
	·	4/1/20	15 12:25	:00	•	•	•	•	

Sample ID:TMW41042015	Collected: PM Analysis Type: RE2/DIS						Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	22	J	31	LOD	300	LOQ	ug/L	J	RI
		4/1/20	15 12:25	:00					

Sample ID:TMW41042015	Collected: PM Analysis Type: RE2/TOT					Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	360		31	LOD	300	LOQ	ug/L	J	Ms

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 200-	07207 1					CQA	i i italii	C. I LVVII	igate_Fi	
Method Category:	METALS									
Method:	6010C			Má	ntrix:	AQ				
Sample ID:TMW410420	15	Collec	4/1/20 ted:PM	15 12:25		nalysis 1	Type:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		860	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW410420	15	4/1/2015 12:25:00 Collected:PM Analysis Type:RES/TOT Dilution: 1								
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		870	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW440420	15	Collec	4/1/20 ted: AM	15 10:15		nalvsis 1	Type:RE2	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		64	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:TMW440420	15	Collec	4/1/20 ted: AM	15 10:15		nalysis 1	Гуре:RE3	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		16000		31	LOD	300	LOQ	ug/L	J	Ms
Sample ID:TMW440420	15	Collec	4/1/20 ted: AM	15 10:15		nalysis 1	Гуре:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		44	J	30	LOD	100	LOQ	ug/L	J	RI
POTASSIUM		580	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW440420	15	Collec	4/1/20 ted: AM	15 10:15		nalysis 1	Type:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		2900	J	250	LOD	3000	LOQ	ug/L	J	RI
Method Category:	METALS									
Method:	6020A			Má	atrix:	AQ				
Sample ID:BGMW03042	2015	Collec	4/1/20 ted:PM	15 12:47		nalysis 1	Type:RE2	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code

^{*} denotes a non-reportable result

BARIUM

Project Name and Number: 102012 - FWDA 102012 GW

28

0.85

LOD

3.0

LOQ

ug/L

Ccv



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

1

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method	Category:	METALS
noti iou	outogory.	

Method: 6020A Matrix: AQ

Sample ID:BGMW03042015	Collected:PM	115 12:47:00	Analysis 1	ype:RE2	/тот	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	2.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BARIUM	38	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv
LEAD	0.74	J	0.50	LOD	3.0	LOQ	ug/L	J	RI

4/1/2015 12:47:00
Sample ID:BGMW03042015 Collected: DM Analysis Type: RE

Sample ID:BGMW03042015	Collected:PM	Analysis Type:RES/DIS	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	2.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.19	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.89	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	2.3	J	6.0	LOD	20	LOQ	ug/L	J	RI

Analysis Type: RES/TOT | Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.11	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	0.88	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.48	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.97	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	5.2	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:FW31042015 Collected:4/1/2015 8:20:00 AM Analysis Type:RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.51	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
BARIUM	11		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Sample ID:FW31042015 Collected:4/1/2015 8:20:00 AM Analysis Type:RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	56		0.85	LOD	3.0	LOQ	ug/L	J	Ccv
LEAD	0.64	J	0.50	LOD	3.0	LOQ	ug/L	U	Eb
SILVER	0.11	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:FW31042015	Collected:4/1/2015 8:20:00 AM Analysis Type:RES/DIS	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.17	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	0.77	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.058	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.0	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
MANGANESE	0.43	J	0.90	LOD	3.5	LOQ	ug/L	U	Eb
SILVER	0.61	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.22	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

Sample ID:FW31042015 Collected:4/1/2015 8:20:00 AM Analysis Type:RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.54	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
BERYLLIUM	0.11	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	2.0	J	1.5	LOD	10	LOQ	ug/L	U	Eb
COBALT	0.57	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	1.6	J	0.90	LOD	3.0	LOQ	ug/L	U	Eb
THALLIUM	0.25	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
ZINC	6.5	J	6.0	LOD	20	LOQ	ug/L	U	Eb

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	21		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

4/1/2015 10:50:00

Sample ID:MW01042015 Collected: AM Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	2.5	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BARIUM	130	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv

 4/1/2015 10:50:00
 Analysis Type: RES/DIS
 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.58	J	1.0	LOD	5.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS	
Method:	6020A	Matrix: AQ

Sample ID:MW01042015	Collec	4/1/20 cted: AM	15 10:50		nalysis ī	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.76	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.19	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	0.27	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	0.92	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	2.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	13	J	6.0	LOD	20	100	ug/L	J	RI

4/1/2015 10:50:00 Sample ID:MW01042015 Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.53	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	7.6	J	1.5	LOD	10	LOQ	ug/L	J	RI
THALLIUM	0.11	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

Collected: 4/1/2015 9:40:00 AM Analysis Type: RE2/DIS Sample ID:MW02042015 Dilution: 1 Data Lab DL RL Review Reason Lab Analyte Result Qual DL Type RL **Type** Units Qual Code BARIUM 29 0.85 LOD 3.0 LOQ Ccv

Sample ID:MW02042015 Collected:4/1/2015 9:40:00 AM Analysis Type:RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.6	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CADMIUM	0.57	J	0.40	LOD	1.0	LOQ	ug/L	J	RI

Sample ID:MW02042015 Collected: 4/1/2015 9:40:00 AM Analysis Type: RE3/TOT Dilution: 1 Data Lab Lab DL Reason RLReview Analyte Result Qual DL Type RL Type Units Qual Code 0.85 BARIUM 130 LOD Ccv

Sample ID:MW02042015	Collec	ted:4/1/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.50	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.11	J	0.10	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:MW02042015 Analyte	Collec	cted:4/1/20	15 9:40:	00 AM A	nalysis 1	Type:RES	DIS	Dilution: 1		
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
COPPER	1.2	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	
NICKEL	0.83	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
THALLIUM	0.066	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	
VANADIUM	1.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	

Sample ID:MW02042015	Collec	Collected:4/1/2015 9:40:00 AM Analysis Type:RES/TOT Dilution: 1										
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code			
BERYLLIUM	0.38	J	0.24	LOD	1.0	LOQ	ug/L	J	RI			
CHROMIUM	4.7	J	1.5	LOD	10	LOQ	ug/L	J	RI			
THALLIUM	0.069	J	0.20	LOD	1.0	LOQ	ug/L	J	RI			

		I .		1	l		_			
			15 11:30							
Sample ID:TMW07042015	Collec	cted: AM		Α	nalysis 1	ype:RE2	/DIS		Dilution: 1	
								Data		
	Lab	Lab		DL		RL		Review	Reason	
Analyte	Result	Qual	DL	Type	RL	Туре	Units	Qual	Code	
B 4 B 11 11 4		T						Ι .		
BARIUM	21		0.85	LOD	3.0	LOQ	ug/L	l J	Ccv	

Sample ID:TMW07042015	Collec	ted:AM	115 11:30		nalysis 1	s Type:RE2/TOT Dilution.			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	30		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

4/1/2015 11:30:00

Sample ID:TMW07042015	Collec	ted:AM		Analysis Type: RE4/TOT Dilutio					Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.58	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.060	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
		4/1/20	15 11:30	:00			•		

Sample ID:TMW07042015	Collec	ted: AM		A	nalysis 1	Type:RE5	/тот	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	1.3	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result



ZINC

NICKEL

ZINC

Data Qualifier Summary

Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

J

J

RΙ

RΙ

RΙ

Dilution: 1

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method	Category.	: METALS	

Method: 6020A Matrix: AQ

Sample ID:TMW07042015	Collec	4/1/20 cted: AM	15 11:30	J:00 Analysis Type:RES/DIS					Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	1.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COBALT	0.65	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
COPPER	0.64	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	
NICKEL	2.3	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
VANADIUM	4.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	

6.0

LOD

LOD

LOD

3.0

LOQ

LOQ

LOQ

ug/L

Analysis Type: RES/TOT

4/1/2015 11:30:00 Sample ID:TMW07042015 Collected: AM

4.1

2.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.40	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
CHROMIUM	1.6	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.91	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.57	1	1.5	LOD	2.0	100	ua/l	1	RI

0.90

6.0

4/1/2015 12:25:00

Sample ID:TMW16042015	Collec	ted:PM	15 12.25						Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	15		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

#4/1/2015 12:25:00
Sample ID:TMW16042015 Collected:PM Analysis Type: RE2/TOT Dilution: 1

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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.61	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
LEAD	0.79	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.43	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	34	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS		
Method:	6020A	Matrix:	AQ

Sample ID:TMW16042015 Analyte	Collec	4/1/20 cted:PM	15 12:25		nalysis ī	Type:RES	/DIS		Dilution: 1
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.49	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	1.4	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.20	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
ZINC	6.3	J	6.0	LOD	20	LOQ	ua/L	J	RI

Sample ID:TMW16042015	Collec	4/1/2015 12:25 Collected: PM			nalysis 1	Гуре:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	4.2	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.68	Л	0.10	LOD	1.0	100	ua/l	.1	RI

Sample ID:TMW18042015	Collec	ted:4/1/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	12		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Sample ID:TMW18042015	Colle	Collected:4/1/2015 8:35:00 AM Analysis Type:RE2/TOT								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	2.0	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
LEAD	0.75	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
SILVER	0.25	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	

Sample ID:TMW18042015	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	19	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Sample ID:TMW18042015	Collected: 4/1/2015 8:35:00 AM Analysis Type: RES/DIS						Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	2.8	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	1.0	J	1.5	LOD	10	LOQ	ug/L	J	RI
COPPER	1.5	J	1.5	LOD	2.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

Dilution: 1

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
Method:	6020A

Matrix: AQ

Sample ID:TMW18042015	Collected: 4/1/2015 8:35:00 AM Analysis Type: RES/DIS	

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code			
LEAD	0.84	J	0.50	LOD	3.0	LOQ	ug/L	J	RI			
MANGANESE	2.3	J	0.90	LOD	3.5	LOQ	ug/L	J	RI			
NICKEL	0.47	J	0.90	LOD	3.0	LOQ	ug/L	J	RI			
SILVER	0.034	J	0.10	LOD	5.0	LOQ	ug/L	J	RI			
ZINC	2.2	J	6.0	LOD	20	LOQ	ug/L	J	RI			

Sample ID:TMW18042015 Collected:4/1/2015 8:35:00 AM Analysis Type:RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.92	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.11	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.64	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	7.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW19042015 Collected:4/1/2015 9:40:00 AM Analysis Type:RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	8.4		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Sample ID:TMW19042015 Collected:4/1/2015 9:40:00 AM Analysis Type:RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.33	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
LEAD	0.59	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.40	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

Sample ID:TMW19042015 Collected:4/1/2015 9:40:00 AM Analysis Type:RE4/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	12		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Sample ID:TMW19042015 Collected:4/1/2015 9:40:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	1.2	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS		
Method:	6020A	Matrix:	AQ

Sample ID:TMW19042015	Collec	Collected:4/1/2015 9:40:00 AM Analysis Type:RES/DIS								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ZINC	2.7	J	6.0	LOD	20	LOQ	ug/L	J	RI	

Sample ID:TMW19042015	Colle	cted:4/1/20	15 9:40:	00 AM A	nalysis	rype:RES	утот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.12	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	0.86	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.34	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.68	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
ZINC	7.1	J	6.0	LOD	20	LOQ	ua/L	J	RI

Sample ID:TMW22042015	Collec	Collected: AM			nalysis	Type:RE2	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	17		0.85	LOD	3.0	LOQ	ug/L	J	Ccv	_

Sample ID:TMW22042015	Collec	Collected: AM			nalysis T	Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.90	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
LEAD	1.2	J	0.50	LOD	3.0	LOQ	ug/L	J	RI

			0.00		0.0		_ ~g, _	•	
Sample ID:TMW22042015	Collec	4/1/20 cted: AM	15 10:55		nalysis 1	rype:RE3	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	28	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv
		4/1/20	10:55 10:55	:00					

Sample ID:TMW22042015	Collected: AM				nalysis 1	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.98	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	1.4	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.13	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.5	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.61	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS				
Method:	6020A	Matrix:	AQ		

Sample ID:TMW22042015 Analyte	Collec	4/1/20 cted: AM	15 10:55		nalysis 1	Dilution: 1			
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	3.1	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	5.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	6.5	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/1/2015 10:55:00

Sample ID:TMW22042015	Collec	Collected: AM			nalysis ī	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	1.9	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.25	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.91	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	1.1	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

SELENIUM LOD LOQ 2.8 J 2.0 5.0 ug/L RΙ ZINC RΙ 6.0 LOD LOQ ug/L 4/1/2015 12:00:00 Collected: PM Sample ID:TMW23042015 Analysis Type: RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	18		0.85	LOD	3.0	LOQ	ug/L	J	Ccv
Commis ID-TMW02042045	Calla	4/1/20	15 12:00		lundinin 1		TOT		Dilution 4

Sample ID:TMW23042015	Collec	Collected: PM			nalysis 1	rype:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.4	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BARIUM	42	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv
LEAD	0.80	J	0.50	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:TMW23042015	4/1/2015 12:00 Collected:PM				nalysis 1	ype:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.0	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	0.82	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.058	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.7	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.78	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	2.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS	
Method:	6020A	Matrix:

Sample ID:TMW23042015	Collec	4/1/2015 12:00:00 Collected: PM				Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	2.9	J	6.0	LOD	20	LOQ	ug/L	J	RI
Sample ID:TMW23042015	Collec	4/1/20 ted:PM	15 12:00		Analysis 1	Type:RES	/TOT		Dilution: 1

Sample ID:TMW23042015	Collec	Collected:PM			nalysis 1	rype:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	2.8	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.69	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.5	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	1.8	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	7.2	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW30042015	Collec	ted:4/1/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	8.6		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Sample ID:TMW30042015	Collec	/тот	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.0	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BARIUM	16		0.85	LOD	3.0	LOQ	ug/L	J	Ccv
LEAD	0.56	J	0.50	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:TMW30042015		Collec	ted:4/1/20	15 9:38:0	00 AM <i>A</i>	nalysis 1	ype:RES	/DIS	Dilution: 1		
Analyte	F	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC		0.92	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COPPER		1.4	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	
LEAD		0.19	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
MANGANESE		0.72	J	0.90	LOD	3.5	LOQ	ug/L	J	RI	
SILVER		0.14	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	
THALLIUM		0.055	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:TMW30042015	Collec	ted:4/1/20	15 9:38:0	00 AM <i>A</i>	nalysis 1	ype:RES	/тот	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BERYLLIUM	0.088	J	0.24	LOD	1.0	LOQ	ug/L	J	RI	
CHROMIUM	0.90	J	1.5	LOD	10	LOQ	ug/L	J	RI	
COBALT	0.24	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
COPPER	0.88	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	
NICKEL	0.40	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
THALLIUM	0.060	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	
ZINC	9.3	J	6.0	LOD	20	LOQ	ug/L	J	RI	

4/1/2015 11:25:00
Sample ID:TMW36042015

Collected: AM Analysis Type: RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	8.4		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

4/1/2015 11:25:00
Sample ID:TMW36042015

Collected: AM Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.45	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
LEAD	1.8	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.45	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

4/1/2015 11:25:00
Sample ID:TMW36042015

Collected: AM Analysis Type: RE4/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	12		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	0.066	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	1.1	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	2.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	6.5	J	6.0	LOD	20	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS			
Method:	6020A	Matrix:	AQ	
		4/1/2015 11:25:00		

Sample ID:TMW36042015	Collec	Collected: AM			nalysis T	<i>Type:</i> RES	/TOT	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BERYLLIUM	0.096	J	0.24	LOD	1.0	LOQ	ug/L	J	RI	
CHROMIUM	0.83	J	1.5	LOD	10	LOQ	ug/L	J	RI	
COBALT	0.28	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
NICKEL	1.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
VANADIUM	3.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	

Sample ID:TMW37042015	Collec	Collected: AM			nalysis 1	Type:RE2	/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	12		0.85	LOD	3.0	LOQ	ug/L	J	Ccv	

4/1/2015 10:35:00

Sample ID:TMW37042015 Analyte	Collec	Collected: AM				Type:RE2	/тот	Dilution: 1		
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.68	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
LEAD	1.3	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
SILVER	0.058	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	

Sample ID:TMW37042015	Collec	Collected: AM Analysis Ty				Type:RE4	/тот	1	Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	15		0.85	LOD	3.0	LOQ	ug/L	J	Ccv
	<u>'</u>	4/1/20	15 10:35	:00		•			

Sample ID:TMW37042015 Analyte	Collec	cted: AM	713 10.33		nalysis ī	Type:RES	/DIS	DIS Dilution: 1		
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.73	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COBALT	0.057	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
NICKEL	1.9	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
ZINC	3.6	J	6.0	LOD	20	LOQ	ug/L	J	RI	

		4/4/00	45.40.05	-00					
Sample ID:TMW37042015	Collec	4/1/20 cted: AM	10:35		nalysis	Type:RES	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	1.3	J	1.5	LOD	10	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS			
Method:	6020A	Matrix:	AQ	

Sample ID:TMW37042015 Analyte	Collec	4/1/20 cted: AM	15 10:35	:00 <i>A</i>		Dilution: 1			
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	0.20	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	2.8	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:TMW39S042015	Collec	Collected: 4/1/2015 9:10:00 AM Analysis Type: RE2/DIS							Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BARIUM	15		0.85	LOD	3.0	LOQ	ug/L	J	Ccv		

Sample ID:TMW39S042015	Collec	ted:4/1/20	/тот	Dilution: 1					
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.2	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
LEAD	1.9	J	0.50	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:TMW39S042015	Collec	ted:4/1/20	4/1/2015 9:10:00 AM Analysis Type:RE4/TOT						Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BARIUM	99		0.85	LOD	3.0	LOQ	ug/L	J	Ccv		

Sample ID:TMW39S042015 Analyte	Collec	cted:4/1/20	15 9:10:	00 AM <i>A</i>	nalysis T	<i>Type:</i> RES	/DIS	Dilution: 1	
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.53	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	2.3	J	1.5	LOD	10	LOQ	ug/L	J	RI
COPPER	1.0	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
MANGANESE	2.7	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
THALLIUM	0.062	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	3.5	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW39S042015	ole ID:TMW39S042015 Collected:4/1/2015 9:10:00 AM Analysis Type:RE								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.34	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	6.8	J	1.5	LOD	10	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
Method:	6020A

Matrix: AQ

Sample ID:TMW39S042015	Collec	Collected:4/1/2015 9:10:00 AM Analysis Type:RES/TOT							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.11	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
ZINC	11	.I	6.0	LOD	20	1.00	ua/I	.1	RI

Sample ID:TMW40S042015	Collected:4/1/2015 8:07:00 AM Analysis Type: RE2/TOT Dilution: 1								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.72	J	0.40	LOD	1.0	LOQ	ug/L	J	RI
SILVER	0.22	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

Sample ID:TMW40S042015	Collec	Collected:4/1/2015 8:07:00 AM Analysis Type:RE3/TOT							Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BARIUM	1800	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv		

Sample ID:TMW40S042015	Collec	ted:4/1/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.39	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

· · · · · · · · · · · · · · · · · ·		1									
Sample ID:TMW41042015	4/1/2015 12:25:00 Collected:PM Analysis Type:RE2/DIS								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ANTIMONY	1.3	J	0.60	LOD	6.0	LOQ	ug/L	J	RI		
BARIUM	11		0.85	LOD	3.0	LOQ	ug/L	J	Ccv		

Sample ID:TMW41042015	4/1/2015 12:25:00 Ole ID:TMW41042015 Collected: PM Analysis Type: RE2/TOT								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.61	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BARIUM	13		0.85	LOD	3.0	LOQ	ug/L	J	Ccv
LEAD	0.23	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.10	UJ	0.10	LOD	5.0	LOQ	ug/L	UJ	ProfJudg

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:TMW41042015	Collec	4/1/20 ted:PM	115 12:25	nalysis 1	ype:RES	/DIS		Dilution: 1
							Data	

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.54	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	2.2	J	1.5	LOD	10	LOQ	ug/L	J	RI
COPPER	0.83	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.18	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
MANGANESE	0.48	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
SELENIUM	1.6	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.064	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.15	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

4/1/2015 12:25:00

Sample ID:TMW41042015	Collected:PM	Analysis Type: RES/TOT	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	1.5	J	0.60	LOD	6.0	LOQ	ug/L	J	RI	
CHROMIUM	2.0	J	1.5	LOD	10	LOQ	ug/L	J	RI	
COBALT	0.10	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
SELENIUM	1.4	J	2.0	LOD	5.0	LOQ	ug/L	J	RI	
THALLIUM	0.18	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	
ZINC	5.5	J	6.0	LOD	20	LOQ	ug/L	J	RI	

4/1/2015 10:15:00
Sample ID:TMW44042015

Collected: AM Analysis Type: RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	15		0.85	LOD	3.0	LOQ	ug/L	J	Ccv

4/1/2015 10:15:00
Sample ID:TMW44042015
Collected: AM Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.5	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BARIUM	170	Q	0.85	LOD	3.0	LOQ	ug/L	J	Ccv

4/1/2015 10:15:00
Sample ID:TMW44042015
Collected: AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.88	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.067	J	0.10	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category: **METALS**

Method: 6020A Matrix: AQ

4/1/2015 10:15:00 Collected: AM

Sample ID:TMW44042015	Colle	4/1/20 cted:AM	115 10:15		nalysis	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	1.0	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
SELENIUM	2.2	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	4.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	3.8	J	6.0	LOD	20	LOQ	ug/L	U	Eb

4/1/2015 10:15:00 **Sample ID:**TMW44042015 Collected: AM Analysis Type: RES/TOT

Dilution: 1

7 (1)1								
Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
0.69	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
9.7	J	1.5	LOD	10	LOQ	ug/L	J	RI
2.3	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
0.17	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
	Lab Result 0.69 9.7 2.3	Lab Result Lab Qual 0.69 J 9.7 J 2.3 J	Lab Result Lab Qual DL 0.69 J 0.24 9.7 J 1.5 2.3 J 2.0	Lab Result Lab Qual DL Type 0.69 J 0.24 LOD 9.7 J 1.5 LOD 2.3 J 2.0 LOD	Lab Result Lab Qual DL Type RL 0.69 J 0.24 LOD 1.0 9.7 J 1.5 LOD 10 2.3 J 2.0 LOD 5.0	Lab Result Lab Qual DL Type RL Type RL Type 0.69 J 0.24 LOD 1.0 LOQ 9.7 J 1.5 LOD 10 LOQ 2.3 J 2.0 LOD 5.0 LOQ	Lab Result Lab Qual DL Type RL Type RL Type Units 0.69 J 0.24 LOD 1.0 LOQ ug/L 9.7 J 1.5 LOD 10 LOQ ug/L 2.3 J 2.0 LOD 5.0 LOQ ug/L	Lab Result Lab Qual DL DL Type RL Type RL Type Units Data Review Qual 0.69 J 0.24 LOD 1.0 LOQ ug/L J 9.7 J 1.5 LOD 10 LOQ ug/L J 2.3 J 2.0 LOD 5.0 LOQ ug/L J

Method Category: **METALS** 7470A

Method:

Matrix: AQ

Sample ID:TMW40S042015	Collec	Collected:4/1/2015 8:07:00 AM Analysis Type:RES/TOT									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
MERCURY	0.027	J	0.080	LOD	0.20	LOQ	ug/L	J	RI		

Method Category: **SVOA**

Method: 6860 Matrix: AQ

4/1/2015 12:25:00 Collected:PM **Sample ID:**TMW16042015 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	0.020	J	0.020	LOD	0.050	LOQ	ug/L	J	RI

4/1/2015 10:55:00 Collected: AM Sample ID:TMW22042015 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	0.021	J	0.020	LOD	0.050	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Method: 6860 Matrix: AQ

4/1/2015 10:15:00 Collected: AM Sample ID:TMW44042015 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	0.037	J	0.020	LOD	0.050	LOQ	ug/L	U	Eb

Method Category: SVOA Method: 8081A Matrix: AQ

4/1/2015 12:00:00 Collected:PM Dilution: 1 Sample ID:TMW23042015 Analysis Type: RES

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.010	J	0.020	LOD	0.051	LOQ	ug/L	J	RI, ProfJudg

Sample ID:TMW39S042015 Collected:4/1/2015 9:10:00 AM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
4,4'-DDE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
4,4'-DDT	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ALDRIN	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ALPHA-BHC	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ALPHA-CHLORDANE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
BETA-BHC	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
DELTA-BHC	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
DIELDRIN	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ENDOSULFAN I	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ENDOSULFAN II	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ENDOSULFAN SULFATE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ENDRIN	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ENDRIN ALDEHYDE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
ENDRIN KETONE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
GAMMA-BHC	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
GAMMA-CHLORDANE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
HEPTACHLOR	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
HEPTACHLOR EPOXIDE	0.021	UQ	0.021	LOD	0.053	LOQ	ug/L	UJ	Surr
METHOXYCHLOR	0.021	UQ	0.021	LOD	0.11	LOQ	ug/L	UJ	Surr
TOXAPHENE	0.84	UQ	0.84	LOD	5.3	LOQ	ug/L	UJ	Surr

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1 **Laboratory: TA DEN**

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Method: 8081A Matrix: AQ

4/1/2015 10:15:00 Collected: AM Sample ID:TMW44042015 Analysis Type: RES

Sample ID:TMW44042015	Collec	4/1/2015 10:15:00 Collected: AM Analysis Type: RES									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
4,4'-DDD	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
4,4'-DDE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
4,4'-DDT	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ALDRIN	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ALPHA-BHC	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ALPHA-CHLORDANE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
BETA-BHC	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
DELTA-BHC	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
DIELDRIN	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ENDOSULFAN I	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ENDOSULFAN II	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ENDOSULFAN SULFATE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ENDRIN	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ENDRIN ALDEHYDE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
ENDRIN KETONE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
GAMMA-BHC	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
GAMMA-CHLORDANE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
HEPTACHLOR	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
HEPTACHLOR EPOXIDE	0.020	UQ	0.020	LOD	0.051	LOQ	ug/L	UJ	Surr		
METHOXYCHLOR	0.020	UQ	0.020	LOD	0.10	LOQ	ug/L	UJ	Surr		
TOXAPHENE	0.82	UQ	0.82	LOD	5.1	LOQ	ug/L	UJ	Surr		

Method Category: **SVOA** Method: 8270D Matrix: AQ

4/1/2015 12:47:00 Collected:PM Sample ID:BGMW03042015 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	200	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	51	LOQ	ug/L	UJ	Lcs

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:FW31042015

Collected: 4/1/2015 8:20:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	UJ	Lcs

Sample ID:FW35042015

Collected:4/1/2015 2:43:00 PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	UJ	Lcs

Sample ID:TMW07042015

4/1/2015 11:30:00 Collected: AM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	99	UQ	99	LOD	200	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	2.1	J	0.99	LOD	9.9	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	50	LOQ	ug/L	UJ	Lcs

Sample ID:TMW16042015

4/1/2015 12:25:00 Collected: PM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	200	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	0.71	J	1.0	LOD	10	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	51	LOQ	ug/L	UJ	Lcs

Sample ID:TMW18042015

Collected: 4/1/2015 8:35:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETOPHENONE	1.2	J	5.0	LOD	10	LOQ	ug/L	J	RI
BENZIDINE	100	UQ	100	LOD	200	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	8.1	JQ	1.0	LOD	10	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	20	UQ	20	LOD	50	LOQ	ug/L	UJ	Lcs

Sample ID:TMW19042015

Collected:4/1/2015 9:40:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETOPHENONE	1.4	J	4.9	LOD	9.9	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:TMW19042015 Collected:4/1/2015 9:40:00 AM Analysis Type:RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	99	UQ	99	LOD	200	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	1.0	J	0.99	LOD	9.9	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	49	LOQ	ug/L	UJ	Lcs

4/1/2015 10:55:00

Sample ID:TMW22042015	Collected: AM	Analysis Type: RES-ACID	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	11	J	19	LOD	78	LOQ	ug/L	J	RI

4/1/2015 10:55:00 Sample ID:TMW22042015 Collected: AM A

Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	97	UQ	97	LOD	190	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	1.9	J	0.97	LOD	9.7	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	19	U	19	LOD	49	LOQ	ug/L	UJ	Lcs

Sample ID:TMW30042015 Collected:4/1/2015 9:38:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	51	LOQ	ug/L	UJ	Lcs

Sample ID:TMW36042015

4/1/2015 11:25:00
Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	95	UQ	95	LOD	190	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	0.87	J	0.95	LOD	9.5	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	19	U	19	LOD	48	LOQ	ug/L	UJ	Lcs

4/1/2015 10:35:00
Sample ID:TMW37042015
Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETOPHENONE	0.40	J	4.8	LOD	9.6	LOQ	ug/L	J	RI
BENZIDINE	96	UQ	96	LOD	190	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	2.4	J	0.96	LOD	9.6	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	SVOA		
Method:	8270D	Matrix:	AQ

	4/1/2015 10:35:00		
Sample ID:TMW37042015	Collected: AM	Analysis Type: RES-BASE/NEUTRAL	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	19	U	19	LOD	48	LOQ	ug/L	UJ	Lcs

Sample ID:TMW39S042015 Collected:4/1/2015 9:10:00 AM Analysis Type:RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	51	LOQ	ug/L	UJ	Lcs

Sample ID:TMW40S042015 Collected:4/1/2015 8:07:00 AM Analysis Type:RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	15	J	21	LOD	83	LOQ	ug/L	J	RI

Sample ID:TMW40S042015 Collected: 4/1/2015 8:07:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	UJ	Lcs

4/1/2015 12:25:00 Sample ID:TMW41042015 Collected: PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	99	UQ	99	LOD	200	LOQ	ug/L	R	Lcs, Lcs
BIS(2-ETHYLHEXYL) PHTHALATE	1.0	J	0.99	LOD	9.9	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	50	LOQ	ug/L	UJ	Lcs

4/1/2015 10:15:00 Sample ID:TMW44042015 Collected: AM Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	10	J	20	LOD	80	LOQ	ug/L	J	RI

Sample ID:TMW44042015 4/1/2015 10:15:00 Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	200	LOQ	ug/L	R	Lcs, Lcs
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	50	LOQ	ug/L	UJ	Lcs

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

Method Category: SVOA

Method: 8330B Matrix: AQ

Sample ID:MW02042015	N02042015 Collected:4/1/2015 9:40:00 AM Analysis Type: RE2										
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
2-NITROTOLUENE	0.33	MJ	0.17	LOD	0.44	LOQ	ug/L	J	RI, ProfJudg		

Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-AMINO-4	4,6-DINITROTOLUENE	0.55	J	0.17	LOD	0.23	LOQ	ug/L	J	ProfJudg

Sample ID:TMW30042015 Collected:4/1/2015 9:38:00 AM Analysis Type:RE2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITROBENZENE	0.15	J	0.16	LOD	0.43	LOQ	ug/L	J	RI, ProfJudg

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3-NITROTOLUENE	0.15	UQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	0.40	UQ	0.40	LOD	0.99	LOQ		UJ	Surr
1,3,5-1 KINIT KODENZENE	0.40	υQ	0.40	LOD	0.99	LOQ	ug/L	03	Sull
1,3-DINITROBENZENE	0.15	UQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr
2,4,6-TRINITROTOLUENE	0.15	υQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr
2-AMINO-4,6-DINITROTOLUENE	0.15	UQ	0.15	LOD	0.20	LOQ	ug/L	UJ	Surr
2-NITROTOLUENE	0.15	UQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr
4-AMINO-2,6-DINITROTOLUENE	0.15	UQ	0.15	LOD	0.20	LOQ	ug/L	UJ	Surr
4-NITROTOLUENE	0.40	UQ	0.40	LOD	0.99	LOQ	ug/L	UJ	Surr
Dinitrotoluene, 2,4-	0.15	UQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr
Dinitrotoluene, 2,6-	0.15	UQ	0.15	LOD	0.20	LOQ	ug/L	UJ	Surr
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	0.15	UQ	0.15	LOD	0.20	LOQ	ug/L	UJ	Surr
METHYL-2,4,6-TRINITROPHENYLNITRAMINE	0.15	UQ	0.15	LOD	0.24	LOQ	ug/L	UJ	Surr
NITROBENZENE	0.15	UQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	SVOA			
Method:	8330B	Matrix:	AQ	
		4/1/2015 10:35:00		

Sample ID:TMW37042015	Collected: AM				nalysis 1	ype:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	0.15	UQ	0.15	LOD	0.40	LOQ	ug/L	UJ	Surr

Sample ID:TMW39S042015	Collec	ted:4/1/20	15 9:10:0	00 AM A	nalysis ī	rype:RES	i	Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-NITROTOLUENE	0.19	MJ	0.17	LOD	0.46	LOQ	ug/L	J	RI, ProfJudg
4-NITROTOLUENE	0.29	JM	0.46	LOD	1.2	LOQ	ug/L	J	RI
	•	4/1/20	15 10:15	:00	•	•	•		

Sample ID:TMW44042015	Collec	Collected: AM			nalysis 1	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-AMINO-4,6-DINITROTOLUENE	0.86	J	0.18	LOD	0.24	LOQ	ug/L	J	ProfJudg

Method Category:	VOA	
Method:	8260B	Matrix: AQ

Sample ID:TMW16042015	Collec	4/1/2015 12:25:00 Collected:PM Analysis Type:RES			S Dilution: 1				
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.20	J	0.40	LOD	1.0	LOQ	ug/L	J	RI

Sample ID:TMW18042015	Collec	Collected:4/1/2015 8:35:00 AM Analysis Type: RES							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.9	J	6.4	LOD	10	LOQ	ug/L	J	RI

Sample ID:TMW19042015	Collec	Collected:4/1/2015 9:40:00 AM Analysis Type:RES							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.39	J	0.40	LOD	1.0	LOQ	ug/L	J	RI

				_	-				
Sample ID:TMW37042015	Collec	4/1/20 ted: AM	15 10:35		nalysis 1	Гуре:RES			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.28	J	0.40	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN

EDD Filename: 280-67267-1

eQAPP Name: FtWingate_Primary_120405

Method Category: VOA

Method: 8260B

Matrix: AQ

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67267-1

Laboratory: TA DEN eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280-67267-1

Reason Code Legend

Reason Code	Description
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Eb	Equipment Blank Contamination
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Upper Estimation
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Upper Estimation

^{*} denotes a non-reportable result



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67267-1 Method: 6010C BGMW03042015 S2AVE 280-67267-9 Ν 3005A 4/1/2015 12:47:00 PM AQ BGMW03042015 280-67267-9 AQ Ν 3010A 4/1/2015 12:47:00 PM S2AVE FW31042015 280-67267-2 Ν 3005A S2AVE 4/1/2015 8:20:00 AM AQ FW31042015 280-67267-2 Ν 3010A 4/1/2015 8:20:00 AM S2AVE AQ S2AVE FW31042015MS 280-67267-2MS AQ MS 3005A 4/1/2015 8:20:00 AM S2AVE FW31042015MS 280-67267-2MS AQ MS 3010A 4/1/2015 8:20:00 AM FW31042015MSD 280-67267-2MSD MSD S2AVE AQ 3005A 4/1/2015 8:20:00 AM FW31042015MSD 280-67267-2MSD AQ MSD 3010A 4/1/2015 8:20:00 AM S2AVE MW01042015 280-67267-10 Ν 3005A 4/1/2015 10:50:00 AM S2AVE AQ MW01042015 280-67267-10 Ν 3010A 4/1/2015 10:50:00 AM S2AVE AQ S2AVE MW02042015 280-67267-12 AQ Ν 3005A 4/1/2015 9:40:00 AM S2AVE MW02042015 280-67267-12 AQ Ν 3010A 4/1/2015 9:40:00 AM S2AVE TMW07042015 280-67267-6 AQ Ν 3005A 4/1/2015 11:30:00 AM TMW07042015 280-67267-6 AQ Ν 3010A 4/1/2015 11:30:00 AM S2AVE TMW16042015 280-67267-18 Ν 3005A S2AVE AQ 4/1/2015 12:25:00 PM S2AVE TMW16042015 280-67267-18 Ν 3010A 4/1/2015 12:25:00 PM AQ S2AVE TMW18042015 280-67267-14 Ν 3005A AQ 4/1/2015 8:35:00 AM TMW18042015 280-67267-14 Ν 3010A 4/1/2015 8:35:00 AM S2AVE AQ S2AVE TMW19042015 280-67267-15 Ν 3005A 4/1/2015 9:40:00 AM AQ TMW19042015 280-67267-15 Ν 3010A 4/1/2015 9:40:00 AM S2AVE AQ TMW22042015 280-67267-21 Ν 3005A 4/1/2015 10:55:00 AM S2AVE AQ TMW22042015 280-67267-21 Ν 3010A 4/1/2015 10:55:00 AM S2AVE AQ

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Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 6010C TMW23042015 Ν 3005A S2AVE 280-67267-7 4/1/2015 12:00:00 PM AQ TMW23042015 280-67267-7 Ν 3010A 4/1/2015 12:00:00 PM S2AVE AQ TMW30042015 280-67267-3 AQ Ν 3005A 4/1/2015 9:38:00 AM S2AVE S2AVE TMW30042015 280-67267-3 Ν 3010A 4/1/2015 9:38:00 AM AQ TMW36042015 280-67267-16 Ν 3005A 4/1/2015 11:25:00 AM S2AVE AQ TMW36042015 S2AVE 280-67267-16 AQ Ν 3010A 4/1/2015 11:25:00 AM TMW37042015 280-67267-17 Ν 3005A 4/1/2015 10:35:00 AM S2AVE AQ TMW37042015 280-67267-17 S2AVE AQ Ν 3010A 4/1/2015 10:35:00 AM TMW39S042015 280-67267-4 AQ Ν 3005A 4/1/2015 9:10:00 AM S2AVE TMW39S042015 280-67267-4 Ν 3010A 4/1/2015 9:10:00 AM S2AVE AQ S2AVE TMW40S042015 280-67267-22 AQ Ν 3010A 4/1/2015 8:07:00 AM TMW41042015 Ν 3005A S2AVE 280-67267-1 AQ 4/1/2015 12:25:00 PM TMW41042015 S2AVE 280-67267-1 AQ Ν 3010A 4/1/2015 12:25:00 PM TMW44042015 280-67267-5 AQ Ν 3005A 4/1/2015 10:15:00 AM S2AVE TMW44042015 S2AVE 280-67267-5 AQ Ν 3010A 4/1/2015 10:15:00 AM Method: 6020A BGMW03042015 S2AVE 280-67267-9 AQ Ν 3005A 4/1/2015 12:47:00 PM BGMW03042015 280-67267-9 Ν 3020A 4/1/2015 12:47:00 PM S2AVE AQ FW31042015 280-67267-2 AQ Ν 3005A 4/1/2015 8:20:00 AM S2AVE FW31042015 280-67267-2 Ν 3020A 4/1/2015 8:20:00 AM S2AVE AQ MW01042015 280-67267-10 Ν 3005A 4/1/2015 10:50:00 AM S2AVE AQ S2AVE MW01042015 280-67267-10 AQ Ν 3020A 4/1/2015 10:50:00 AM S2AVE MW02042015 280-67267-12 AQ Ν 3005A 4/1/2015 9:40:00 AM S2AVE MW02042015 280-67267-12 AQ Ν 3020A 4/1/2015 9:40:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 3:31:13 PM Page 2 of 10



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 6020A TMW07042015 Ν 3005A S2AVE 280-67267-6 4/1/2015 11:30:00 AM AQ TMW07042015 280-67267-6 Ν 3020A S2AVE AQ 4/1/2015 11:30:00 AM TMW16042015 280-67267-18 AQ Ν 3005A 4/1/2015 12:25:00 PM S2AVE S2AVE TMW16042015 280-67267-18 Ν 3020A 4/1/2015 12:25:00 PM AQ TMW18042015 280-67267-14 Ν 3005A 4/1/2015 8:35:00 AM S2AVE AQ TMW18042015 S2AVE 280-67267-14 AQ Ν 3020A 4/1/2015 8:35:00 AM TMW19042015 280-67267-15 Ν 3005A 4/1/2015 9:40:00 AM S2AVE AQ TMW19042015 S2AVE 280-67267-15 AQ Ν 3020A 4/1/2015 9:40:00 AM TMW22042015 280-67267-21 AQ Ν 3005A 4/1/2015 10:55:00 AM S2AVE TMW22042015 280-67267-21 Ν 3020A 4/1/2015 10:55:00 AM S2AVE AQ S2AVE TMW23042015 280-67267-7 AQ Ν 3005A 4/1/2015 12:00:00 PM TMW23042015 S2AVE 280-67267-7 AQ Ν 3020A 4/1/2015 12:00:00 PM S2AVE TMW30042015 280-67267-3 AQ Ν 3005A 4/1/2015 9:38:00 AM S2AVE TMW30042015 280-67267-3 AQ Ν 3020A 4/1/2015 9:38:00 AM S2AVE TMW36042015 280-67267-16 AQ Ν 3005A 4/1/2015 11:25:00 AM TMW36042015 280-67267-16 Ν 3020A 4/1/2015 11:25:00 AM S2AVE AQ TMW37042015 S2AVE 280-67267-17 Ν 3005A 4/1/2015 10:35:00 AM AQ S2AVE TMW37042015 280-67267-17 Ν 3020A AQ 4/1/2015 10:35:00 AM TMW39S042015 280-67267-4 Ν 3005A 4/1/2015 9:10:00 AM S2AVE AQ S2AVE TMW39S042015 280-67267-4 Ν 3020A 4/1/2015 9:10:00 AM AQ S2AVE TMW40S042015 280-67267-22 AQ Ν 3020A 4/1/2015 8:07:00 AM TMW41042015 280-67267-1 Ν 3005A 4/1/2015 12:25:00 PM S2AVE AQ TMW41042015 280-67267-1 Ν 3020A 4/1/2015 12:25:00 PM S2AVE AQ TMW41042015MS 280-67267-1MS 3005A 4/1/2015 12:25:00 PM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 3:31:13 PM Page 3 of 10



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 6020A TMW41042015MS MS 3020A S2AVE 280-67267-1MS 4/1/2015 12:25:00 PM AQ TMW41042015MSD MSD 3005A S2AVE 280-67267-1MSD AQ 4/1/2015 12:25:00 PM TMW41042015MSD 280-67267-1MSD AQ MSD 3020A 4/1/2015 12:25:00 PM S2AVE S2AVE TMW44042015 280-67267-5 Ν 3005A 4/1/2015 10:15:00 AM AQ TMW44042015 280-67267-5 Ν 3020A 4/1/2015 10:15:00 AM S2AVE AQ Method: 6860 BGMW03042015 280-67267-9 AQ Ν **METHOD** 4/1/2015 12:47:00 PM S2AVE Ν **METHOD** S2AVE MW01042015 280-67267-10 AQ 4/1/2015 10:50:00 AM S2AVE TMW16042015 280-67267-18 Ν **METHOD** 4/1/2015 12:25:00 PM AQ S2AVE TMW18042015 280-67267-14 AQ Ν **METHOD** 4/1/2015 8:35:00 AM TMW19042015 280-67267-15 Ν **METHOD** 4/1/2015 9:40:00 AM S2AVE AQ S2AVE TMW22042015 280-67267-21 AQ Ν **METHOD** 4/1/2015 10:55:00 AM TMW23042015 280-67267-7 AQ Ν **METHOD** 4/1/2015 12:00:00 PM S2AVE TMW30042015 280-67267-3 **METHOD** 4/1/2015 9:38:00 AM S2AVE Ν AQ S2AVE TMW36042015 280-67267-16 Ν **METHOD** 4/1/2015 11:25:00 AM AQ S2AVE TMW37042015 280-67267-17 AQ Ν **METHOD** 4/1/2015 10:35:00 AM S2AVE TMW39S042015 280-67267-4 Ν **METHOD** 4/1/2015 9:10:00 AM AQ TMW41042015 280-67267-1 Ν **METHOD** 4/1/2015 12:25:00 PM S2AVE AQ TMW44042015 280-67267-5 AQ Ν **METHOD** 4/1/2015 10:15:00 AM S2AVE Method: 7470A BGMW03042015 280-67267-9 Ν 7470A 4/1/2015 12:47:00 PM S2AVE AQ 280-67267-2 7470A S2AVE FW31042015 Ν 4/1/2015 8:20:00 AM AQ MW01042015 280-67267-10 Ν 7470A 4/1/2015 10:50:00 AM S2AVE AQ S2AVE MW02042015 280-67267-12 Ν 7470A 4/1/2015 9:40:00 AM AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 3:31:13 PM Page 4 of 10



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 7470A TMW07042015 280-67267-6 Ν 7470A S2AVE 4/1/2015 11:30:00 AM AQ S2AVE TMW16042015 280-67267-18 Ν 7470A 4/1/2015 12:25:00 PM AQ TMW18042015 280-67267-14 AQ Ν 7470A 4/1/2015 8:35:00 AM S2AVE S2AVE TMW19042015 280-67267-15 Ν 7470A 4/1/2015 9:40:00 AM AQ TMW22042015 280-67267-21 Ν 7470A 4/1/2015 10:55:00 AM S2AVE AQ TMW22042015MS 280-67267-21MS MS 7470A S2AVE AQ 4/1/2015 10:55:00 AM TMW22042015MSD 280-67267-21MSD MSD 7470A 4/1/2015 10:55:00 AM S2AVE AQ TMW23042015 280-67267-7 Ν 7470A S2AVE AQ 4/1/2015 12:00:00 PM TMW30042015 280-67267-3 AQ Ν 7470A 4/1/2015 9:38:00 AM S2AVE TMW36042015 280-67267-16 Ν 7470A 4/1/2015 11:25:00 AM S2AVE AQ S2AVE TMW37042015 280-67267-17 AQ Ν 7470A 4/1/2015 10:35:00 AM TMW39S042015 280-67267-4 Ν 7470A S2AVE AQ 4/1/2015 9:10:00 AM 7470A S2AVE TMW40S042015 280-67267-22 AQ Ν 4/1/2015 8:07:00 AM S2AVE TMW41042015 280-67267-1 AQ Ν 7470A 4/1/2015 12:25:00 PM TMW44042015 Ν 7470A 4/1/2015 10:15:00 AM S2AVE 280-67267-5 AQ Method: 8015C DRO S2AVE MW01042015 280-67267-10 AQ Ν 3510C 4/1/2015 10:50:00 AM MW02042015 280-67267-12 AQ Ν 3510C 4/1/2015 9:40:00 AM S2AVE Method: 8015C GRO MW01042015 280-67267-10 AQ Ν **METHOD** 4/1/2015 10:50:00 AM S2AVE MW02042015 280-67267-12 Ν **METHOD** 4/1/2015 9:40:00 AM S2AVE AQ MW22S042015 280-67267-11 Ν **METHOD** S2AVE 4/1/2015 9:15:00 AM AQ TB-40-042015 280-67267-19 AQ TB **METHOD** 4/1/2015 8:00:00 AM S2AVE



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 8081A BGMW03042015 3510C S2AVE 280-67267-9 Ν 4/1/2015 12:47:00 PM AQ FW31042015 280-67267-2 Ν 3510C S2AVE AQ 4/1/2015 8:20:00 AM MW01042015 280-67267-10 AQ Ν 3510C 4/1/2015 10:50:00 AM S2AVE 4/1/2015 9:40:00 AM S2AVE MW02042015 280-67267-12 Ν 3510C AQ TMW23042015 280-67267-7 Ν 3510C 4/1/2015 12:00:00 PM S2AVE AQ TMW30042015 S2AVE 280-67267-3 AQ Ν 3510C 4/1/2015 9:38:00 AM TMW36042015 280-67267-16 Ν 3510C 4/1/2015 11:25:00 AM S2AVE AQ 280-67267-17 TMW37042015 S2AVE AQ Ν 3510C 4/1/2015 10:35:00 AM TMW39S042015 280-67267-4 AQ Ν 3510C 4/1/2015 9:10:00 AM S2AVE TMW41042015 280-67267-1 Ν 3510C 4/1/2015 12:25:00 PM S2AVE AQ TMW44042015 S2AVE 280-67267-5 AQ Ν 3510C 4/1/2015 10:15:00 AM Method: 8260B BGMW03042015 280-67267-9 AQ Ν 4/1/2015 12:47:00 PM S2AVE 5030 FW31042015 280-67267-2 S2AVE Ν 4/1/2015 8:20:00 AM AQ 5030 S2AVE FW35042015 280-67267-20 Ν 4/1/2015 2:43:00 PM AQ 5030 MW01042015 280-67267-10 AQ Ν 4/1/2015 10:50:00 AM S2AVE 5030 S2AVE MW02042015 280-67267-12 Ν 4/1/2015 9:40:00 AM AQ 5030 TB-01-042015 280-67267-13 TB 4/1/2015 8:00:00 AM S2AVE AQ 5030 TMW07042015 280-67267-6 AQ Ν 4/1/2015 11:30:00 AM S2AVE 5030 TMW16042015 280-67267-18 Ν 4/1/2015 12:25:00 PM S2AVE AQ 5030 TMW18042015 280-67267-14 S2AVE AQ Ν 4/1/2015 8:35:00 AM 5030 TMW19042015 280-67267-15 AQ Ν 4/1/2015 9:40:00 AM S2AVE 5030 S2AVE TMW22042015 280-67267-21 AQ Ν 4/1/2015 10:55:00 AM 5030 TMW23042015 280-67267-7 AQ Ν 4/1/2015 12:00:00 PM S2AVE ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 3:31:13 PM Page 6 of 10



Reviewed By:			Approved By:		Labo	oratory: TA DEN
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 8260B						
TMW30042015	280-67267-3	AQ	N	50	30 4/1/2015 9:38:00 AM	S2AVE
TMW36042015	280-67267-16	AQ	N	50	30 4/1/2015 11:25:00 AM	S2AVE
TMW37042015	280-67267-17	AQ	N	50	30 4/1/2015 10:35:00 AM	S2AVE
TMW39S042015	280-67267-4	AQ	N	50	30 4/1/2015 9:10:00 AM	S2AVE
TMW41042015	280-67267-1	AQ	N	50	30 4/1/2015 12:25:00 PM	S2AVE
TMW44042015	280-67267-5	AQ	N	50	30 4/1/2015 10:15:00 AM	S2AVE
Method: 8270D						
BGMW03042015	280-67267-9	AQ	N	3520C	4/1/2015 12:47:00 PM	S2AVE
FW31042015	280-67267-2	AQ	N	3520C	4/1/2015 8:20:00 AM	S2AVE
FW35042015	280-67267-20	AQ	N	3520C	4/1/2015 2:43:00 PM	S2AVE
TMW07042015	280-67267-6	AQ	N	3520C	4/1/2015 11:30:00 AM	S2AVE
TMW16042015	280-67267-18	AQ	N	3520C	4/1/2015 12:25:00 PM	S2AVE
TMW18042015	280-67267-14	AQ	N	3520C	4/1/2015 8:35:00 AM	S2AVE
TMW19042015	280-67267-15	AQ	N	3520C	4/1/2015 9:40:00 AM	S2AVE
TMW22042015	280-67267-21	AQ	N	3520C	4/1/2015 10:55:00 AM	S2AVE
TMW30042015	280-67267-3	AQ	N	3520C	4/1/2015 9:38:00 AM	S2AVE
TMW36042015	280-67267-16	AQ	N	3520C	4/1/2015 11:25:00 AM	S2AVE
TMW37042015	280-67267-17	AQ	N	3520C	4/1/2015 10:35:00 AM	S2AVE
TMW39S042015	280-67267-4	AQ	N	3520C	4/1/2015 9:10:00 AM	S2AVE
TMW40S042015	280-67267-22	AQ	N	3520C	4/1/2015 8:07:00 AM	S2AVE
TMW41042015	280-67267-1	AQ	N	3520C	4/1/2015 12:25:00 PM	S2AVE
TMW44042015	280-67267-5	AQ	N	3520C	4/1/2015 10:15:00 AM	S2AVE
Method: 8330B						
BGMW03042015	280-67267-9	AQ	N	35	35 4/1/2015 12:47:00 PM	S2AVE
5/18/2015 3:31:13 PM		ADR version 1.9	0.325 (Licensed For Use On USAC	E Projects Only)		Page 7 of 10



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 8330B FW31042015 280-67267-2 S2AVE Ν 4/1/2015 8:20:00 AM AQ 3535 FW35042015 280-67267-20 Ν S2AVE AQ 4/1/2015 2:43:00 PM 3535 MW01042015 280-67267-10 AQ Ν 4/1/2015 10:50:00 AM S2AVE 3535 S2AVE MW02042015 280-67267-12 Ν 4/1/2015 9:40:00 AM AQ 3535 MW22S042015 280-67267-11 Ν S2AVE AQ 4/1/2015 9:15:00 AM 3535 TMW07042015 S2AVE 280-67267-6 AQ Ν 4/1/2015 11:30:00 AM 3535 TMW16042015 280-67267-18 Ν S2AVE AQ 4/1/2015 12:25:00 PM 3535 TMW18042015 280-67267-14 S2AVE AQ Ν 4/1/2015 8:35:00 AM 3535 TMW19042015 280-67267-15 AQ Ν 4/1/2015 9:40:00 AM S2AVE 3535 TMW22042015 280-67267-21 Ν 4/1/2015 10:55:00 AM S2AVE AQ 3535 S2AVE TMW23042015 280-67267-7 Ν 4/1/2015 12:00:00 PM AQ 3535 TMW30042015 S2AVE 280-67267-3 AQ Ν 4/1/2015 9:38:00 AM 3535 S2AVE TMW36042015 280-67267-16 AQ Ν 4/1/2015 11:25:00 AM 3535 TMW37042015 280-67267-17 AQ Ν 4/1/2015 10:35:00 AM S2AVE 3535 S2AVE TMW39S042015 280-67267-4 AQ Ν 4/1/2015 9:10:00 AM 3535 TMW41042015 280-67267-1 Ν 4/1/2015 12:25:00 PM S2AVE AQ 3535 TMW44042015 S2AVE 280-67267-5 Ν 4/1/2015 10:15:00 AM AQ 3535 Method: 9056 BGMW03042015 280-67267-9 AQ Ν **METHOD** 4/1/2015 12:47:00 PM S2AVE FW31042015 280-67267-2 Ν **METHOD** 4/1/2015 8:20:00 AM S2AVE AQ MW01042015 280-67267-10 **METHOD** 4/1/2015 10:50:00 AM S2AVE AQ Ν MW02042015 280-67267-12 AQ Ν **METHOD** 4/1/2015 9:40:00 AM S2AVE **METHOD** S2AVE MW22S042015 280-67267-11 AQ Ν 4/1/2015 9:15:00 AM TMW07042015 280-67267-6 AQ Ν **METHOD** 4/1/2015 11:30:00 AM S2AVE ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 3:31:13 PM Page 8 of 10



Reviewed By: Approved By: Laboratory: TA DEN Preparation Sample Type Validation Code Client Sample ID Lab Sample ID **Matrix Collection Date** Method Method: 9056 TMW18042015 280-67267-14 Ν **METHOD** 4/1/2015 8:35:00 AM S2AVE AQ S2AVE TMW22042015 280-67267-21 Ν **METHOD** 4/1/2015 10:55:00 AM AQ S2AVE TMW23042015 280-67267-7 AQ Ν **METHOD** 4/1/2015 12:00:00 PM S2AVE TMW30042015 280-67267-3 AQ Ν **METHOD** 4/1/2015 9:38:00 AM TMW30042015DUP 280-67267-3DUP DUP **METHOD** 4/1/2015 9:38:00 AM S2AVE AQ TMW30042015MS 280-67267-3MS MS **METHOD** 4/1/2015 9:38:00 AM S2AVE AQ TMW30042015MSD 280-67267-3MSD MSD **METHOD** 4/1/2015 9:38:00 AM S2AVE AQ TMW36042015 280-67267-16 Ν **METHOD** 4/1/2015 11:25:00 AM S2AVE AQ TMW37042015 280-67267-17 AQ Ν **METHOD** 4/1/2015 10:35:00 AM S2AVE TMW39S042015 280-67267-4 AQ Ν **METHOD** 4/1/2015 9:10:00 AM S2AVE TMW41042015 280-67267-1 **METHOD** S2AVE AQ Ν 4/1/2015 12:25:00 PM TMW44042015 280-67267-5 Ν **METHOD** 4/1/2015 10:15:00 AM S2AVE AQ



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A



Data Review Summary

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note

· · · · · · · · · · · · · · · · · · ·	
Technical Holding Times	SR
Temperature	A
Initial Calibration	N
Continuing Calibration/Initial Calibration Verification	N
Method Blanks	SR
Surrogate/Tracer Spikes	SR
Matrix Spike/Matrix Spike Duplicates	SR
Laboratory Duplicates	A
Laboratory Replicates	N
Laboratory Control Samples	SR
Compound Quantitation	SR
Field Duplicates	N
Field Triplicates	N
Field Blanks	SR

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 9056 Matrix: AQ				Pro	eparation Method: METHOD
Sample ID	Туре	Actual	Criteria	Units	Flag
MW22S042015 (RE2/TOT) TMW22042015 (RE2/TOT) TMW23042015 (RE2/TOT) TMW44042015 (RE2/TOT)	Sampling To Analysis	52.50 51.25 49.50 51.00	48.00 48.00 48.00 48.00	HOURS HOURS HOURS HOURS	J (all detects) UJ (all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D

Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSD 280-271075/3-A (BGMW03042015 FW31042015 FW35042015 TMW07042015 TMW16042015 TMW18042015 TMW19042015 TMW22042015 TMW30042015 TMW30042015 TMW30042015 TMW36042015 TMW36042015 TMW36042015 TMW37042015 TMW405042015 TMW4042015 TMW4042015 TMW4042015	BENZIDINE	-	0	10.00-110.00	200 (30.00)	BENZIDINE	J (all detects) R (all non-detects)
LCS 280-271075/2-A LCSD 280-271075/3-A (BGMW03042015 FW31042015 FW35042015 TMW07042015 TMW16042015 TMW18042015 TMW19042015 TMW22042015 TMW22042015 TMW30042015 TMW37042015 TMW37042015 TMW398042015 TMW398042015 TMW408042015 TMW408042015 TMW41042015 TMW41042015	HEXACHLOROCYCLOPENTADIEN	44	40	50.00-130.00	-	HEXACHLOROCYCLOPENTADIE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FW31042015MSD (DIS) (BGMW03042015 FW31042015 MW01042015 MW02042015 TMW07042015 TMW16042015 TMW18042015 TMW19042015 TMW23042015 TMW23042015 TMW23042015 TMW330042015 TMW37042015 TMW39042015 TMW39042015 TMW39042015 TMW39042015 TMW39042015 TMW41042015 TMW41042015 TMW41042015	SODIUM	-	77	80.00-120.00	-	SODIUM	J (all detects) UJ (all non-detects)
FW31042015MS (TOT) FW31042015MSD (TOT) (BGMW03042015 FW31042015 MW01042015 MW02042015 TMW07042015 TMW16042015 TMW19042015 TMW23042015 TMW23042015 TMW23042015 TMW30042015 TMW30042015 TMW36042015 TMW37042015 TMW37042015 TMW37042015 TMW4042015 TMW4042015 TMW4042015 TMW4042015	ALUMINUM	243	232	80.00-120.00	-	ALUMINUM	J(all detects)
FW31042015MSD (TOT) (BGMW03042015 FW31042015 MW01042015 MW02042015 TMW07042015 TMW16042015 TMW18042015 TMW19042015 TMW2042015 TMW2042015 TMW23042015 TMW23042015 TMW30042015 TMW36042015 TMW36042015 TMW37042015 TMW37042015 TMW4042015 TMW41042015 TMW41042015 TMW41042015 TMW41042015	SODIUM	-	72	80.00-120.00	-	SODIUM	J(all detects) UJ(all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-270974/1-A	4/7/2015 12:39:00 PM	SODIUM	130 ug/L	BGMW03042015 FW31042015 MW01042015 MW01042015 TMW07042015 TMW16042015 TMW18042015 TMW19042015 TMW2042015 TMW23042015 TMW30042015 TMW30042015 TMW30042015 TMW36042015 TMW37042015 TMW37042015 TMW37042015 TMW37042015 TMW41042015 TMW41042015
MB 280-270982/1-A	4/7/2015 2:18:00 PM	SODIUM	214 ug/L	BGMW03042015 FW31042015 MW01042015 MW02042015 TMW16042015 TMW16042015 TMW18042015 TMW2042015 TMW22042015 TMW23042015 TMW30042015 TMW30042015 TMW36042015 TMW39S042015 TMW39S042015 TMW40S042015 TMW40S042015 TMW40S042015 TMW40S042015

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method:	6010C
Method: Matrix:	AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
BGMW03042015	POTASSIUM	J	1700	3000	LOQ	ug/L	J (all detects)
FW31042015	POTASSIUM	J	1700	3000	LOQ	ug/L	J (all detects)
MW01042015	POTASSIUM	J	690	3000	LOQ	ug/L	J (all detects)
MW02042015	ALUMINUM IRON POTASSIUM	J	36 34 910	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW07042015	IRON	J	39	100	LOQ	ug/L	J (all detects)
TMW16042015	ALUMINUM IRON MAGNESIUM POTASSIUM	J	93 52 430 720	300 100 500 3000	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
TMW18042015	ALUMINUM IRON	J	100 29	300 100	LOQ LOQ	ug/L ug/L	J (all detects)
TMW19042015	ALUMINUM IRON POTASSIUM	J J	100 63 1100	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW22042015	ALUMINUM POTASSIUM	J	200 1100	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW23042015	ALUMINUM IRON POTASSIUM	J J	45 32 750	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW30042015	ALUMINUM POTASSIUM	J	23 870	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW36042015	POTASSIUM	J	1000	3000	LOQ	ug/L	J (all detects)
TMW37042015	POTASSIUM	J	890	3000	LOQ	ug/L	J (all detects)
TMW39S042015	ALUMINUM IRON POTASSIUM	J J	30 24 940	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW41042015	ALUMINUM POTASSIUM	J	22 860	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW44042015	ALUMINUM IRON POTASSIUM	J J	64 44 580	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
BGMW03042015	ARSENIC BERYLLIUM CHROMIUM COBALT LEAD NICKEL ZINC	7 7 7 7 7 -	2.1 0.11 0.88 0.19 0.74 0.89 2.3	5.0 1.0 10 1.0 3.0 3.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW31042015	ANTIMONY BERYLLIUM CHROMIUM COBALT COPPER LEAD MANGANESE NICKEL SILVER THALLIUM ZINC]]]]	0.51 0.17 0.77 0.058 1.0 0.64 0.43 1.6 0.11 0.22 6.5	6.0 1.0 10 1.0 2.0 3.0 3.5 3.0 5.0 1.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
MW01042015	ARSENIC BERYLLIUM CHROMIUM COBALT LEAD NICKEL THALLIUM VANADIUM ZINC]]]]	2.5 0.53 0.76 0.19 0.27 0.92 0.11 2.6 13	5.0 1.0 10 1.0 3.0 3.0 1.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
MW02042015	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER NICKEL THALLIUM VANADIUM)))))	1.6 0.38 0.57 0.50 0.11 1.2 0.83 0.066 1.3	5.0 1.0 1.0 10 1.0 2.0 3.0 1.0 6.0	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW07042015	ANTIMONY ARSENIC CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM ZINC]]]]]	0.40 1.3 1.6 0.65 0.64 0.58 2.3 0.060 4.2 4.1	6.0 5.0 10 1.0 2.0 3.0 5.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW16042015	ARSENIC CHROMIUM COBALT COPPER LEAD SILVER ZINC	J J J J	0.61 1.4 0.20 1.1 0.79 0.43 6.3	5.0 10 1.0 2.0 3.0 5.0 20	LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW18042015	ARSENIC CHROMIUM COBALT	J	2.0 1.0 0.11	5.0 10 1.0	LOQ LOQ LOQ	ug/L ug/L ug/L	
	COPPER LEAD	J	1.5 0.75	2.0 3.0	LOQ LOQ	ug/L ug/L	J (all detects)
	MANGANESE NICKEL SILVER ZINC	J	2.3 0.47 0.25 2.2	3.5 3.0 5.0 20	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	
TMW19042015	ARSENIC BERYLLIUM	J	0.33 0.12	5.0 1.0	LOQ LOQ	ug/L ug/L	
	CHROMIUM COBALT COPPER	J J J	0.86 0.34 0.68	10 1.0 2.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
	LEAD NICKEL SILVER	J	0.59 1.2 0.40	3.0 3.0 5.0	LOQ LOQ LOQ	ug/L ug/L ug/L	,
TMW22042015	ZINC ARSENIC CHROMIUM	J	2.7 0.90 1.4	5.0 10	LOQ LOQ LOQ	ug/L ug/L ug/L	
	COBALT COPPER LEAD	J	0.13 1.5 1.2	1.0 2.0 3.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
	NICKEL SELENIUM VANADIUM ZINC	J	0.61 3.1 5.4 6.5	3.0 5.0 6.0 20	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	
TMW23042015	ARSENIC CHROMIUM	J	1.4 0.82	5.0 10	LOQ LOQ	ug/L ug/L	
	COBALT COPPER LEAD NICKEL	J	0.058 1.7 0.80 0.78	1.0 2.0 3.0 3.0	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
	VANADIUM ZINC	J	2.7 2.9	6.0 20	LOQ LOQ	ug/L ug/L	
TMW30042015	ARSENIC BERYLLIUM CHROMIUM	J	1.0 0.088 0.90	5.0 1.0 10	LOQ LOQ LOQ	ug/L ug/L ug/L	
	COBALT COPPER LEAD MANGANESE	J	0.24 1.4 0.56 0.72	1.0 2.0 3.0 3.5	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
	NICKEL SILVER	J	0.40 0.14	3.0 5.0	LOQ LOQ	ug/L ug/L	
	THALLIUM ZINC	J	0.055 9.3	1.0 20	LOQ LOQ	ug/L ug/L	

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW36042015	ARSENIC BERYLLIUM CHROMIUM	J	0.45 0.096 0.83	5.0 1.0 10	LOQ LOQ LOQ	ug/L ug/L	
	COBALT LEAD	J	0.066 1.8	1.0 3.0	LOQ LOQ	ug/L ug/L ug/L	J (all detects)
	NICKEL SILVER VANADIUM	J	1.1 0.45 2.4	3.0 5.0 6.0	LOQ LOQ LOQ	ug/L ug/L ug/L	
	ZINC	Ĵ	6.5	20	LOQ	ug/L	
TMW37042015	ARSENIC CHROMIUM COBALT	J	0.68 1.3 0.057	5.0 10 1.0	LOQ LOQ LOQ	ug/L ug/L	
	COPPER LEAD	J	1.1 1.3	2.0 3.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
	NICKEL SILVER ZINC	J	1.9 0.058 3.6	3.0 5.0 20	LOQ LOQ LOQ	ug/L ug/L ug/L	
TMW39S042015	ARSENIC	J	1.2	5.0	LOQ	ug/L	
	BERYLLIUM CHROMIUM COPPER	J	0.34 2.3 1.0	1.0 10 2.0	LOQ LOQ LOQ	ug/L ug/L ug/L	
	LEAD MANGANESE THALLIUM	J	1.9 2.7 0.062	3.0 3.5	LOQ LOQ LOQ	ug/L ug/L	J (all detects)
	VANADIUM ZINC	J	3.5 11	1.0 6.0 20	LOQ LOQ	ug/L ug/L ug/L	
TMW40S042015	CADMIUM SILVER THALLIUM	J	0.72 0.22 0.39	1.0 5.0 1.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW41042015	ANTIMONY ARSENIC	J	1.3 0.61	6.0 5.0	LOQ LOQ	ug/L ug/L	
	CHROMIUM COBALT COPPER	J	2.2 0.10 0.83	10 1.0 2.0	LOQ LOQ LOQ	ug/L ug/L ug/L	
	LEAD MANGANESE	J	0.23 0.48	3.0 3.5	LOQ LOQ	ug/L ug/L	J (all detects)
	SELENIUM SILVER THALLIUM ZINC	J J J	1.6 0.064 0.15 5.5	5.0 5.0 1.0 20	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	
TMW44042015	ARSENIC BERYLLIUM	J	3.5 0.69	5.0 1.0	LOQ LOQ	ug/L ug/L	
	CHROMIUM COBALT	J	9.7 0.067	10 1.0	LOQ LOQ	ug/L ug/L	(all data at-)
	COPPER SELENIUM THALLIUM	J	1.0 2.2 0.17	2.0 5.0 1.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
	VANADIUM ZINC	J	4.2 3.8	6.0 20	LOQ LOQ	ug/L ug/L	

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 6860 Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW16042015	PERCHLORATE	J	0.020	0.050	LOQ	ug/L	J (all detects)
TMW22042015	PERCHLORATE	J	0.021	0.050	LOQ	ug/L	J (all detects)
TMW44042015	PERCHLORATE	J	0.037	0.050	LOQ	ug/L	J (all detects)

Method: 7470A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW40S042015	MERCURY	J	0.027	0.20	LOQ	ug/L	J (all detects)

Method: 8081A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW23042015	4,4'-DDD	J	0.010	0.051	LOQ	ug/L	J (all detects)

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW16042015	TOLUENE	J	0.20	1.0	LOQ	ug/L	J (all detects)
TMW18042015	ACETONE	J	4.9	10	LOQ	ug/L	J (all detects)
TMW19042015	TOLUENE	J	0.39	1.0	LOQ	ug/L	J (all detects)
TMW37042015	TOLUENE	J	0.28	1.0	LOQ	ug/L	J (all detects)

Method: 8270D

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW07042015	BIS(2-ETHYLHEXYL) PHTHALATE	J	2.1	9.9	LOQ	ug/L	J (all detects)
TMW16042015	BIS(2-ETHYLHEXYL) PHTHALATE		0.71	10	LOQ	ug/L	J (all detects)
TMW18042015	ACETOPHENONE BIS(2-ETHYLHEXYL) PHTHALATE	JQ	1.2 8.1	10 10	LOQ LOQ	ug/L ug/L	J (all detects)
TMW19042015	ACETOPHENONE BIS(2-ETHYLHEXYL) PHTHALATE	J	1.4 1.0	9.9 9.9	LOQ LOQ	ug/L ug/L	J (all detects)
TMW22042015	2,4-DINITROPHENOL BIS(2-ETHYLHEXYL) PHTHALATE	J	11 1.9	78 9.7	LOQ LOQ	ug/L ug/L	J (all detects)

Project Name and Number: 102012 - FWDA 102012 GW

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D

AQ

Matrix:

Lab Reporting RL SampleID Analyte Qual Result Limit **Type Units** Flag TMW36042015 BIS(2-ETHYLHEXYL) PHTHALATE J 0.87 LOQ ug/L J (all detects) 9.5 TMW37042015 ACETOPHENONE 0.40 9.6 LOQ J ug/L J (all detects) BIS(2-ETHYLHEXYL) PHTHALATE 2.4 9.6 LOQ ug/L J TMW40S042015 2,4-DINITROPHENOL J 15 LOQ J (all detects) 83 ug/L TMW41042015 BIS(2-ETHYLHEXYL) PHTHALATE J 1.0 9.9 LOQ ug/L J (all detects) TMW44042015 2,4-DINITROPHENOL 10 80 LOQ J (all detects) J ug/L

Method: 8330B

Matrix: AQ

Lab Reporting RL Result Limit Units SampleID Analyte Qual Type Flag MW02042015 2-NITROTOLUENE 0.33 LOQ ΜJ 0.44 ug/L J (all detects) TMW30042015 NITROBENZENE J 0.15 0.43 LOQ ug/L J (all detects) TMW39S042015 2-NITROTOLUENE $\mathsf{M}\,\mathsf{J}$ 0.19 0.46 LOQ ug/L J (all detects) 4-NITROTOLUENE J M 0.29 1.2 LOQ ug/L

Method: 9056

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW31042015	NITRATE	J	0.099	0.50	LOQ	mg/L	J (all detects)
TMW07042015	NITRATE	JD	0.19	1.0	LOQ	mg/L	J (all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67267-1 Laboratory: TA DEN

EDD Filename: 280-67267-1 eQAPP Name: FtWingate_Primary_120405

Method:	8081A
Matriv.	AO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TMW39S042015	DECACHLOROBIPHENYL	23	30.00-135.00	All Target Analytes	J(all detects) UJ(all non-detects)
TMW44042015	DECACHLOROBIPHENYL	26	30.00-135.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8260B Matrix: AQ

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FW31042015	1,2-DICHLOROETHANE-D4	121	70.00-120.00	All Target Analytes	J (all detects)
TMW23042015	1,2-DICHLOROETHANE-D4	121	70.00-120.00	All Target Analytes	J(all detects)
TMW39S042015	1,2-DICHLOROETHANE-D4	124	70.00-120.00	All Target Analytes	J(all detects)
TMW41042015	1,2-DICHLOROETHANE-D4	123	70.00-120.00	All Target Analytes	J(all detects)
TMW44042015	1,2-DICHLOROETHANE-D4	123	70.00-120.00	All Target Analytes	J(all detects)

Method: 8270D Matrix: AQ

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FW35042015	Terphenyl-d14	37	50.00-135.00	No Affected Compounds	
TMW18042015	2-FLUOROBIPHENYL	48	50.00-110.00	No Affected Compounds	
TMW22042015	Terphenyl-d14	12	50.00-135.00	No Affected Compounds	
TMW40S042015	Terphenyl-d14	15	50.00-135.00	No Affected Compounds	

Method: 8330B Matrix: AQ

Sample ID (Analysis Type)			% Recovery Limits	Affected Compounds	Flag	
TMW37042015	42015 1,2-DINITROBENZENE		75.00-118.00	All Target Analytes	J(all detects) UJ(all non-detects)	



Data Qualifier Summary

Lab Reporting Batch ID: 280-67267-2

Laboratory: TA DEN
EDD Filename: 280-67267-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67267-2

Laboratory: TA DEN

EDD Filename: 280-67267-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
A
A
N
N
A
SR
N
N
N
A
A
N
N
N



Data Review Sample Summary Report by Analysis Method

Reviewed By: Approved By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Validation Code **Matrix** Sample Type **Collection Date** Method Lab Reporting Batch: 280-67267-2 Method: 8270D BGMW03042015 280-67267-9 S2AVE Ν 3520C 4/1/2015 12:47:00 PM AQ FW31042015 280-67267-2 AQ Ν 3520C 4/1/2015 8:20:00 AM S2AVE FW35042015 280-67267-20 Ν 3520C 4/1/2015 2:43:00 PM S2AVE AQ TMW07042015 280-67267-6 Ν 3520C 4/1/2015 11:30:00 AM S2AVE AQ S2AVE TMW16042015 280-67267-18 AQ Ν 3520C 4/1/2015 12:25:00 PM TMW18042015 3520C S2AVE 280-67267-14 AQ Ν 4/1/2015 8:35:00 AM TMW19042015 280-67267-15 Ν 3520C 4/1/2015 9:40:00 AM S2AVE AQ TMW22042015 280-67267-21 AQ Ν 3520C 4/1/2015 10:55:00 AM S2AVE TMW30042015 280-67267-3 Ν 3520C 4/1/2015 9:38:00 AM S2AVE AQ S2AVE TMW36042015 280-67267-16 Ν 3520C 4/1/2015 11:25:00 AM AQ S2AVE TMW37042015 280-67267-17 AQ Ν 3520C 4/1/2015 10:35:00 AM TMW39S042015 280-67267-4 S2AVE AQ Ν 3520C 4/1/2015 9:10:00 AM S2AVE TMW40S042015 280-67267-22 AQ Ν 3520C 4/1/2015 8:07:00 AM TMW41042015 280-67267-1 AQ Ν 3520C 4/1/2015 12:25:00 PM S2AVE

3520C

4/1/2015 10:15:00 AM

Ν

AQ

S2AVE

TMW44042015

280-67267-5



Data Review Sample Summary Report by Analysis Method

Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67267-2 Laboratory: TA DEN

EDD Filename: 280-67267-2 eQAPP Name: FtWingate_Primary_120405

Method: 8270 Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FW35042015	Terphenyl-d14	37	50.00-135.00	No Affected Compounds	
TMW18042015	2-FLUOROBIPHENYL	48	50.00-110.00	No Affected Compounds	
TMW22042015	Terphenyl-d14	12	50.00-135.00	No Affected Compounds	
TMW40S042015	Terphenyl-d14	15	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67267-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for fifteen water samples received April 2, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 2.6°C, 1.8°C, 4.2°C, 4.0°C, 3.2°C, 0.3°C, 4.0°C, 1.8°C, 1.9°C, 2.5°C, 3.3°C, 4.8°C, 2.3°C, 4.1°C, 1.1°C and 3.8°C.

Sample IDs on the chain-of-custody end with 042014; however, the sample IDs on the container labels end with 042015. The sample IDs were logged per the container labels. The client was notified on April 3, 2015.

Sample TMW07042015 (280-67267-6) lists collection time 1015 on the VOA chain-of-custody (COC), collection time 1130 on the container labels and collection time 1130 on the non-VOA COC. The collection time was logged as 1130. The client was notified on April 3. 2015.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67267-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW41042015 (280-67267-1), FW31042015 (280-67267-2), TMW30042015 (280-67267-3), TMW39S042015 (280-67267-4), TMW44042015 (280-67267-5), TMW07042015 (280-67267-6), BGMW03042015 (280-67267-9), TMW18042015 (280-67267-14), TMW19042015 (280-67267-15), TMW36042015 (280-67267-16), TMW37042015 (280-67267-17), TMW16042015 (280-67267-18), FW35042015 (280-67267-20), TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/03/2015 and analyzed on 04/10/2015 and 04/11/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate Terphenyl-d14 was recovered below the QC control limits in samples TMW22042015 (280-67267-21) and TMW40S042015 (280-67267-22). These anomalies are due to obvious matrix interferences; therefore, corrective action is deemed unnecessary.

MS/MSD analyses for prep batch 280-271821 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Data Qualifier Summary

Lab Reporting Batch ID: 280-67267-2

Laboratory: TA DEN
EDD Filename: 280-67267-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67267-2

Laboratory: TA DEN

EDD Filename: 280-67267-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note
Technical Holding Times

Fechnical Holding Times A Femperature A nitial Calibration N Continuing Calibration/Initial Calibration Verification N Method Blanks A Surrogate/Tracer Spikes SR Matrix Spike/Matrix Spike Duplicates N Laboratory Duplicates N
nitial Calibration N Continuing Calibration/Initial Calibration Verification N Method Blanks A Surrogate/Tracer Spikes SR Matrix Spike/Matrix Spike Duplicates N
Continuing Calibration/Initial Calibration Verification N Method Blanks A Surrogate/Tracer Spikes Matrix Spike/Matrix Spike Duplicates N
Method Blanks A Surrogate/Tracer Spikes SR Matrix Spike/Matrix Spike Duplicates N
Surrogate/Tracer Spikes SR Matrix Spike/Matrix Spike Duplicates N
Matrix Spike/Matrix Spike Duplicates N
aboratory Duplicates N
Laboratory Replicates N
Laboratory Control Samples A
Compound Quantitation A
Field Duplicates N
Field Triplicates N
Field Blanks N



Data Review Sample Summary Report by Analysis Method

Reviewed By: Approved By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Validation Code **Matrix** Sample Type **Collection Date** Method Lab Reporting Batch: 280-67267-2 Method: 8270D BGMW03042015 280-67267-9 S2AVE Ν 3520C 4/1/2015 12:47:00 PM AQ FW31042015 280-67267-2 AQ Ν 3520C 4/1/2015 8:20:00 AM S2AVE FW35042015 280-67267-20 Ν 3520C 4/1/2015 2:43:00 PM S2AVE AQ TMW07042015 280-67267-6 Ν 3520C 4/1/2015 11:30:00 AM S2AVE AQ S2AVE TMW16042015 280-67267-18 AQ Ν 3520C 4/1/2015 12:25:00 PM TMW18042015 3520C S2AVE 280-67267-14 AQ Ν 4/1/2015 8:35:00 AM TMW19042015 280-67267-15 Ν 3520C 4/1/2015 9:40:00 AM S2AVE AQ TMW22042015 280-67267-21 AQ Ν 3520C 4/1/2015 10:55:00 AM S2AVE TMW30042015 280-67267-3 Ν 3520C 4/1/2015 9:38:00 AM S2AVE AQ TMW36042015 280-67267-16 Ν 3520C 4/1/2015 11:25:00 AM S2AVE AQ S2AVE TMW37042015 280-67267-17 AQ Ν 3520C 4/1/2015 10:35:00 AM TMW39S042015 280-67267-4 S2AVE AQ Ν 3520C 4/1/2015 9:10:00 AM S2AVE TMW40S042015 280-67267-22 AQ Ν 3520C 4/1/2015 8:07:00 AM TMW41042015 280-67267-1 AQ Ν 3520C 4/1/2015 12:25:00 PM S2AVE

3520C

4/1/2015 10:15:00 AM

Ν

AQ

S2AVE

TMW44042015

280-67267-5



Data Review Sample Summary Report by Analysis Method

Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67267-2 Laboratory: TA DEN

EDD Filename: 280-67267-2 eQAPP Name: FtWingate_Primary_120405

Method: 8270E Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FW35042015	Terphenyl-d14	37	50.00-135.00	No Affected Compounds	
TMW18042015	2-FLUOROBIPHENYL	48	50.00-110.00	No Affected Compounds	
TMW22042015	Terphenyl-d14	12	50.00-135.00	No Affected Compounds	
TMW40S042015	Terphenyl-d14	15	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67316-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for fourteen water samples received April 3, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 0.5°C, 3.0°C, 4.1°C, 0.3°C, 3.1°C, 2.0°C, 0.2°C, 0.3°C, 2.0°C, 1.4°C and 2.1°C.

Some sample IDs on the chain-of-custody end with 042014. All sample IDs on the container labels end with 042015. In accordance with the client's instruction, the samples' IDs were logged per the container labels.

A 125mL Perchlorate bottle was received for sample TMW40S042015 (280-67316-6); however, Perchlorate is not requested on the chain-of-custody. The sample was logged for Perchlorate analysis per the volume received. The client was notified on April 6, 2015.

The 125mL Perchlorate bottle submitted for sample MW22S042015 (280-67316-5) lists the collection date/time as 04/01/15 @ 0915 on the container label. The collection date/time on the chain-of-custody is 04/02/15 @ 1329; therefore, this sample was logged separately. In accordance with the client's instructions provided on April 6, 2015, the bottle label was mistakenly filled out before sampling and not updated. The Perchlorate bottle was re-designated to sample MW22S042015 (280-67316-5).

Please note the Caprolactam data are reported under separate cover (280-67316-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), MW22S042015 (280-67316-5), TMW40S042015 (280-67316-6), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and TB-02-042015 (280-67316-11) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/09/2015 and 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

1,2,3-Trichlorobenzene and Methylene Chloride were detected in method blank MB 280-271782/6 at levels that were less than one half the reporting limits; therefore, corrective action was deemed unnecessary. The values should be considered estimates, and have been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for analytical batches 280-271782 and 280-272044 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), MW22S042015 (280-67316-5), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9) and FW042015EQU001 (280-67316-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/04/2015 and 04/11/2015 and analyzed on 04/09/2015 and 04/17/2015.

Please note the Caprolactam data are reported under separate cover (280-67316-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows: The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 11-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

Due to a low surrogate recovery, sample TMW33042015 (280-67316-9) was re-extracted out of the prescribed hold time and reanalyzed. In accordance with the client's instructions provided on April 30, 2015, both sets of data have been reported. Please note that the sample results should be considered estimated.

Surrogate Terphenyl-d14 was recovered below the QC control limits in samples TMW46042015 (280-67316-1) and TMW31S042015 (280-67316-2). This is an indicator that data may be biased low. Upon re-extraction past hold time and reanalysis, surrogate recovery outliers were still present, demonstrating these anomalies are most likely due to matrix interference. The original in hold data have been reported. The associated data have been flagged "Q" in accordance with the DOD QSM.

Surrogate Terphenyl-d14 was recovered below the QC control limits in samples TMW46042015 (280-67316-1) and TMW31S042015 (280-67316-2). This is an indicator that data may be biased low. Upon re-extraction past hold time and reanalysis, surrogate recoveries were 100% in control. In accordance with the client's instructions provided on April 30, 2015, both sets of data have been reported. The associated data have been flagged "Q" in accordance with the DOD QSM.

Several analytes were detected in method blank MB 280-271191/1-A at levels that were less than one half the reporting limits; therefore, corrective action was deemed unnecessary. The values should be considered estimates, and have been flagged "J" in accordance with the DOD QSM.

Phenanthrene was detected in method blank MB 280-272314/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

Due to an oversight by the preparation chemist, MB 280-272314/1-A and LCS 280-272314/2-A were S-evaporated lower than directed by the laboratory's SOP. As the associated MB and LCS recoveries were in control for the temperature sensitive analytes and surrogates, corrective action was deemed unnecessary.

The LCS associated with prep batch 280-271191 exhibited a percent recovery below the QC control limits for Hexachlorocyclopentadiene. This compound has been identified as a poor performing analyte when analyzed using this method; therefore, corrective action was not performed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The LCS/LCSD associated with prep batch 280-272314 exhibited percent recoveries below the QC control limits for Hexachlorocyclopentadiene. In addition, the RPD data for this compound was above the QC control limits. This compound has been identified as a poor performing analyte when analyzed using this method; therefore, corrective action was not performed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271191 was performed on sample BGMW02042015 (280-67316-8). The MS/MSD exhibited RPD data outside the QC control limits for Benzoic acid. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-272314 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Gasoline Range Organics - 8015C

Samples TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and TB-41-042015 (280-67316-12) were analyzed for qasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Sample TMW33042015 (280-67316-9) was received at the laboratory with a pH value >2. The sample was analyzed within 7 days as recommended in SW846 for unpreserved samples; therefore, there should be no bias to the reported results.

MS/MSD analyses for analytical batch 280-271833 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Diesel & Residual Range Organics - 8015C

Samples TMW33042015 (280-67316-9) and FW042015EQU001 (280-67316-10) were analyzed for Diesel Range Organics in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 04/07/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-271425 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8) and FW042015EQU001 (280-67316-10) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/06/2015 and analyzed on 04/08/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate Decachlorobiphenyl was recovered below the QC control limits in sample TMW46042015 (280-67316-1). This is an indicator that data may be biased low. This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

The initial calibration curve analyzed in batch 280-271615 was outside acceptance criteria for Toxaphene and Technical Chlordane. The calibration for Endosulfan II is within criteria on both columns; however, a different curve fit was used for quantitation for the back column. The incorrect calibration was used to quantify these compounds in Chrome. The calibration reported in the laboratory's LIM system is correct. The samples showed no visible Toxaphene or Chlordane pattern and as such are reported as ND. Endosulfan II is reported from the front column, which is ND for all samples and in control for all QC. Toxaphene was not fully integrated within the incorrect calibration and Chlordane was calibrated using a single concentration. Toxaphene is biased high in the reported CCVs and samples due to it being fully integrated.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-271615 exhibited a %Difference (%D) value out of range, biased high, for gamma-Chlordane on the front column. As no detectable concentration of gamma-Chlordane is present in the associated samples, the data have been reported from the back column which was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), TMW40S042015 (280-67316-6), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8) and FW042015EQU001 (280-67316-10) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/07/2015 and analyzed on 04/09/2015, 04/10/2015 and 04/16/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the calibration curve, sample TMW40S042015 (280-67316-6) had to be analyzed at a dilution. Surrogate recoveries could not be accurately calculated for the diluted analysis because the extract was diluted beyond the ability to reliably quantitate recoveries. The reporting limits have been adjusted relative to the dilution required.

Surrogate 1,2-Dinitrobenzene was recovered outside the QC control limits in samples FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), TMW40S042015 (280-67316-6) and FW042015EQU001 (280-67316-10). These anomalies are due to obvious matrix interferences; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

It is the opinion of the analyst, based on review of the chromatograms, the evident matrix interferences may be causing false positive an/or false negative results for sample TMW40S042015 (280-67316-6).

The RPD between the primary and confirmation columns exceeded 40% for Nitrobenzene in sample TMW31S042015 (280-67316-2). The RPD between the primary and confirmation columns exceeded 40% for 1,3,5-Trinitrobenzene, HMX, m-Nitrotoluene and Nitrobenzene in sample TMW40S042015 (280-67316-6). The RPD between the primary and confirmation columns exceeded 40% for HMX in sample FW042015EQU001 (280-67316-10). The lower of the two values has been reported, as matrix interference is evident. The results in the analytical report have been flagged with "J" in accordance with the DOD QSM.

2-Amino-4,6-dinitrotoluene was detected in method blank MB 280-271434/1-A at a level that was greater than the reporting limit on the confirmation column. The primary column result is ND; therefore, the method blank is ND. Detections in the associated samples less than 10X the amount found in the blank are suspect due to potential interferences on the confirmation column. Samples with detections for 2-Amino-4,6-dinitrotoluene less than 10X the amount found in the blank were confirmed using method 8321.

o-Nitrotoluene was detected in method blank MB 280-271434/1-A at a level that was less than one half the reporting limit on the confirmation column; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been

flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), TMW44042015EQU003 (280-67316-4), MW22S042015 (280-67316-5), TMW40S042015 (280-67316-6), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), FW042015EQU001 (280-67316-10) and MW02S042015 (280-67316-13) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the calibration curve, samples TMW31S042015 (280-67316-2) and TMW40S042015 (280-67316-6) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

The MS/MSD associated with analytical batch 280-272596 was performed on sample BGMW02042015 (280-67316-8). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Perchlorate because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/07/2015 and analyzed on 04/08/2015, 04/09/2015 and 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2) and BGMW01042015 (280-67316-7) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

Magnesium was detected in method blank MB 280-271161/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271161 was performed on sample BGMW02042015 (280-67316-8). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271161 was performed on sample BGMW02042015 (280-67316-8). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the SD performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), TMW40S042015 (280-67316-6), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/07/2015 and analyzed on 04/08/2015, 04/09/2015 and 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, samples BGMW02042015 (280-67316-8), BGMW02042015 (280-67316-8 MSD), TMW33042015 (280-67316-9) and FW35042015 (280-67316-14) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

Sodium was detected in method blank MB 280-271149/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271149 was performed on sample BGMW02042015 (280-67316-8). The MS/MSD exhibited a spike compound recovery above the QC control limits for Calcium. In addition, the MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/07/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Thallium was detected in method blank MB 280-271162/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The ICSA solution associated with analytical batch 280-272121 was above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium and Chromium. The laboratory has confirmed with the vendor that these elements are trace impurities in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271162 was performed on sample BGMW02042015 (280-67316-8). The SD exhibited a percent recovery outside the control limits for Barium; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), TMW40S042015 (280-67316-6), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/07/2015 and analyzed on 04/08/2015, 04/09/2015 and 04/15/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), TMW40S042015 (280-67316-6), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9), FW042015EQU001 (280-67316-10) and FW35042015 (280-67316-14) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/03/2015 and 04/04/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, samples TMW46042015 (280-67316-1), BGMW02042015 (280-67316-8) and TMW33042015 (280-67316-9) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

The MS/MSD associated with analytical batch 280-271060 was performed on sample BGMW02042015 (280-67316-8). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Nitrate as N. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67316-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC TB-02-042015 QC Type: TB		
7		
	BGMW01042015	4/2/2015 1:12:00 PM
	BGMW02042015	4/2/2015 9:20:00 AM
	FW35042015	4/2/2015 8:50:00 AM
	MW02S042015	4/2/2015 9:40:00 AM
	MW22S042015	4/2/2015 1:29:00 PM
	TMW31S042015	4/2/2015 1:05:00 PM
	TMW33042015	4/2/2015 11:45:00 AM
	TMW40S042015	4/2/2015 8:50:00 AM
	TMW46042015	4/2/2015 12:18:00 PM
Field QC TB-41-042015		
QC Type: TB		
	BGMW01042015	4/2/2015 1:12:00 PM
	BGMW02042015	4/2/2015 9:20:00 AM
	FW35042015	4/2/2015 8:50:00 AM
	MW02S042015	4/2/2015 9:40:00 AM
	MW22S042015	4/2/2015 1:29:00 PM
	TMW31S042015	4/2/2015 1:05:00 PM
	TMW33042015	4/2/2015 11:45:00 AM
	TMW40S042015	4/2/2015 8:50:00 AM
	110100405042015	4/2/2013 6.30.00 AW



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: BGMW01042	2015									
ALUMINUM Reason for change:	EB 5X the sa	6010C Imple result	RES/TOT	58	ug/L	Equipment Blank Contamination		U	5/18/2015	16:01
BENZIDINE Reason for change:	0 %R MS/MS	8270D SD	RES	110	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	rejected %R	8270D Ms MSD	RES	110	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
COPPER Reason for change:	EB 5X the sa	6020A Imple result	RES/TOT	1.5	ug/L	Equipment Blank Contamination		U	5/18/2015	16:03
HEXACHLOROCYCLOPENT Reason for change:	ADIENE LCS 5-7% re	8270D covery	RES	21	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:		8270D MS MSD %R	RES	21	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
IRON Reason for change:	EB 5X the sa	6010C Imple result	RES/TOT	57	ug/L	Equipment Blank Contamination		U	5/18/2015	16:01
NICKEL Reason for change:	EB 5X the sa	6020A Imple result	RES/TOT	2.2	ug/L	Equipment Blank Contamination		U	5/18/2015	16:02
PERCHLORATE Reason for change:	4X rule	6860	RES	0.020	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	10:34
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	790000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: BGMW0104	2015									
SODIUM Reason for change:	4X rule	6010C	RE3/TOT	700000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change:	4x rule	6010C	RE3/TOT	700000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35
Field Sample ID: BGMW0204	2015									
BENZIDINE Reason for change:	0 %R MS/N	8270D ISD	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	rejected %F	8270D R Ms MSD	RES	100	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
HEXACHLOROCYCLOPENT Reason for change:	ADIENE LCS 5-7% r	8270D ecovery	RES	21	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:		8270D w MS MSD %R	RES	21	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
NITRATE Reason for change:	118% recov	9056 very	RES/TOT	12	mg/L	Matrix Spike Upper Estimation		J	5/18/2015	10:41
PERCHLORATE Reason for change:	4X rule	6860	RES	0.51	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	1000000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
SODIUM Reason for change:	4X rule	6010C	RES/TOT	860000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change:	4x rule	6010C	RES/TOT	860000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: FW042015E	QU001								
BENZIDINE Reason for change:	8270D 0 %R MS/MSD	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	8270D rejected %R Ms MSD	RES	100	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
HEXACHLOROCYCLOPENT Reason for change:	ADIENE 8270D LCS 5-7% recovery	RES	21	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:	ADIENE 8270D Rejected low MS MSD %R	RES	21	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
Octahydro-1,3,5,7-tetranitro- Reason for change:	1,3,5,7- 8330B >40% confirmation	RES	0.16	ug/L	Professional Judgment		J	5/18/2015	10:12
PERCHLORATE Reason for change:	6860 4X rule	RES	0.0086	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
SODIUM Reason for change:	6010C 4X rule	RE3/DIS	120	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
SODIUM Reason for change:	6010C 4X rule	RES/TOT	1400	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change:	6010C 4x rule	RES/TOT	1400	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35
Field Sample ID: FW3104201	5EQU002								
BENZIDINE Reason for change:	8270D 0 %R MS/MSD	RES	110	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	8270D rejected %R Ms MSD	RES	110	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
5/18/2015 4:07:27 PM	Δ	DR version 1.9 () 325 (Licen	sed For I	Ise On LISACE Projects Only)				Page 3 of 23

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: FW3104201	5EQU002									
HEXACHLOROCYCLOPENT Reason for change:	LCS 5-7%	8270D recovery	RES	21	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:		8270D w MS MSD %R	RES	21	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	1900	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
SODIUM Reason for change:	4X rule	6010C	RE3/TOT	110	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change:	4x rule	6010C	RE3/TOT	110	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35
Field Sample ID: FW3504201	5									
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	59000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
SODIUM Reason for change:	4X rule	6010C	RES/TOT	650000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change:	4x rule	6010C	RES/TOT	650000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35
Field Sample ID: MW02S042	015									
PERCHLORATE Reason for change:	4X rule	6860	RES	0.096	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW22S0420	115								
BENZIDINE Reason for change:	8270D 0 %R MS/MSD	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	8270D rejected %R Ms MSD	RES	100	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
HEXACHLOROCYCLOPENT Reason for change:	ADIENE 8270D LCS 5-7% recovery	RES	20	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:	ADIENE 8270D Rejected low MS MSD %R	RES	20	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
PERCHLORATE Reason for change:	6860 4X rule	RES	0.068	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
Field Sample ID: TMW31S042	2015								
BENZIDINE Reason for change:	8270D 0 %R MS/MSD	RES	96	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	8270D rejected %R Ms MSD	RES	96	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
HEXACHLOROCYCLOPENT Reason for change:	ADIENE 8270D LCS 5-7% recovery	RES	19	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:	ADIENE 8270D Rejected low MS MSD %R	RES	19	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
NITROBENZENE Reason for change:	8330B >40% confirmation	RE2	0.23	ug/L	Professional Judgment		J	5/18/2015	10:12
PERCHLORATE Reason for change:	6860 4X rule	RES	480	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
E/49/204E 4:07:27 DM		DD version 4.0	0.225 (1:22		Inc. On USACE Projects Only)				Dogo E of 22

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW31S04	2015									
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	520000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
SODIUM Reason for change:	4X rule	6010C	RE3/TOT	580000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change:	4x rule	6010C	RE3/TOT	580000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35
Field Sample ID: TMW330420)15									
1,2,4,5-TETRACHLOROBEN Reason for change:		8270D al, surrogate %R r	RE2 narginal low and	2.0 only terph	ug/L enyl	Sampling to Analysis Rejection		R	5/18/2015	9:51
1,2,4,5-TETRACHLOROBEN Reason for change:		8270D al, surrogate %R r	RE2 narginal low and	2.0 only terph	ug/L enyl	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
1,2,4-TRICHLOROBENZENE Reason for change:		8270D al, surrogate %R r	RE2 narginal low and	1.0 only terph	ug/L enyl	Sampling to Analysis Rejection		R	5/18/2015	9:51
1,2,4-TRICHLOROBENZENE Reason for change:		8270D al, surrogate %R r	RE2 narginal low and	1.0 only terph	ug/L enyl	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
1,2-DICHLOROBENZENE Reason for change:	keep origin	8270D al, surrogate %R r	RE2 narginal low and	1.0 only terph	ug/L enyl	Sampling to Analysis Rejection		R	5/18/2015	9:51
1,2-DICHLOROBENZENE Reason for change:	keep origin	8270D al, surrogate %R r	RE2 narginal low and	1.0 only terph	ug/L enyl	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
1,2-DIPHENYLHYDRAZINE Reason for change:	keep origin	8270D al, surrogate %R r	RE2 narginal low and	1.0 only terph	ug/L enyl	Sampling to Analysis Rejection		R	5/18/2015	9:51
1,2-DIPHENYLHYDRAZINE Reason for change:	keep origin	8270D al, surrogate %R r	RE2 narginal low and	1.0 only terph	ug/L enyl	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	015								
1,3-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
1,3-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
1,4-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
1,4-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,3,4,6-TETRACHLOROPHEI	NOL 8270D	RE2	2.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,3,4,6-TETRACHLOROPHE	NOL 8270D	RE2	2.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,4,5-TRICHLOROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,4,5-TRICHLOROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,4,6-TRICHLOROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,4,6-TRICHLOROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
2,4-DICHLOROPHENOL	8270D	RE2	2.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW33042	2015								
2,4-DICHLOROPHENOL	8270D	RE2	2.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
2,4-DIMETHYLPHENOL	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
2,4-DIMETHYLPHENOL	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
2,4-DINITROPHENOL	8270D	RE2	20	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %l	R marginal low ar	nd only terph	enyl					
2,4-DINITROPHENOL	8270D	RE2	20	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %I	R marginal low ar	nd only terph	enyl					
2,4-DINITROTOLUENE	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %I	R marginal low ar	nd only terph	enyl					
2,4-DINITROTOLUENE	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %I	R marginal low ar	nd only terph	enyl					
2,6-DICHLOROPHENOL	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
2,6-DICHLOROPHENOL	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %I	R marginal low ar	nd only terph	enyl					
2,6-DINITROTOLUENE	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %I	R marginal low ar	nd only terph	enyl					
2,6-DINITROTOLUENE	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	015								
2-CHLORONAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-CHLORONAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-CHLOROPHENOL	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-CHLOROPHENOL	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-METHYLNAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-METHYLNAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-METHYLPHENOL	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-METHYLPHENOL	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-NITROANILINE	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-NITROANILINE	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
2-NITROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	015								
2-NITROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
3,3'-DICHLOROBENZIDINE	8270D	RE2	10	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
3,3'-DICHLOROBENZIDINE	8270D	RE2	10	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
3-NITROANILINE	8270D	RE2	2.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
3-NITROANILINE	8270D	RE2	2.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
4,6-DINITRO-2-METHYLPHE	NOL 8270D	RE2	10	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
4,6-DINITRO-2-METHYLPHE	NOL 8270D	RE2	10	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
4-BROMOPHENYL-PHENYL	ETHER 8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
4-BROMOPHENYL-PHENYL	ETHER 8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
4-CHLORO-3-METHYLPHEN	IOL 8270D	RE2	5.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
4-CHLORO-3-METHYLPHEN	IOL 8270D	RE2	5.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terph	enyl					

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Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	15								
4-CHLOROANILINE	8270D	RE2	5.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-CHLOROANILINE	8270D	RE2	5.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-CHLOROPHENYL-PHENYL	LETHER 8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-CHLOROPHENYL-PHENYL	ETHER 8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-NITROANILINE	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-NITROANILINE	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-NITROPHENOL	8270D	RE2	10	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
4-NITROPHENOL	8270D	RE2	10	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
ACENAPHTHENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
ACENAPHTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					
ACENAPHTHYLENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low and	d only terph	enyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW33042	2015								
ACENAPHTHYLENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
ACETOPHENONE	8270D	RE2	5.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
ACETOPHENONE	8270D	RE2	5.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	t marginal low ar	nd only terph	enyl					
ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
BENZALDEHYDE	8270D	RE2	2.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
BENZALDEHYDE	8270D	RE2	2.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	R marginal low ar	nd only terph	enyl					
BENZIDINE	8270D	RE2	100	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %F	t marginal low ar	nd only terph	enyl					
BENZIDINE	8270D	RE2	100	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %F	t marginal low ar	nd only terph	enyl					
BENZIDINE	8270D	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
Reason for change:	0 %R MS/MSD								
BENZIDINE	8270D	RES	100	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
Reason for change:	rejected %R Ms MSD								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	015								
BENZO(A)ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terph	enyl					
BENZO(A)ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZO(A)PYRENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZO(A)PYRENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terph	enyl					
BENZO(B)FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZO(B)FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZO(G,H,I)PERYLENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZO(G,H,I)PERYLENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terph	enyl					
BENZO(K)FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZO(K)FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terpho	enyl					
BENZOIC ACID	8270D	RE2	50	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low an	d only terph	enyl					

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420)15									
BENZOIC ACID		8270D	RE2	50	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BENZYL ALCOHOL		8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BENZYL ALCOHOL		8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BIS(2-CHLOROETHOXY)ME	THANE	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BIS(2-CHLOROETHOXY)ME	THANE	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BIS(2-CHLOROETHYL) ETH	ER	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	l only terphe	enyl					
BIS(2-CHLOROETHYL) ETH	ER	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	l only terphe	enyl					
BIS(2-CHLOROISOPROPYL)	ETHER	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	l only terphe	enyl					
BIS(2-CHLOROISOPROPYL)	ETHER	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BIS(2-ETHYLHEXYL) PHTHA	ALATE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					
BIS(2-ETHYLHEXYL) PHTHA	LATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep origina	ıl, surrogate %R r	marginal low and	only terphe	enyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	015								
Butyl Benzyl Phthlate	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
Butyl Benzyl Phthlate	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
CARBAZOLE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
CARBAZOLE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
CHRYSENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
CHRYSENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
DIBENZ(A,H)ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
DIBENZ(A,H)ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
DIBENZOFURAN	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
DIBENZOFURAN	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					
DIETHYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terphe	enyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW33042	015								
DIETHYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
DIMETHYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
DIMETHYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
DI-N-BUTYL PHTHALATE	8270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
DI-N-BUTYL PHTHALATE	8270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
DI-N-OCTYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
DI-N-OCTYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
FLUORENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					
FLUORENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low a	nd only terph	enyl					

Analyte	ı	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	115									
HEXACHLOROBENZENE	8	3270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROBENZENE	8	3270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROBUTADIENE	8	3270D	RE2	10	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROBUTADIENE	8	3270D	RE2	10	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROCYCLOPENT	ADIENE 8	3270D	RE2	20	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROCYCLOPENT	ADIENE 8	3270D	RE2	20	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROCYCLOPENT	ADIENE 8	3270D	RES	20	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
Reason for change:	LCS 5-7% rec	covery								
HEXACHLOROCYCLOPENT		3270D	RES	20	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
Reason for change:	Rejected low I	MS MSD %R								
HEXACHLOROETHANE	8	3270D	RE2	4.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
HEXACHLOROETHANE	8	3270D	RE2	4.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					
INDENO(1,2,3-CD)PYRENE	~	3270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original,	surrogate %R m	arginal low and	only terphe	nyl					

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW330420	015								
INDENO(1,2,3-CD)PYRENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
ISOPHORONE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
ISOPHORONE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
M,P-CRESOL	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
M,P-CRESOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph						
NAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
NAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
NITROBENZENE	8270D	RE2	2.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
NITROBENZENE	8270D	RE2	2.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
N-NITROSODIMETHYLAMIN	E 8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					
N-NITROSODIMETHYLAMIN	E 8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, surrogate %R	marginal low ar	nd only terph	enyl					

5/18/2015 4:07:27 PM

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMV	V33042015									
N-NITROSO-DI-N-PR	OPYLAMINE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for char	nge: keep origina	al, surrogate %R	marginal low an	d only terph	enyl					
N-NITROSO-DI-N-PR	OPYLAMINE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for char	nge: keep origina	al, surrogate %R	marginal low an	d only terpho	enyl					
N-NITROSODIPHEN	YLAMINE	8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for char	nge: keep origina	al, surrogate %R	marginal low an	d only terpho	enyl					
N-NITROSODIPHEN	YLAMINE	8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for chai	nge: keep origina	al, surrogate %R	marginal low an	d only terph	enyl					
PENTACHLOROPHE	NOL	8270D	RE2	40	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for char		al, surrogate %R	marginal low an	id only terph	enyl					
PENTACHLOROPHE	NOL	8270D	RE2	40	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for chai	nge: keep origina	al, surrogate %R	marginal low an	d only terph	enyl					
PHENANTHRENE		8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for chai	nge: keep origina	al, surrogate %R	marginal low an	d only terph	enyl					
PHENANTHRENE		8270D	RE2	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for char	nge: keep origina	al, surrogate %R	marginal low an	id only terph	enyl					
PHENOL		8270D	RE2	5.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for char	nge: keep origina	al, surrogate %R	marginal low an	id only terph	enyl					
PHENOL		8270D	RE2	5.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for chai	nge: keep origina	al, surrogate %R	marginal low an	d only terph	enyl					
PYRENE		8270D	RE2	1.0	ug/L	Sampling to Analysis Rejection		R	5/18/2015	9:51
Reason for char	nge: keep origina	al, surrogate %R	marginal low an	d only terph	enyl					

Analyte	Ме	A ethod	nalysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
eld Sample ID: TMW33042	2015									
PYRENE	827	70D RE	≣2 1	1.0	ug/L	Sampling to Extraction Estimatio	UJ		5/18/2015	9:51
Reason for change:	keep original, su	ırrogate %R març	ginal low and or	nly terpher	nyl					
SODIUM	601	IOC RE	E3/DIS 3	3000000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
Reason for change:	4X rule									
SODIUM	601	IOC RE	ES/TOT 1	1900000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
Reason for change:	4X rule									
SODIUM	601	IOC RE	ES/TOT 1	1900000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35
Reason for change:	4x rule									
eld Sample ID: TMW40S04	42015									
1,3,5-TRINITROBENZENE	833	BOB RE	<u>=</u> 2 2	2.2	ug/L	Professional Judgment		J	5/18/2015	10:08
Reason for change:	possibe false po	stive or negative	data, matix into	erference						
1,3-DINITROBENZENE	833	BOB RE	= 2 0).18	ug/L	Professional Judgment		UJ	5/18/2015	10:08
Reason for change:	possibe false po	stive or negative	data, matix into	erference						
2,4,6-TRINITROTOLUENE	833	BOB RE	≣ 2 0).18	ug/L	Professional Judgment		UJ	5/18/2015	10:08
Reason for change:	possibe false po	stive or negative	data, matix into	erference						
2,4-DINITROTOLUENE	833	BOB RE	ES C).18	ug/L	Professional Judgment		UJ	5/18/2015	10:09
Reason for change:	possibe false po	stive or negative	data, matix into		3					
2,6-DINITROTOLUENE	833	30B RE	≣S C).18	ug/L	Professional Judgment		UJ	5/18/2015	10:09
Reason for change:		stive or negative			- y -			- -		
	JENE 833	BOB RE	-s -2	2.0	ug/L	Professional Judgment		J	5/18/2015	10:08
2-AMINO-4 6-DINITPOTOLI	JLIVL 000	JOD IN	_0 _2	0	ug/L	1 Tolessional sudgment		3	3/10/2013	10.00
2-AMINO-4,6-DINITROTOLU Reason for change:	possibe false po	stive or negative	data, matix into	erference						
2-AMINO-4,6-DINITROTOLU Reason for change: 2-NITROTOLUENE	possibe false po				ug/L	Professional Judgment		UJ	5/18/2015	10:08

Analyte	N	/lethod	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW40S042	2015									
3-NITROTOLUENE	83	330B	RE2	0.78	ug/L	Professional Judgment		J	5/18/2015	10:08
Reason for change:	possibe false p	oostive or negati	ive data, matix i	nterference	•					
4-AMINO-2,6-DINITROTOLU	ENE 83	330B	RES	1.3	ug/L	Professional Judgment		J	5/18/2015	10:08
Reason for change:	possibe false p	oostive or negati	ive data, matix i	nterference	•					
4-NITROTOLUENE	83	330B	RES	0.47	ug/L	Professional Judgment		UJ	5/18/2015	10:09
Reason for change:	possibe false p	oostive or negati	ive data, matix i	nterference	;					
HEXAHYDRO-1,3,5-TRINITR	O-1,3,5- 83	330B	DL	1200	ug/L	Professional Judgment		J	5/18/2015	10:08
Reason for change:	possibe false p	oostive or negati	ive data, matix i	nterference	•					
METHYL-2,4,6-	.= 83	330B	RES	0.18	ug/L	Professional Judgment		UJ	5/18/2015	10:09
Reason for change:	possibe false p	oostive or negati	ive data, matix ii	nterference	•					
NITROBENZENE	83	330B	RES	2.6	ug/L	Professional Judgment		J	5/18/2015	10:09
Reason for change:	possibe false p	oostive or negati	ive data, matix ii	nterference	:					
Octahydro-1,3,5,7-tetranitro-	1,3,5,7- 83	330B	RES	22	ug/L	Professional Judgment		J	5/18/2015	10:09
Reason for change:	possibe false p	oostive or negati	ive data, matix ii	nterference	:					
PERCHLORATE	68	860	RES	4.0	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
Reason for change:	4X rule									
SODIUM	60	010C	RE3/DIS	1000000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
Reason for change:	4X rule									
Field Sample ID: TMW440420	15EQU003									
BENZIDINE	82	270D	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
Reason for change:	0 %R MS/MSD		-		5	.,				-
BENZIDINE	82	270D	RES	100	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
Reason for change:	rejected %R M	ls MSD								
5/18/2015 4:07:27 PM		ADI	R version 1.9.0:	325 (Licens	sed For U	se On USACE Projects Only)				Page 21 of 23

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW440420)15EQU003									
HEXACHLOROCYCLOPENT Reason for change:	ADIENE LCS 5-7% r	8270D ecovery	RES	20	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:		8270D w MS MSD %R	RES	20	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
PERCHLORATE Reason for change:	4X rule	6860	RES	0.011	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	370	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36
SODIUM Reason for change:	4X rule	6010C	RE3/TOT	250	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	10:35
Field Sample ID: TMW460420)15									
BENZIDINE Reason for change:	0 %R MS/N	8270D ISD	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	9:57
BENZIDINE Reason for change:	rejected %F	8270D R Ms MSD	RES	100	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	9:57
HEXACHLOROCYCLOPENT Reason for change:	ADIENE LCS 5-7% r	8270D ecovery	RES	20	ug/L	Laboratory Control Spike Lower		R	5/18/2015	9:55
HEXACHLOROCYCLOPENT Reason for change:		8270D w MS MSD %R	RES	20	ug/L	Laboratory Control Spike Lower	UJ		5/18/2015	9:56
PERCHLORATE Reason for change:	4X rule	6860	RES	0.37	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:34
SODIUM Reason for change:	4X rule	6010C	RE3/DIS	1200000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:36

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW46042015									
SODIUM Reason for change: 4X rule	6010C	RE3/TOT	1200000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	10:35
SODIUM Reason for change: 4x rule	6010C	RE3/TOT	1200000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	10:35



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: GENCHEM

Method: 9056 Matrix: AQ

Sample ID:BGMW02042015	Collec	ted:4/2/20	15 9:20:0	00 AM A	nalysis 1	ype:RES	/TOT		Dilution: 2
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE	12	JD	0.20	LOD	1.0	LOQ	mg/L	J	Ms

Sample ID:FW35042015	Collec	ted:4/2/20	15 8:50:	00 AM A	nalysis	Type: RES	S/TOT		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE	0.099	J	0.10	LOD	0.50	LOQ	mg/L	J	RI
	•	4/2/20	15 11-45	-00		•			

Sample ID:TMW33042015	Collec	Collected: AM				Type: RES	Dilution: 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE	0.22	JD	0.20	LOD	1.0	LOQ	mg/L	J	RI

Method Category:	METALS	
Method:	6010C	Matrix: AQ

Sample ID:BGMW01042015	Collec	Collected: 4/2/2015 1:12:00 PM Analysis Type: RE2/DIS							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	51000		80	LOD	1000	LOQ	ug/L	J	Ms

Sample ID:BGMW01042015	Collec	Collected: 4/2/2015 1:12:00 PM Analysis Type: RES/DIS								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	540	J	250	LOD	3000	LOQ	ug/L	J	RI	

Sample ID:BGMW01042015	Collec	Collected:4/2/2015 1:12:00 PM Analysis Type: RES/TOT								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM	58	J	31	LOD	300	LOQ	ug/L	U	Eb	
IRON	57	J	30	LOD	100	LOQ	ug/L	U	Eb	
POTASSIUM	490	J	250	LOD	3000	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Method:

6010C

Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Matrix:

AQ

Method Category: METALS

Sample ID:BGMW02042015	Collec	Collected: 4/2/2015 9:20:00 AM Analysis Type: RE2/DIS								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON	55	J	30	LOD	100	LOQ	ug/L	J	RI	

Sample ID:BGMW02042015	Collec	ted:4/2/20	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	91000	DJ	400	LOD	5000	LOQ	ug/L	J	Ms

Sample ID:BGMW02042015	Collected:4/2/2015 9:20:00 AM Analysis Type: RES/DIS								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	670	J	250	LOD	3000	LOQ	ug/L	J	RI		

Sample ID:BGMW02042015	Collec	Collected:4/2/2015 9:20:00 AM Analysis Type: RES/TOT								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM	130	J	31	LOD	300	LOQ	ug/L	J	RI	
IRON	82	J	30	LOD	100	LOQ	ug/L	J	RI	
POTASSIUM	590	J	250	LOD	3000	LOQ	ug/L	J	RI	

				1		1		1	
Sample ID:FW042015EQU001	Collec	4/2/20 ted: AM	15 10:15		nalysis 1	ype:RE2	/DIS		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	47	J	80	LOD	1000	LOQ	ug/L	J	RI, Ms

Sample ID:FW042015EQU001	Collec	4/2/20 cted: AM	15 10:15		nalysis ī	<i>ype:</i> RE3	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	120	J	250	LOD	5000	LOQ	ug/L	U	Mb
Sample ID:EW042015EQ11001	College	4/2/20	15 10:15		nalveie I	Type: PES	/DIE		Dilution: 1

Sample ID:+W042015EQU001	Collected: AM			A	nalysis i	ype:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	11	J	25	LOD	500	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6010C Matrix: AQ

Sample ID:FW042015EQU001 Analyte	Collec	4/2/20 cted: AM	15 10:15		nalysis 1	ype:RES	Dilution: 1		
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	61	J	31	LOD	300	LOQ	ug/L	J	RI
CALCIUM	120	J	80	LOD	1000	LOQ	ug/L	J	RI
IRON	40	J	30	LOD	100	LOQ	ug/L	J	RI
MAGNESIUM	23	J	25	LOD	500	LOQ	ug/L	U	Mb
SODIUM	1400	J	250	LOD	5000	LOQ	ug/L	J	RI

Sample ID:FW31042015EQU002	Collec	Collected:4/2/2015 9:30:00 AM Analysis Type:RE2/DIS								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
CALCIUM	67	J	80	LOD	1000	LOQ	ug/L	J	RL Ms	

Sample ID:FW31042015EQU002	Collec	Collected:4/2/2015 9:30:00 AM Analysis Type:RE2/TOT										
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code			
CALCIUM	390		80	LOD	1000	LOQ	ug/L		RI			
CALCION	030	, ,	00	LOD	1000		l ag/r	J	1 131			

Sample ID:FW31042015EQU002	Collected:4/2/2015 9:30:00 AM Analysis Type:RE3/DIS Lab Lab DL RL RL Include		Dilution: 1						
Analyte	Lab Lab DL RL Review						Data Review Qual	Reason Code	
SODIUM	1900	J	250	LOD	5000	LOQ	ug/L	J	RI

Sample ID:FW31042015EQU002	ID:FW31042015EQU002									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	110	J	250	LOD	5000	LOQ	ug/L	J	RI	

Sample ID:FW31042015EQU002	Collec	ted:4/2/20	15 9:30:0	00 AM <i>A</i>	nalysis 1	ype:RES	/тот	Dilution: 1		
Analyte	Lab Lab DL RL Result Qual DL Type RL Type Units								Reason Code	
ALUMINUM	230	J	31	LOD	300	LOQ	ug/L	J	RI	
MAGNESIUM	76	J	25	LOD	500	LOQ	ug/L	U	Mb	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 **Laboratory: TA DEN** EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate Primary 120405

Method Category: **METALS** Method: 6010C Matrix: AQ Collected: 4/2/2015 8:50:00 AM Analysis Type: RE2/DIS Sample ID:FW35042015 Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL Type RL Type **Units** Qual Code CALCIUM 330000 LOD 1000 LOQ Ms 80 ua/L Collected: 4/2/2015 8:50:00 AM Analysis Type: RES/DIS Sample ID:FW35042015 Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL RL Type Units Qual Code Type POTASSIUM 720 250 LOD 3000 LOQ RΙ Sample ID:TMW31S042015 Collected: 4/2/2015 1:05:00 PM Analysis Type: RE2/DIS Dilution: 1 Data Lab Lab DL RL Review Reason DL RL Analyte Result Qual **Type** Type Units Qual Code CALCIUM 120000 LOD Ms 80 1000 LOQ ug/L J Sample ID:TMW31S042015 Collected: 4/2/2015 1:05:00 PM Analysis Type: RES/DIS Dilution: 1 Data Lab Lab DL RL Review Reason Result DL RL Qual Analyte Qual **Type** Type Units Code POTASSIUM 2200 250 LOD 3000 LOQ RΙ 4/2/2015 11:45:00 Collected: AM Sample ID:TMW33042015 Analysis Type: RE2/DIS Dilution: 1 Data I ab DL RI I ah Review Reason Analyte Result Qual DL Type RL Type **Units** Qual Code LOD CALCIUM 110000 80 1000 LOQ Ms 4/2/2015 11:45:00 Collected: AM Analysis Type: RES/DIS Sample ID:TMW33042015 Dilution: 1 Data Lab Lab DL RL Review Reason Result DL RL Units Qual Code Analyte Qual Type Type **POTASSIUM** 1200 250 LOD LOQ 4/2/2015 11:45:00 Sample ID:TMW33042015 Collected: AM Analysis Type: RES/TOT Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL RL **Units** Qual Code Type Type

250

LOD

3000

LOQ

ug/L

POTASSIUM

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

5/18/2015 4:09:02 PM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only)

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^{*} denotes a non-reportable result



Method Category: METALS

Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C			Ma	ntrix:	AQ						
Sample ID:TMW40S042015	Collec	ted:4/2/20	15 8:50:	00 AM <i>A</i>	nalysis 1	ype:RE2	/DIS		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
CALCIUM	80000		80	LOD	1000	LOQ	ug/L	J	Ms		
Sample ID:TMW40S042015	Collec	ted:4/2/20	15 8:50:0	00 AM <i>A</i>	nalysis 1	ype:RES	/DIS		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	1800	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW44042015EQU003	Collec	4/2/2015 10:00:0 Collected: AM				<i>ype:</i> RE2		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
CALCIUM	150	J	80	LOD	1000	LOQ	ug/L	J	RI		
Sample ID:TMW44042015EQU003	Collec	4/2/20 ted: AM	15 10:00	:00 <i>A</i>	nalysis 1	Гуре:RE3	/DIS		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SODIUM	370	J	250	LOD	5000	LOQ	ug/L	U	Mb		
Sample ID:TMW44042015EQU003	4/2/2015 10:00:00 Collected: AM Analysis Type: RES/TOT Dilution: 1										

Sample ID:1 MW44042015EQU003	Collected: AM			A	nalysis 1	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code

Analyte	Result	Qual	DL	Type	RL	Type	Units	Qual	Code
ALUMINUM	76	J	31	LOD	300	LOQ	ug/L	J	RI
IRON	53	J	30	LOD	100	LOQ	ug/L	J	RI
MAGNESIUM	28	J	25	LOD	500	LOQ	ug/L	U	Mb

4/2/2015 12:18:00
Sample ID:TMW46042015
Collected:pM Analysis Type: RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	74000		80	LOD	1000	LOQ	ug/L	J	Ms

 4/2/2015 12:18:00
 Analysis Type: RES/DIS
 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	450	J	250	LOD	3000	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Method Category:

Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1

METALS

Laboratory: TA DEN eQAPP Name: FtWingate_Primary_120405

EDD Filename: Prep280-67316-1

Method: 6010C Matrix: AQ

4/2/2015 12:18:00

Sample ID:TMW46042015	Collec	Collected: PM				<i>ype:</i> RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1200		250	LOD	3000	100	ug/l		RI

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:BGMW01042015 Collected:4/2/2015 1:12:00 PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.73	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.29	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	2.1	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:BGMW01042015 Collected:4/2/2015 1:12:00 PM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.77	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.31	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.5	U	1.5	LOD	2.0	LOQ	ug/L	U	Eb
NICKEL	2.2	J	0.90	LOD	3.0	LOQ	ug/L	U	Eb
VANADIUM	2.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:BGMW02042015 Collected:4/2/2015 9:20:00 AM Analysis Type: RE3/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	0.79		1.5	LOD	2.0	LOQ			RI

Sample ID:BGMW02042015 Collected:4/2/2015 9:20:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.79	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.071	J	0.10	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:BGMW02042015	Colle	cted:4/2/20	15 9:20:	00 AM A	nalysis 1	<i>ype:</i> RES	/TOT		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.69	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.12	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.81	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.18	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	0.57	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.036	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.066	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb
ZINC	2.1	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/2/2015 10:15:00
Sample ID:FW042015EQU001

Collected: AM Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	1.4	J	0.85	LOD	3.0	LOQ	ug/L	J	RI

4/2/2015 10:15:00

Sample ID:FW042015EQU001	Collec	ted:AM		Α	nalysis	Type: RES		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARILIM	0.65	l .i	0.85	LOD	3.0	100	ug/l		RI	

4/2/2015 10:15:00
Sample ID:FW042015EQU001

Collected: AM Analysis Type: RES/TOT Dilution: 1

		71111				71			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	0.61	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
MANGANESE	1.6	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
NICKEL	0.55	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:FW31042015EQU002 Collected: 4/2/2015 9:30:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	0.34	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
ZINC	2.6	J	6.0	LOD	20	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:FW31042015EQU002	Collected:	4/2/2015 9:30:0	O AM A	nalysis 1	ype:RES	/TOT	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	4.2	JQ	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.10	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	0.26	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
ZINC	3.1	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:FW35042015 Collected: 4/2/2015 8:50:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	0.70	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	1.4	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.9	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	4.6	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:FW35042015 Collected:4/2/2015 8:50:00 AM Analysis Type:RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	2.5	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
SELENIUM	1.1	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.14	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.15	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

Sample ID:TMW31S042015 Collected:4/2/2015 1:05:00 PM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.67	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BERYLLIUM	0.51	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	6.9	J	1.5	LOD	10	LOQ	ug/L	J	RI
THALLIUM	0.069	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
ZINC	18	J	6.0	LOD	20	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:TMW31S042015	Collected:4/2/2015 1:05:00 PM Analysis Type:RES/TOT								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ARSENIC	3.4	J	1.0	LOD	5.0	LOQ	ug/L	J	RI		
SILVER	0.10	J	0.10	LOD	5.0	LOQ	ug/L	J	RI		
THALLIUM	0.27	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb		

4/2/2015 11:45:00
Sample ID:TMW33042015

Collected: AM Analysis Type: RE2/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.055	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

4/2/2015 11:45:00
Sample ID:TMW33042015

Collected: AM Analysis Type: RE3/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	1.5	J	1.5	LOD	2.0	LOQ	ug/L	J	RI

4/2/2015 11:45:00
Sample ID:TMW33042015

Collected: AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.46	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	0.93	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BERYLLIUM	0.28	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
COBALT	0.18	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	0.81	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	1.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	0.82	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.14	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	3.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	2.0	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/2/2015 11:45:00
Sample ID:TMW33042015

Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.44	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	1.5	J	1.0	LOD	5.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:TMW33042015	Collec	4/2/2015 11:45:00 Collected: AM Analysis Type: RES/TOT							Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BERYLLIUM	0.44	J	0.24	LOD	1.0	LOQ	ug/L	J	RI		
CHROMIUM	3.9	JQ	1.5	LOD	10	LOQ	ug/L	J	RI		
LEAD	2.5	J	0.50	LOD	3.0	LOQ	ug/L	J	RI		
SELENIUM	0.88	J	2.0	LOD	5.0	LOQ	ug/L	J	RI		
SILVER	0.11	J	0.10	LOD	5.0	LOQ	ug/L	J	RI		
THALLIUM	0.18	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb		
ZINC	13	J	6.0	LOD	20	LOQ	ug/L	J	RI		

Sample ID:TMW40S042015	Collec	cted:4/2/20	/DIS	Dilution: 1					
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	7.1	J	1.5	LOD	10	LOQ	ug/L	J	RI
THALLIUM	0.066	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

4/2/2015 10:00:00 Sample ID:TMW44042015EQU003 Collected: AM Analysis Type: RES/DIS Dilution: 1 Data Review Lab Lab DL RL Reason Analyte Result Qual DL Type RL **Type** Units Qual Code LOD ZINC 2.2 LOQ RΙ 6.0 20 ug/L J

4/2/2015 10:00:00 Analysis Type: RES/TOT Sample ID:TMW44042015EQU003 Collected: AM Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL RL Units Qual Code Type Type BARIUM 1.6 J 0.85 LOD 3.0 LOQ ug/L RΙ CHROMIUM 0.92 JQ LOD LOQ ug/L RΙ 1.5 10 J MANGANESE 2.7 J 0.90 LOD 3.5 LOQ J RΙ ug/L NICKEL 1.1 LOD LOQ J RΙ J 0.90 3.0 ug/L

Sample ID:TMW46042015	Collec	Collected: PM					/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SILVER	0.045	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

4/2/2015 12:18:00

Sample ID:TMW46042015	Collec	ted:PM		Α	nalysis T	ype:RE3	/DIS		Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
COPPER	1.3	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	

4/2/2015 12:18:00
Sample ID:TMW46042015
Collected: pm Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.4	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	0.50	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BERYLLIUM	0.11	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
COBALT	0.10	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
MANGANESE	0.31	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
THALLIUM	0.079	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	2.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW46042015 Collected: PM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	1.2	J	0.60	LOD	6.0	LOQ	ug/L	J	RI	
ARSENIC	0.88	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
BERYLLIUM	0.20	J	0.24	LOD	1.0	LOQ	ug/L	J	RI	
CHROMIUM	2.4	JQ	1.5	LOD	10	LOQ	ug/L	J	RI	
LEAD	2.0	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
NICKEL	1.8	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
SILVER	0.058	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	
THALLIUM	0.13	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb	
VANADIUM	5.8	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	15	J	6.0	LOD	20	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result

Dilution: 1



Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1 **Laboratory: TA DEN**

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 6860 Matrix: AQ

	4/2/2015 10:15:00	0
Sample ID:FW042015EQU001	Collected: AM	Analysis Type: RES

	Zenestea. Alvi					,,,,,,,,					
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
PERCHLORATE	0.0086	J	0.020	LOD	0.050	LOQ	ug/L	J	RI		
4/2/2015 10:00:00											

Sample ID:TMW44042015EQU003	Collec	Collected: AM			nalysis 1	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	0.011	J	0.020	LOD	0.050	LOQ	ua/L	J	RI

Method Category:	SVOA	
Method:	8015C DRO	Matrix: AQ

	4/2/2015 10:1	5:00	
Sample ID:FW042015EQU001	Collected: AM	Analysis Type: RE2	Dilution: 1

Sample ID:FW042015EQU001	Collec	Collected: AM			nalysis 1	Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIESEL RANGE ORGANICS	0.093	J M	0.095	LOD	0.24	LOQ	mg/L	J	RI, Lcs

		-		_	· ·		"	, -
		4/2/20	15 11:45	:00				
Sample ID:TMW33042015	Collec	ted: AM		A	nalysis 1	ype:RE2		Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIESEL RANGE ORGANICS	0.079	JM	0.10	LOD	0.25	LOQ	mg/L	J	RI, Lcs

Method Category:	SVOA	
Method:	8081A	Matrix: AQ

4/2/2015 12:18:00 Sample ID:TMW46042015 Collected: PM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
4,4'-DDE	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
4,4'-DDT	0.020	υQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ALDRIN	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ALPHA-BHC	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ALPHA-CHLORDANE	0.020	υQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8081A Matrix: AQ

Sample ID:TMW46042015	Collec	Collected:PM			Analysis Type: RES				Dilution:		
	Lab	Lab		DL		RL	Data Revie		Reas		

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ВЕТА-ВНС	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
DELTA-BHC	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
DIELDRIN	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ENDOSULFAN I	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ENDOSULFAN II	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ENDOSULFAN SULFATE	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ENDRIN	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ENDRIN ALDEHYDE	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
ENDRIN KETONE	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
GAMMA-BHC	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
GAMMA-CHLORDANE	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
HEPTACHLOR	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
HEPTACHLOR EPOXIDE	0.020	UQ	0.020	LOD	0.049	LOQ	ug/L	UJ	Surr
METHOXYCHLOR	0.020	UQ	0.020	LOD	0.098	LOQ	ug/L	UJ	Surr
TOXAPHENE	0.78	UQ	0.78	LOD	4.9	LOQ	ug/L	UJ	Surr

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:BGMW01042015	Collected:4/2/2015 1:12:00 PM Analysis Type: RES-ACID	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	53	U	53	LOD	85	LOQ	ug/L	UJ	Ms

Sample ID:BGMW01042015 Collected: 4/2/2015 1:12:00 PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	110	U	110	LOD	210	LOQ	ug/L	R	Ms
DIMETHYL PHTHALATE	0.43	J	1.1	LOD	21	LOQ	ug/L	U	Mb
HEXACHLOROCYCLOPENTADIENE	21	UQ	21	LOD	53	LOQ	ug/L	R	Lcs

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 **Laboratory: TA DEN**

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Method: 8270D Matrix: AQ

Sample ID:BGMW02042015	Collec	cted:4/2/20	15 9:20:	00 AM <i>A</i>	nalysis	Type:RES	S-ACID		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	52	UJ	52	LOD	83	100	ug/l	UJ	Ms

Sample ID:BGMW02042015	Collected:4/2/2015 9:20:00 AM Analysis Type:RES-BASE/NEUTRAL Dilution: 1									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BENZIDINE	100	UJ	100	LOD	210	LOQ	ug/L	R	Ms	
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	R	Lcs	

4/2/2015 10:15:00 Collected: AM Sample ID:FW042015EQU001 Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	52	U	52	LOD	83	LOQ	ug/L	UJ	Ms

4/2/2015 10:15:00 Collected: AM Sample ID:FW042015EQU001 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETOPHENONE	2.2	J	5.2	LOD	10	LOQ	ug/L	J	RI
BENZIDINE	100	U	100	LOD	210	LOQ	ug/L	R	Ms
BENZYL ALCOHOL	4.9	J	1.0	LOD	26	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	R	Lcs
NAPHTHALENE	0.31	J	1.0	LOD	10	LOQ	ug/L	J	RI

Sample ID:FW31042015EQU002 Collected: 4/2/2015 9:30:00 AM Analysis Type: RES-ACID Dilution: 1 Data Lab Lab DL Review Reason Analyte Result Qual DL RL Units Qual Code **Type** Type BENZOIC ACID 53 53 LOD LOQ ug/L Ms

Sample ID:FW31042015EQU002	Collec	Collected: 4/2/2015 9:30:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ACETOPHENONE	1.9	J	5.3	LOD	11	LOQ	ug/L	J	RI		
BENZIDINE	110	U	110	LOD	210	LOQ	ug/L	R	Ms		
BENZYL ALCOHOL	3.6	J	1.1	LOD	26	100	ua/l	J	RI		

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

5/18/2015 4:09:02 PM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only)



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:FW31042015EQU002	Collected: 4/2/2015 9:30:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1	
----------------------------	--	--

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	21	UQ	21	LOD	53	LOQ	ug/L	R	Lcs
NAPHTHALENE	0.37	J	1.1	LOD	11	LOQ	ug/L	J	RI

Sample ID:MW22S042015 Collected:4/2/2015 1:29:00 PM Analysis Type:RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	50	U	50	LOD	80	LOQ	ug/L	UJ	Ms

Sample ID:MW22S042015 Collected:4/2/2015 1:29:00 PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	U	100	LOD	200	LOQ	ug/L	R	Ms
HEXACHLOROCYCLOPENTADIENE	20	UQ	20	LOD	50	LOQ	ug/L	R	Lcs

Sample ID:TMW31S042015 Collected:4/2/2015 1:05:00 PM Analysis Type:RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	48	U	48	LOD	76	LOQ	ug/L	UJ	Ms

Sample ID:TMW31S042015 Collected:4/2/2015 1:05:00 PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

oumple ib.tilitto10042010	Concerca. 422010 1.00.00 1 III Analysis Type: NEO BACENEO TRAE Bladon: 1								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	96	UQ	96	LOD	190	LOQ	ug/L	R	Ms
DIMETHYL PHTHALATE	0.20	J	0.96	LOD	19	LOQ	ug/L	U	Mb
HEXACHLOROCYCLOPENTADIENE	19	UQ	19	LOD	48	LOQ	ug/L	R	Lcs

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
M,P-CRESOL*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

4,6-DINITRO-2-METHYLPHENOL*

4-CHLORO-3-METHYLPHENOL*

4-NITROPHENOL*

PENTACHLOROPHENOL*

BENZOIC ACID*

Method: 8270D Matrix: AQ

Sample ID:TMW33042015	4/2/2015 11:45:0 Collected: AM				nalysis 1	Type:RE2	-ACID	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
2,3,4,6-TETRACHLOROPHENOL*	2.0	UН	2.0	LOD	50	LOQ	ug/L	R	StoA	
2,4,5-TRICHLOROPHENOL*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA	
2,4,6-TRICHLOROPHENOL*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA	
2,4-DICHLOROPHENOL*	2.0	UН	2.0	LOD	10	LOQ	ug/L	R	StoA	
2,4-DIMETHYLPHENOL*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA	
2,4-DINITROPHENOL*	20	UН	20	LOD	80	LOQ	ug/L	R	StoA	
2,6-DICHLOROPHENOL*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA	
2-CHLOROPHENOL*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA	
2-METHYLPHENOL*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA	
2-NITROPHENOL*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA	

PHENOL* 5.0 U H 5.0 LOD 10 LOQ ug/L R StoA

4/2/2015 11:45:00

Sample ID:TMW33042015

Collected: AM Analysis Type: RE2-BASE/NEUTRAL Dilution: 1

UН

UН

UН

UН

UН

10

5.0

10

50

40

LOD

LOD

LOD

LOD

LOD

80

20

50

80

80

LOQ

LOQ

LOQ

LOQ

LOQ

ug/L

ug/L

ug/L

ug/L

ug/L

R

R

R

R

R

StoA

StoA

StoA

StoA

StoA

10

5.0

10

50

40

Sample ID. I WW 33042013	Conec	Analysis Type. RE2-BASE/NEUTRAL Dilution. 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4,5-TETRACHLOROBENZENE*	2.0	UН	2.0	LOD	10	LOQ	ug/L	R	StoA
1,2,4-TRICHLOROBENZENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
1,2-DICHLOROBENZENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
1,2-DIPHENYLHYDRAZINE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
1,3-DICHLOROBENZENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
1,4-DICHLOROBENZENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
2,4-DINITROTOLUENE*	4.0	UН	4.0	LOD	20	LOQ	ug/L	R	StoA
2,6-DINITROTOLUENE*	4.0	UН	4.0	LOD	20	LOQ	ug/L	R	StoA
2-CHLORONAPHTHALENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
2-METHYLNAPHTHALENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
2-NITROANILINE*	4.0	UН	4.0	LOD	50	LOQ	ug/L	R	StoA
3,3'-DICHLOROBENZIDINE*	10	UН	10	LOD	50	LOQ	ug/L	R	StoA

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN
EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

4/2/2015 11:45:00

Sample ID:TMW33042015	Collec	Collected: AM Analysis 7						ysis Type: RE2-BASE/NEUTRAL Dilution: 1				
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code			
3-NITROANILINE*	2.0	UН	2.0	LOD	50	LOQ	ug/L	R	StoA			
4-BROMOPHENYL-PHENYLETHER*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
4-CHLOROANILINE*	5.0	UН	5.0	LOD	25	LOQ	ug/L	R	StoA			
4-CHLOROPHENYL-PHENYLETHER*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA			
4-NITROANILINE*	4.0	UН	4.0	LOD	50	LOQ	ug/L	R	StoA			
ACENAPHTHENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
ACENAPHTHYLENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
ACETOPHENONE*	5.0	UН	5.0	LOD	10	LOQ	ug/L	R	StoA			
ANTHRACENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BENZALDEHYDE*	2.0	UН	2.0	LOD	10	LOQ	ug/L	R	Lcs, StoA			
BENZIDINE*	100	UН	100	LOD	200	LOQ	ug/L	R	Lcs, StoA			
BENZO(A)ANTHRACENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BENZO(A)PYRENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BENZO(B)FLUORANTHENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BENZO(G,H,I)PERYLENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BENZO(K)FLUORANTHENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BENZYL ALCOHOL*	1.0	UН	1.0	LOD	25	LOQ	ug/L	R	StoA			
BIS(2-CHLOROETHOXY)METHANE*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA			
BIS(2-CHLOROETHYL) ETHER*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA			
BIS(2-CHLOROISOPROPYL)ETHER*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
BIS(2-ETHYLHEXYL) PHTHALATE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
Butyl Benzyl Phthlate*	4.0	UН	4.0	LOD	20	LOQ	ug/L	R	StoA			
CARBAZOLE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
CHRYSENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
DIBENZ(A,H)ANTHRACENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
DIBENZOFURAN*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			
DIETHYL PHTHALATE*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA			
DIMETHYL PHTHALATE*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA			
DI-N-BUTYL PHTHALATE*	4.0	UН	4.0	LOD	20	LOQ	ug/L	R	StoA			
DI-N-OCTYL PHTHALATE*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA			
FLUORANTHENE*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA			
FLUORENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA			

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 **Laboratory: TA DEN**

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

4/2/2015	44.4E.00
4/2/2013	11:45:00

Data Data	npie ID:1 MW33042015	EZ-BASE/NEUTRAL DIIUTION: 1
		Review Reaso

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
HEXACHLOROBENZENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
HEXACHLOROBUTADIENE*	10	UН	10	LOD	30	LOQ	ug/L	R	StoA
HEXACHLOROCYCLOPENTADIENE*	20	UН	20	LOD	50	LOQ	ug/L	R	Lcs, Lcs, StoA
HEXACHLOROETHANE*	4.0	UН	4.0	LOD	10	LOQ	ug/L	R	StoA
INDENO(1,2,3-CD)PYRENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
ISOPHORONE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
NAPHTHALENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
NITROBENZENE*	2.0	UН	2.0	LOD	20	LOQ	ug/L	R	StoA
N-NITROSODIMETHYLAMINE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
N-NITROSO-DI-N-PROPYLAMINE*	1.0	UН	1.0	LOD	20	LOQ	ug/L	R	StoA
N-NITROSODIPHENYLAMINE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
PHENANTHRENE*	1.0	UН	1.0	LOD	10	LOQ	ug/L	R	StoA
PYRENE*	1.0	UН	1.0	LOD	10	LOQ	ua/L	R	StoA

4/2/2015 11:45:00 Sample ID:TMW33042015

Collected: AM	Analysis Type: RES-ACID	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BENZOIC ACID	50	U	50	LOD	80	LOQ	ug/L	UJ	Ms		
4/2/2015 11:45:00											

Sample ID:TMW33042015 Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DIPHENYLHYDRAZINE	0.28	J	1.0	LOD	10	LOQ	ug/L	U	Mb
BENZIDINE	100	UQ	100	LOD	200	LOQ	ug/L	R	Ms
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	50	LOQ	ug/L	R	Lcs

4/2/2015 10:00:00 Sample ID:TMW44042015EQU003 Analysis Type: RES-ACID

Sample ID:TMW44042015EQU003	Collec	ted: AM	13 10.00	Analysis Type: RES-ACID					Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BENZOIC ACID	13	J	50	LOD	80	LOQ	ug/L	J	RI, Ms		

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

^{*} denotes a non-reportable result

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67316-1

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Method: 8270D Matrix: AQ

4/2/2015 10·00·00

Sample ID:TMW44042015EQU003	Collected: An	Λ	Analysis	Type:RES	S-BASE/N	EUTRAL	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETOPHENONE	2.7	J	5.0	LOD	10	LOQ	ug/L	J	RI
BENZIDINE	100	U	100	LOD	200	LOQ	ug/L	R	Ms
BENZYL ALCOHOL	7.3	J	1.0	LOD	25	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	20	UQ	20	LOD	50	LOQ	ug/L	R	Lcs
ISOPHORONE	0.28	J	1.0	LOD	10	LOQ	ug/L	U	Mb

4/2/2015 12:18:00

Collected: PM Analysis Type: RES-ACID **Sample ID:**TMW46042015 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	50	U	50	LOD	81	LOQ	ug/L	UJ	Ms

4/2/2015 12:18:00

Sample ID:TMW46042015 Collected: PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	100	UQ	100	LOD	200	LOQ	ug/L	R	Ms
DIMETHYL PHTHALATE	0.24	J	1.0	LOD	20	LOQ	ug/L	U	Mb
HEXACHLOROCYCLOPENTADIENE	20	UQ	20	LOD	50	LOQ	ug/L	R	Lcs

Method Category: SVOA Method: 8330B Matrix: AQ

4/2/2015 10:15:00

Collected: AM Sample ID:FW042015EQU001 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.16	J	0.17	LOD	0.45	LOQ	ug/L	J	RI, ProfJudg

Sample ID:TMW31S042015 Collected:4/2/2015 1:05:00 PM Analysis Type: RE2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITROBENZENE	0.23	J	0.16	LOD	0.43	LOQ	ug/L	J	RI, ProfJudg

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1

Laboratory: TA DEN

EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8330B Matrix: AQ

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	1200	QD	18	LOD	23	LOQ	ug/L	J	ProfJudg

Sample ID:TMW40S042015 Collected:4/2/2015 8:50:00 AM Analysis Type: RE2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	2.2	JQ	0.47	LOD	1.2	LOQ	ug/L	J	ProfJudg
1,3-DINITROBENZENE	0.18	UQ	0.18	LOD	0.47	LOQ	ug/L	UJ	ProfJudg
2,4,6-TRINITROTOLUENE	0.18	UQ	0.18	LOD	0.47	LOQ	ug/L	UJ	ProfJudg
3-NITROTOLUENE	0.78	JQ	0.18	LOD	0.47	LOQ	ug/L	J	ProfJudg

Sample ID:TMW40S042015 Collected:4/2/2015 8:50:00 AM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROTOLUENE	0.18	UQ	0.18	LOD	0.47	LOQ	ug/L	R	Surr, ProfJudg
2,6-DINITROTOLUENE	0.18	UQ	0.18	LOD	0.23	LOQ	ug/L	R	Surr, ProfJudg
2-AMINO-4,6-DINITROTOLUENE	2.0	Q	0.18	LOD	0.23	LOQ	ug/L	J	Surr, ProfJudg
2-NITROTOLUENE	0.18	UQ	0.18	LOD	0.47	LOQ	ug/L	R	Surr, ProfJudg
4-AMINO-2,6-DINITROTOLUENE	1.3	QM	0.18	LOD	0.23	LOQ	ug/L	J	Surr, ProfJudg
4-NITROTOLUENE	0.47	UQ	0.47	LOD	1.2	LOQ	ug/L	R	Surr, ProfJudg
METHYL-2,4,6-TRINITROPHENYLNITRAMINE	0.18	UQ	0.18	LOD	0.28	LOQ	ug/L	R	Surr, ProfJudg
NITROBENZENE	2.6	QJM	0.18	LOD	0.47	LOQ	ug/L	J	Surr, ProfJudg
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	22	QMJ	0.18	LOD	0.47	LOQ	ug/L	J	Surr, ProfJudg

Method Category: VOA

Method: 8260B Matrix: AQ

 Sample ID:FW042015EQU001
 4/2/2015 10:15:00
 Analysis Type: RES
 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.34	J	0.80	LOD	5.0	LOQ	ug/L	U	Mb
NAPHTHALENE	0.36	J	0.80	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW



Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Category: VOA

Method: 8260B Matrix: AQ

Sample ID:FW31042015EQU002	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.9	J	6.4	LOD	10	LOQ	ug/L	J	RI

Sample ID:MW22S042015	Collec	Collected:4/2/2015 1:29:00 PM Analysis Type:RES								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
1,1-DICHLOROETHANE	0.68	J	0.40	LOD	1.0	LOQ	ug/L	J	RI	
1,2-DICHLOROETHANE	0.68	J	0.40	LOD	1.0	LOQ	ug/L	J	RI	

Sample ID:TB-02-042015	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.33	J	0.80	LOD	5.0	LOQ	ug/L	U	Mb

Sample ID:TMW33042015	Collec	Collected: AM			nalysis	Type: RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	3.0	J	6.4	LOD	10	LOQ	ug/L	J	RI

4/2/2015 11:45:00

Sample ID:TMW40S042015	Collec	Collected:4/2/2015 8:50:00 AM A					;	Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	0.66	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
METHYLENE CHLORIDE	0.72	J	0.80	LOD	5.0	LOQ	ug/L	U	Tb
	•	4/2/20	15 10:00	:00	•	•	•		

Sample ID:TMW44042015EQU003	Collec	Collected: AM			Analysis Type: RES				Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ACETONE	8.3	J	6.4	LOD	10	LOQ	ug/L	J	RI		

Project Name and Number: 102012 - USACE Project: FWDA 102012 GW

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67316-1 EDD Filename: Prep280-67316-1

Laboratory: TA DEN

eQAPP Name: FtWingate_Primary_120405

Reason Code Legend

Reason Code	Description
Eb	Equipment Blank Contamination
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
StoA	Sampling to Analysis Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Tb	Trip Blank Contamination

^{*} denotes a non-reportable result



Approved By: Laboratory: TA DEN Reviewed By: Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67316-1 Method: 6010C BGMW01042015 S2AVE 280-67316-7 Ν 3005A 4/2/2015 1:12:00 PM AQ BGMW01042015 280-67316-7 AQ Ν 3010A 4/2/2015 1:12:00 PM S2AVE BGMW02042015 280-67316-8 Ν 3005A 4/2/2015 9:20:00 AM S2AVE AQ BGMW02042015 280-67316-8 Ν 3010A 4/2/2015 9:20:00 AM S2AVE AQ S2AVE BGMW02042015MS 280-67316-8MS AQ MS 3005A 4/2/2015 9:20:00 AM S2AVE BGMW02042015MS 280-67316-8MS AQ MS 3010A 4/2/2015 9:20:00 AM BGMW02042015MSD 280-67316-8MSD MSD S2AVE AQ 3005A 4/2/2015 9:20:00 AM BGMW02042015MSD 280-67316-8MSD AQ MSD 3010A 4/2/2015 9:20:00 AM S2AVE FW042015EQU001 280-67316-10 EΒ 3005A 4/2/2015 10:15:00 AM S2AVE AQ FW042015EQU001 280-67316-10 EΒ 3010A 4/2/2015 10:15:00 AM S2AVE AQ S2AVE FW31042015EQU002 280-67316-3 AQ EΒ 3005A 4/2/2015 9:30:00 AM S2AVE FW31042015EQU002 280-67316-3 AQ EΒ 3010A 4/2/2015 9:30:00 AM S2AVE FW35042015 280-67316-14 AQ Ν 3005A 4/2/2015 8:50:00 AM FW35042015 280-67316-14 AQ Ν 3010A 4/2/2015 8:50:00 AM S2AVE TMW31S042015 280-67316-2 3005A 4/2/2015 1:05:00 PM S2AVE AQ Ν S2AVE TMW31S042015 280-67316-2 Ν 3010A 4/2/2015 1:05:00 PM AQ S2AVE TMW33042015 280-67316-9 Ν 3005A AQ 4/2/2015 11:45:00 AM TMW33042015 280-67316-9 Ν 3010A 4/2/2015 11:45:00 AM S2AVE AQ S2AVE TMW40S042015 280-67316-6 Ν 3005A 4/2/2015 8:50:00 AM AQ TMW44042015EQU003 280-67316-4 EΒ 3005A 4/2/2015 10:00:00 AM S2AVE AQ TMW44042015EQU003 280-67316-4 EΒ 3010A 4/2/2015 10:00:00 AM S2AVE AQ TMW46042015 280-67316-1 Ν 3005A 4/2/2015 12:18:00 PM S2AVE AQ

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Reviewed By: Approved By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 6010C TMW46042015 3010A S2AVE 280-67316-1 Ν 4/2/2015 12:18:00 PM AQ Method: 6020A BGMW01042015 280-67316-7 Ν 3005A 4/2/2015 1:12:00 PM S2AVE AQ BGMW01042015 280-67316-7 Ν 3020A 4/2/2015 1:12:00 PM S2AVE AQ S2AVE BGMW02042015 280-67316-8 AQ Ν 3005A 4/2/2015 9:20:00 AM BGMW02042015 280-67316-8 AQ Ν 3020A 4/2/2015 9:20:00 AM S2AVE BGMW02042015MS 280-67316-8MS AQ MS 3005A 4/2/2015 9:20:00 AM S2AVE MS S2AVE BGMW02042015MS 280-67316-8MS AQ 3020A 4/2/2015 9:20:00 AM S2AVE BGMW02042015MSD 280-67316-8MSD MSD 3005A 4/2/2015 9:20:00 AM AQ S2AVE BGMW02042015MSD 280-67316-8MSD AQ MSD 3020A 4/2/2015 9:20:00 AM FW042015EQU001 280-67316-10 EΒ 3005A 4/2/2015 10:15:00 AM S2AVE AQ S2AVE FW042015EQU001 280-67316-10 AQ EΒ 3020A 4/2/2015 10:15:00 AM FW31042015EQU002 280-67316-3 AQ EΒ 3005A 4/2/2015 9:30:00 AM S2AVE FW31042015EQU002 EΒ 3020A 4/2/2015 9:30:00 AM S2AVE 280-67316-3 AQ S2AVE FW35042015 280-67316-14 Ν 3005A 4/2/2015 8:50:00 AM AQ S2AVE FW35042015 280-67316-14 AQ Ν 3020A 4/2/2015 8:50:00 AM S2AVE TMW31S042015 280-67316-2 Ν 3005A 4/2/2015 1:05:00 PM AQ TMW31S042015 280-67316-2 Ν 3020A 4/2/2015 1:05:00 PM S2AVE AQ TMW33042015 280-67316-9 AQ Ν 3005A 4/2/2015 11:45:00 AM S2AVE TMW33042015 280-67316-9 Ν 3020A 4/2/2015 11:45:00 AM S2AVE AQ TMW40S042015 280-67316-6 Ν 3005A 4/2/2015 8:50:00 AM S2AVE AQ TMW44042015EQU003 280-67316-4 AQ EΒ 3005A 4/2/2015 10:00:00 AM S2AVE EΒ S2AVE TMW44042015EQU003 280-67316-4 AQ 3020A 4/2/2015 10:00:00 AM S2AVE TMW46042015 280-67316-1 AQ Ν 3005A 4/2/2015 12:18:00 PM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 10:43:23 AM Page 2 of 7



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 6020A TMW46042015 3020A S2AVE 280-67316-1 Ν 4/2/2015 12:18:00 PM AQ Method: 6860 BGMW01042015 280-67316-7 Ν **METHOD** 4/2/2015 1:12:00 PM S2AVE AQ BGMW02042015 280-67316-8 Ν **METHOD** 4/2/2015 9:20:00 AM S2AVE AQ S2AVE BGMW02042015MS 280-67316-8MS AQ MS METHOD 4/2/2015 9:20:00 AM BGMW02042015MSD 280-67316-8MSD AQ MSD **METHOD** 4/2/2015 9:20:00 AM S2AVE FW042015EQU001 280-67316-10 AQ EΒ **METHOD** 4/2/2015 10:15:00 AM S2AVE MW02S042015 Ν **METHOD** S2AVE 280-67316-13 AQ 4/2/2015 9:40:00 AM S2AVE MW22S042015 280-67316-5 Ν **METHOD** 4/2/2015 1:29:00 PM AQ S2AVE TMW31S042015 280-67316-2 AQ Ν **METHOD** 4/2/2015 1:05:00 PM TMW40S042015 280-67316-6 Ν **METHOD** 4/2/2015 8:50:00 AM S2AVE AQ S2AVE TMW44042015EQU003 280-67316-4 AQ EΒ **METHOD** 4/2/2015 10:00:00 AM TMW46042015 280-67316-1 AQ Ν **METHOD** 4/2/2015 12:18:00 PM S2AVE Method: 7470A BGMW01042015 280-67316-7 7470A 4/2/2015 1:12:00 PM S2AVE AQ Ν BGMW02042015 280-67316-8 Ν 7470A 4/2/2015 9:20:00 AM S2AVE AQ BGMW02042015MS 280-67316-8MS MS 7470A 4/2/2015 9:20:00 AM S2AVE AQ MSD 7470A S2AVE BGMW02042015MSD 280-67316-8MSD AQ 4/2/2015 9:20:00 AM S2AVE FW042015EQU001 280-67316-10 EΒ 7470A 4/2/2015 10:15:00 AM AQ FW31042015EQU002 280-67316-3 AQ EΒ 7470A 4/2/2015 9:30:00 AM S2AVE FW35042015 280-67316-14 Ν 7470A S2AVE AQ 4/2/2015 8:50:00 AM 280-67316-2 7470A S2AVE TMW31S042015 Ν 4/2/2015 1:05:00 PM AQ TMW33042015 280-67316-9 AQ Ν 7470A 4/2/2015 11:45:00 AM S2AVE S2AVE TMW40S042015 280-67316-6 Ν 7470A AQ 4/2/2015 8:50:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 10:43:23 AM Page 3 of 7



Reviewed By:			Approved By:			oratory: TA DEN
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 7470A						
TMW44042015EQU003	280-67316-4	AQ	EB	7470A	4/2/2015 10:00:00 AM	S2AVE
TMW46042015	280-67316-1	AQ	N	7470A	4/2/2015 12:18:00 PM	S2AVE
Method: 8015C DRO						
FW042015EQU001	280-67316-10	AQ	EB	3510C	4/2/2015 10:15:00 AM	S2AVE
TMW33042015	280-67316-9	AQ	N	3510C	4/2/2015 11:45:00 AM	S2AVE
Method: 8015C GRO						
FW042015EQU001	280-67316-10	AQ	EB	METHOD	4/2/2015 10:15:00 AM	S2AVE
TB-41-042015	280-67316-12	AQ	ТВ	METHOD	4/2/2015 8:00:00 AM	S2AVE
TMW33042015	280-67316-9	AQ	N	METHOD	4/2/2015 11:45:00 AM	S2AVE
Method: 8081A						
BGMW01042015	280-67316-7	AQ	N	3510C	4/2/2015 1:12:00 PM	S2AVE
BGMW02042015	280-67316-8	AQ	N	3510C	4/2/2015 9:20:00 AM	S2AVE
BGMW02042015MS	280-67316-8MS	AQ	MS	3510C	4/2/2015 9:20:00 AM	S2AVE
BGMW02042015MSD	280-67316-8MSD	AQ	MSD	3510C	4/2/2015 9:20:00 AM	S2AVE
FW042015EQU001	280-67316-10	AQ	ЕВ	3510C	4/2/2015 10:15:00 AM	S2AVE
FW31042015EQU002	280-67316-3	AQ	ЕВ	3510C	4/2/2015 9:30:00 AM	S2AVE
TMW31S042015	280-67316-2	AQ	N	3510C	4/2/2015 1:05:00 PM	S2AVE
TMW44042015EQU003	280-67316-4	AQ	EB	3510C	4/2/2015 10:00:00 AM	S2AVE
TMW46042015	280-67316-1	AQ	N	3510C	4/2/2015 12:18:00 PM	S2AVE
Method: 8260B						
BGMW01042015	280-67316-7	AQ	N	5030	0 4/2/2015 1:12:00 PM	S2AVE
BGMW02042015	280-67316-8	AQ	N	5030	0 4/2/2015 9:20:00 AM	S2AVE
BGMW02042015MS	280-67316-8MS	AQ	MS	5030	0 4/2/2015 9:20:00 AM	S2AVE
BGMW02042015MSD	280-67316-8MSD	AQ	MSD	5030	0 4/2/2015 9:20:00 AM	S2AVE
5/18/2015 10:43:23 AM		ADR version 1.9.	0.325 (Licensed For Use On USA	ACE Projects Only)		Page 4 of 7



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 8260B FW042015EQU001 EΒ S2AVE 280-67316-10 4/2/2015 10:15:00 AM AQ 5030 FW31042015EQU002 EΒ S2AVE 280-67316-3 AQ 4/2/2015 9:30:00 AM 5030 MW22S042015 280-67316-5 AQ Ν 4/2/2015 1:29:00 PM S2AVE 5030 S2AVE TB-02-042015 280-67316-11 TB 4/2/2015 8:00:00 AM AQ 5030 TMW31S042015 280-67316-2 Ν S2AVE AQ 4/2/2015 1:05:00 PM 5030 TMW33042015 S2AVE 280-67316-9 AQ Ν 4/2/2015 11:45:00 AM 5030 TMW40S042015 280-67316-6 Ν S2AVE AQ 4/2/2015 8:50:00 AM 5030 TMW44042015EQU003 EΒ S2AVE 280-67316-4 AQ 4/2/2015 10:00:00 AM 5030 TMW46042015 280-67316-1 AQ Ν 4/2/2015 12:18:00 PM S2AVE 5030 Method: 8270D BGMW01042015 280-67316-7 Ν 3520C 4/2/2015 1:12:00 PM S2AVE AQ S2AVE BGMW02042015 280-67316-8 AQ Ν 3520C 4/2/2015 9:20:00 AM BGMW02042015MS 280-67316-8MS MS 3520C 4/2/2015 9:20:00 AM S2AVE AQ BGMW02042015MSD 280-67316-8MSD MSD 3520C 4/2/2015 9:20:00 AM S2AVE AQ S2AVE FW042015EQU001 280-67316-10 EΒ 3520C 4/2/2015 10:15:00 AM AQ S2AVE FW31042015EQU002 280-67316-3 AQ EΒ 3520C 4/2/2015 9:30:00 AM S2AVE MW22S042015 280-67316-5 Ν 3520C 4/2/2015 1:29:00 PM AQ TMW31S042015 280-67316-2 Ν 3520C 4/2/2015 1:05:00 PM S2AVE AQ TMW33042015 280-67316-9 AQ Ν 3520C 4/2/2015 11:45:00 AM S2AVE TMW44042015EQU003 280-67316-4 EΒ 3520C 4/2/2015 10:00:00 AM S2AVE AQ TMW46042015 280-67316-1 Ν 3520C 4/2/2015 12:18:00 PM S2AVE AQ Method: 8330B BGMW01042015 280-67316-7 AQ Ν 4/2/2015 1:12:00 PM S2AVE 3535 BGMW02042015 280-67316-8 Ν S2AVE AQ 4/2/2015 9:20:00 AM 3535 ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 10:43:23 AM Page 5 of 7



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 8330B BGMW02042015MS MS S2AVE 280-67316-8MS 4/2/2015 9:20:00 AM AQ 3535 BGMW02042015MSD MSD S2AVE 280-67316-8MSD AQ 4/2/2015 9:20:00 AM 3535 FW042015EQU001 280-67316-10 AQ EΒ 4/2/2015 10:15:00 AM S2AVE 3535 FW31042015EQU002 280-67316-3 EΒ 4/2/2015 9:30:00 AM S2AVE AQ 3535 TMW31S042015 280-67316-2 Ν S2AVE AQ 4/2/2015 1:05:00 PM 3535 TMW40S042015 S2AVE 280-67316-6 AQ Ν 4/2/2015 8:50:00 AM 3535 TMW44042015EQU003 280-67316-4 EΒ S2AVE AQ 4/2/2015 10:00:00 AM 3535 TMW46042015 Ν S2AVE 280-67316-1 AQ 4/2/2015 12:18:00 PM 3535 Method: 9056 S2AVE BGMW01042015 280-67316-7 AQ Ν **METHOD** 4/2/2015 1:12:00 PM BGMW02042015 280-67316-8 Ν **METHOD** 4/2/2015 9:20:00 AM S2AVE AQ S2AVE BGMW02042015DUP 280-67316-8DUP AQ DUP **METHOD** 4/2/2015 9:20:00 AM BGMW02042015MS 280-67316-8MS AQ MS **METHOD** 4/2/2015 9:20:00 AM S2AVE BGMW02042015MSD 280-67316-8MSD MSD **METHOD** 4/2/2015 9:20:00 AM S2AVE AQ S2AVE FW042015EQU001 280-67316-10 EΒ **METHOD** 4/2/2015 10:15:00 AM AQ FW31042015EQU002 280-67316-3 AQ EΒ **METHOD** 4/2/2015 9:30:00 AM S2AVE S2AVE FW35042015 280-67316-14 Ν **METHOD** 4/2/2015 8:50:00 AM AQ FW35042015DUP 280-67316-14DUP DUP **METHOD** 4/2/2015 8:50:00 AM S2AVE AQ FW35042015MS 280-67316-14MS AQ MS **METHOD** 4/2/2015 8:50:00 AM S2AVE FW35042015MSD 280-67316-14MSD MSD **METHOD** 4/2/2015 8:50:00 AM S2AVE AQ TMW31S042015 280-67316-2 Ν **METHOD** 4/2/2015 1:05:00 PM S2AVE AQ TMW33042015 280-67316-9 AQ Ν **METHOD** 4/2/2015 11:45:00 AM S2AVE EΒ **METHOD** S2AVE TMW44042015EQU003 280-67316-4 AQ 4/2/2015 10:00:00 AM TMW46042015 280-67316-1 AΩ Ν **METHOD** 4/2/2015 12:18:00 PM S2AVE ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 10:43:23 AM Page 6 of 7



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A



Data Review Summary

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note

· · · · · · · · · · · · · · · · · · ·	
Technical Holding Times	SR
Temperature	A
Initial Calibration	N
Continuing Calibration/Initial Calibration Verification	N
Method Blanks	SR
Surrogate/Tracer Spikes	SR
Matrix Spike/Matrix Spike Duplicates	SR
Laboratory Duplicates	A
Laboratory Replicates	N
Laboratory Control Samples	SR
Compound Quantitation	SR
Field Duplicates	N
Field Triplicates	N
Field Blanks	SR

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: Prep280-67316-1 eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ					Preparation Method: 3520C
Sample ID	Туре	Actual	Criteria	Units	Flag
TMW33042015 (RE2)	Sampling To Extraction	9.00	7.00	DAYS	J (all detects) UJ (all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method:	8270D
Matrice	40

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-271191/2-A (BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 MW22S042015 TMW31S042015 TMW33042015 TMW44042015EQU003 TMW44042015EQU003	HEXACHLOROCYCLOPENTADIEN	7	-	50.00-130.00	-	HEXACHLOROCYCLOPENTADIE	J (all detects) UJ (all non-detects)

Method: 8015C DRO

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSD 280-271425/23-A (FW042015EQU001 TMW33042015)	DIESEL RANGE ORGANICS	-	67	70.00-130.00	-	DIESEL RANGE ORGANICS	J(all detects) UJ(all non-detects)

Method: 8270D

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSD 280-272314/3-A	BENZALDEHYDE BENZIDINE HEXACHLOROCYCLOPENTADIEN	57 - 5	- - 10	70.00-130.00 10.00-110.00 50.00-130.00	44 (30.00)	BENZALDEHYDE BENZIDINE HEXACHLOROCYCLOPENTADIE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method:	6010C
Matrix:	AO

Maurix. AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
BGMW02042015MS (DIS) BGMW02042015MSD (DIS) (BGMW01042015 BGMW01042015 FW042015EQU001 FW31042015EQU002 FW35042015 TMW318042015 TMW33042015 TMW40842015 TMW40842015 TMW40842015	CALCIUM SODIUM	162 580	148	80.00-120.00 80.00-120.00	÷	CALCIUM SODIUM	J (all detects)
BGMW02042015MS (TOT) BGMW02042015MSD (TOT) (BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 FW35042015 TMW318042015 TMW33042015 TMW33042015 TMW46042015EQU003 TMW46042015)	SODIUM	67	224	80.00-120.00		SODIUM	J(all detects) UJ(all non-detects)

Method: 8270D Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
BGMW02042015MS BGMW02042015MSD (BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 MW22S042015 TMW31042015 TMW33042015 TMW3042015 TMW46042015	BENZOIC ACID	0 -	0 -	10.00-110.00 10.00-125.00	39 (30.00)	BENZIDINE BENZOIC ACID	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 6860 Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
BGMW02042015MS BGMW02042015MSD (BGMW01042015 BGMW02042015 FW042015EQU001 MW02S042015 MW22S042015 TMW31S042015 TMW40S042015 TMW40S042015 TMW404042015EQU003 TMW46042015)	PERCHLORATE	60	76	80.00-120.00	-	PERCHLORATE	J(all detects) UJ(all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271149/1-A	4/9/2015 3:38:00 PM	SODIUM	252 ug/L	BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 FW35042015 TMW31S042015 TMW33042015 TMW408042015 TMW44042015EQU003 TMW46042015
MB 280-271161/1-A	4/8/2015 2:57:00 AM	MAGNESIUM	18.3 ug/L	BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 FW35042015 TMW31S042015 TMW33042015 TMW44042015EQU003 TMW44042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FW042015EQU001(RE3/DIS)	SODIUM	120 ug/L	120U ug/L
FW042015EQU001(RES/TOT)	MAGNESIUM	23 ug/L	23U ug/L
FW31042015EQU002(RES/TOT)	MAGNESIUM	76 ug/L	76U ug/L
TMW44042015EQU003(RE3/DIS)	SODIUM	370 ug/L	370U ug/L
TMW44042015EQU003(RES/TOT)	MAGNESIUM	28 ug/L	28U ug/L

Method: 6020 <i>l</i> Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271162/1-A	4/10/2015 2:56:00 AM	THALLIUM	0.0660 ug/L	BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 FW35042015 TMW31S042015 TMW33042015 TMW44042015EQU003 TMW44042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
BGMW02042015(RES/TOT)	THALLIUM	0.066 ug/L	0.066U ug/L
FW35042015(RES/TOT)	THALLIUM	0.15 ug/L	0.15U ug/L
TMW31S042015(RES/TOT)	THALLIUM	0.27 ug/L	0.27U ug/L
TMW33042015(RES/TOT)	THALLIUM	0.18 ug/L	0.18U ug/L
TMW46042015(RES/TOT)	THALLIUM	0.13 ug/L	0.13U ug/L

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: Matrix:	8260B AQ				
Method Bla Sample ID	ınk	Analysis Date	Analyte	Result	Associated Samples
MB 280-271782	/6	4/9/2015 8:14:00 AM	1,2,3-TRICHLOROBENZENE METHYLENE CHLORIDE	0.235 ug/L 0.460 ug/L	FW042015EQU001 TB-02-042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FW042015EQU001(RES)	METHYLENE CHLORIDE	0.34 ug/L	0.34U ug/L
TB-02-042015(RES)	METHYLENE CHLORIDE	0.33 ug/L	0.33U ug/L

Method: 8270 Matrix: AQ	D			
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271191/1-A	4/9/2015 1:08:00 PM	1,2-DIPHENYLHYDRAZINE ACETOPHENONE Benz[a]anthracene BENZYL ALCOHOL DIETHYL PHTHALATE DIMETHYL PHTHALATE FLUORANTHENE ISOPHORONE N-NITROSODIPHENYLAMINE PHENANTHRENE	0.355 ug/L 0.271 ug/L 0.388 ug/L 0.252 ug/L 0.464 ug/L 0.722 ug/L 0.279 ug/L 0.300 ug/L 0.480 ug/L 0.341 ug/L	BGMW01042015 BGMW02042015 FW042015EQU001 FW31042015EQU002 MW225042015 TMW31S042015 TMW33042015 TMW44042015EQU003 TMW46042015
MB 280-272314/1-A	4/17/2015 5:08:00 PM	PHENANTHRENE	0.308 ug/L	TMW33042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
BGMW01042015(RES)	DIMETHYL PHTHALATE	0.43 ug/L	0.43U ug/L
TMW31S042015(RES)	DIMETHYL PHTHALATE	0.20 ug/L	0.20U ug/L
TMW33042015(RES)	1,2-DIPHENYLHYDRAZINE	0.28 ug/L	0.28U ug/L
TMW44042015EQU003(RES)	ISOPHORONE	0.28 ug/L	0.28U ug/L
TMW46042015(RES)	DIMETHYL PHTHALATE	0.24 ug/L	0.24U ug/L

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
BGMW01042015	ALUMINUM IRON POTASSIUM	J	58 57 540	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
BGMW02042015	ALUMINUM IRON POTASSIUM	7 7	130 55 670	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
FW042015EQU001	ALUMINUM CALCIUM IRON MAGNESIUM SODIUM	7 7 7	61 47 40 11 120	300 1000 100 500 500	LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L	J (all detects)
FW31042015EQU002	ALUMINUM CALCIUM MAGNESIUM SODIUM	7 7 7	230 67 76 1900	300 1000 500 5000	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
FW35042015	POTASSIUM	J	720	3000	LOQ	ug/L	J (all detects)
TMW31S042015	POTASSIUM	J	2200	3000	LOQ	ug/L	J (all detects)
TMW33042015	POTASSIUM	J	1200	3000	LOQ	ug/L	J (all detects)
TMW40S042015	POTASSIUM	J	1800	3000	LOQ	ug/L	J (all detects)
TMW44042015EQU003	ALUMINUM CALCIUM IRON MAGNESIUM SODIUM	7 7 7 7	76 150 53 28 370	300 1000 100 500 5000	LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW46042015	POTASSIUM	J	450	3000	LOQ	ug/L	J (all detects)

Method: 6020A Matrix: AQ

Lab Reporting RL SampleID Analyte Qual Result Limit Type Units Flag BGMW01042015 ARSENIC 0.73 5.0 LOQ ug/L ug/L COBALT 0.29 1.0 LOQ J J (all detects) NICKEL 3.0 LOQ ug/L 2.1 VANADIUM J 1.7 LOQ 6.0 ug/L BGMW02042015 ARSENIC J 0.79 5.0 LOQ ug/L ug/L COBALT 0.071 1.0 LOQ J COPPER 0.79 2.0 LOQ ug/L LEAD LOQ 0.18 3.0 ug/L J (all detects) NICKEL 0.57 3.0 LOQ ug/L SILVER J 0.036 5.0 LOQ ug/L THALLIUM 0.066 1.0 LOQ ug/L ZINC 20 LOQ ug/L 2.1 FW042015EQU001 BARIUM J 1.4 3.0 LOQ ug/L COPPER 0.61 2.0 LOQ ug/L J J (all detects) MANGANESE 1.6 3.5 LOQ ug/L NICKEL 0.55 LOQ ug/L

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW31042015EQU002	CHROMIUM	JQ	4.2	10	LOQ	ug/L	
	COBALT	J	0.10	1.0	LOQ	ug/L	
	LEAD	J	0.26	3.0	LOQ	ug/L	J (all detects)
	MANGANESE	J	0.34	3.5	LOQ	ug/L	
	ZINC	J	2.6	20	LOQ	ug/L	
FW35042015	ARSENIC	J	2.5	5.0	LOQ	ug/L	
	COBALT	J	0.70	1.0	LOQ	ug/L	
	NICKEL	J	1.4	3.0	LOQ	ug/L	
	SELENIUM	ļļ	1.1	5.0	LOQ	ug/L	J (all detects)
	SILVER THALLIUM	J	0.14 0.15	5.0 1.0	LOQ LOQ	ug/L	,
	VANADIUM	J	1.9	6.0	LOQ	ug/L ug/L	
	ZINC	J	4.6	20	LOQ	ug/L ug/L	
TMW31S042015	ARSENIC	J	0.67	5.0	LOQ	ug/L	
110100313042015	BERYLLIUM	J	0.67	1.0	LOQ	ug/L ug/L	
	CHROMIUM	j	6.9	10	LOQ	ug/L ug/L	
	SILVER	Ĵ	0.10	5.0	LOQ	ug/L	J (all detects)
	THALLIUM	Ĵ	0.069	1.0	LOQ	ug/L	
	ZINC	Ĵ	18	20	LOQ	ug/L	
TMW33042015	ANTIMONY	J	0.46	6.0	LOQ	ug/L	
	ARSENIC	Ĵ	0.93	5.0	LOQ	ug/L	
	BERYLLIUM	J	0.28	1.0	LOQ	ug/L	
	CHROMIUM	JQ	3.9	10	LOQ	ug/L	
	COBALT	J	0.18	1.0	LOQ	ug/L	
	COPPER	J	1.5	2.0	LOQ	ug/L	
	LEAD	J	0.81	3.0	LOQ	ug/L	J (all detects)
	NICKEL	J	1.5	3.0	LOQ	ug/L	
	SELENIUM	J	0.82	5.0	LOQ	ug/L	
	SILVER	J	0.055	5.0	LOQ	ug/L	
	THALLIUM VANADIUM	J	0.14 3.4	1.0	LOQ LOQ	ug/L	
	ZINC	J	2.0	6.0 20	LOQ	ug/L ug/L	
TMW40S042015	CHROMIUM	J	7.1	10	LOQ	ug/L	
1100042013	THALLIUM	Ĵ	0.066	1.0	LOQ	ug/L	J (all detects)
TMW44042015EQU003	BARIUM	J	1.6	3.0	LOQ	ug/L	
	CHROMIUM	JQ	0.92	10	LOQ	ug/L	
	MANGANESE	J	2.7	3.5	LOQ	ug/L	J (all detects)
	NICKEL	J	1.1	3.0	LOQ	ug/L	
	ZINC	J	2.2	20	LOQ	ug/L	
TMW46042015	ANTIMONY	J	1.4	6.0	LOQ	ug/L	
	ARSENIC	J	0.50	5.0	LOQ	ug/L	
	BERYLLIUM CHROMIUM	JQ	0.11 2.4	1.0 10	LOQ LOQ	ug/L ug/L	
	COBALT	J	2.4 0.10	1.0	LOQ	ug/L ug/L	
	COPPER	J	1.3	2.0	LOQ	ug/L ug/L	
	LEAD	J	2.0	3.0	LOQ	ug/L	J (all detects)
	MANGANESE	Ĵ	0.31	3.5	LOQ	ug/L	- (
	NICKEL	Ĵ	1.8	3.0	LOQ	ug/L	
	SILVER	Ĵ	0.045	5.0	LOQ	ug/L	
	THALLIUM	J	0.079	1.0	LOQ	ug/L	
	VANADIUM	J	2.3	6.0	LOQ	ug/L	
	ZINC	J	15	20	LOQ	ug/L	

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 6860 Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW042015EQU001	PERCHLORATE	J	0.0086	0.050	LOQ	ug/L	J (all detects)
TMW44042015EQU003	PERCHLORATE	J	0.011	0.050	LOQ	ug/L	J (all detects)

Method: 8015C DRO

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW042015EQU001	DIESEL RANGE ORGANICS	JM	0.093	0.24	LOQ	mg/L	J (all detects)
TMW33042015	DIESEL RANGE ORGANICS	JM	0.079	0.25	LOQ	mg/L	J (all detects)

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW042015EQU001	METHYLENE CHLORIDE NAPHTHALENE	J	0.34 0.36	5.0 1.0	LOQ LOQ	ug/L ug/L	J (all detects)
FW31042015EQU002	ACETONE	J	8.9	10	LOQ	ug/L	J (all detects)
MW22S042015	1,1-DICHLOROETHANE 1,2-DICHLOROETHANE	J	0.68 0.68	1.0 1.0	LOQ LOQ	ug/L ug/L	J (all detects)
TB-02-042015	METHYLENE CHLORIDE	J	0.33	5.0	LOQ	ug/L	J (all detects)
TMW33042015	ACETONE	J	3.0	10	LOQ	ug/L	J (all detects)
TMW40S042015	CHLOROFORM METHYLENE CHLORIDE	J	0.66 0.72	1.0 5.0	LOQ LOQ	ug/L ug/L	J (all detects)
TMW44042015EQU003	ACETONE	J	8.3	10	LOQ	ug/L	J (all detects)

Method: 8270D

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
BGMW01042015	DIMETHYL PHTHALATE	J	0.43	21	LOQ	ug/L	J (all detects)
FW042015EQU001	ACETOPHENONE BENZYL ALCOHOL NAPHTHALENE	J	2.2 4.9 0.31	10 26 10	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
FW31042015EQU002	ACETOPHENONE BENZYL ALCOHOL NAPHTHALENE	J	1.9 3.6 0.37	11 26 11	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW31S042015	DIMETHYL PHTHALATE	J	0.20	19	LOQ	ug/L	J (all detects)
TMW33042015	1,2-DIPHENYLHYDRAZINE	J	0.28	10	LOQ	ug/L	J (all detects)

Lab Reporting Batch ID: 280-67316-1

Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW44042015EQU003	ACETOPHENONE BENZOIC ACID BENZYL ALCOHOL ISOPHORONE)))	2.7 13 7.3 0.28	10 80 25 10	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
TMW46042015	DIMETHYL PHTHALATE	J	0.24	20	LOQ	ug/L	J (all detects)

Method: 8330B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	J	0.16	0.45	LOQ	ug/L	J (all detects)
TMW31S042015	NITROBENZENE	J	0.23	0.43	LOQ	ug/L	J (all detects)

Method: 9056

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FW35042015	NITRATE	J	0.099	0.50	LOQ	mg/L	J (all detects)
TMW33042015	NITRATE	JD	0.22	1.0	LOQ	mg/L	J (all detects)

Laboratory: TA DEN

J(all detects) R(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67316-1

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 2	80-67316-1			eQAPP Name: FtWinga	te_Primary_120405
Method: 8081 <i>I</i> Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TMW46042015	DECACHLOROBIPHENYL	29	30.00-135.00	All Target Analytes	J(all detects) UJ(all non-detects)
Method: 8270E Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
	Surrogate Terphenyl-d14	•			Flag
(Analysis Type)	<u> </u>	% Recovery	Limits	Compounds	Flag
(Analysis Type) TMW31S042015	Terphenyl-d14	% Recovery	Limits 50.00-135.00	Compounds No Affected Compounds	Flag
(Analysis Type) TMW31S042015 TMW33042015	Terphenyl-d14 Terphenyl-d14 Terphenyl-d14	% Recovery 36 38	Limits 50.00-135.00 50.00-135.00	Compounds No Affected Compounds No Affected Compounds	Flag

75.00-118.00

All Target Analytes

1,2-DINITROBENZENE

TMW40S042015

Trip Blank Outlier Report

Lab Reporting Batch ID: 280-67316-1 Laboratory: TA DEN

EDD Filename: 280-67316-1 eQAPP Name: FtWingate_Primary_120405

Method: 8260B Matrix: AQ				
Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
TB-02-042015(RES)	4/2/2015 8:00:00 AM	METHYLENE CHLORIDE	0.33 ug/L	BGMW01042015 BGMW02042015 FW35042015 MW02S042015 MW02S042015 TMW31S042015 TMW33042015 TMW30042015 TMW46042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
TMW40S042015(RES)	METHYLENE CHLORIDE	0.72 ug/L	0.72U ug/L

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67316-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for nine water samples received April 3, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 0.5°C, 3.0°C, 4.1°C, 0.3°C, 3.1°C, 2.0°C, 0.2°C, 0.3°C, 2.0°C, 1.4°C and 2.1°C.

Some sample IDs on the chain-of-custody end with 042014. All sample IDs on the container labels end with 042015. In accordance with the client's instruction, the samples' IDs were logged per the container labels.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67316-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW46042015 (280-67316-1), TMW31S042015 (280-67316-2), FW31042015EQU002 (280-67316-3), TMW44042015EQU003 (280-67316-4), MW22S042015 (280-67316-5), BGMW01042015 (280-67316-7), BGMW02042015 (280-67316-8), TMW33042015 (280-67316-9) and FW042015EQU001 (280-67316-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/04/2015 and analyzed on 04/09/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67316-2

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC FW042015EQU001 QC Type: EB		
	BGMW01042015	4/2/2015 1:12:00 PM
	BGMW02042015	4/2/2015 9:20:00 AM
	MW22S042015	4/2/2015 1:29:00 PM
	TMW31S042015	4/2/2015 1:05:00 PM
	TMW33042015	4/2/2015 11:45:00 AM
	TMW46042015	4/2/2015 12:18:00 PM
Field QC FW31042015EQU002		
	DOMINIOA O ADOA E	4/0/0045 4.40.00 DM
	BGMW01042015	4/2/2015 1:12:00 PM
	BGMW02042015	4/2/2015 9:20:00 AM
	MW22S042015	4/2/2015 1:29:00 PM
	TMW31S042015	4/2/2015 1:05:00 PM
	TMW33042015	4/2/2015 11:45:00 AM
	TMW46042015	4/2/2015 12:18:00 PM
Field QC TMW44042015EQU003 QC Type: EB		
	BGMW01042015	4/2/2015 1:12:00 PM
	BGMW02042015	4/2/2015 9:20:00 AM
	MW22S042015	4/2/2015 1:29:00 PM
	MW22S042015 TMW31S042015	4/2/2015 1:29:00 PM 4/2/2015 1:05:00 PM



Lab Reporting Batch ID: 280-67316-2

Laboratory: TA DEN
EDD Filename: 280-67316-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67316-2

Laboratory: TA DEN

EDD Filename: 280-67316-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
A
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Reviewed By: Approved By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Sample Type Validation Code **Matrix Collection Date** Method Lab Reporting Batch: 280-67316-2 Method: 8270D BGMW01042015 280-67316-7 S2AVE Ν 3520C 4/2/2015 1:12:00 PM AQ BGMW02042015 280-67316-8 AQ Ν 3520C 4/2/2015 9:20:00 AM S2AVE BGMW02042015MS 280-67316-8MS MS 3520C 4/2/2015 9:20:00 AM S2AVE AQ BGMW02042015MSD 280-67316-8MSD MSD 3520C 4/2/2015 9:20:00 AM S2AVE AQ S2AVE FW042015EQU001 280-67316-10 AQ EΒ 3520C 4/2/2015 10:15:00 AM FW31042015EQU002 3520C S2AVE 280-67316-3 AQ EΒ 4/2/2015 9:30:00 AM MW22S042015 280-67316-5 Ν 3520C 4/2/2015 1:29:00 PM S2AVE AQ S2AVE TMW31S042015 280-67316-2 AQ Ν 3520C 4/2/2015 1:05:00 PM TMW33042015 280-67316-9 Ν 3520C 4/2/2015 11:45:00 AM S2AVE AQ S2AVE TMW44042015EQU003 280-67316-4 EΒ 3520C 4/2/2015 10:00:00 AM AQ Ν S2AVE TMW46042015 280-67316-1 AQ 3520C 4/2/2015 12:18:00 PM



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67316-2 Laboratory: TA DEN

EDD Filename: 280-67316-2 eQAPP Name: FtWingate_Primary_120405

Method: 82701 Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TMW31S042015	Terphenyl-d14	36	50.00-135.00	No Affected Compounds	
TMW33042015	Terphenyl-d14	38	50.00-135.00	No Affected Compounds	
TMW46042015	Terphenyl-d14	38	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67366-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for eleven water samples received April 4, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 0.9°C, 0.3°C, 4.8°C, 1.5°C, 1.2°C and 1.8°C.

Several sample IDs on the chain-of-custody end with 042014; however, the sample IDs on the container labels end with 042015. In accordance with the client's instructions, the samples' IDs were logged per the container labels.

The chain-of-custody (COC) lists the collection dates as 4/2/15 for samples TB-03-042015 (280-67366-3) and TB-42-042015 (280-67366-7), but the container labels list the collection dates as 4/3/15. The collection dates were logged per the container labels. The client was notified on April 7, 2015.

One of six hydrochloric acid preserved VOA vials submitted for sample DTW34042015 (280-67366-5) was received containing a bubble greater than 6mm in diameter. Whenever possible, the laboratory will use the vials without bubbles for analysis. The client was notified on April 7, 2015.

One of six 1L amber bottles submitted for sample MW20042015 (280-67366-6) was received broken. Sufficient volume remains for the requested analyses. The client was notified on April 7, 2015.

The chain-of-custody (COC) lists the collection time as 1230 for sample TMW40S042015 (280-67366-11), but the container labels list the collection time as 1000. The collection time was logged per the COC. The client was notified on April 7, 2015.

Please note the Caprolactam data are reported under separate cover (280-67366-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TB-03-042015 (280-67366-3), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/07/2015 and 04/08/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for analytical batch 280-271563 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples MW20042015 (280-67366-6) and TMW35042015 (280-67366-9) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/06/2015 and analyzed on 04/09/2015.

Please note the Caprolactam data are reported under separate cover (280-67366-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows:

The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 11-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

Surrogate Terphenyl-d14 was recovered below the QC control limits in sample MW20042015 (280-67366-6). This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

The LCS/LCSD associated with prep batch 280-271326 exhibited a percent recovery and RPD data above the QC control limits for Hexachlorocyclopentadiene. This is an indicator that data may be biased high. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-271326 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Gasoline Range Organics - 8015C

Samples TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), TB-42-042015 (280-67366-7), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were received at the laboratory with a pH value >2. The samples were analyzed within 7 days as recommended in SW846 for unpreserved samples; therefore, there should be no bias to the reported results.

MS/MSD analyses for analytical batch 280-271833 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Diesel Range Organics - 8015C

Samples TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for Diesel Range Organics in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 04/07/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-271425 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples MW20042015 (280-67366-6), TMW35042015 (280-67366-9), MW22S042015 (280-67366-10) and TMW40S042015 (280-67366-11) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/06/2015 and analyzed on 04/08/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples MW22S042015 (280-67366-10) and TMW40S042015 (280-67366-11) formed emulsions during the extraction procedure. The emulsions were broken up using centrifuge and/or pour backs.

Surrogate Decachlorobiphenyl was recovered below the QC control limits in samples MW22S042015 (280-67366-10) and TMW40S042015 (280-67366-11). These anomalies are due to obvious matrix interferences; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-271389 were not requested.

The initial calibration curve analyzed in batch 280-271615 was outside acceptance criteria for Toxaphene and Technical Chlordane. The calibration for Endosulfan II is within criteria on both columns; however, a different curve fit was used for quantitation for the back column. The incorrect calibration was used to quantify these compounds in Chrome. The calibration reported in the laboratory's LIM system is correct. The samples showed no visible Toxaphene or Chlordane pattern and as such are reported as ND. Endosulfan II is reported from the front column, which is ND for all samples and in control for all QC. Toxaphene was not fully integrated within the incorrect calibration and Chlordane was calibrated using a single concentration. Toxaphene is biased high in the reported CCVs and samples due to it being fully integrated.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-271615 exhibited a %Difference (%D) value out of range, biased high, for gamma-Chlordane on the front column. As no detectable concentration of gamma-Chlordane is present in the associated samples, the data have been reported from the back column which was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), MW20042015 (280-67366-6) and MW03042015 (280-67366-8) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/08/2015 and analyzed on 04/11/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples TMW21042015 (280-67366-1) and TMW29042015 (280-67366-2) required filtration to reduce matrix interference.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows:

The cartridges were eluted with 0.1% Acetic Acid in ACN instead of ACN to increase Tetryl recovery. This deviation was performed with QA and supervisor approval. The SOP is currently under revision to capture this change.

MS/MSD analyses for prep batch 280-271623 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with analytical batch 280-272464 was performed on sample TMW35042015 (280-67366-9). The MS/MSD exhibited a spike compound recovery outside the QC control limits for Perchlorate. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/07/2015 and analyzed on 04/08/2015 and 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

The MS/MSD associated with prep batch 280-271220 was performed on sample TMW21042015 (280-67366-1). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Aluminum, Iron and Sodium because the sample concentrations were greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271220 was performed on sample TMW21042015 (280-67366-1). The PDS exhibited percent recoveries outside the control limits for Aluminum and Iron; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/07/2015 and analyzed on 04/08/2015 and 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4),

DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

The MS/MSD associated with prep batch 280-271210 was performed on sample TMW21042015 (280-67366-1). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Aluminum, Iron and Sodium because the sample concentrations were greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271210 was performed on sample TMW21042015 (280-67366-1). The PDS exhibited percent recoveries outside the control limits for Aluminum and Sodium; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/07/2015 and analyzed on 04/08/2015, 04/09/2015 and 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with prep batch 280-271215 was performed on sample TMW29042015 (280-67366-2). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Antimony. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/07/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The ICSA solution associated with analytical batch 280-272121 was above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium and Chromium. The laboratory has confirmed with the vendor that these elements are trace impurities in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-271236 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW21042015 (280-67366-1), TMW29042015 (280-67366-2), TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6), MW03042015 (280-67366-8) and TMW35042015 (280-67366-9) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/04/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or matrix interference, samples TMW34042015 (280-67366-4), DTW34042015 (280-67366-5), MW20042015 (280-67366-6) and TMW35042015 (280-67366-9) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

Nitrate as N was detected in method blank MB 280-271181/13 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67366-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC DTW34042015		
QC Type: FD		
	Th #14/0 40 400 45	4/0/0045 44 00 00 444
	TMW34042015	4/3/2015 11:30:00 AM
E' 1100 TD 00 040045		
Field QC TB-03-042015 QC Type: TB		
QC Type. 15		
	DTW34042015	4/3/2015 11:30:00 AM
	MW03042015	4/3/2015 12:40:00 PM
	MW20042015	4/3/2015 9:20:00 AM
	MW22S042015	4/3/2015 12:30:00 PM
	TMW21042015	4/3/2015 11:26:00 AM
	TMW29042015	4/3/2015 9:35:00 AM
	TMW34042015	4/3/2015 11:30:00 AM
	TMW35042015	4/3/2015 9:20:00 AM
	TMW40S042015	4/3/2015 12:30:00 PM
Field QC TB-42-042015		
QC Type: TB		
	DTW34042015	4/3/2015 11:30:00 AM
	MW03042015	4/3/2015 12:40:00 PM
	MW20042015	4/3/2015 9:20:00 AM
	MW22S042015	4/3/2015 12:30:00 PM
	TMW21042015	4/3/2015 11:26:00 AM
	TMW29042015	4/3/2015 9:35:00 AM
	TMW34042015	4/3/2015 11:30:00 AM
	TMW35042015	4/3/2015 9:20:00 AM
	TMW40S042015	4/3/2015 12:30:00 PM



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DTW34042	2015									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1400000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1400000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	1400000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02
Field Sample ID: MW030420)15									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1200000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1200000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	1200000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02
Field Sample ID: MW200420)15									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	4200000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	4200000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW200420	15									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	4400000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02
Field Sample ID: TMW21042	015									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	680000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	680000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	630000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02
Field Sample ID: TMW29042	015									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	620000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	620000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	620000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02
Field Sample ID: TMW34042	015									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1500000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1500000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW340420)15									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	1400000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02
Field Sample ID: TMW350420)15									
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1300000	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1300000	ug/L	Matrix Spike Lower Rejection	J		5/18/2015	9:03
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	1300000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	9:02



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 260-67366-1					EWAI	- INAIII	e. FLVVII	iyale_Pf	imary_120405
Method Category: METALS									
Method: 6010C			Má	atrix:	AQ				
Sample ID:DTW34042015	Collec	4/3/20 cted: AM	15 11:30		nalveie 1	Type:RES	פוח/י		Dilution: 1
ו ע.עו אועוויט וייט אועוויט וייט אועוויט וייט אועוויט וייט אועוויט וייט אועוויט וייט אועוויט אועוויט אועוויט א	Collec	, Leu. AM		A	naiysis i	ype.RES	ال ال	Data	Diluudii: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:DTW34042015	Collec	4/3/20 cted: AM	15 11:30	:00	nalveie 1	∟ <i>Гуре:</i> RES			Dilution: 1
Sample 10.01 W34042013	Conec	, teu. Alvi			lialysis i	ype.RL3		Data	Dilution. 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
POTASSIUM	1200	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW03042015	Collec	4/3/20 ted:PM	15 12:40	:00 <i>A</i>	nalysis 1	Гуре:RE3	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	51	J	30	LOD	100	LOQ	ug/L	J	RI, Ms
Sample ID:MW03042015	Collec	4/3/20 ted:PM	15 12:40		nalvsis 1	Type:RES	/ S/DIS		Dilution: 1
								Data	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
POTASSIUM	780	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW03042015	Collec	4/3/20 cted:PM	15 12:40		nalysis 1	Type:RES	утот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	800	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW20042015	Collec	ted:4/3/20	15 9:20:	00 AM <i>A</i>	nalvsis 1	∟ Γvpe:RE3	/тот	11	Dilution: 1
				1	luiyolo i) point Ed		Data	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
IRON	24	J	30	LOD	100	LOQ	ug/L	J	RI, Ms
Sample ID:MW20042015	Collec	ted:4/3/20	15 9:20:	00 AM <i>A</i>	nalysis 1	Гуре:RES			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2500	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:MW20042015	Collec	+pd-//2/20	15 0.20.	Λ ΜΑ Λ Ω	nalveie 7				
Sample ID:MW20042015	Collec	ted:4/3/20	15 9:20:	00 AM <i>A</i>	nalysis 1	ype:RES	101	1	Dilution: 1
Sample ID:MW20042015 Analyte	Lab Result	ted:4/3/20 Lab Qual	15 9:20:	DL Type	nalysis 1 RL	RL Type	Units	Data Review Qual	Reason Code

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Categor	ry: METALS										
Method:	6010C			Mé	atrix:	AQ					
Sample ID:TMW21	042015	Collec	4/3/20 cted: AM	15 11:26		nalysis 1	ype:RE2	/DIS		Dilution: 2	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON		13000	DJ	60	LOD	200	LOQ	ug/L	J	Ms	
Sample ID:TMW21	042015	Collec	4/3/2015 11:26:00 Collected: AM Analysis Type: RE2/TOT L								
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON		17000	DJ	60	LOD	200	LOQ	ug/L	J	Ms	
Sample ID:TMW21	042015	Collec	4/3/20 cted: AM	15 11:26		nalysis 1	ype:RES	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM		17000	J	31	LOD	300	LOQ	ug/L	J	Ms	
Sample ID:TMW21	042015	Collec	4/3/20 cted: AM	15 11:26		nalysis 1	ype:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM		24000	J	31	LOD	300	LOQ	ug/L	J	Ms	
Sample ID:TMW29	042015	Collec	ted:4/3/20	15 9:35:0	00 AM <i>A</i>	nalysis 1	ype:RE3	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON		110		30	LOD	100	LOQ	ug/L	J	Ms	
Sample ID:TMW29	042015	Collec	ted:4/3/20	15 9:35:	00 AM <i>A</i>	nalysis 1	ype:RE3	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON		3900		30	LOD	100	LOQ	ug/L	J	Ms	
Sample ID:TMW29	042015	Collec	ted:4/3/20	15 9:35:0	00 AM <i>A</i>	nalysis 1	<i>ype:</i> RES	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM		180	J	31	LOD	300	LOQ	ug/L	J	RI, Ms	
POTASSIUM		1300	J	250	LOD	3000	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405							imary_120405			
Method Category:	METALS	_								
Method:	6010C			Ma	trix:	AQ				
Sample ID:TMW290420	15	Collected:4/3/2015 9:35:00 AM Analysis Type:RES/TOT Dilution: 1								
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		6400		31	LOD	300	LOQ	ug/L	J	Ms
POTASSIUM		2500	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW340420	15	Collec	4/3/20 <i>ted:</i> AM	15 11:30	:00 <i>A</i>	nalysis 1	Type:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1100	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW340420	115	4/3/2015 11:30:00 Collected: AM Analysis Type: RES/TOT Dilution: 1								
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1100	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW350420	15	Collected:4/3/2015 9:20:00 AM Analysis Type:RE3/TOT Dilution: 1								Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON		54	J	30	LOD	100	LOQ	ug/L	J	RI, Ms
Sample ID:TMW350420	15	Collec	ted:4/3/20	15 9:20:0	00 AM <i>A</i>	nalysis 1	Type:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		810	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW350420	15	Collec	ted:4/3/20	15 9:20:0	00 AM <i>A</i>	nalysis 1	<i>ype:</i> RES	утот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		880	J	250	LOD	3000	LOQ	ug/L	J	RI

Method Category:	METALS			
Method:	6020A	Matrix:	AQ	
Sample ID:DTW3404201	5	4/3/2015 11:30:00 Collected: AM	Analysis Type:RE2/TOT	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	0.85	J	1.5	LOD	2.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:DTW34042015	Collec	4/3/20 cted: AM	15 11:30	nalysis 1	Type:RES	Dilution: 1		
							Data	

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.47	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.094	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.62	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.66	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Analysis Type: RES/TOT | Dilution: 1

		7									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ANTIMONY	0.60	U	0.60	LOD	6.0	LOQ	ug/L	UJ	Ms		
COBALT	0.24	J	0.10	LOD	1.0	LOQ	ug/L	J	RI		
LEAD	0.22	J	0.50	LOD	3.0	LOQ	ug/L	J	RI, Fd		
NICKEL	0.62	J	0.90	LOD	3.0	LOQ	ug/L	J	RI		
THALLIUM	0.20	U	0.20	LOD	1.0	LOQ	ug/L	UJ	Fd		
VANADIUM	1.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI		
ZINC	2.4	J	6.0	LOD	20	LOQ	ug/L	J	RI		

Analysis Type: RES/DIS | Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code			
ARSENIC	0.38	J	1.0	LOD	5.0	LOQ	ug/L	J	RI			
COBALT	0.11	J	0.10	LOD	1.0	LOQ	ug/L	J	RI			
COPPER	0.91	J	1.5	LOD	2.0	LOQ	ug/L	J	RI			
NICKEL	0.72	J	0.90	LOD	3.0	LOQ	ug/L	J	RI			
VANADIUM	0.92	J	1.0	LOD	6.0	LOQ	ug/L	J	RI			
ZINC	4.7	J	6.0	LOD	20	LOQ	ug/L	J	RI			

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.60	U	0.60	LOD	6.0	LOQ	ug/L	UJ	Ms
ARSENIC	0.37	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.10	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.69	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.50	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
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Matrix: AQ

6020A Method: 4/3/2015 12:40:00

Sample ID:MW03042015	Colle	Collected:PM			nalysis	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	5.4	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:MW20042015	Collec	Collected:4/3/2015 9:20:00 AM Analysis Type:RES/DIS							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.42	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.038	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

Sample ID:IVIVV20042015	Collec	Collected:4/3/2015 9:20:00 AM Analysis Type:RE5/101							Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code			
ANTIMONY	0.60	U	0.60	LOD	6.0	LOQ	ug/L	UJ	Ms			
SILVER	0.047	J	0.10	LOD	5.0	LOQ	ug/L	J	RI			
4/3/2015 11:26:00												

Sample ID:TMW21042015	Colle	Collected: AM			nalysis 1	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.6	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	4.0	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BERYLLIUM	0.92	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	9.4	JQ	1.5	LOD	10	LOQ	ug/L	J	RI
SELENIUM	3.0	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.18	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.22	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

Sample ID:TMW21042015	4/3/2015 11:26:0 Collected: AM				nalysis 1	Type:RES	Dilution: 1		
Analyte	Lab Lab DL RL RL Result Qual DL Type RL Type Units						Data Review Qual	Reason Code	
ANTIMONY	1.3	J	0.60	LOD	6.0	LOQ	ug/L	J	RI, Ms
SELENIUM	3.2	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.26	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.29	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **METALS**

Method: 6020A Matrix: AQ

Sample ID:1 MW29042015	Collec	Collected:4/3/2015 9:35:00 AM Analysis Type:RES/DIS									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ANTIMONY	0.62	J	0.60	LOD	6.0	LOQ	ug/L	J	RI		
									1		

ARSENIC LOD LOQ 1.4 J 1.0 5.0 ug/L CHROMIUM JQ LOD LOQ J 0.85 1.5 10 ug/L RΙ COBALT LOD LOQ 0.090 J 0.10 1.0 ug/L J RΙ COPPER 0.79 J 1.5 LOD 2.0 LOQ ug/L RΙ NICKEL 1.0 J 0.90 LOD 3.0 LOQ ug/L J RΙ VANADIUM 5.4 J 1.0 LOD 6.0 LOQ ug/L J RΙ ZINC J LOD LOQ RΙ 2.8 6.0

Sample ID:TMW29042015 Collected:4/3/2015 9:35:00 AM Analysis Type:RES/TOT Dilution: 1

•										
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.41	J	0.60	LOD	6.0	LOQ	ug/L	J	RI, Ms	
ARSENIC	2.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
BERYLLIUM	0.41	J	0.24	LOD	1.0	LOQ	ug/L	J	RI	
CHROMIUM	7.1	J	1.5	LOD	10	LOQ	ug/L	J	RI	
LEAD	2.4	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
SILVER	0.080	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	
THALLIUM	0.083	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	
ZINC	14	J	6.0	LOD	20	LOQ	ug/L	J	RI	

4/3/2015 11:30:00 Sample ID:TMW34042015 Collected: AM Analysis Type: RE2/TOT

Sample ID:TMW34042015	Collec	ted: AM	710 11.00		nalysis ī	Type:RE2	/TOT	OT Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
COPPER	0.97	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	

4/3/2015 11:30:00 Sample ID:TMW34042015 Collected: AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.75	JQ	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.16	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.74	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.62	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.034	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.060	J	0.20	LOD	1.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
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Method: 6020A AQ Matrix:

4/3/2015 11:30:00 Collected: AM Dilution: 1 Analysis Type: RES/DIS

Sample ID:TMW34042015	Collec	Collected: AM			nalysis 1	ype:RES	/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
VANADIUM	1.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
Sample ID:TMW34042015	Collec	4/3/2015 11:30:00 Collected: AM Analysis Type: RES/TOT							Dilution: 1	

Sample ID:TMW34042015

Analysis Type: RES/TOT

•					•				
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.60	U	0.60	LOD	6.0	LOQ	ug/L	UJ	Ms
COBALT	0.18	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	0.50	U	0.50	LOD	3.0	LOQ	ug/L	UJ	Fd
NICKEL	0.50	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
THALLIUM	0.092	J	0.20	LOD	1.0	LOQ	ug/L	J	RI, Fd
VANADIUM	1.5	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	3.5	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW35042015

Collected:4/3/2015 9:20:00 AM Analysis Type:RES/DIS

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.62	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.12	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.2	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.95	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.038	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	1.9	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW35042015

Collected: 4/3/2015 9:20:00 AM Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.60	U	0.60	LOD	6.0	LOQ	ug/L	UJ	Ms
ARSENIC	0.65	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.15	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.76	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	2.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Category	: SVOA									
Method:	6860			Ma	ntrix:	AQ				
Sample ID:DTW3404	12015	Collec	4/3/20 ted: AM	15 11:30		nalysis 1	ype:RES			Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.30		0.020	LOD	0.050	LOQ	ug/L	J	Ms
Sample ID:MW03042	2015	Collec	4/3/20 ted:PM	15 12:40		nalysis 1	ype:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.0073	JM	0.020	LOD	0.050	LOQ	ug/L	J	RI, Ms
Sample ID:MW20042	2015	Collec	ted:4/3/20	15 9:20:0	00 AM A	nalysis 1	ype:RES			Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.31		0.020	LOD	0.050	LOQ	ug/L	J	Ms
Sample ID:TMW2104	1 2015	Collec	4/3/20 ted: AM	15 11:26		nalysis 1	ype:RES			Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.0083	J	0.020	LOD	0.050	LOQ	ug/L	J	RI, Ms
Sample ID:TMW2904	1 2015	Collec	ted:4/3/20	15 9:35:0	00 AM <i>A</i>	nalysis 1	ype:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.092		0.020	LOD	0.050	LOQ	ug/L	J	Ms
Sample ID:TMW3404	12015	Collec	4/3/20 ted: AM	15 11:30		nalysis 1	ype:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.30		0.020	LOD	0.050	LOQ	ug/L	J	Ms
Sample ID:TMW3504	1 2015	Collec	ted:4/3/20	15 9:20:0	00 AM <i>A</i>	nalysis 1	ype:RES	· i	•	Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE		0.061	J	0.020	LOD	0.050	LOQ	ug/L	J	Ms

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	SVOA			
Method:	8015C DRO	Matrix:	AQ	
		4/3/2015 11:30:00		

Sample ID:DTW34042015	Collec	cted: AM		Α	nalysis	Type:RE2		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DIESEL RANGE ORGANICS	0.065	JM	0.10	LOD	0.25	LOQ	mg/L	J	RI, Lcs, Fd	1

		_					"	1	,, -	
Sample ID:MW03042015	Collec	4/3/20 cted:PM	15 12:40		nalysis	Type:RE2		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DIESEL RANGE ORGANICS	0.055	J M	0.098	LOD	0.24	100	ma/l	J	RL Lcs	

Sample ID:MW20042015	Collec	ted:4/3/20	15 9:20:0	00 AM A	nalysis 1	Type:RE2		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
DIESEL RANGE ORGANICS	0.077	JM	0.099	LOD	0.25	LOQ	mg/L	J	RI, Lcs		

Sample ID:TMW34042015	Collec	4/3/20 cted: AM	15 11:30		nalvsis i	Type:RE2			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Review Reason
DIESEL RANGE ORGANICS	0.15	JM	0.10	LOD	0.25	100	mg/L	J	RL Lcs. Fd

Sample ID:TMW35042015	Collec	cted:4/3/2015 9:20:00 AM							Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIESEL RANGE ORGANICS	0.069	JM	0.11	LOD	0.27	LOQ	mg/L	J	RI, Lcs

Method Category:	SVOA		
Method:	8081A	Matrix:	AQ

Sample ID:MW22S042015	Collec	4/3/20 ted:PM	15 12:30		nalysis 1	ype:RES		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
4,4'-DDD	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	
4,4'-DDE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	
4,4'-DDT	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	
ALDRIN	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	
ALPHA-BHC	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	
ALPHA-CHLORDANE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	
BETA-BHC	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8081A Matrix: AQ

	4/3/2015 12:	30:00	
Sample ID:MW22S042015	Collected:PM	Analysis Type: RES	Dilution: 1

	Lab	Lab		DL		RL		Data Review	Reason
Analyte	Result	Qual	DL	Туре	RL	Туре	Units	Qual	Code
DELTA-BHC	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
DIELDRIN	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
ENDOSULFAN I	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
ENDOSULFAN II	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
ENDOSULFAN SULFATE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
ENDRIN	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
ENDRIN ALDEHYDE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
ENDRIN KETONE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
GAMMA-BHC	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
GAMMA-CHLORDANE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
HEPTACHLOR	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
HEPTACHLOR EPOXIDE	0.022	UQ	0.022	LOD	0.056	LOQ	ug/L	UJ	Surr
METHOXYCHLOR	0.022	UQ	0.022	LOD	0.11	LOQ	ug/L	UJ	Surr
TOXAPHENE	0.90	UQ	0.90	LOD	5.6	LOQ	ug/L	UJ	Surr

4/3/2015 12:30:00
Sample ID:TMW40S042015
Collected: PM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
4,4'-DDE	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
4,4'-DDT	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ALDRIN	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ALPHA-BHC	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ALPHA-CHLORDANE	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
BETA-BHC	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
DELTA-BHC	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
DIELDRIN	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ENDOSULFAN I	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ENDOSULFAN II	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ENDOSULFAN SULFATE	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ENDRIN	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ENDRIN ALDEHYDE	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
ENDRIN KETONE	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
GAMMA-BHC	0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Sample ID:TMW40S042015

Method: 8081A Matrix: AQ

4/3/2015 12:30:00 Collected: PM Analysis Type: RES Dilution: 1

Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
0.023	UQ	0.023	LOD	0.058	LOQ	ug/L	UJ	Surr
0.023	UQ	0.023	LOD	0.12	LOQ	ug/L	UJ	Surr
0.93	UQ	0.93	LOD	5.8	LOQ	ug/L	UJ	Surr
	0.023 0.023 0.023 0.023	Result Qual 0.023 U Q 0.023 U Q 0.023 U Q 0.023 U Q	Result Qual DL 0.023 U Q 0.023 0.023 U Q 0.023 0.023 U Q 0.023 0.023 U Q 0.023	Result Qual DL Type 0.023 U Q 0.023 LOD 0.023 U Q 0.023 LOD 0.023 U Q 0.023 LOD 0.023 U Q 0.023 LOD	Result Qual DL Type RL 0.023 U Q 0.023 LOD 0.058 0.023 U Q 0.023 LOD 0.058 0.023 U Q 0.023 LOD 0.058 0.023 U Q 0.023 LOD 0.12	Result Qual DL Type RL Type 0.023 U Q 0.023 LOD 0.058 LOQ 0.023 U Q 0.023 LOD 0.058 LOQ 0.023 U Q 0.023 LOD 0.058 LOQ 0.023 U Q 0.023 LOD 0.12 LOQ	Result Qual DL Type RL Type Units 0.023 U Q 0.023 LOD 0.058 LOQ ug/L 0.023 U Q 0.023 LOD 0.058 LOQ ug/L 0.023 U Q 0.023 LOD 0.058 LOQ ug/L 0.023 U Q 0.023 LOD 0.12 LOQ ug/L	Lab Result Lab Qual DL DL Type RL Type RL Type RL Type Units Review Qual 0.023 U Q 0.023 LOD 0.058 LOQ ug/L UJ 0.023 U Q 0.023 LOD 0.058 LOQ ug/L UJ 0.023 U Q 0.023 LOD 0.058 LOQ ug/L UJ 0.023 U Q 0.023 LOD 0.12 LOQ ug/L UJ

Method Category: **SVOA**

8270D AQ Method: Matrix:

Sample ID:MW20042015

Collected: 4/3/2015 9:20:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXACHLOROCYCLOPENTADIENE	20	UQ	20	LOD	49	LOQ	ug/L	UJ	Lcs, Lcs	1

Sample ID:TMW35042015

Collected: 4/3/2015 9:20:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	51	LOQ	ug/L	UJ	Lcs, Lcs

Method Category: **VOA**

8260B Method: Matrix: AQ

4/3/2015 11:30:00 Collected: AM Sample ID:DTW34042015 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.9	J	6.4	LOD	10	LOQ	ug/L	J	RI, Fd

Sample ID:MW20042015 Collected: 4/3/2015 9:20:00 AM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.9		6.4	LOD	10	LOQ	ug/L	1	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1

eQAPP Name: FtWingate_Primary_120405

Method Category: VOA

Method: 8260B

Matrix: AQ

	4/3/2015 11:30:0	00	
Sample ID:TMW34042015	Collected: AM	Analysis Type:RES	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	6.4	U	6.4	LOD	10	LOQ	ug/L	UJ	Fd

^{*} denotes a non-reportable result

eQAPP Name: FtWingate_Primary_120405



Data Qualifier Summary

Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1

Reason Code Legend

Reason Code	Description
Fd	Field Duplicate Precision
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Upper Estimation
RI	Reporting Limit Trace Value
Surr	Surrogate/Tracer Recovery Lower Estimation

^{*} denotes a non-reportable result

Note



Validation Area

Data Review Summary

Lab Reporting Batch ID: 280-67366-1 **Laboratory: TA DEN** EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Technical Holding Times Α Temperature Α Initial Calibration Ν Continuing Calibration/Initial Calibration Verification Ν

Laboratory: TA DEN

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67366-1

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ					
	Concentra	ation (ug/L)			
Analyte	TMW34042015 (DIS)	DTW34042015 (DIS)	Sample RPD	eQAPP RPD	Flag
CALCIUM MAGNESIUM	120000 25000	110000 24000	9	50.00 50.00	No Qualifiera Applica

POTASSIUM SODIUM	1100 1500000	1100 1400000	0 7	50.00 50.00	No Qualifiers Applied
	Concentra	ation (ug/L)			
Analyte	alyte TMW34042015 (TOT) DTW34042015 (T		Sample RPD	eQAPP RPD	Flag
CALCIUM MAGNESIUM POTASSIUM SODIUM	110000 24000 1100 1400000	110000 24000 1200 1400000	0 0 9 0	50.00 50.00 50.00 50.00	No Qualifiers Applied

Method: 6020A Matrix: AQ

	Concentra				
Analyte	TMW34042015 (DIS)	DTW34042015 (DIS)	Sample RPD	eQAPP RPD	Flag
ARSENIC	5.0 U	0.47	200	50.00	
BARIUM	13	12	8	50.00	
CHROMIUM	0.75	10 U Q	200	50.00	
COBALT	0.16	0.094	52	50.00	
COPPER	0.74	0.62	18	50.00	
MANGANESE	120	130	8	50.00	No Qualifiers Applied
NICKEL	0.62	0.66	6	50.00	
SELENIUM	120	120	0	50.00	
SILVER	0.034	5.0 U	200	50.00	
THALLIUM	0.060	1.0 U	200	50.00	
VANADIUM	1.3	1.0	26	50.00	

	Concentra	ation (ug/L)			
Analyte	TMW34042015 (TOT)	DTW34042015 (TOT)	Sample RPD	eQAPP RPD	Flag
BARIUM	11	12	9	50.00	
COBALT	0.18	0.24	29	50.00	
COPPER	0.97	0.85	13	50.00	
MANGANESE	150	210	33	50.00	No Ovelitions Applied
NICKEL	0.50	0.62	21	50.00	No Qualifiers Applied
SELENIUM	110	110	0	50.00	
VANADIUM	1.5	1.3	14	50.00	
ZINC	3.5	2.4	37	50.00	
LEAD	3.0 U	0.22	200	50.00	J(all detects)
THALLIUM	0.092	1.0 U	200	50.00	UJ(all non-detects)

Method: 6860 Matrix: AQ

	Concentra				
Analyte	TMW34042015	DTW34042015	Sample RPD	eQAPP RPD	Flag
PERCHLORATE	0.30	0.30	0	50.00	No Qualifiers Applied

Project Name and Number: 102012 - FWDA 102012 GW

No Qualifiers Applied

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 Method: 8015C DRO		eQ/	APP Name:	FtWingate	e_Primary_120405
Matrix: AQ					
	Concentra	tion (mg/L)			
Analyte	TMW34042015	DTW34042015	Sample RPD	eQAPP RPD	Flag
DIESEL RANGE ORGANICS	0.15	0.065	79	50.00	J(all detects) UJ(all non-detects)
Method: 8260B					
Matrix: AQ					
	Concentra	ntion (ug/L)			
Analyte	Concentra TMW34042015	ntion (ug/L) DTW34042015	Sample RPD	eQAPP RPD	Flag
Analyte ACETONE					Flag J(all detects) UJ(all non-detects)
•	TMW34042015	DTW34042015	RPD	RPD	J(all detects)
ACETONE	TMW34042015	DTW34042015	RPD	RPD	J(all detects)
ACETONE Method: 9056	TMW34042015 10 U	DTW34042015	RPD	RPD	J(all detects)

NITRATE

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-271326/2-A LCSD 280-271326/3-A (MW20042015 TMW35042015)	HEXACHLOROCYCLOPENTADIEN	19	9	50.00-130.00	74 (30.00)	HEXACHLOROCYCLOPENTADIE	J (all detects) UJ (all non-detects)
Method: 8015C DRO Matrix: AQ							

Method: 8015C DRO Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSD 280-271425/23-A (DTW34042015 MW03042015 MW20042015 TMW34042015 TMW35042015	DIESEL RANGE ORGANICS	-	67	70.00-130.00	-	DIESEL RANGE ORGANICS	J(all detects) UJ(all non-detects)

J(all detects) R(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67366-1 **Laboratory: TA DEN**

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW21042015MS (DIS) TMW21042015MSD (DIS) (DTW34042015 MW30042015 MW20042015 TMW21042015 TMW29042015 TMW29042015 TMW35042015 TMW35042015)	ALUMINUM IRON	668 305	614 323	80.00-120.00 80.00-120.00	-	ALUMINUM IRON	J (all detects)
TMW21042015MS (DIS) TMW21042015MSD (DIS)	SODIUM	23	46	80.00-120.00	-	SODIUM	

MW03042015 MW20042015 TMW21042015 TMW29042015 TMW34042015 TMW35042015)

Method: 6020A Matrix: AQ

(DTW34042015

Method: 6010C

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW29042015MS (TOT) TMW29042015MSD (TOT) (DTW34042015 MW03042015 MW20042015 TMW21042015 TMW29042015 TMW29042015 TMW35042015 TMW35042015	ANTIMONY	83	80	85.00-115.00	-	ANTIMONY	J(all detects) UJ(all non-detects)

Method: 6010C Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW21042015MSD (TOT)	ALUMINUM IRON SODIUM	1249 665 124	1227 691 130	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON SODIUM	J(all detects)

Project Name and Number: 102012 - FWDA 102012 GW

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 6860 Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW35042015MSD (DTW34042015 MW03042015 MW20042015 TMW21042015 TMW29042015 TMW35042015 TMW35042015	PERCHLORATE	-	128	80.00-120.00	-	PERCHLORATE	J(all detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 9056 Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271181/13	4/4/2015 1:39:00 PM	NITRATE	0.199 mg/L	DTW34042015 MW03042015 MW20042015 TMW21042015 TMW29042015 TMW34042015 TMW35042015

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DTW34042015	POTASSIUM	J	1100	3000	LOQ	ug/L	J (all detects)
MW03042015	IRON POTASSIUM	J	51 780	100 3000	LOQ LOQ	ug/L ug/L	J (all detects)
MW20042015	IRON POTASSIUM	L L	24 2500	100 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW29042015	ALUMINUM POTASSIUM	J	180 1300	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW34042015	POTASSIUM	J	1100	3000	LOQ	ug/L	J (all detects)
TMW35042015	IRON POTASSIUM	J	54 810	100 3000	LOQ LOQ	ug/L ug/L	J (all detects)

Method: 6020A Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DTW34042015	ARSENIC	J	0.47	5.0	LOQ	ug/L	
	COBALT	J	0.094	1.0	LOQ	ug/L	
	COPPER	J	0.85	2.0	LOQ	ug/L	
	LEAD	J	0.22	3.0	LOQ	ug/L	J (all detects)
	NICKEL	J	0.66	3.0	LOQ	ug/L	
	VANADIUM	J	1.0	6.0	LOQ	ug/L	
	ZINC	J	2.4	20	LOQ	ug/L	
MW03042015	ARSENIC	J	0.38	5.0	LOQ	ug/L	
	COBALT	J	0.11	1.0	LOQ	ug/L	
	COPPER	J	0.91	2.0	LOQ	ug/L	J (all detects)
	NICKEL	J	0.72	3.0	LOQ	ug/L	J (all delects)
	VANADIUM	J	0.92	6.0	LOQ	ug/L	
	ZINC	J	4.7	20	LOQ	ug/L	
MW20042015	ARSENIC	J	0.42	5.0	LOQ	ug/L	1 /-!! -!
	SILVER	J	0.038	5.0	LOQ	ug/L	J (all detects)
TMW21042015	ANTIMONY	J	1.6	6.0	LOQ	ug/L	
	ARSENIC	J	4.0	5.0	LOQ	ug/L	
	BERYLLIUM	J	0.92	1.0	LOQ	ug/L	
	CHROMIUM	JQ	9.4	10	LOQ	ug/L	J (all detects)
	SELENIUM	J	3.0	5.0	LOQ	ug/L	
	SILVER	J	0.18	5.0	LOQ	ug/L	
	THALLIUM	J	0.22	1.0	LOQ	ug/L	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW29042015	ANTIMONY	J	0.62	6.0	LOQ	ug/L	
	ARSENIC	J	1.4	5.0	LOQ	ug/L	
	BERYLLIUM	J	0.41	1.0	LOQ	ug/L	
	CHROMIUM	JQ	0.85	10	LOQ	ug/L	
	COBALT	J	0.090	1.0	LOQ	ug/L	
	COPPER	J	0.79	2.0	LOQ	ug/L	J (all detects)
	LEAD	J	2.4	3.0	LOQ	ug/L	o (an acteois)
	NICKEL	J	1.0	3.0	LOQ	ug/L	
	SILVER	J	0.080	5.0	LOQ	ug/L	
	THALLIUM	J	0.083	1.0	LOQ	ug/L	
	VANADIUM	J	5.4	6.0	LOQ	ug/L	
	ZINC	J	2.8	20	LOQ	ug/L	
TMW34042015	CHROMIUM	JQ	0.75	10	LOQ	ug/L	
	COBALT	J	0.16	1.0	LOQ	ug/L	
	COPPER	J	0.97	2.0	LOQ	ug/L	
	NICKEL	J	0.62	3.0	LOQ	ug/L	J (all detects)
	SILVER	J	0.034	5.0	LOQ	ug/L	J (all delects)
	THALLIUM	J	0.060	1.0	LOQ	ug/L	
	VANADIUM	J	1.3	6.0	LOQ	ug/L	
	ZINC	J	3.5	20	LOQ	ug/L	
TMW35042015	ARSENIC	J	0.62	5.0	LOQ	ug/L	
	COBALT	J	0.12	1.0	LOQ	ug/L	
	COPPER	J	1.2	2.0	LOQ	ug/L	1 /-!! -!
	NICKEL	J	0.95	3.0	LOQ	ug/L	J (all detects)
	SILVER	J	0.038	5.0	LOQ	ug/L	
	VANADIUM	J	1.9	6.0	LOQ	ug/L	

Method: 6860

Matrix:

Reporting RL Lab SampleID Analyte Qual Result Limit Type Units Flag MW03042015 PERCHLORATE LOQ J M 0.0073 0.050 J (all detects) ug/L TMW21042015 PERCHLORATE ug/L 0.0083 0.050 LOQ J (all detects)

Method: 8015C DRO

AQ

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DTW34042015	DIESEL RANGE ORGANICS	JM	0.065	0.25	LOQ	mg/L	J (all detects)
MW03042015	DIESEL RANGE ORGANICS	JM	0.055	0.24	LOQ	mg/L	J (all detects)
MW20042015	DIESEL RANGE ORGANICS	JM	0.077	0.25	LOQ	mg/L	J (all detects)
TMW34042015	DIESEL RANGE ORGANICS	JM	0.15	0.25	LOQ	mg/L	J (all detects)
TMW35042015	DIESEL RANGE ORGANICS	JM	0.069	0.27	LOQ	mg/L	J (all detects)

Project Name and Number: 102012 - FWDA 102012 GW

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67366-1 Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DTW34042015	ACETONE	J	1.9	10	LOQ	ug/L	J (all detects)
MW20042015	ACETONE	J	1.9	10	LOQ	ug/L	J (all detects)



Approved By: Laboratory: TA DEN Reviewed By: Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67366-1 Method: 6010C DTW34042015 S2AVE 280-67366-5 FD 3005A 4/3/2015 11:30:00 AM AQ DTW34042015 280-67366-5 AQ FD 3010A 4/3/2015 11:30:00 AM S2AVE MW03042015 280-67366-8 Ν 3005A 4/3/2015 12:40:00 PM S2AVE AQ MW03042015 280-67366-8 Ν 3010A 4/3/2015 12:40:00 PM S2AVE AQ S2AVE MW20042015 280-67366-6 AQ Ν 3005A 4/3/2015 9:20:00 AM S2AVE MW20042015 280-67366-6 AQ Ν 3010A 4/3/2015 9:20:00 AM TMW21042015 S2AVE 280-67366-1 AQ Ν 3005A 4/3/2015 11:26:00 AM TMW21042015 280-67366-1 AQ Ν 3010A 4/3/2015 11:26:00 AM S2AVE TMW21042015MS 280-67366-1MS MS 3005A 4/3/2015 11:26:00 AM S2AVE AQ TMW21042015MS 280-67366-1MS MS 3010A 4/3/2015 11:26:00 AM S2AVE AQ S2AVE TMW21042015MSD 280-67366-1MSD AQ MSD 3005A 4/3/2015 11:26:00 AM MSD S2AVE TMW21042015MSD 280-67366-1MSD AQ 3010A 4/3/2015 11:26:00 AM S2AVE TMW29042015 280-67366-2 AQ Ν 3005A 4/3/2015 9:35:00 AM TMW29042015 280-67366-2 AQ Ν 3010A 4/3/2015 9:35:00 AM S2AVE TMW34042015 280-67366-4 Ν 3005A S2AVE AQ 4/3/2015 11:30:00 AM S2AVE TMW34042015 280-67366-4 Ν 3010A 4/3/2015 11:30:00 AM AQ S2AVE TMW35042015 280-67366-9 Ν 3005A AQ 4/3/2015 9:20:00 AM TMW35042015 280-67366-9 Ν 3010A 4/3/2015 9:20:00 AM S2AVE AQ Method: 6020A DTW34042015 280-67366-5 FD 3020A 4/3/2015 11:30:00 AM S2AVE AQ S2AVE DTW34042015 280-67366-5 AQ FD 3005A 4/3/2015 11:30:00 AM MW03042015 280-67366-8 AQ Ν 3020A 4/3/2015 12:40:00 PM S2AVE MW03042015 280-67366-8 3005A 4/3/2015 12:40:00 PM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 9:09:21 AM Page 1 of 6



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID **Matrix** Sample Type **Collection Date** Method Method: 6020A MW20042015 3020A S2AVE 280-67366-6 Ν 4/3/2015 9:20:00 AM AQ MW20042015 Ν 3005A S2AVE 280-67366-6 AQ 4/3/2015 9:20:00 AM TMW21042015 280-67366-1 AQ Ν 3020A 4/3/2015 11:26:00 AM S2AVE S2AVE TMW21042015 280-67366-1 Ν 3005A 4/3/2015 11:26:00 AM AQ TMW29042015 280-67366-2 Ν 3020A 4/3/2015 9:35:00 AM S2AVE AQ TMW29042015 S2AVE 280-67366-2 AQ Ν 3005A 4/3/2015 9:35:00 AM TMW29042015MS 280-67366-2MS MS 3020A 4/3/2015 9:35:00 AM S2AVE AQ TMW29042015MS 280-67366-2MS MS S2AVE AQ 3005A 4/3/2015 9:35:00 AM TMW29042015MSD 280-67366-2MSD AQ MSD 3020A 4/3/2015 9:35:00 AM S2AVE TMW29042015MSD 280-67366-2MSD MSD 3005A 4/3/2015 9:35:00 AM S2AVE AQ S2AVE TMW34042015 280-67366-4 AQ Ν 3020A 4/3/2015 11:30:00 AM TMW34042015 Ν 3005A S2AVE 280-67366-4 AQ 4/3/2015 11:30:00 AM S2AVE TMW35042015 280-67366-9 AQ Ν 3020A 4/3/2015 9:20:00 AM S2AVE TMW35042015 280-67366-9 AQ Ν 3005A 4/3/2015 9:20:00 AM Method: 6860 S2AVE DTW34042015 280-67366-5 AQ FD **METHOD** 4/3/2015 11:30:00 AM S2AVE MW03042015 280-67366-8 Ν **METHOD** 4/3/2015 12:40:00 PM AQ MW20042015 280-67366-6 Ν **METHOD** 4/3/2015 9:20:00 AM S2AVE AQ TMW21042015 280-67366-1 AQ Ν **METHOD** 4/3/2015 11:26:00 AM S2AVE TMW29042015 280-67366-2 Ν **METHOD** 4/3/2015 9:35:00 AM S2AVE AQ 4/3/2015 11:30:00 AM TMW34042015 280-67366-4 Ν **METHOD** S2AVE AQ S2AVE TMW35042015 280-67366-9 AQ Ν **METHOD** 4/3/2015 9:20:00 AM MS **METHOD** S2AVE TMW35042015MS 280-67366-9MS AQ 4/3/2015 9:20:00 AM S2AVE TMW35042015MSD 280-67366-9MSD AΩ MSD **METHOD** 4/3/2015 9:20:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) Page 2 of 6 5/18/2015 9:09:21 AM



Reviewed By:			Approved By:		Laboratory: TA	
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 7470A						
DTW34042015	280-67366-5	AQ	FD	7470A	4/3/2015 11:30:00 AM	S2AVE
MW03042015	280-67366-8	AQ	N	7470A	4/3/2015 12:40:00 PM	S2AVE
MW20042015	280-67366-6	AQ	N	7470A	4/3/2015 9:20:00 AM	S2AVE
TMW21042015	280-67366-1	AQ	N	7470A	4/3/2015 11:26:00 AM	S2AVE
TMW29042015	280-67366-2	AQ	N	7470A	4/3/2015 9:35:00 AM	S2AVE
TMW34042015	280-67366-4	AQ	N	7470A	4/3/2015 11:30:00 AM	S2AVE
TMW35042015	280-67366-9	AQ	N	7470A	4/3/2015 9:20:00 AM	S2AVE
TMW35042015MS	280-67366-9MS	AQ	MS	7470A	4/3/2015 9:20:00 AM	S2AVE
TMW35042015MSD	280-67366-9MSD	AQ	MSD	7470A	4/3/2015 9:20:00 AM	S2AVE
Method: 8015C DRO						
DTW34042015	280-67366-5	AQ	FD	3510C	4/3/2015 11:30:00 AM	S2AVE
MW03042015	280-67366-8	AQ	N	3510C	4/3/2015 12:40:00 PM	S2AVE
MW20042015	280-67366-6	AQ	N	3510C	4/3/2015 9:20:00 AM	S2AVE
TMW34042015	280-67366-4	AQ	N	3510C	4/3/2015 11:30:00 AM	S2AVE
TMW35042015	280-67366-9	AQ	N	3510C	4/3/2015 9:20:00 AM	S2AVE
Method: 8015C GRO						
DTW34042015	280-67366-5	AQ	FD	METHOD	4/3/2015 11:30:00 AM	S2AVE
MW03042015	280-67366-8	AQ	N	METHOD	4/3/2015 12:40:00 PM	S2AVE
MW20042015	280-67366-6	AQ	N	METHOD	4/3/2015 9:20:00 AM	S2AVE
TB-42-042015	280-67366-7	AQ	ТВ	METHOD	4/3/2015 8:00:00 AM	S2AVE
TMW34042015	280-67366-4	AQ	N	METHOD	4/3/2015 11:30:00 AM	S2AVE
TMW35042015	280-67366-9	AQ	N	METHOD	4/3/2015 9:20:00 AM	S2AVE
Method: 8081A						
MW20042015	280-67366-6	AQ	N	3510C	4/3/2015 9:20:00 AM	S2AVE
5/18/2015 9:09:21 AM		ADR version 1.9.	0.325 (Licensed For Use On US	ACE Projects Only)		Page 3 of 6



Reviewed By:			Approved By:	n d	Labo	oratory: TA DEN
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 8081A						
MW22S042015	280-67366-10	AQ	N	3510C	4/3/2015 12:30:00 PM	S2AVE
TMW35042015	280-67366-9	AQ	N	3510C	4/3/2015 9:20:00 AM	S2AVE
TMW40S042015	280-67366-11	AQ	N	3510C	4/3/2015 12:30:00 PM	S2AVE
Method: 8260B						
DTW34042015	280-67366-5	AQ	FD	503	0 4/3/2015 11:30:00 AM	S2AVE
MW03042015	280-67366-8	AQ	N	503	0 4/3/2015 12:40:00 PM	S2AVE
MW20042015	280-67366-6	AQ	N	503	0 4/3/2015 9:20:00 AM	S2AVE
TB-03-042015	280-67366-3	AQ	ТВ	503	0 4/3/2015 8:00:00 AM	S2AVE
TMW21042015	280-67366-1	AQ	N	503	0 4/3/2015 11:26:00 AM	S2AVE
TMW29042015	280-67366-2	AQ	N	503	0 4/3/2015 9:35:00 AM	S2AVE
TMW34042015	280-67366-4	AQ	N	503	0 4/3/2015 11:30:00 AM	S2AVE
TMW35042015	280-67366-9	AQ	N	503	4/3/2015 9:20:00 AM	S2AVE
Method: 8270D						
MW20042015	280-67366-6	AQ	N	3520C	4/3/2015 9:20:00 AM	S2AVE
TMW35042015	280-67366-9	AQ	N	3520C	4/3/2015 9:20:00 AM	S2AVE
Method: 8330B						
MW03042015	280-67366-8	AQ	N	353	5 4/3/2015 12:40:00 PM	S2AVE
MW20042015	280-67366-6	AQ	N	353	4/3/2015 9:20:00 AM	S2AVE
TMW21042015	280-67366-1	AQ	N	353	5 4/3/2015 11:26:00 AM	S2AVE
TMW29042015	280-67366-2	AQ	N	353	4/3/2015 9:35:00 AM	S2AVE
Method: 9056						
DTW34042015	280-67366-5	AQ	FD	METHOD	4/3/2015 11:30:00 AM	S2AVE
MW03042015	280-67366-8	AQ	N	METHOD	4/3/2015 12:40:00 PM	S2AVE
MW03042015DUP	280-67366-8DUP	AQ	DUP	METHOD	4/3/2015 12:40:00 PM	S2AVE
5/18/2015 9:09:21 AM		ADR version 1.9	.0.325 (Licensed For Use On USA	ACE Projects Only)		Page 4 of 6



Reviewed By: Approved By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Sample Type Validation Code Matrix **Collection Date** Method Method: 9056 MW03042015MS 280-67366-8MS MS METHOD 4/3/2015 12:40:00 PM S2AVE AQ MSD S2AVE MW03042015MSD 280-67366-8MSD **METHOD** 4/3/2015 12:40:00 PM AQ S2AVE MW20042015 280-67366-6 AQ Ν **METHOD** 4/3/2015 9:20:00 AM TMW21042015 S2AVE 280-67366-1 AQ Ν **METHOD** 4/3/2015 11:26:00 AM TMW29042015 280-67366-2 Ν **METHOD** 4/3/2015 9:35:00 AM S2AVE AQ TMW34042015 280-67366-4 Ν **METHOD** 4/3/2015 11:30:00 AM S2AVE AQ TMW35042015 280-67366-9 AQ Ν **METHOD** 4/3/2015 9:20:00 AM S2AVE



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67366-1

Laboratory: TA DEN

EDD Filename: 280-67366-1 eQAPP Name: FtWingate_Primary_120405

Method:	8081A
Matrix:	AQ

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
MW22S042015	DECACHLOROBIPHENYL	20	30.00-135.00	All Target Analytes	J(all detects) UJ(all non-detects)
TMW40S042015	DECACHLOROBIPHENYL	25	30.00-135.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method:	8270D
Matrix:	AO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
MW20042015	Terphenyl-d14	33	50.00-135.00	No Affected Compounds	



Lab Reporting Batch ID: 280-67366-2

Laboratory: TA DEN
EDD Filename: 280-67366-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.

Note



Validation Area

Data Review Summary

Lab Reporting Batch ID: 280-67366-2 **Laboratory: TA DEN** EDD Filename: 280-67366-2 eQAPP Name: FtWingate_Primary_120405

Technical Holding Times Α Temperature Α Initial Calibration Ν Continuing Calibration/Initial Calibration Verification Ν Method Blanks Α



Reviewed By:			Approved By:			Laboratory: TA DEN	
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code	
Lab Reporting Batc	Lab Reporting Batch: 280-67366-2						
Method: 8270D							
MW20042015	280-67366-6	AQ	N	3520C	4/3/2015 9:20:00 AM	S2AVE	
TMW35042015	280-67366-9	AQ	N	3520C	4/3/2015 9:20:00 AM	S2AVE	



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67366-2 Laboratory: TA DEN

EDD Filename: 280-67366-2 eQAPP Name: FtWingate_Primary_120405

Method: 8270 Matrix: AQ	D				
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TMW35042015	Terphenyl-d14	33	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67438-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for eleven water samples received April 7, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 3.5°C, 4.3°C, 4.3°C, 2.6°C, 5.5°C, 2.4°C, 0.4°C, 0.4°C, 0.3°C, 5.1°C and 3.6°C.

The chain-of-custody ends the IDS with 042014 for samples TB-04-042015 (280-67438-5) and TB-43-042015 (280-67438-6), but the container labels end the IDs with 042015. In accordance with the client's instructions, the IDs are logged per the container labels.

One of four 1L amber bottles was received broken for sample DMW24042015 (280-67438-8). Sufficient volume remains for analysis. The client was notified on April 7, 2015.

In accordance with the client's instructions, Perchlorate analysis for sample TMW40S042015 (280-67438-11) was cancelled. Perchlorate analysis for this sample is being reported under separate cover (280-67316-1).

Relinquished By information is missing from the last page of the chain-of-custody. The client was notified on April 7, 2015.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67438-1).

Please note the Caprolactam data are reported under separate cover (280-67438-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), TB-04-042015 (280-67438-5), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate Dibromofluoromethane was recovered above the QC control limits in sample TB-04-042015 (280-67438-5). As the sample does not contain any detectable concentrations for constituents associated with this surrogate, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

Methylene Chloride was detected in method blank MB 280-272203/6 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/09/2015 and analyzed on 04/17/2015 and 04/18/2015.

Please note the Caprolactam data are reported under separate cover (280-67438-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows:

The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 11-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

The MS/MSD associated with prep batch 280-271917 was performed on sample MW22D042015 (280-67438-9). The MS/MSD exhibited spike compound recoveries outside the QC control limits for several analytes. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Gasoline Range Organics - 8015C

Samples TB-43-042015 (280-67438-6) and MW22D042015 (280-67438-9) were analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Diesel Range Organics - 8015C

Samples MW22D042015 (280-67438-9) and MW22S042015 (280-67438-10) were analyzed for Diesel Range Organics in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 04/09/2015 and analyzed on 04/16/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Sample MW22S042015 (280-67438-10) formed emulsions during the extraction procedure. The emulsions were broken up using a combination of pour backs and centrifuge.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/10/2015 and analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples MB 280-272174/1-A and LCS 280-272174/2-A required a Mercury clean-up to reduce matrix interference caused by sulfur..

The MS/MSD associated with prep batch 280-272174 was performed on sample MW22D042015 (280-67438-9). The MS/MSD exhibited a spike compound recovery outside the QC control limits for Toxaphene. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/08/2015 and analyzed on 04/11/2015 and 04/14/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows:

The cartridges were eluted with 0.1% Acetic Acid in ACN instead of ACN to increase Tetryl recovery. This deviation was performed with QA and supervisor approval. The SOP is currently under revision to capture this change.

o-Nitrotoluene was detected in method blank MB 280-271623/1-A at a level that was less than one half the reporting limit on the back column; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271623 was performed on sample MW22D042015 (280-67438-9). The MS/MSD exhibited a spike compound recovery and RPD data outside the QC control limits for HMX. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the calibration curve, samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3) and DTW39D042015 (280-67438-4) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

The MS/MSD associated with analytical batch 280-272596 was performed on sample MW22D042015 (280-67438-9). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Perchlorate because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8), MW22D042015 (280-67438-9) and MW22S042015 (280-67438-10) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/08/2015 and analyzed on 04/08/2015 and 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Sodium was detected in method blank MB 280-271533/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271533 was performed on sample MW22D042015 (280-67438-9). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271533 was performed on sample MW22D042015 (280-67438-9). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the SD performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/08/2015 and analyzed on 04/08/2015 and 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The dissolved Calcium and Magnesium results for sample TMW39D042015 (280-67438-2) are greater than the corresponding total metals results. The results were confirmed using the ICPMS digestion.

Sodium was detected in method blank MB 280-271527/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD OSM

The MS/MSD associated with prep batch 280-271527 was performed on sample MW22D042015 (280-67438-9). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore,

corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD OSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271527 was performed on sample MW22D042015 (280-67438-9). The PDS and SD exhibited percent recoveries outside the control limits for Sodium. In addition, the SD exhibited percent recoveries outside the control limits for Calcium and Magnesium; however, the PDS performed on this sample was in control. The associated Sodium data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8), MW22D042015 (280-67438-9) and MW22S042015 (280-67438-10) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/08/2015 and analyzed on 04/16/2015 and 04/17/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Thallium was detected in method blank MB 280-271530/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The ICSA solution associated with analytical batch 280-273341 was above DOD QSM Version 4.2 criteria of less than the LOD for Chromium. The laboratory has confirmed with the vendor that this element is a trace impurity in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/08/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The dissolved Zinc result for samples MW22D042015 (280-67438-9), MW22D042015 (280-67438-9 MS) and MW22D042015 (280-67438-9 MSD) is greater than the corresponding total metals results. The results were confirmed using the ICP digestion.

The MS/MSD associated with prep batch 280-271525 was performed on sample MW22D042015 (280-67438-9). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Zinc. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The ICSA solution associated with analytical batch 280-272116 was above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium. The laboratory has confirmed with the vendor that this element is a trace impurity in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8), MW22D042015 (280-67438-9) and MW22S042015 (280-67438-10) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/13/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8), MW22D042015 (280-67438-9) and TMW40S042015 (280-67438-11) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/07/2015 and 04/08/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples TMW31D042015 (280-67438-1), TMW48042015 (280-67438-3), MW22D042015 (280-67438-9) and TMW40S042015 (280-67438-11) had to be analyzed at dilutions. The reporting limits and method detection limit have been adjusted relative to the dilutions required.

The MS/MSD associated with analytical batch 280-271402 was performed on sample MW22D042015 (280-67438-9). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Nitrite as N. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67438-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC DMW24042015		
QC Type: FD		
	MW24042015	4/6/2015 12:40:00 PM
Field QC DTW39D042015		
QC Type: FD		
	TMW39D042015	4/6/2015 9:40:00 AM
	110100390042013	4/0/2013 5.40.00 AW
T. I.I.O. TD 04 040045		
Field QC TB-04-042015 QC Type: TB		
QC Type.		
	DMW24042015	4/6/2015 12:40:00 PM
	DTW39D042015	4/6/2015 9:40:00 AM
	MW22D042015	4/6/2015 10:30:00 AM
	MW22S042015	4/6/2015 9:30:00 AM
	MW24042015	4/6/2015 12:40:00 PM
	TMW31D042015	4/6/2015 12:15:00 PM
	TMW39D042015	4/6/2015 9:40:00 AM
	TMW40S042015	4/6/2015 8:30:00 AM
	TMW48042015	4/6/2015 11:06:00 AM
Field QC TB-43-042015 QC Type: TB		
QO TYPOL		
	DMW24042015	4/6/2015 12:40:00 PM
	DTW39D042015	4/6/2015 9:40:00 AM
	MW22D042015	4/6/2015 10:30:00 AM
	MW22S042015	4/6/2015 9:30:00 AM
	MW24042015	4/6/2015 12:40:00 PM
	TMW31D042015	4/6/2015 12:15:00 PM
	TMW39D042015	4/6/2015 9:40:00 AM
	TMW40S042015	4/6/2015 8:30:00 AM
	TMW48042015	4/6/2015 11:06:00 AM



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW240420	015									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recover	8270D y	RES	10	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
BENZIDINE Reason for change:	0% recovery	8270D y	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25
PERCHLORATE Reason for change:	4X rule	6860	RES	0.020	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	270000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	260000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: DTW39D042	2015									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recovery	8270D y	RES	9.7	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
BENZIDINE Reason for change:	0% recovery	8270D y	RES	97	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25
PERCHLORATE Reason for change:	4X rule	6860	RES	32	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	610000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DTW39D042	015									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	730000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: MW22D0420	115									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recovery	8270D	RES	10	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
BENZIDINE Reason for change:	0% recovery	8270D	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25
PERCHLORATE Reason for change:	4X rule	6860	RES	0.45	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	1100000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	1100000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: MW22S0420	15									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	900000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: MW2404201	5									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recovery	8270D	RES	10	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
Reason for change:	0% recovery	8270D	RES	100	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW2404201	5									
PERCHLORATE Reason for change:	4X rule	6860	RES	0.020	ug/L	Matrix Spike Lower Estimation	UJ		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	260000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	260000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: TMW31D042	2015									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recovery	8270D ′	RES	9.5	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
BENZIDINE Reason for change:	0% recovery	8270D	RES	95	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25
PERCHLORATE Reason for change:	4X rule	6860	RES	1300	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	560000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	570000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: TMW39D042	2015									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recovery	8270D ′	RES	11	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
BENZIDINE Reason for change:	0% recovery	8270D ,	RES	110	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW39D04	2015									
PERCHLORATE Reason for change:	4X rule	6860	RES	34	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	600000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	720000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32
Field Sample ID: TMW480420	015									
3,3'-DICHLOROBENZIDINE Reason for change:	0% recover	8270D y	RES	11	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:24
BENZIDINE Reason for change:	0% recover	8270D y	RES	110	ug/L	Matrix Spike Lower Rejection		R	5/18/2015	8:25
PERCHLORATE Reason for change:	4X rule	6860	RES	1200	ug/L	Matrix Spike Lower Estimation	J		5/18/2015	8:31
SODIUM Reason for change:	4X rule	6010C	RE2/DIS	550000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:33
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	590000	ug/L	Matrix Spike Upper Estimation	J		5/18/2015	8:32

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67438-1

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

LDD I liellanie. 200-07	-1 30-1					CQA	i i italii	C. I LVVII	igate_i i	iiiiai y_1204	
Method Category:	GENCHEM										
Method:	9056			Má	atrix:	AQ					
Sample ID:DMW24042015		Collec	4/6/20 ted:PM	15 12:40	:00	nalveie i	Гуре:RES	/TOT		Dilution: 1	
Sample ID.DIWW24042013		Conec	PIVI		A	lialy 313		101	Data	Dilation. 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code	
NITRITE		0.10	U	0.10	LOD	0.50	LOQ	mg/L	UJ	Ms	
Sample ID:DTW39D042015	i	Collec	ted:4/6/20	15 9:40:	00 AM <i>A</i>	nalysis ī	Гуре:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
NITRITE		0.10	U	0.10	LOD	0.50	LOQ	mg/L	UJ	Ms	
Sample ID:MW22D042015		Collec	4/6/20 ted: AM	15 10:30		nalysis ī	Type:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
NITRITE		0.10	UJ	0.10	LOD	0.50	LOQ	mg/L	UJ	Ms	
Sample ID:MW24042015		4/6/2015 12:40:00 Collected:PM Analysis Type:RES/TOT D									
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
NITRITE		0.10	U	0.10	LOD	0.50	LOQ	mg/L	UJ	Ms	
Sample ID:TMW31D04201	5	Collec	4/6/20 ted:PM	15 12:15	:00 A	nalysis ī	туре:RES	/тот		Dilution: 1	
<u> </u>									Data		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code	
NITRITE		0.10	U	0.10	LOD	0.50	LOQ	mg/L	UJ	Ms	
Sample ID:TMW39D04201	5	Collec	ted:4/6/20	15 9:40:	00 AM A	nalysis ī	Type:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
NITRITE		0.10	U	0.10	LOD	0.50	LOQ	mg/L	UJ	Ms	
Sample ID:TMW40S042015	5	Collec	ted:4/6/20	15 8:30:	00 AM <i>A</i>	nalysis T	Type:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
				0.10	LOD	0.50	LOQ	mg/L	J	Ms	
NITRITE		2.2		0.10		0.00					
			4/6/20 cted: AM	15 11:06	:00		Type:RES			Dilution: 1	
			4/6/20 cted: AM		:00		Type:RES		Data	Dilution: 1	
NITRITE Sample ID:TMW48042015 Analyte			4/6/20 sted: AM Lab Qual		:00		rype:RES RL Type			Dilution: 1 Reason Code	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1

eQAPP Name: FtWingate_Primary_120405

Method Category: GENCHEM

Method: 9056 Matrix: AQ

Method Category: METALS

Method: 6010C Matrix: AQ

Sample ID:DMW24042015	Collec	Collected: PM				ype:RES	/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	790	J	250	LOD	3000	LOQ	ug/L	J	RI	

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	21	J	31	LOD	300	LOQ	ug/L	J	RI
POTASSIUM	740	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:DTW39D042015 Collected:4/6/2015 9:40:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	19	J	31	LOD	300	LOQ	ug/L	J	RI, Fd
IRON	34	J	30	LOD	100	LOQ	ug/L	J	RI, Fd
POTASSIUM	1400	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:DTW39D042015 Collected:4/6/2015 9:40:00 AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	460	J	250	LOD	3000	LOQ	ug/L	J	RI

4/6/2015 10:30:00
Sample ID:MW22D042015

Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	450	J	250	LOD	3000	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67438-1

Method Category:	METALS		
Method:	6010C	Matrix:	AQ

Sample ID:MW22S042015	Collec	ted:4/6/20	15 9:30:	00 AM <i>A</i>	nalysis 1	ype:RES	/тот	ı	Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1900	J	250	LOD	3000	LOQ	ug/L	J	RI
			15 12:40	:00					

Sample ID:MW24042015	Collec	:ted:PM		Α	nalysis 1	Type:RES	/DIS		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	790	J	250	LOD	3000	LOQ	ug/L	J	RI
		4/6/20	15 12-40	.00		•			

Sample ID:MW24042015	Collec	ted:PM	13 12.40		nalysis 1	ype:RES	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	23	J	31	LOD	300	LOQ	ug/L	J	RI
POTASSIUM	810	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW31D042015	Collec	4/6/20 cted:PM	15 12:15		nalysis 1	Гуре:RES	/DIS		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1200	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW31D042015	Collec	4/6/20 cted:PM	15 12:15		nalysis 1	<i>ype:</i> RES	/тот	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI	

Sample ID:TMW39D042015	Collec	cted:4/6/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	31	U	31	LOD	300	LOQ	ug/L	UJ	Fd
IRON	30	U	30	LOD	100	LOQ	ug/L	UJ	Fd
POTASSIUM	1400	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW39D042015	Collec	ted:4/6/20	15 9:40:	00 AM A	nalysis 1	ype:RES	/TOT		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1200	J	250	LOD	3000	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
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Method: 6010C Matrix: AQ

4/6/2015 11:06:00

Sample ID:1 MW48042015	Collec	ted:AM		A	nalysis i	ype:RES	/DIS		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI

4/6/2015 11:06:00

Sample ID:1 MW48042015	Collec	tea: AM		A	naiysis i	ype:RES	7101		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1300	J	250	LOD	3000	LOQ	ug/L	J	RI

Method Category:	METALS		
Method:	6020A	Matrix:	AQ

4/6/2015 12:40:00 Sample ID:DMW24042015 Collected:PM

Collected: PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.60	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.065	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	1.0	U	1.0	LOD	6.0	LOQ	ug/L	UJ	Fd
ZINC	6.0	U	6.0	LOD	20	LOQ	ug/L	UJ	Ms, Fd

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.81	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.066	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	0.67	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	2.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:DTW39D042015 Collected:4/6/2015 9:40:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.60	U	0.60	LOD	6.0	LOQ	ug/L	UJ	Fd
ARSENIC	1.0	U	1.0	LOD	5.0	LOQ	ug/L	UJ	Fd
SELENIUM	4.4	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	2.1	J	6.0	LOD	20	LOQ	ug/L	J	RI, Ms, Fd

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
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Method: 6020A Matrix: AQ

4/6/2015 10:30:00	
Collected: AM	Analysis Type: RES/DIS

Sample ID:MW22D042015	Co	Collected: AM				Type:RES	Dilution: 1		
Analyte	Lab Resu		DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.45	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.19	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.91	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	120	J	6.0	LOD	20	LOQ	ug/L	J	Ms

4/6/2015 10:30:00

Collected: AM Sample ID:MW22D042015 Analysis Type: RES/TOT Dilution: 1

		Comotion: Aivi				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	0.13	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.72	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
THALLIUM	0.062	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb
VANADIUM	0.94	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	10	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:MW22S042015 Collected:4/6/2015 9:30:00 AM Analysis Type:RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
СНКОМІИМ	6.1	JQ	1.5	LOD	10	LOQ	ug/L	J	RI

Sample ID:MW22S042015 Collected: 4/6/2015 9:30:00 AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.64	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	3.5	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BERYLLIUM	0.96	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
SILVER	0.22	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.22	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

4/6/2015 12:40:00 Sample ID:MW24042015 Collected: PM

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.65	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.056	J	0.10	LOD	1.0	LOQ	ug/L	J	RI

Analysis Type: RES/DIS

Project Name and Number: 102012 - FWDA 102012 GW

Dilution: 1

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS	
Method:	6020A	Matrix: AQ
		4/6/2015 12:40:00

Sample ID:MW24042015	Collec	Collected:PM			nalysis	Type:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	0.56	J	1.0	LOD	6.0	LOQ	ug/L	J	RI, Fd
ZINC	4.3	J	6.0	LOD	20	100	ua/l	J.	RL Ms. Fd

Sample ID:MW24042015	Collec	4/6/2015 12:40:00 Collected:PM Analysis Type:RES/TOT						Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.53	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
LEAD	0.38	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	

Sample ID:TMW31D042015	Collec	Collected: PM Ar			nalysis	Type:RE2	/DIS	Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	1.2	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
		4/6/20	15 12-15	.00					

Sample ID:TMW31D042015	Collec	4/6/2015 12:15: Collected:PM			nalysis 1	Type:RES	/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	1.8	J	0.60	LOD	6.0	LOQ	ug/L	J	RI	
ARSENIC	0.46	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COBALT	0.10	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
MANGANESE	2.6	J	0.90	LOD	3.5	LOQ	ug/L	J	RI	
NICKEL	0.51	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
SILVER	0.034	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	
THALLIUM	0.12	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	
VANADIUM	5.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	19	J	6.0	LOD	20	LOQ	ug/L	J	RI, Ms	

Sample ID:TMW31D042015	Collec	4/6/2015 12:15:00 Collected:PM			nalysis ī	Type:RES	/тот	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.40	J	0.60	LOD	6.0	LOQ	ug/L	J	RI	
ARSENIC	0.51	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COBALT	0.064	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
COPPER	1.5	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	
NICKEL	0.31	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS		
Method:	6020A	Matrix:	AQ

Sample ID:TMW31D042015 Collected: PM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.075	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb
VANADIUM	5.8	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	19	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW39D042015 Collected:4/6/2015 9:40:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.62	J	0.60	LOD	6.0	LOQ	ug/L	J	RI, Fd
ARSENIC	0.33	J	1.0	LOD	5.0	LOQ	ug/L	J	RI, Fd
SELENIUM	4.8	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.1	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	6.0	U	6.0	LOD	20	LOQ	ug/L	UJ	Ms, Fd

Sample ID:TMW39D042015 Collected:4/6/2015 9:40:00 AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	0.58	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

4/6/2015 11:06:00 Sample ID:TMW48042015 Collected: AM Analysis Type: RES/DIS Dilution: 1

	- Company Min				,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.72	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
NICKEL	0.64	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
VANADIUM	5.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	11	J	6.0	LOD	20	LOQ	ug/L	J	RI, Ms	

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.74	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	0.96	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.59	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	3.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	12	J	6.0	LOD	20	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	SVOA
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Method: 6860 Matrix: AQ

Sample ID:DTW39D042015	Collec	ted:4/6/20	Dilution: 50						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHI ORATE	32	D	1.0	LOD	2.5	100	ug/l	J	Ms

Sample ID:MW22D042015	Collec	4/6/20 cted: AM	015 10:30		nalysis 1	Гуре:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHI ORATE	0.45	J	0.020	LOD	0.050	100	ug/l	J	Ms

	4/0/2015 12:15:00								
Sample ID:TMW31D042015	Collec	cted:PM		Α	nalysis	Type:RES	5		Dilution: 2000
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHI ORATE	1300	D	40	LOD	100	100	ug/l	.l	Ms

Sample ID:TMW39D042015	Collec	ted:4/6/20	Dilution: 50						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	34	D	1.0	LOD	2.5	LOQ	ug/L	J	Ms

Sample ID:TMW48042015	Collec	4/6/20 cted: AM	15 11:06		nalysis 1	<i>ype:</i> RES	·	Qual	Dilution: 2000
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review	Reason Code
PERCHLORATE	1200	D	40	LOD	100	LOQ	ug/L	J	Ms

Method Category:	SVOA				
Method:	8015C DRO	Matrix:	AQ		

Sample ID:MW22D042015	Collec	4/6/2015 10:30 Collected: AM			nalysis 1	Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIESEL RANGE ORGANICS	0.044	JM	0.098	LOD	0.25	LOQ	mg/L	J	RI

Sample ID:MW22S042015	Collected:4/6/2015 9:30:00 AM Analysis Type:RES							Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DIESEL RANGE ORGANICS	0.25	J M	0.11	LOD	0.27	LOQ	mg/L	J	RI	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

Method Categor	y: SVOA											
Method:	8081A			Má	atrix:	AQ						
Sample ID:DMW240	042015	Collec	4/6/20 ted:PM	15 12:40		nalysis 1	Type:RES	.		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.83	U	0.83	LOD	5.2	LOQ	ug/L	UJ	Ms		
Sample ID:DTW39D	0042015	Collec	ted:4/6/20	15 9:40:	00 AM <i>A</i>	nalysis 1	Type:RES	;		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.89	U	0.89	LOD	5.5	LOQ	ug/L	UJ	Ms		
Sample ID:MW22D0	042015	Collec	4/6/20 ted: AM	15 10:30		nalysis 1	Гуре:RES	;		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.84	UJ	0.84	LOD	5.2	LOQ	ug/L	UJ	Ms		
Sample ID:MW2404	2015	4/6/2015 12:40:00 015										
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.81	U	0.81	LOD	5.1	LOQ	ug/L	UJ	Ms		
Sample ID:TMW31E	0042015	Collec	4/6/20 ted:PM	15 12:15		nalysis 1	Гуре:RES	·		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.88	U	0.88	LOD	5.5	LOQ	ug/L	UJ	Ms		
Sample ID:TMW39E	0042015	Collec	ted:4/6/20	15 9:40:	00 AM <i>A</i>	nalysis 1	Type:RES	;		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.89	U	0.89	LOD	5.5	LOQ	ug/L	UJ	Ms		
Sample ID:TMW480)42015	Collec	4/6/20 ted: AM	15 11:06		nalysis 1	Гуре:RES	;		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
TOXAPHENE		0.89	U	0.89	LOD	5.6	LOQ	ug/L	UJ	Ms		

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Sample ID:DMW24042015

Method: 8270D Matrix: AQ

4/6/2015 12:40:00 Collected:PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
10	U	10	LOD	51	LOQ	ug/L	R	Ms, Ms
2.0	U	2.0	LOD	51	LOQ	ug/L	UJ	Ms
4.1	U	4.1	LOD	51	LOQ	ug/L	UJ	Ms
2.0	U	2.0	LOD	10	LOQ	ug/L	UJ	Ms
100	U	100	LOD	200	LOQ	ug/L	R	Ms, Ms
	10 2.0 4.1 2.0	Result Qual 10 U 2.0 U 4.1 U 2.0 U	Result Qual DL 10 U 10 2.0 U 2.0 4.1 U 4.1 2.0 U 2.0	Result Qual DL Type 10 U 10 LOD 2.0 U 2.0 LOD 4.1 U 4.1 LOD 2.0 U 2.0 LOD	Result Qual DL Type RL 10 U 10 LOD 51 2.0 U 2.0 LOD 51 4.1 U 4.1 LOD 51 2.0 U 2.0 LOD 10	Result Qual DL Type RL Type 10 U 10 LOD 51 LOQ 2.0 U 2.0 LOD 51 LOQ 4.1 U 4.1 LOD 51 LOQ 2.0 U 2.0 LOD 10 LOQ	Result Qual DL Type RL Type Units 10 U 10 LOD 51 LOQ ug/L 2.0 U 2.0 LOD 51 LOQ ug/L 4.1 U 4.1 LOD 51 LOQ ug/L 2.0 U 2.0 LOD 10 LOQ ug/L	Lab Result Lab Qual DL DL Type RL Type RL Type RL Type Units Review Qual 10 U 10 LOD 51 LOQ ug/L R 2.0 U 2.0 LOD 51 LOQ ug/L UJ 4.1 U 4.1 LOD 51 LOQ ug/L UJ 2.0 U 2.0 LOD 10 LOQ ug/L UJ

Sample ID:DTW39D042015

Collected: 4/6/2015 9:40:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	9.7	U	9.7	LOD	49	LOQ	ug/L	R	Ms, Ms
3-NITROANILINE	1.9	U	1.9	LOD	49	LOQ	ug/L	UJ	Ms
4-NITROANILINE	3.9	U	3.9	LOD	49	LOQ	ug/L	UJ	Ms
BENZALDEHYDE	1.9	U	1.9	LOD	9.7	LOQ	ug/L	UJ	Ms
BENZIDINE	97	U	97	LOD	190	LOQ	ug/L	R	Ms, Ms

Sample ID:MW22D042015

4/6/2015 10:30:00 Collected: AM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	10	UJ	10	LOD	51	LOQ	ug/L	R	Ms, Ms
3-NITROANILINE	2.0	UJ	2.0	LOD	51	LOQ	ug/L	UJ	Ms
4-NITROANILINE	4.1	UJ	4.1	LOD	51	LOQ	ug/L	UJ	Ms
BENZALDEHYDE	2.0	U	2.0	LOD	10	LOQ	ug/L	UJ	Ms
BENZIDINE	100	UJ	100	LOD	200	LOQ	ug/L	R	Ms, Ms

Sample ID:MW24042015

4/6/2015 12:40:00 Collected:PM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Conec	Conected. PIVI				Analysis Type. NES-BASE/NEOTINAL Dilution. 1							
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code				
3,3'-DICHLOROBENZIDINE	10	U	10	LOD	50	LOQ	ug/L	R	Ms, Ms				
3-NITROANILINE	2.0	U	2.0	LOD	50	LOQ	ug/L	UJ	Ms				
4-NITROANILINE	4.0	U	4.0	LOD	50	LOQ	ug/L	UJ	Ms				
BENZALDEHYDE	2.0	U	2.0	LOD	10	LOQ	ug/L	UJ	Ms				
BENZIDINE	100	U	100	LOD	200	LOQ	ug/L	R	Ms, Ms				

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Method: 8270D Matrix: AQ

4/6/2015 12:15:00 Collected: PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Sample ID:TMW31D042015	MW31D042015									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
1,2-DIPHENYLHYDRAZINE	0.37	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
3,3'-DICHLOROBENZIDINE	9.5	U	9.5	LOD	48	LOQ	ug/L	R	Ms, Ms	
3-NITROANILINE	1.9	U	1.9	LOD	48	LOQ	ug/L	UJ	Ms	
4-NITROANILINE	3.8	U	3.8	LOD	48	LOQ	ug/L	UJ	Ms	
ACENAPHTHENE	0.31	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
Benz[a]anthracene	0.46	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
BENZALDEHYDE	1.9	U	1.9	LOD	9.5	LOQ	ug/L	UJ	Ms	
BENZIDINE	95	U	95	LOD	190	LOQ	ug/L	R	Ms, Ms	
DIBENZOFURAN	0.34	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
DIETHYL PHTHALATE	0.55	J	0.95	LOD	19	LOQ	ug/L	J	RI	
FLUORANTHENE	0.36	J	0.95	LOD	19	LOQ	ug/L	J	RI	
FLUORENE	0.37	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
N-NITROSODIPHENYLAMINE	0.73	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
PHENANTHRENE	0.44	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	
PYRENE	0.38	J	0.95	LOD	9.5	LOQ	ug/L	J	RI	

Sample ID:TMW39D042015

Collected: 4/6/2015 9:40:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	11	U	11	LOD	56	LOQ	ug/L	R	Ms, Ms
3-NITROANILINE	2.2	U	2.2	LOD	56	LOQ	ug/L	UJ	Ms
4-NITROANILINE	4.5	U	4.5	LOD	56	LOQ	ug/L	UJ	Ms
BENZALDEHYDE	2.2	U	2.2	LOD	11	LOQ	ug/L	UJ	Ms
BENZIDINE	110	U	110	LOD	220	LOQ	ug/L	R	Ms, Ms
<u> </u>	•	4/6/20	15 11:06	:00		•	•		

Sample ID:TMW48042015

Collected: AM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

The state of the s								
Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
11	U	11	LOD	56	LOQ	ug/L	R	Ms, Ms
2.2	U	2.2	LOD	56	LOQ	ug/L	UJ	Ms
4.5	U	4.5	LOD	56	LOQ	ug/L	UJ	Ms
2.2	U	2.2	LOD	11	LOQ	ug/L	UJ	Ms
110	U	110	LOD	220	LOQ	ug/L	R	Ms, Ms
	11 2.2 4.5 2.2	Lab Result Lab Qual 11 U 2.2 U 4.5 U 2.2 U	Lab Result Lab Qual DL 11 U 11 2.2 U 2.2 4.5 U 4.5 2.2 U 2.2	Lab Result Lab Qual DL DL Type 11 U 11 LOD 2.2 U 2.2 LOD 4.5 U 4.5 LOD 2.2 U 2.2 LOD	Lab Result Lab Qual DL Type RL 11 U 11 LOD 56 2.2 U 2.2 LOD 56 4.5 U 4.5 LOD 56 2.2 U 2.2 LOD 11	Lab Result Lab Qual DL Type RL Type RL Type 11 U 11 LOD 56 LOQ 2.2 U 2.2 LOD 56 LOQ 4.5 U 4.5 LOD 56 LOQ 2.2 U 2.2 LOD 11 LOQ	Lab Result Lab Qual DL Type RL Type RL Type Units 11 U 11 LOD 56 LOQ ug/L 2.2 U 2.2 LOD 56 LOQ ug/L 4.5 U 4.5 LOD 56 LOQ ug/L 2.2 U 2.2 LOD 11 LOQ ug/L	Lab Result Lab Qual DL Type RL Type RL Type RL Type Units Review Qual 11 U 11 LOD 56 LOQ ug/L R 2.2 U 2.2 LOD 56 LOQ ug/L UJ 4.5 U 4.5 LOD 56 LOQ ug/L UJ 2.2 U 2.2 LOD 11 LOQ ug/L UJ

^{*} denotes a non-reportable result

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67438-1

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67438-1

Laboratory: TA DEN eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280-67438-1

Reason Code Legend

Reason Code	Description
Fd	Field Duplicate Precision
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Upper Estimation
RI	Reporting Limit Trace Value
Surr	Surrogate/Tracer Recovery Upper Estimation

^{*} denotes a non-reportable result



Data Review Summary

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
A
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Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

Method: 6010C Matrix: AQ					
	Concentra	ntion (ug/L)			
Analyte	MW24042015 (DIS)	DMW24042015 (DIS)	Sample RPD	eQAPP RPD	Flag
CALCIUM IRON MAGNESIUM POTASSIUM SODIUM	32000 1900 11000 790 260000	30000 1900 11000 790 270000	6 0 0 0 4	50.00 50.00 50.00 50.00 50.00	No Qualifiers Applied
	Concentra	ntion (ug/L)			
Analyte	MW24042015 (TOT)	DMW24042015 (TOT)	Sample RPD	eQAPP RPD	Flag
ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM SODIUM	23 30000 1900 11000 810 260000	21 31000 1800 10000 740 260000	9 3 5 10 9 0	50.00 50.00 50.00 50.00 50.00 50.00	No Qualifiers Applied
Analyte	Concentra TMW39D042015 (DIS)	ntion (ug/L) DTW39D042015 (DIS)	Sample RPD	eQAPP RPD	Flag
CALCIUM MAGNESIUM POTASSIUM SODIUM ALUMINUM IRON	55000 9400 1400 600000 300 U 100 U	53000 9300 1400 610000	4 1 0 2 200 200	50.00 50.00 50.00 50.00 50.00	No Qualifiers Applied J(all detects) UJ(all non-detects)
		<u> </u>	200	00.00	U3(all Horr-detects)
	Concentra	ntion (ug/L)	Sample	eQAPP	
Analyte	TMW39D042015 (TOT)	DTW39D042015 (TOT)	RPD	RPD	Flag
CALCIUM MAGNESIUM POTASSIUM SODIUM	19000 2200 1200 720000	19000 2200 1100 730000	0 0 9 1	50.00 50.00 50.00 50.00	No Qualifiers Applied
Method: 6020A Matrix: AQ					
	Concentra	ntion (ug/L)			
Analyte	MW24042015 (DIS)	DMW24042015 (DIS)	Sample RPD	eQAPP RPD	Flag
ARSENIC BARIUM COBALT MANGANESE	0.65 290 0.056 450	0.60 290 0.065 440	8 0 15 2	50.00 50.00 50.00 50.00	No Qualifiers Applied
VANADIUM ZINC	0.56 4.3	6.0 U 20 U	200 200	50.00 50.00	J(all detects) UJ(all non-detects)
LINO	-	ntion (ug/L)	200	30.00	
Analyte	MW24042015 (TOT)	DMW24042015 (TOT)	Sample RPD	eQAPP RPD	Flag

50.00

No Qualifiers Applied

Laboratory: TA DEN

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67438-1

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405 Method: 6020A AQ Matrix: ARSENIC 0.53 0.81 42 50.00 **BARIUM** 290 50.00 290 0 **COBALT** 1.0 U 0.066 200 50.00 LEAD 0.38 3.0 U 200 50.00 No Qualifiers Applied **MANGANESE** 470 470 0 50.00 VANADIUM 200 50.00 6.0 U 0.67 ZINC 20 U 2.8 200 50.00 Concentration (ug/L) eQAPP Sample Analyte TMW39D042015 (DIS) DTW39D042015 (DIS) RPD RPD Flag BARIUM 11 50.00 11 0 **MANGANESE** 9 11 12 50.00 No Qualifiers Applied 9 SELENIUM 4.8 4.4 50.00 VANADIUM 3.1 3.2 3 50.00 ANTIMONY 0.62 6.0 U 200 50.00 J(all detects) **ARSENIC** 50.00 0.33 5.0 U 200 UJ(all non-detects) ZINC 50.00 20 U 2.1 200 Concentration (ug/L) Sample **eQAPP** TMW39D042015 (TOT) DTW39D042015 (TOT) RPD RPD Analyte Flag **BARIUM** 9.4 27 50.00 MANGANESE 58 50.00 No Qualifiers Applied 55 5 VANADIUM 0.58 6.0 U 200 50.00 Method: 6860 Matrix: AQ Concentration (ug/L) Sample **eQAPP** TMW39D042015 DTW39D042015 RPD **RPD** Flag Analyte **PERCHLORATE** No Qualifiers Applied Method: 9056 Matrix: AQ Concentration (mg/L) Sample **eQAPP** Flag Analyte TMW39D042015 DTW39D042015 RPD RPD NITRATE 0.86 0.87

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

Method: 9056 Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MS MW22D042015MSD (DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW39D042015 TMW49D042015 TMW40S042015 TMW48042015)	NITRITE	74	77	80.00-120.00	-	NITRITE	J (all detects) UJ (all non-detects)
Method: 6020A							

Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MS (DIS) MW22D042015MSD (DIS) (DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW39D042015 TMW48042015	ZINC	57	63	83.00-122.00	-	ZINC	J(all detects) UJ(all non-detects)

Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MS (DIS) (DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW39D042015 TMW48042015)	SODIUM	159	-	80.00-120.00	-	SODIUM	J(all detects)
MW22D042015MS (TOT) (DMW24042015 DTW39D042015 MW22D042015 MW22S042015 MW24042015 TMW31D042015 TMW31D042015 TMW48042015 TMW48042015)	SODIUM	237	-	80.00-120.00	-	SODIUM	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method:	8330B
Matrix:	40

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MSD (DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW39D042015 TMW48042015)	Octahydro-1,3,5,7-tetranitro-1,3,5,7-	-	139	80.00-115.00	-	Octahydro-1,3,5,7-tetranitro-1,3,5,	J(all detects)

Method: 8270D Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MS MW22D042015MSD (DMW24042015 DTW39D042015 MW22D042015 MW22D042015 TMW31D042015 TMW31D042015 TMW39D042015 TMW48042015)	NITROBENZENE	197	189	45.00-110.00	-	NITROBENZENE	J(all detects)
MW22D042015MS MW22D042015MSD (DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW31D042015 TMW39D042015 TMW48042015)	3,3'-DICHLOROBENZIDINE 3-NITROANILINE 4-NITROANILINE BENZALDEHYDE BENZIDINE	0 12 11 68 0	0 13 11 59 0	20.00-110.00 20.00-125.00 35.00-120.00 70.00-130.00 10.00-110.00	- - - -	3,3'-DICHLOROBENZIDINE 3-NITROANILINE 4-NITROANILINE BENZALDEHYDE BENZIDINE	J(all detects) UJ(all non-detects)

Method: 8081A Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MSD	TOXAPHENE	-	61	63.00-142.00	-	TOXAPHENE	
(DMW24042015							
DTW39D042015							
MW22D042015							J(all detects)
MW24042015							UJ(all non-detects)
TMW31D042015							
TMW39D042015							
TMW48042015)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

Method: 6860 Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW22D042015MS MW22D042015MSD (DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW31D042015 TMW48042015 TMW48042015)	PERCHLORATE	123	50	80.00-120.00	-	PERCHLORATE	J(all detects) UJ(all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010 Matrix: AQ)C			
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271527/1-A	4/9/2015 1:39:00 PM	SODIUM	247 ug/L	DMW24042015 DTW39D042015 MW22D042015 MW24042015 TMW31D042015 TMW39D042015 TMW48042015
MB 280-271533/1-A	4/9/2015 2:37:00 PM	SODIUM	212 ug/L	DMW24042015 DTW39D042015 MW22D042015 MW22S042015 MW24042015 TMW31D042015 TMW39D042015 TMW48042015

Method: 6020A Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271530/1-A	4/16/2015 1:11:00 AM	THALLIUM	0.0750 ug/L	DMW24042015 DTW39D042015 MW22D042015 MW22S042015 MW24042015 TMW31D042015 TMW39D042015 TMW48042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
MW22D042015(RES/TOT)	THALLIUM	0.062 ug/L	0.062U ug/L
MW22S042015(RES/TOT)	THALLIUM	0.22 ug/L	0.22U ug/L
TMW31D042015(RES/TOT)	THALLIUM	0.075 ug/L	0.075U ug/L

Method: 8260B Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-272203/6	4/10/2015 6:51:00 PM	METHYLENE CHLORIDE	0.484 ug/L	DMW24042015 DTW39D042015 MW22D042015 MW24042015 TB-04-042015 TMW31D042015 TMW39D042015 TMW48042015

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DMW24042015	ALUMINUM POTASSIUM	J	21 790	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
DTW39D042015	ALUMINUM IRON POTASSIUM	J J	19 34 1400	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
MW22D042015	POTASSIUM	J	460	3000	LOQ	ug/L	J (all detects)
MW22S042015	POTASSIUM	J	1900	3000	LOQ	ug/L	J (all detects)
MW24042015	ALUMINUM POTASSIUM	J	23 790	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW31D042015	POTASSIUM	J	1200	3000	LOQ	ug/L	J (all detects)
TMW39D042015	POTASSIUM	J	1400	3000	LOQ	ug/L	J (all detects)
TMW48042015	POTASSIUM	J	1100	3000	LOQ	ug/L	J (all detects)

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DMW24042015	ARSENIC COBALT VANADIUM ZINC	J J J	0.60 0.065 0.67 2.8	5.0 1.0 6.0 20	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
DTW39D042015	SELENIUM VANADIUM ZINC	J	4.4 3.2 2.1	5.0 6.0 20	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
MW22D042015	ARSENIC COBALT COPPER NICKEL THALLIUM VANADIUM ZINC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.45 0.19 1.1 0.91 0.062 1.2 10	5.0 1.0 2.0 3.0 1.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
MW22S042015	ANTIMONY ARSENIC BERYLLIUM CHROMIUM SILVER THALLIUM	J JQ J	0.64 3.5 0.96 6.1 0.22 0.22	6.0 5.0 1.0 10 5.0 1.0	LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
MW24042015	ARSENIC COBALT LEAD VANADIUM ZINC)))	0.65 0.056 0.38 0.56 4.3	5.0 1.0 3.0 6.0 20	LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L	J (all detects)

Project Name and Number: 102012 - FWDA 102012 GW

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

EDD Filename: 280-67438-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW31D042015	ANTIMONY ARSENIC COBALT COPPER MANGANESE NICKEL SILVER THALLIUM VANADIUM ZINC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.8 0.46 0.10 1.2 2.6 0.51 0.034 0.12 5.6 19	6.0 5.0 1.0 2.0 3.5 3.0 5.0 1.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW39D042015	ANTIMONY ARSENIC SELENIUM VANADIUM	J	0.62 0.33 4.8 3.1	6.0 5.0 5.0 6.0	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
TMW48042015	ARSENIC COPPER NICKEL VANADIUM ZINC	7 7 7	0.72 0.96 0.64 5.7 11	5.0 2.0 3.0 6.0 20	LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L	J (all detects)

Method: 8015C DRO

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW22D042015	DIESEL RANGE ORGANICS	JM	0.044	0.25	LOQ	mg/L	J (all detects)
MW22S042015	DIESEL RANGE ORGANICS	JM	0.25	0.27	LOQ	mg/L	J (all detects)

Method: 8270D

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW31D042015	1,2-DIPHENYLHYDRAZINE	J	0.37	9.5	LOQ	ug/L	
	ACENAPHTHENE	J	0.31	9.5	LOQ	ug/L	
	Benz[a]anthracene	J	0.46	9.5	LOQ	ug/L	
	DIBENZOFURAN	J	0.34	9.5	LOQ	ug/L	
	DIETHYL PHTHALATE	J	0.55	19	LOQ	ug/L	I (all datacta)
	FLUORANTHENE	J	0.36	19	LOQ	ug/L	J (all detects)
	FLUORENE	J	0.37	9.5	LOQ	ug/L	
	N-NITROSODIPHENYLAMINE	J	0.73	9.5	LOQ	ug/L	
	PHENANTHRENE	J	0.44	9.5	LOQ	ug/L	
	PYRENE	J	0.38	9.5	LOQ	ug/L	

Project Name and Number: 102012 - FWDA 102012 GW



Approved By: Laboratory: TA DEN Reviewed By: Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67438-1 Method: 6010C DMW24042015 S2AVE 280-67438-8 FD 3005A 4/6/2015 12:40:00 PM AQ DMW24042015 280-67438-8 AQ FD 3010A 4/6/2015 12:40:00 PM S2AVE DTW39D042015 280-67438-4 FD 3005A 4/6/2015 9:40:00 AM S2AVE AQ DTW39D042015 280-67438-4 FD 3010A 4/6/2015 9:40:00 AM S2AVE AQ S2AVE MW22D042015 280-67438-9 AQ Ν 3005A 4/6/2015 10:30:00 AM S2AVE MW22D042015 280-67438-9 AQ Ν 3010A 4/6/2015 10:30:00 AM MW22D042015MS 280-67438-9MS MS S2AVE AQ 3005A 4/6/2015 10:30:00 AM MW22D042015MS 280-67438-9MS AQ MS 3010A 4/6/2015 10:30:00 AM S2AVE MW22D042015MSD 280-67438-9MSD MSD 3005A 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MSD 280-67438-9MSD MSD 3010A 4/6/2015 10:30:00 AM S2AVE AQ S2AVE MW22S042015 280-67438-10 AQ Ν 3010A 4/6/2015 9:30:00 AM S2AVE MW24042015 280-67438-7 AQ Ν 3005A 4/6/2015 12:40:00 PM S2AVE MW24042015 280-67438-7 AQ Ν 3010A 4/6/2015 12:40:00 PM TMW31D042015 280-67438-1 AQ Ν 3005A 4/6/2015 12:15:00 PM S2AVE TMW31D042015 280-67438-1 Ν 3010A S2AVE AQ 4/6/2015 12:15:00 PM S2AVE TMW39D042015 280-67438-2 Ν 3005A 4/6/2015 9:40:00 AM AQ S2AVE TMW39D042015 280-67438-2 Ν 3010A AQ 4/6/2015 9:40:00 AM TMW48042015 280-67438-3 Ν 3005A 4/6/2015 11:06:00 AM S2AVE AQ TMW48042015 S2AVE 280-67438-3 Ν 3010A 4/6/2015 11:06:00 AM AQ Method: 6020A DMW24042015 280-67438-8 AQ FD 3005A 4/6/2015 12:40:00 PM S2AVE DMW24042015 280-67438-8 AQ FD 3020A 4/6/2015 12:40:00 PM S2AVE DTW39D042015 280-67438-4 3005A 4/6/2015 9:40:00 AM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 8:41:29 AM Page 1 of 7



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6020A DTW39D042015 280-67438-4 FD 3020A S2AVE 4/6/2015 9:40:00 AM AQ MW22D042015 280-67438-9 Ν 3005A S2AVE AQ 4/6/2015 10:30:00 AM MW22D042015 280-67438-9 AQ Ν 3020A 4/6/2015 10:30:00 AM S2AVE MW22D042015MS S2AVE 280-67438-9MS MS 3005A 4/6/2015 10:30:00 AM AQ MW22D042015MS 280-67438-9MS MS 3020A 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MSD MSD S2AVE 280-67438-9MSD AQ 3005A 4/6/2015 10:30:00 AM MW22D042015MSD 280-67438-9MSD MSD 3020A 4/6/2015 10:30:00 AM S2AVE AQ MW22S042015 280-67438-10 S2AVE AQ Ν 3020A 4/6/2015 9:30:00 AM MW24042015 280-67438-7 AQ Ν 3005A 4/6/2015 12:40:00 PM S2AVE MW24042015 280-67438-7 Ν 3020A 4/6/2015 12:40:00 PM S2AVE AQ S2AVE TMW31D042015 280-67438-1 AQ Ν 3005A 4/6/2015 12:15:00 PM TMW31D042015 S2AVE 280-67438-1 AQ Ν 3020A 4/6/2015 12:15:00 PM S2AVE TMW39D042015 280-67438-2 AQ Ν 3005A 4/6/2015 9:40:00 AM TMW39D042015 280-67438-2 AQ Ν 3020A 4/6/2015 9:40:00 AM S2AVE 280-67438-3 S2AVE TMW48042015 AQ Ν 3005A 4/6/2015 11:06:00 AM TMW48042015 280-67438-3 Ν 3020A 4/6/2015 11:06:00 AM S2AVE AQ Method: 6860 DMW24042015 280-67438-8 FD **METHOD** 4/6/2015 12:40:00 PM S2AVE AQ DTW39D042015 280-67438-4 AQ FD **METHOD** 4/6/2015 9:40:00 AM S2AVE MW22D042015 280-67438-9 Ν **METHOD** 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MS 280-67438-9MS MS **METHOD** 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MSD 280-67438-9MSD AQ MSD **METHOD** 4/6/2015 10:30:00 AM S2AVE **METHOD** S2AVE MW24042015 280-67438-7 AQ Ν 4/6/2015 12:40:00 PM S2AVE TMW31D042015 280-67438-1 AΩ Ν **METHOD** 4/6/2015 12:15:00 PM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) Page 2 of 7 5/18/2015 8:41:29 AM



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6860 TMW39D042015 280-67438-2 Ν **METHOD** 4/6/2015 9:40:00 AM S2AVE AQ TMW48042015 280-67438-3 Ν **METHOD** 4/6/2015 11:06:00 AM S2AVE AQ Method: 7470A DMW24042015 280-67438-8 FD 7470A 4/6/2015 12:40:00 PM S2AVE AQ FD S2AVE DTW39D042015 280-67438-4 AQ 7470A 4/6/2015 9:40:00 AM MW22D042015 280-67438-9 AQ Ν 7470A 4/6/2015 10:30:00 AM S2AVE MW22D042015MS 280-67438-9MS AQ MS 7470A 4/6/2015 10:30:00 AM S2AVE 280-67438-9MSD MSD 7470A S2AVE MW22D042015MSD AQ 4/6/2015 10:30:00 AM S2AVE MW22S042015 280-67438-10 Ν 7470A 4/6/2015 9:30:00 AM AQ S2AVE MW24042015 280-67438-7 AQ Ν 7470A 4/6/2015 12:40:00 PM TMW31D042015 280-67438-1 Ν 7470A 4/6/2015 12:15:00 PM S2AVE AQ S2AVE TMW39D042015 280-67438-2 AQ Ν 7470A 4/6/2015 9:40:00 AM TMW48042015 280-67438-3 AQ Ν 7470A 4/6/2015 11:06:00 AM S2AVE Method: 8015C DRO MW22D042015 280-67438-9 Ν 3510C 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MS 280-67438-9MS MS 3510C 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MSD 280-67438-9MSD MSD 3510C 4/6/2015 10:30:00 AM S2AVE AQ MW22S042015 280-67438-10 3510C S2AVE AQ Ν 4/6/2015 9:30:00 AM Method: 8015C GRO MW22D042015 280-67438-9 **METHOD** S2AVE AQ Ν 4/6/2015 10:30:00 AM MW22D042015MS 280-67438-9MS MS **METHOD** S2AVE AQ 4/6/2015 10:30:00 AM S2AVE MW22D042015MSD 280-67438-9MSD AQ MSD **METHOD** 4/6/2015 10:30:00 AM S2AVE TB-43-042015 280-67438-6 AQ TB **METHOD** 4/6/2015 8:00:00 AM



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 8081A DMW24042015 280-67438-8 FD 3510C 4/6/2015 12:40:00 PM S2AVE AQ DTW39D042015 280-67438-4 FD 3510C 4/6/2015 9:40:00 AM S2AVE AQ MW22D042015 280-67438-9 AQ Ν 3510C 4/6/2015 10:30:00 AM S2AVE MW22D042015MS S2AVE 280-67438-9MS MS 3510C 4/6/2015 10:30:00 AM AQ MW22D042015MSD 280-67438-9MSD MSD 3510C 4/6/2015 10:30:00 AM S2AVE AQ MW24042015 S2AVE 280-67438-7 AQ Ν 3510C 4/6/2015 12:40:00 PM TMW31D042015 280-67438-1 Ν 3510C 4/6/2015 12:15:00 PM S2AVE AQ 280-67438-2 TMW39D042015 S2AVE AQ Ν 3510C 4/6/2015 9:40:00 AM TMW48042015 280-67438-3 AQ Ν 3510C 4/6/2015 11:06:00 AM S2AVE Method: 8260B DMW24042015 280-67438-8 FD 4/6/2015 12:40:00 PM S2AVE AQ 5030 S2AVE DTW39D042015 280-67438-4 AQ FD 4/6/2015 9:40:00 AM 5030 MW22D042015 280-67438-9 Ν 4/6/2015 10:30:00 AM S2AVE AQ 5030 MW22D042015MS 280-67438-9MS MS S2AVE 4/6/2015 10:30:00 AM AQ 5030 S2AVE MW22D042015MSD 280-67438-9MSD MSD 4/6/2015 10:30:00 AM AQ 5030 MW24042015 280-67438-7 AQ Ν 4/6/2015 12:40:00 PM S2AVE 5030 S2AVE TB-04-042015 280-67438-5 TB 4/6/2015 8:00:00 AM AQ 5030 TMW31D042015 280-67438-1 Ν 4/6/2015 12:15:00 PM S2AVE AQ 5030 TMW39D042015 280-67438-2 AQ Ν 4/6/2015 9:40:00 AM S2AVE 5030 TMW48042015 280-67438-3 Ν 4/6/2015 11:06:00 AM S2AVE AQ 5030 Method: 8270D DMW24042015 280-67438-8 FD 3520C S2AVE 4/6/2015 12:40:00 PM AQ DTW39D042015 280-67438-4 FD 3520C 4/6/2015 9:40:00 AM S2AVE AQ MW22D042015 280-67438-9 Ν 3520C 4/6/2015 10:30:00 AM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 8:41:29 AM Page 4 of 7



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 8270D MW22D042015MS MS 3520C S2AVE 280-67438-9MS 4/6/2015 10:30:00 AM AQ MW22D042015MSD 280-67438-9MSD MSD 3520C S2AVE AQ 4/6/2015 10:30:00 AM MW24042015 280-67438-7 AQ Ν 3520C 4/6/2015 12:40:00 PM S2AVE S2AVE TMW31D042015 280-67438-1 Ν 3520C 4/6/2015 12:15:00 PM AQ TMW39D042015 280-67438-2 Ν 3520C 4/6/2015 9:40:00 AM S2AVE AQ TMW48042015 3520C S2AVE 280-67438-3 AQ Ν 4/6/2015 11:06:00 AM Method: 8330B DMW24042015 280-67438-8 FD S2AVE AQ 4/6/2015 12:40:00 PM 3535 S2AVE DTW39D042015 280-67438-4 FD AQ 4/6/2015 9:40:00 AM 3535 MW22D042015 280-67438-9 AQ Ν 4/6/2015 10:30:00 AM S2AVE 3535 MW22D042015MS 280-67438-9MS MS S2AVE AQ 4/6/2015 10:30:00 AM 3535 S2AVE MW22D042015MSD 280-67438-9MSD AQ MSD 4/6/2015 10:30:00 AM 3535 MW24042015 280-67438-7 Ν 4/6/2015 12:40:00 PM S2AVE AQ 3535 TMW31D042015 280-67438-1 S2AVE Ν 4/6/2015 12:15:00 PM AQ 3535 S2AVE TMW39D042015 280-67438-2 Ν 4/6/2015 9:40:00 AM AQ 3535 S2AVE TMW48042015 280-67438-3 AQ Ν 4/6/2015 11:06:00 AM 3535 Method: 9056 DMW24042015 FD **METHOD** S2AVE 280-67438-8 AQ 4/6/2015 12:40:00 PM S2AVE DTW39D042015 280-67438-4 FD **METHOD** AQ 4/6/2015 9:40:00 AM MW22D042015 280-67438-9 AQ Ν **METHOD** 4/6/2015 10:30:00 AM S2AVE MW22D042015DUP 280-67438-9DUP DUP **METHOD** 4/6/2015 10:30:00 AM S2AVE AQ MS S2AVE MW22D042015MS 280-67438-9MS **METHOD** 4/6/2015 10:30:00 AM AQ MW22D042015MSD 280-67438-9MSD MSD **METHOD** 4/6/2015 10:30:00 AM S2AVE AQ S2AVE MW24042015 280-67438-7 Ν **METHOD** 4/6/2015 12:40:00 PM AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/18/2015 8:41:29 AM Page 5 of 7



Reviewed By:			Approved By:	Laboratory: TA DEN		
Client Sample ID	Lab Sample ID	Matrix	Matrix Sample Type Preparation Method			Validation Code
Method: 9056						
TMW31D042015	280-67438-1	AQ	N	METHOD	4/6/2015 12:15:00 PM	S2AVE
TMW39D042015	280-67438-2	AQ	N	METHOD	4/6/2015 9:40:00 AM	S2AVE
TMW40S042015	280-67438-11	AQ	N	METHOD	4/6/2015 8:30:00 AM	S2AVE
TMW48042015	280-67438-3	AQ	N	METHOD	4/6/2015 11:06:00 AM	S2AVE



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67438-1 Laboratory: TA DEN

Method: 82601 Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TB-04-042015	DIBROMOFLUOROMETHANE	116	85.00-115.00	All Target Analytes	J (all detects)

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67438-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for seven water samples received April 7, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 3.5°C, 4.3°C, 4.3°C, 2.6°C, 5.5°C, 2.4°C, 0.4°C, 0.4°C, 0.3°C, 5.1°C and 3.6°C.

One of four 1L amber bottles was received broken for sample DMW24042015 (280-67438-8). Sufficient volume remains for analysis. The client was notified on April 7, 2015.

Relinquished By information is missing from the last page of the chain-of-custody. The client was notified on April 7, 2015.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67438-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW31D042015 (280-67438-1), TMW39D042015 (280-67438-2), TMW48042015 (280-67438-3), DTW39D042015 (280-67438-4), MW24042015 (280-67438-7), DMW24042015 (280-67438-8) and MW22D042015 (280-67438-9) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/09/2015 and analyzed on 04/17/2015 and 04/18/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67438-2

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC DMW24042015 QC Type: FD		
цо турс.	MW24042015	4/6/2015 12:40:00 PM
Field QC DTW39D042015 QC Type: FD		
	TMW39D042015	4/6/2015 9:40:00 AM



Lab Reporting Batch ID: 280-67438-2

EDD Filename: 280-67438-2

Laboratory: TA DEN

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67438-2

Laboratory: TA DEN

EDD Filename: 280-67438-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

Technical Holding Times	А
Temperature	A
Initial Calibration	N
Continuing Calibration/Initial Calibration Verification	N
Method Blanks	A
Surrogate/Tracer Spikes	A
Matrix Spike/Matrix Spike Duplicates	A
Laboratory Duplicates	N
Laboratory Replicates	N
Laboratory Control Samples	A
Compound Quantitation	A
Field Duplicates	A
Field Triplicates	N
Field Blanks	N



Data Review Sample Summary Report by Analysis Method

Reviewed By: Approved By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Validation Code Method Lab Reporting Batch: 280-67438-2 Method: 8270D DMW24042015 280-67438-8 FD 4/6/2015 12:40:00 PM S2AVE AQ 3520C DTW39D042015 280-67438-4 AQ FD 3520C 4/6/2015 9:40:00 AM S2AVE MW22D042015 280-67438-9 Ν 3520C 4/6/2015 10:30:00 AM S2AVE AQ MW22D042015MS 280-67438-9MS MS 3520C 4/6/2015 10:30:00 AM S2AVE AQ MSD S2AVE MW22D042015MSD 280-67438-9MSD AQ 3520C 4/6/2015 10:30:00 AM MW24042015 280-67438-7 3520C 4/6/2015 12:40:00 PM S2AVE AQ Ν TMW31D042015 280-67438-1 Ν 3520C 4/6/2015 12:15:00 PM S2AVE AQ S2AVE TMW39D042015 280-67438-2 AQ Ν 3520C 4/6/2015 9:40:00 AM TMW48042015 280-67438-3 Ν 3520C 4/6/2015 11:06:00 AM S2AVE AQ



Data Review Sample Summary Report by Analysis Method

Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67484-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for eleven water samples received April 8, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 2.5°C, 0.3°C, 0.3°C, 0.3°C, 0.3°C, 0.3°C, 1.3°C and 1.0°C.

Please note the Caprolactam data are reported under separate cover (280-67484-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), TB-05-042015 (280-67484-4), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/10/2015 and 04/11/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Surrogate Dibromofluoromethane was recovered above the QC control limits in sample TB-05-042015 (280-67484-4). This is an indicator that data may be biased high. As the sample does not contain any detectable concentrations for constituents associated with this surrogate, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

Methylene Chloride was detected in method blank MB 280-272203/6 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples MW23042015 (280-67484-5) and DMW23042015 (280-67484-6) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/09/2015 and 04/20/2015 and analyzed on 04/18/2015 and 04/25/2015.

Please note the Caprolactam data are reported under separate cover (280-67484-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows:

The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 11-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

Due to a low surrogate recovery, sample DMW23042015 (280-67484-6) was re-extracted out of the prescribed hold time and reanalyzed. To be compliant with the client's instructions on previous samples performed/extracted past hold time, both sets of data have been reported. Please note that the sample results should be considered estimated.

Surrogate Terphenyl-d14 was recovered below the QC control limits in sample DMW23042015 (280-67484-6). This is an indicator that data may be biased low. Upon re-extraction past hold time and reanalysis, surrogate recoveries were 100% in control. To be compliant with the client's instructions on previous samples performed/extracted past hold time, both sets of data have been reported. The associated data have been flagged "Q" in accordance with the DOD QSM.

The LCS/LCSD associated with prep batch 280-273624 exhibited a percent recovery below the QC control limits for 2,3,4,6-Tetrachlorophenol. The recovery is within marginal exceedance limits (69-111%); therefore, corrective action was not performed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271917 was performed on sample MW23042015 (280-67484-5). The MS/MSD exhibited spike compound recoveries outside the QC control limits for 3,3'-Dichlorobenzidine, Benzaldehyde and Benzidine. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-273624 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples MW23042015 (280-67484-5) and DMW23042015 (280-67484-6) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/13/2015 and analyzed on 04/15/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Samples MB 280-272509/1-A and LCS 280-272509/2-A required a mercury clean-up to reduce matrix interference caused by sulfur.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with prep batch 280-272509 was performed on sample MW23042015 (280-67484-5). The MS/MSD exhibited a spike compound recovery outside the QC control limits for Toxaphene. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9) and TMW26042015 (280-67484-10) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/13/2015 and analyzed on 04/15/2015 and 04/16/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW27042015 (280-67484-2), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/17/2015 and 04/20/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the calibration curve, sample TMW01042015 (280-67484-9) had to be analyzed at a dilution. The reporting limits and method detection limits have been adjusted relative to the dilution required.

MS/MSD analyses for analytical batch 280-273667 were not requested.

The closing Continuing Calibration Blank (CCB) associated with analytical batch 280-273667 did not contain enough volume in the vial; therefore, the internal standard (IS) recovery was low. A new CCB was re-injected two times after to show the instrument is in control. Results were within control limits for the IS and non-detect for Perchlorate.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/09/2015 and analyzed on 04/09/2015 and 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

The MS/MSD associated with prep batch 280-271734 was performed on sample MW23042015 (280-67484-5). The MS/MSD exhibited spike compound recoveries outside the control limits for Aluminum. In addition, the MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/09/2015 and analyzed on 04/13/2015, 04/25/2015 and 04/29/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with prep batch 280-271723 was performed on sample MW23042015 (280-67484-5). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD OSM

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271723 was performed on sample MW23042015 (280-67484-5). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the SD performed on this sample was in control. In addition, the SD exhibited percent recoveries outside the control limits for Calcium and Magnesium; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/09/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Silver was detected in method blank MB 280-271732/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271732 was performed on sample MW23042015 (280-67484-5). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Barium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The ICSA solution associated with analytical batch 280-272121 was above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium and Chromium. The laboratory has confirmed with the vendor that these elements are trace impurities in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/09/2015 and analyzed on 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Selenium was detected in method blank MB 280-271721/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD OSM

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/15/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW28042015 (280-67484-1), TMW27042015 (280-67484-2), TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/13/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW25042015 (280-67484-3), MW23042015 (280-67484-5), DMW23042015 (280-67484-6), DTW26042015 (280-67484-7), TMW10042015 (280-67484-8), TMW01042015 (280-67484-9), TMW26042015 (280-67484-10) and TMW17042015 (280-67484-11) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/08/2015 and 04/09/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Due to a failed CCV in the original in hold analysis, sample DMW23042015 (280-67484-6) was reanalyzed past holding time for Nitrite. Please note that the sample results should be considered estimated.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, sample TMW10042015 (280-67484-8) had to be analyzed at a dilution. The reporting limits and method detection limits have been adjusted relative to the dilution required.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67484-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC DMW23042015 QC Type: FD		
	MW23042015	4/7/2015 9:40:00 AM
Field QC DTW26042015 QC Type: FD		
	TMW26042015	4/7/2015 1:55:00 PM
TI 1100 TD 05 040045		
Field QC TB-05-042015 QC Type: TB		
	DMW23042015	4/7/2015 9:40:00 AM
	DTW26042015	4/7/2015 1:55:00 PM
	MW23042015	4/7/2015 9:40:00 AM
	TMW01042015	4/7/2015 9:05:00 AM
	TMW10042015	4/7/2015 11:40:00 AM
	TMW17042015	4/7/2015 1:50:00 PM
	TMW25042015	4/7/2015 9:50:00 AM
	TMW26042015	4/7/2015 1:55:00 PM
	TMW27042015	4/7/2015 8:50:00 AM
	TMW28042015	4/7/2015 11:50:00 AM



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW2304	12015								
1,2,4,5-TETRACHLOROBE	ENZENE 8270D	RE2	2.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
1,2,4-TRICHLOROBENZEI	NE 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
1,2-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
1,2-DIPHENYLHYDRAZINI	E 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
1,3-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, marg	inal low te	erphyl d14 only, no flags needed.				
1,4-DICHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
2,3,4,6-TETRACHLOROPH	HENOL 8270D	RE2	2.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
2,4,5-TRICHLOROPHENO	L 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, margi	inal low te	erphyl d14 only, no flags needed.				
2,4,6-TRICHLOROPHENO	L 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, marg	inal low te	erphyl d14 only, no flags needed.				
2,4-DICHLOROPHENOL	8270D	RE2	2.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold,	using th eoringinal	sample, marg	inal low te	erphyl d14 only, no flags needed.				

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW23042	015								
2,4-DIMETHYLPHENOL	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal s	ample, marg	jinal low to	erphyl d14 only, no flags needed.				
2,4-DINITROPHENOL	8270D	RE2	20	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2,4-DINITROTOLUENE	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2,6-DICHLOROPHENOL	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2,6-DINITROTOLUENE	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2-CHLORONAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2-CHLOROPHENOL	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2-METHYLNAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	jinal low te	erphyl d14 only, no flags needed.				
2-METHYLPHENOL	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	jinal low to	erphyl d14 only, no flags needed.				
2-NITROANILINE	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal s	ample, marg	jinal low to	erphyl d14 only, no flags needed.				
2-NITROPHENOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal s	ample, marg	inal low to	erphyl d14 only, no flags needed.				

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Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW230420	015								
3,3'-DICHLOROBENZIDINE	8270D	RE2	10	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
3-NITROANILINE	8270D	RE2	2.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
4,6-DINITRO-2-METHYLPHE	NOL 8270D	RE2	10	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
4-BROMOPHENYL PHENYL	ETHER 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
4-CHLORO-3-METHYLPHEN	I OL 8270D	RE2	5.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
4-CHLOROANILINE	8270D	RE2	5.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, margi	inal low t	erphyl d14 only, no flags needed.				
4-CHLOROPHENYL-PHENYI		RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
4-NITROANILINE	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
4-NITROPHENOL	8270D	RE2	10	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
ACENAPHTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, marg	inal low t	erphyl d14 only, no flags needed.				
ACENAPHTHYLENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, us	sing th eoringinal s	ample, margi	inal low t	erphyl d14 only, no flags needed.				

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW230420	015								
ACETOPHENONE	8270D	RE2	5.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BARIUM	6020A	RES/TOT	150	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
Reason for change:	4X rule								
Benz[a]anthracene	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BENZALDEHYDE	8270D	RE2	2.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BENZIDINE	8270D	RE2	100	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BENZO(A)PYRENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BENZO(B)FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low to	erphyl d14 only, no flags needed.				
BENZO(G,H,I)PERYLENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BENZO(K)FLUORANTHENE		RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
BENZOIC ACID	8270D	RE2	51	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW2304201	5								
BENZYL ALCOHOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
BIS(2-CHLOROETHOXY)METH	HANE 8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
BIS(2-CHLOROETHYL) ETHER	R 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
BIS(2-CHLOROISOPROPYL)	THER 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
BIS(2-ETHYLHEXYL) PHTHAL		RE2	0.77	ug/L	Sampling to Extraction Rejection		J	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
Butyl Benzyl Phthlate	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
CARBAZOLE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
CHRYSENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
DIBENZ(A,H)ANTHRACENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
DIBENZOFURAN	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low te	erphyl d14 only, no flags needed.				
Dibutyl phthalate	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	th eoringinal sa	mple, margi	inal low to	erphyl d14 only, no flags needed.				

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW230420	015								
DIETHYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
DIMETHYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
DI-N-OCTYL PHTHALATE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
FLUORANTHENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low to	erphyl d14 only, no flags needed.				
FLUORENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
HEXACHLOROBENZENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
HEXACHLOROBUTADIENE	8270D	RE2	10	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
HEXACHLOROCYCLOPENT		RE2	20	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low to	erphyl d14 only, no flags needed.				
HEXACHLOROETHANE	8270D	RE2	4.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low te	erphyl d14 only, no flags needed.				
Indeno[1,2,3-cd]pyrene	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low to	erphyl d14 only, no flags needed.				
ISOPHORONE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usin	g th eoringinal s	ample, marg	inal low to	erphyl d14 only, no flags needed.				

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DMW23042	015								
M,P-CRESOL	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
NAPHTHALENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
NITROBENZENE	8270D	RE2	2.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
N-NITROSODIMETHYLAMIN	IE 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
N-NITROSO-DI-N-PROPYLA	MINE 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
N-NITROSODIPHENYLAMIN	IE 8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
PENTACHLOROPHENOL	8270D	RE2	41	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
PHENANTHRENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, usir	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
PHENOL	8270D	RE2	5.1	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
PYRENE	8270D	RE2	1.0	ug/L	Sampling to Extraction Rejection		R	5/15/2015	13:43
Reason for change:	rejecting the over hold, using	ng th eoringinal sa	ample, marg	inal low t	erphyl d14 only, no flags needed.				
SODIUM	6010C	RE2/TOT	480000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Reason for change:	4X rule								

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DTW26042	015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	22	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	930000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Field Sample ID: MW230420	15									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	160	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	480000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Field Sample ID: TMW01042	015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	14	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	580000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Field Sample ID: TMW10042	015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	18	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	1800000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW17042	2015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	19	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	510000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Field Sample ID: TMW25042	2015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	15	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	830000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Field Sample ID: TMW26042	2015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	22	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	770000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49
Field Sample ID: TMW27042	2015									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	120	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	390000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW2804201	5									
BARIUM Reason for change:	4X rule	6020A	RES/TOT	79	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	13:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	430000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	13:49

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67484-1

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: GENCHEM

Method: 9056 Matrix: AQ

Sample ID:DMW23042015	Collec	ted:4/7/20	15 9:40:	00 AM A	nalysis 1	Type:RE2	/TOT		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRITE	0.10	UН	0.10	LOD	0.50	LOQ	mg/L	UJ	StoA

4/7/2015 11:40:00 Collected: AM Sample ID:TMW10042015 Analysis Type: RES/TOT Dilution: 2 Data Lab Lab DL RL Review Reason Analyte Result Qual DL Type RL Type Units Qual Code NITRATE 0.17 J D 0.20 LOD 1.0 LOQ RΙ

Sample ID:TMW25042015 Collected: 4/7/2015 9:50:00 AM Analysis Type: RES/TOT Dilution: 1 Data DL Lab Lab RL Review Reason DL RL Units Analyte Result Qual Type Type Qual Code NITRATE 0.45 LOD LOQ RΙ 0.10 0.50 mg/L

Method Category: METALS

Method: Matrix: AQ

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RE2/DIS Dilution: 1 Data Lab Lab DL RL Reason Review Analyte Result Qual DL Туре RL Туре Units Qual Code IRON LOD RI, Fd LOQ

Sample ID:DMW23042015 Collected: 4/7/2015 9:40:00 AM Analysis Type: RE3/DIS Dilution: 1 Data Lab Lab DL Review Reason Analyte Result Qual DL Type RL Type Units Qual Code SODIUM 460000 LOD 5000 LOQ Ms

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	68	J	31	LOD	300	LOQ	ug/L	J	RI, Fd
POTASSIUM	1600	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:DMW23042015 Collected: 4/7/2015 9:40:00 AM Analysis Type: RES/TOT Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL Type RL Type **Units** Qual Code

31

LOD

300

LOQ

ug/L

ALUMINUM

Project Name and Number: 102012 - FWDA 102012 GW

1500

Ms

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS	
Method:	6010C	Matrix: AQ

Sample ID:DMW23042015	Collec	ted:4/7/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1700	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:DTW26042015	Collec	ted:4/7/20	15 1:55:0	00 PM <i>A</i>	nalysis 1	ype:RE3	/DIS		Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
										1
SODIUM	810000		250	LOD	5000	LOQ	ug/L	J	Ms	

Sample ID:DTW26042015	Collected:4/7/2015 1:55:00 PM Analysis Type:RES/DIS						/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	680	J	250	LOD	3000	LOQ	ug/L	J	RI	

Sample ID:DTW26042015	Collec	Collected:4/7/2015 1:55:00 PM Analysis Type:RES/TOT							Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	330		31	LOD	300	LOQ	ug/L	J	Ms		
POTASSIUM	700	J	250	LOD	3000	LOQ	ug/L	J	RI		

Sample ID:MW23042015	Collec	ted:4/7/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	470000	J	250	LOD	5000	LOQ	ug/L	J	Ms

Sample ID:MW23042015	Collected:4/7/2015 9:40:00 AM Analysis Type:RES/DIS								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	31	U	31	LOD	300	LOQ	ug/L	UJ	Fd		
IRON	30	U	30	LOD	100	LOQ	ug/L	UJ	Fd		
POTASSIUM	1500	J	250	LOD	3000	LOQ	ug/L	J	RI		

Sample ID:MW23042015	Collec	Collected:4/7/2015 9:40:00 AM Analysis Type:RES/TO						Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	1800	J	31	LOD	300	LOQ	ug/L	J	Ms		
POTASSIUM	1800	J	250	LOD	3000	LOQ	ug/L	J	RI		

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280)-67484-1					eQA	PP Nam	e: FtWir	ngate_Pr	imary_120405		
Method Category:	METALS											
Method:	6010C			Má	atrix:	AQ						
Sample ID:TMW01042	015	Collec	ted:4/7/20	15 9:05:0	00 AM <i>A</i>	nalysis 1	Type:RE3	/DIS		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SODIUM		550000		250	LOD	5000	LOQ	ug/L	J	Ms		
Sample ID:TMW01042	015	Collec	ted:4/7/20	15 9:05:	00 AM <i>A</i>	nalysis 1	Type:RES	/DIS	IS Dilution: 1			
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM		670	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW01042	015	Collec	ted:4/7/20	15 9:05:	00 AM <i>A</i>	nalysis 1	Type:RES	/тот		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM		510	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW10042	015	Collec	4/7/20 cted: AM	15 11:40	:00 <i>A</i>	nalysis 1	Type:RE3	/DIS		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SODIUM		1800000		250	LOD	5000	LOQ	ug/L	J	Ms		
Sample ID:TMW10042	015	Collec	4/7/20 cted: AM	15 11:40		nalysis 1	Type:RES	/DIS		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM		1300	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW10042	015	Collec	4/7/20 cted: AM	15 11:40		nalysis 1	Гуре:RES	/тот		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM		1100	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW17042	015	Collec	ted:4/7/20	15 1:50:	00 PM <i>A</i>	nalysis 1	Type:RE2	/DIS		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
IRON		32	J	30	LOD	100	LOQ	ug/L	J	RI		
Sample ID:TMW17042	015	Collec	ted:4/7/20	15 1:50:	00 PM <i>A</i>	nalysis 1	Type:RE3	/DIS		Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SODIUM		400000		250	LOD	5000	LOQ	ug/L	J	Ms		
					•		•	-				

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS	
Method:	6010C	Matrix: AQ

Sample ID:TMW17042015	Collected:4/7/2015 1:50:00 PM Analysis Type:RES/DIS								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	110	J	31	LOD	300	LOQ	ug/L	J	RI		
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI		

Sample ID:TMW17042015	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	510		31	LOD	300	LOQ	ug/L	J	Ms
POTASSIUM	990	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW25042015	Collec	ted:4/7/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	830000		250	LOD	5000	LOQ	ug/L	J	Ms

Sample ID:TMW25042015	D:TMW25042015 Collected:4/7/2015 9:50:00 AM Analysis Type:RES/DIS								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	590	J	250	LOD	3000	LOQ	ug/L	J	RI		

Sample ID:TMW25042015	Collec	cted:4/7/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	300		31	LOD	300	LOQ	ug/L	J	Ms
POTASSIUM	640	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW26042015	Collec	cted:4/7/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	870000		250	LOD	5000	LOQ	ug/L	J	Ms

Sample ID:TMW26042015	Collec	ted:4/7/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	750	J	250	LOD	3000	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename. 200-07404-1					EQA	rr Ivalli	e. FLVVII	igate_Fi	iiiiai y_ 1 2 04		
Method Category: METALS											
Method: 6010C			Má	atrix:	AQ						
Sample ID:TMW26042015	Collec	ted:4/7/20	15 1:55:	00 PM <i>A</i>	nalysis 1	Type:RES	/тот		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	250	J	31	LOD	300	LOQ	ug/L	J	RI, Ms		
POTASSIUM	680	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW27042015	Collec	Collected:4/7/2015 8:50:00 AM Analysis Type:RE2/DIS									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SODIUM	340000		250	LOD	5000	LOQ	ug/L	J	Ms		
Sample ID:TMW27042015	Collec	Collected:4/7/2015 8:50:00 AM Analysis Type:RES/DIS Dia									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	650	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW27042015	Collec	ted:4/7/20	15 8:50:	00 AM <i>A</i>	nalysis 1	туре:RES	/тот		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	650	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW28042015	Collec	4/7/20 cted: AM	15 11:50	:00 <i>A</i>	nalysis 1	Гуре:RE2	/DIS		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SODIUM	340000		250	LOD	5000	LOQ	ug/L	J	Ms		
Sample ID:TMW28042015	Collec	4/7/20 cted: AM	15 11:50		nalysis 1	гуре:RES	/DIS		Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	1500	J	250	LOD	3000	LOQ	ug/L	J	RI		
Sample ID:TMW28042015		4/7/20 cted: AM	15 11:50	:00 A	nalysis 1	Type:RES			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
DOTA COULINA	1000	T .									

POTASSIUM

250

LOD

3000

LOQ

ug/L

1300

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1

eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:DMW23042015	Collec		Dilution: 1						
								Data	_

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	2.0	U	2.0	LOD	5.0	LOQ	ug/L	UJ	Fd

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.99	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.2	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	2.2	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.033	J	0.10	LOD	5.0	LOQ	ug/L	J	RI, Fd
THALLIUM	0.059	J	0.20	LOD	1.0	LOQ	ug/L	J	RI, Fd
ZINC	6.0	U	6.0	LOD	20	LOQ	ug/L	UJ	Fd

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES/TOT Dilution: 1

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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.2	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
BERYLLIUM	0.15	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
CHROMIUM	2.0	JQ	1.5	LOD	10	LOQ	ug/L	J	RI
COPPER	1.4	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.73	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	0.86	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.26	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.090	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
ZINC	4.0	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:DTW26042015 Collected:4/7/2015 1:55:00 PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ARSENIC	1.3	J	1.0	LOD	5.0	LOQ	ug/L	J	RI		
COBALT	0.24	J	0.10	LOD	1.0	LOQ	ug/L	J	RI		
COPPER	1.7	J	1.5	LOD	2.0	LOQ	ug/L	J	RI		
NICKEL	1.8	J	0.90	LOD	3.0	LOQ	ug/L	J	RI		
VANADIUM	3.5	J	1.0	LOD	6.0	LOQ	ug/L	J	RI		
ZINC	2.4	J	6.0	LOD	20	LOQ	ug/L	J	RI, Fd		

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:DTW26042015	Collec	cted:4/7/20	15 1:55:0	00 PM A	nalysis 1	Type:RES	/TOT		Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.2	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.38	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	2.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	0.75	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.9	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:MW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.94	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	1.3	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
SELENIUM	1.4	J	2.0	LOD	5.0	LOQ	ug/L	UJ	Mb, Fd
SILVER	0.10	U	0.10	LOD	5.0	LOQ	ug/L	UJ	Fd
THALLIUM	0.20	U	0.20	LOD	1.0	LOQ	ug/L	UJ	Fd
ZINC	3.9	J	6.0	LOD	20	LOQ	ug/L	J	RI, Fd

Sample ID:MW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.3	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	2.7	JQ	1.5	LOD	10	LOQ	ug/L	J	RI
COPPER	1.8	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.81	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.48	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
ZINC	4.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW01042015 Collected:4/7/2015 9:05:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.88	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	0.52	J	1.5	LOD	10	LOQ	ug/L	J	RI
NICKEL	0.36	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

Sample ID:TMW01042015	Collec	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.87	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	0.54	JQ	1.5	LOD	10	LOQ	ug/L	J	RI
NICKEL	0.31	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.75	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
NICKEL	1.0	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	2.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.65	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
NICKEL	0.89	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	1.1	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	2.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW17042015 Collected: 4/7/2015 1:50:00 PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.23	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	1.0	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:TMW17042015 Collected:4/7/2015 1:50:00 PM Analysis Type:RES/TOT Dilution: 1

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Analyte	La Res	-	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.3	7	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
CHROMIUM	1.0)	JQ	1.5	LOD	10	LOQ	ug/L	J	RI	
COBALT	0.1	7	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
LEAD	2.0)	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
NICKEL	1.8	3	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
SELENIUM	1.:	2	J	2.0	LOD	5.0	LOQ	ug/L	J	RI	
SILVER	0.4	0	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1

eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

ion: 1
Reason

Sample ID:TMW25042015 Collected:4/7/2015 9:50:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.70	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.060	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.84	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.90	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	1.8	J	2.0	LOD	5.0	LOQ	ug/L	U	Mb
VANADIUM	3.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW25042015 Collected:4/7/2015 9:50:00 AM Analysis Type:RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.83	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.46	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.65	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.18	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	1.2	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	4.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	5.4	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW26042015 Collected:4/7/2015 1:55:00 PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.4	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.28	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.8	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	2.2	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	3.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	6.0	U	6.0	LOD	20	LOQ	ug/L	UJ	Fd

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1

eQAPP Name: FtWingate_Primary_120405

Laboratory: TA DEN

EDD Filename: 280-67484-1

Method Category: METALS

wetnoa:	0020A	Matrix:	AQ

Sample ID:TMW26042015	Collec	Collected:4/7/2015 1:55:00 PM Analysis Type:RES/TOT							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.3	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.35	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	2.1	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	1.2	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	2.6	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW27042015 Collected:4/7/2015 8:50:00 AM Analysis Type: RES/DIS Dilution: 1

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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.40	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
COBALT	0.17	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.62	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	1.2	J	2.0	LOD	5.0	LOQ	ug/L	U	Mb
SILVER	0.073	J	0.10	LOD	5.0	LOQ	ug/L	J	RI

Sample ID:TMW27042015 Collected:4/7/2015 8:50:00 AM Analysis Type:RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.47	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
COBALT	0.16	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.68	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	5.6	J	6.0	LOD	20	LOQ	ug/L	J	RI

Unito	Data Review	Rossen
Ullits	Qual	Reason Code
ug/L	J	RI
ug/L	J	RI
ug/L	J	RI
ug/L	U	Mb
ug/L	J	RI
ug/L	J	RI
ug/L	J	RI
	ug/L ug/L ug/L ug/L ug/L	ug/L J ug/L J ug/L J ug/L U ug/L J ug/L J

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

	4/7/2015 11:50:	:00	
Sample ID:TMW28042015	Collected: AM	Analysis Type:RES/TOT	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.2	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
COBALT	0.15	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.54	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.050	J	0.10	LOD	5.0	LOQ	ug/L	U	Mb
THALLIUM	0.13	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	0.66	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	3.3	J	6.0	LOD	20	LOQ	ug/L	J	RI

Method Category: SVOA Method: 8081A Matrix: AQ

Sample ID:DMW23042015	Collected: 4/7/2015 9:40:00 AM Analysis Type: RES	Dilution: 1
Sample ID.DINIVIZIONZO13	Collected1112013 3.40.00 Alli Allalysis Type.INEO	Dilution

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.80	U	0.80	LOD	5.0	LOQ	ug/L	UJ	Ms

Sample ID:MW23042015	Collected:4/7/2015 9:40:00 AM Analysis Type:RES	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.78	UJ	0.78	LOD	4.9	LOQ	ug/L	UJ	Ms

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
M,P-CRESOL	0.32	J	0.97	LOD	19	LOQ	ug/L	J	RI, Fd

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,6-TRICHLOROPHENOL	0.33	J	0.97	LOD	19	LOQ	ug/L	J	RI, Fd

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	0.35	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
1,2-DICHLOROBENZENE	0.28	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
1,2-DIPHENYLHYDRAZINE	0.35	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
1,3-DICHLOROBENZENE	0.30	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
1,4-DICHLOROBENZENE	0.37	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
2-CHLORONAPHTHALENE	0.39	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
2-METHYLNAPHTHALENE	0.37	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
3,3'-DICHLOROBENZIDINE	9.7	U	9.7	LOD	48	LOQ	ug/L	UJ	Ms
ACENAPHTHENE	0.38	JQ	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
ACETOPHENONE	0.41	J	4.8	LOD	9.7	LOQ	ug/L	J	RI, Fd
BENZALDEHYDE	1.9	U	1.9	LOD	9.7	LOQ	ug/L	UJ	Ms, Ms
BENZIDINE	97	UQ	97	LOD	190	LOQ	ug/L	UJ	Ms
BENZYL ALCOHOL	0.31	J	0.97	LOD	24	LOQ	ug/L	J	RI, Fd
BIS(2-CHLOROISOPROPYL) ETHER	0.33	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
BIS(2-ETHYLHEXYL) PHTHALATE	0.74	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
DIBENZOFURAN	0.39	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
DIETHYL PHTHALATE	0.43	J	0.97	LOD	19	LOQ	ug/L	J	RI, Fd
FLUORANTHENE	0.32	JQ	0.97	LOD	19	LOQ	ug/L	J	RI, Fd
FLUORENE	0.34	JQ	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
NAPHTHALENE	0.39	JQ	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
N-NITROSODIMETHYLAMINE	0.33	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
N-NITROSODIPHENYLAMINE	0.65	J	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd
PHENANTHRENE	0.37	JQ	0.97	LOD	9.7	LOQ	ug/L	J	RI, Fd

Sample ID:MW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
M,P-CRESOL	1.0	U	1.0	LOD	20	LOQ	ug/L	UJ	Fd

Sample ID:MW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,6-TRICHLOROPHENOL	1.0	U	1.0	LOD	20	LOQ	ug/L	UJ	Fd

^{*} denotes a non-reportable result

Dilution: 1



Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8270D Matrix: AQ

Sample ID:MW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type:RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
1,2-DICHLOROBENZENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
1,2-DIPHENYLHYDRAZINE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
1,3-DICHLOROBENZENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
1,4-DICHLOROBENZENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
2-CHLORONAPHTHALENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
2-METHYLNAPHTHALENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
3,3'-DICHLOROBENZIDINE	10	UJ	10	LOD	50	LOQ	ug/L	UJ	Ms
ACENAPHTHENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
ACETOPHENONE	5.0	U	5.0	LOD	10	LOQ	ug/L	UJ	Fd
BENZALDEHYDE	2.0	UJ	2.0	LOD	10	LOQ	ug/L	UJ	Ms, Ms
BENZIDINE	100	UJ	100	LOD	200	LOQ	ug/L	UJ	Ms
BENZYL ALCOHOL	1.0	U	1.0	LOD	25	LOQ	ug/L	UJ	Fd
BIS(2-CHLOROISOPROPYL) ETHER	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
BIS(2-ETHYLHEXYL) PHTHALATE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
DIBENZOFURAN	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
DIETHYL PHTHALATE	1.0	U	1.0	LOD	20	LOQ	ug/L	UJ	Fd
FLUORANTHENE	1.0	U	1.0	LOD	20	LOQ	ug/L	UJ	Fd
FLUORENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
NAPHTHALENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
N-NITROSODIMETHYLAMINE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
N-NITROSODIPHENYLAMINE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd
PHENANTHRENE	1.0	U	1.0	LOD	10	LOQ	ug/L	UJ	Fd

Method Category: SVOA

Method: 8330B Matrix: AQ

Sample ID:DMW23042015 Collected:4/7/2015 9:40:00 AM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-NITROTOLUENE	0.13	J M	0.17	LOD	0.44	LOQ	ug/L	J	RI, Fd

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8330B Matrix: AQ

Sample ID:MW23042015	Collected:4/7/2015 9:40:00 AM	Analysis Type:RES	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-NITROTOLUENE	0.16	U	0.16	LOD	0.43	LOQ	ug/L	UJ	Fd

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1

eQAPP Name: FtWingate_Primary_120405

Reason Code Legend

Reason Code	Description
Fd	Field Duplicate Precision
Lcs	Laboratory Control Spike Lower Estimation
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
RI	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Upper Estimation

^{*} denotes a non-reportable result



Data Review Summary

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
SR
A
N
N
SR
SR
SR
A
N
SR
SR
SR
N
A

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C					
Matrix: AQ					
	Concentra	ntion (ug/L)			
Analyte	MW23042015 (DIS)	DMW23042015 (DIS)	Sample RPD	eQAPP RPD	Flag
CALCIUM MAGNESIUM POTASSIUM SODIUM	11000 4700 1500 470000	10000 4500 1600 460000	10 4 6 2	50.00 50.00 50.00 50.00	No Qualifiers Applied
ALUMINUM IRON	300 U 100 U	68 47	200 200	50.00 50.00	J(all detects) UJ(all non-detects)
	Concentra	ation (ug/L)			
Analyte	MW23042015 (TOT)	DMW23042015 (TOT)	Sample RPD	eQAPP RPD	Flag
ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM SODIUM	1800 11000 1000 5300 1800 480000	1500 11000 810 5300 1700 480000	18 0 21 0 6	50.00 50.00 50.00 50.00 50.00 50.00	No Qualifiers Applied
	Concentra	ation (ug/L)			
Analyte	TMW26042015 (DIS)	DTW26042015 (DIS)	Sample RPD	eQAPP RPD	Flag
CALCIUM MAGNESIUM POTASSIUM SODIUM	19000 7500 750 870000	18000 7100 680 810000	5 5 10 7	50.00 50.00 50.00 50.00	No Qualifiers Applied
	Concentra	ation (ug/L)			
Analyte	TMW26042015 (TOT)	DTW26042015 (TOT)	Sample RPD	eQAPP RPD	Flag
ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM SODIUM	250 16000 120 6800 680 770000	330 17000 180 7400 700 930000	28 6 40 8 3 19	50.00 50.00 50.00 50.00 50.00	No Qualifiers Applied
Method: 6020A Matrix: AQ					
maurx. AQ	200000000000000000000000000000000000000	- (i (/)			l
Analyte	MW23042015 (DIS)	ntion (ug/L) DMW23042015 (DIS)	Sample RPD	eQAPP RPD	Flag
ARSENIC BARIUM COBALT COPPER MANGANESE	0.94 130 1.1 1.3 82	1.1 130 0.99 1.2 78	16 0 11 8 5	50.00 50.00 50.00 50.00 50.00	No Qualifiers Applied

Project Name and Number: 102012 - FWDA 102012 GW

NICKEL

SILVER

VANADIUM

SELENIUM

THALLIUM ZINC 3.1

6.7

1.4

5.0 U

1.0 U 3.9 2.2 7.5

5.0 U

0.033 0.059 20 U 34

11

200

200

200 200 50.00

50.00

50.00

50.00

50.00 50.00 J(all detects) UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67484-1

Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A Matrix: AQ				3	
	Concentra	ation (ug/L)			
Analyte	MW23042015 (TOT)	DMW23042015 (TOT)	Sample RPD	eQAPP RPD	Flag
ARSENIC	1.3	1.2	8	50.00	
BARIUM	160	150	6	50.00	
BERYLLIUM	1.0 U	0.15	200	50.00	
CHROMIUM	2.7	2.0	30	50.00	
COBALT	1.4	1.4	0	50.00	
COPPER	1.8	1.4	25	50.00	
LEAD	0.81	0.73	10	50.00	No Qualifiers Applied
MANGANESE	100	95	5	50.00	
NICKEL	3.5	3.5	0	50.00	
SELENIUM	5.0 U	0.86	200	50.00	
SILVER	0.48	0.26	59	50.00	
THALLIUM	1.0 U	0.090	200	50.00	
VANADIUM	7.3	6.9	6	50.00	
ZINC	4.8	4.0	18	50.00	
	Concentra	ation (ug/L)			
			Sample	eQAPP	
Analyte	TMW26042015 (DIS)	DTW26042015 (DIS)	RPD	RPD	Flag
ARSENIC	1.4	1.3	7	50.00	
BARIUM	18	18	o .	50.00	
COBALT	0.28	0.24	15	50.00	
COPPER	1.8	1.7	6	50.00	No Qualifiers Applied
MANGANESE	120	110	9	50.00	140 Qualifiers / Applied
NICKEL	2.2	1.8	20	50.00	
VANADIUM	3.4	3.5	3	50.00	
ZINC	20 U	2.4	200	50.00	J(all detects)
	200	2.4	200	00.00	UJ(all non-detects)
	Concentra	ation (ug/L)			
Analyto	TMW2604204E /TOT\	DTW26042045 (TOT)	Sample RPD	eQAPP RPD	Flag
Analyte	TMW26042015 (TOT)	DTW26042015 (TOT)	KPU	KPU	Flag
ARSENIC	1.3	1.2	8	50.00	
BARIUM	22	22	0	50.00	
COBALT	0.35	0.38	8	50.00	
COPPER	2.3	2.2	4	50.00	l
MANGANESE	110	120	9	50.00	No Qualifiers Applied
NICKEL	2.1	2.5	17	50.00	
SELENIUM	1.2	0.75	46	50.00	
VANADIUM	3.4	3.9	14	50.00	
ZINC	2.6	20 U	200	50.00	1

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ

	Concentra				
Analyte	MW23042015	DMW23042015	Sample RPD	eQAPP RPD	Flag
1,2,4-TRICHLOROBENZENE	10 U	0.35	200	50.00	
1,2-DICHLOROBENZENE	10 U	0.28	200	50.00	
1,2-DIPHENYLHYDRAZINE	10 U	0.35	200	50.00	
1,3-DICHLOROBENZENE	10 U	0.30	200	50.00	
1,4-DICHLOROBENZENE	10 U	0.37	200	50.00	
2,4,6-TRICHLOROPHENOL	20 U	0.33	200	50.00	
2-CHLORONAPHTHALENE	10 U	0.39	200	50.00	
2-METHYLNAPHTHALENE	10 U	0.37	200	50.00	
ACENAPHTHENE	10 U	0.38	200	50.00	
ACETOPHENONE	10 U	0.41	200	50.00	
BENZYL ALCOHOL	25 U	0.31	200	50.00	J(all detects)
BIS(2-CHLOROISOPROPYL) ETHER	10 U	0.33	200	50.00	UJ(all non-detects)
BIS(2-ETHYLHEXYL) PHTHALATE	10 U	0.74	200	50.00	
DIBENZOFURAN	10 U	0.39	200	50.00	
DIETHYL PHTHALATE	20 U	0.43	200	50.00	
FLUORANTHENE	20 U	0.32	200	50.00	
FLUORENE	10 U	0.34	200	50.00	
M,P-CRESOL	20 U	0.32	200	50.00	
NAPHTHALENE	10 U	0.39	200	50.00	
N-NITROSODIMETHYLAMINE	10 U	0.33	200	50.00	
N-NITROSODIPHENYLAMINE	10 U	0.65	200	50.00	
PHENANTHRENE	10 U	0.37	200	50.00	

Method: 8330B Matrix: AQ

	Concentra				
Analyte	MW23042015	DMW23042015	Sample RPD	eQAPP RPD	Flag
2-NITROTOLUENE	0.43 U	0.13	200	50.00	J(all detects) UJ(all non-detects)

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN EDD Filename: 280-67484-1 eQAPP Name: FtWingate Primary 120405

EDD Filename. 200-07404-1				eQAPP Name:	FtWingate_Friinary_120405
Method: 8270D Matrix: AQ					Preparation Method: 3520C
Sample ID	Туре	Actual	Criteria	Units	Flag
DMW23042015 (RE2)	Sampling To Extraction	13.00	7.00	DAYS	J (all detects) UJ (all non-detects)
Method: 9056					Preparation Method: 3520C
Matrix: AQ					
Sample ID	Туре	Actual	Criteria	Units	Flag
DMW23042015 (RE2/TOT)	Sampling To Analysis	48.75	48.00	HOURS	J(all detects)
MW23042015MS (RE2/TOT)		48.25	48.00	HOURS	UJ(all non-detects)
MW23042015MSD (RE2/TOT)		48.50	48.00	HOURS	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-273624/2-A LCSD 280-273624/3-A (DMW23042015)	BENZALDEHYDE HEXACHLOROCYCLOPENTADIEN	65 18	66 24	70.00-130.00 50.00-130.00		BENZALDEHYDE HEXACHLOROCYCLOPENTADIE	J (all detects) UJ (all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

EDD Fileliaille. 200-07	404-1				CQ	APP Name: Flwingale_	_1 11111a1 y_120403
Method: 6010C							
Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW23042015MS (DIS) MW23042015MSD (DIS) (DMW23042015 DTW26042015 DTW26042015 MW23042015 TMW01042015 TMW10042015 TMW17042015 TMW25042015 TMW26042015 TMW26042015 TMW27042015 TMW27042015 TMW28042015	SODIUM	58	73	80.00-120.00	-	SODIUM	J (all detects) UJ (all non-detects)
Method: 6020A							
Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW23042015MS (TOT) MW23042015MSD (TOT) (DMW23042015 DTW26042015 MW23042015 TMW01042015 TMW10042015 TMW17042015 TMW25042015 TMW26042015 TMW26042015 TMW26042015 TMW28042015 TMW28042015)	BARIUM	67	77	85.00-118.00	-	BARIUM	J(all detects) UJ(all non-detects)
Method: 6010C							
Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW23042015MS (TOT) MW23042015MSD (TOT) (DMW23042015 DTW26042015 DTW26042015 TMW01042015 TMW10042015 TMW17042015 TMW25042015 TMW26042015 TMW26042015 TMW26042015 TMW28042015 TMW28042015	ALUMINUM SODIUM	181 203	175 310	80.00-120.00 80.00-120.00	-	ALUMINUM SODIUM	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW23042015MS MW23042015MSD (DMW23042015 MW23042015)	3,3'-DICHLOROBENZIDINE BENZALDEHYDE BENZIDINE	9 49 0	8 32 0	20.00-110.00 70.00-130.00 10.00-110.00	37 (30.00) -	3,3'-DICHLOROBENZIDINE BENZALDEHYDE BENZIDINE	J(all detects) UJ(all non-detects)
Method: 8081A Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW23042015MS (DMW23042015 MW23042015)	TOXAPHENE	59	-	63.00-142.00	-	TOXAPHENE	J(all detects) UJ(all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67484-1

EDD Filename: 280-67484-1

eQAPP Name: FtWingate_Primary_120405

Laboratory: TA DEN

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271721/1-A	4/10/2015 8:33:00 AM	SELENIUM	0.965 ug/L	DMW23042015 DTW26042015 MW23042015 TMW01042015 TMW10042015 TMW17042015 TMW25042015 TMW26042015 TMW27042015 TMW27042015
MB 280-271732/1-A	4/10/2015 7:13:00 AM	SILVER	0.0380 ug/L	DMW23042015 DTW26042015 MW23042015 TMW01042015 TMW17042015 TMW17042015 TMW25042015 TMW26042015 TMW27042015 TMW27042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
MW23042015(RES/DIS)	SELENIUM	1.4 ug/L	1.4U ug/L
TMW25042015(RES/DIS)	SELENIUM	1.8 ug/L	1.8U ug/L
TMW27042015(RES/DIS)	SELENIUM	1.2 ug/L	1.2U ug/L
TMW28042015(RES/DIS)	SELENIUM	1.6 ug/L	1.6U ug/L
TMW28042015(RES/TOT)	SILVER	0.050 ug/L	0.050U ug/L

Method: 8260B Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-272203/6	4/10/2015 6:51:00 PM	METHYLENE CHLORIDE	0.484 ug/L	DMW23042015 DTW26042015 MW23042015 TB-05-042015 TMW01042015 TMW10042015 TMW17042015 TMW25042015 TMW25042015 TMW27042015 TMW27042015 TMW27042015

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DMW23042015	ALUMINUM IRON POTASSIUM	J J	68 47 1600	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
DTW26042015	POTASSIUM	J	680	3000	LOQ	ug/L	J (all detects)
MW23042015	POTASSIUM	J	1500	3000	LOQ	ug/L	J (all detects)
TMW01042015	POTASSIUM	J	670	3000	LOQ	ug/L	J (all detects)
TMW10042015	POTASSIUM	J	1300	3000	LOQ	ug/L	J (all detects)
TMW17042015	ALUMINUM IRON POTASSIUM	J	110 32 1100	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW25042015	POTASSIUM	J	590	3000	LOQ	ug/L	J (all detects)
TMW26042015	ALUMINUM POTASSIUM	J	250 750	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW27042015	POTASSIUM	J	650	3000	LOQ	ug/L	J (all detects)
TMW28042015	POTASSIUM	J	1500	3000	LOQ	ug/L	J (all detects)

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DMW23042015	ARSENIC	J	1.1	5.0	LOQ	ug/L	
	BERYLLIUM	J	0.15	1.0	LOQ	ug/L	
	CHROMIUM	JQ	2.0	10	LOQ	ug/L	
	COBALT	J	0.99	1.0	LOQ	ug/L	
	COPPER	J	1.2	2.0	LOQ	ug/L	
	LEAD	J	0.73	3.0	LOQ	ug/L	J (all detects)
	NICKEL	J	2.2	3.0	LOQ	ug/L	
	SELENIUM	J	0.86	5.0	LOQ	ug/L	
	SILVER	J	0.033	5.0	LOQ	ug/L	
	THALLIUM	J	0.059	1.0	LOQ	ug/L	
	ZINC	J	4.0	20	LOQ	ug/L	
DTW26042015	ARSENIC	ک	1.3	5.0	LOQ	ug/L	
	COBALT	J	0.24	1.0	LOQ	ug/L	
	COPPER	J	1.7	2.0	LOQ	ug/L	
	NICKEL	J	1.8	3.0	LOQ	ug/L	J (all detects)
	SELENIUM	J	0.75	5.0	LOQ	ug/L	
	VANADIUM	J	3.5	6.0	LOQ	ug/L	
	ZINC	J	2.4	20	LOQ	ug/L	
MW23042015	ARSENIC	J	0.94	5.0	LOQ	ug/L	
	CHROMIUM	JQ	2.7	10	LOQ	ug/L	
	COPPER	J	1.3	2.0	LOQ	ug/L	
	LEAD	J	0.81	3.0	LOQ	ug/L	J (all detects)
	SELENIUM	J	1.4	5.0	LOQ	ug/L	
	SILVER	J	0.48	5.0	LOQ	ug/L	
	ZINC	J	3.9	20	LOQ	ug/L	

Project Name and Number: 102012 - FWDA 102012 GW

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW01042015	ARSENIC CHROMIUM NICKEL	J	0.88 0.52 0.36	5.0 10 3.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW10042015	ARSENIC NICKEL SELENIUM VANADIUM	J J	0.75 1.0 1.1 2.6	5.0 3.0 5.0 6.0	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
TMW17042015	ARSENIC CHROMIUM COBALT LEAD NICKEL SELENIUM SILVER VANADIUM))))	0.37 1.0 0.17 0.23 1.0 1.2 0.40 1.2	5.0 10 1.0 3.0 3.0 5.0 5.0 6.0	LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW25042015	ARSENIC COBALT COPPER LEAD NICKEL SELENIUM VANADIUM ZINC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.70 0.060 0.84 0.18 0.90 1.8 3.7 5.4	5.0 1.0 2.0 3.0 3.0 5.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW26042015	ARSENIC COBALT COPPER NICKEL SELENIUM VANADIUM ZINC))))	1.4 0.28 1.8 2.2 1.2 3.4 2.6	5.0 1.0 2.0 3.0 5.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW27042015	ANTIMONY COBALT NICKEL SELENIUM SILVER ZINC]]]	0.40 0.17 0.62 1.2 0.073 5.6	6.0 1.0 3.0 5.0 5.0 20	LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW28042015	ANTIMONY COBALT NICKEL SELENIUM SILVER THALLIUM VANADIUM ZINC) 	1.2 0.15 0.53 1.6 0.058 0.14 0.51 3.3	6.0 1.0 3.0 5.0 5.0 1.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67484-1 Laboratory: TA DEN

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DMW23042015	1,2,4-TRICHLOROBENZENE	J	0.35	9.7	LOQ	ug/L	
2255 .25 .5	1,2-DICHLOROBENZENE	ij	0.28	9.7	LOQ	ug/L	
	1.2-DIPHENYLHYDRAZINE	Ĵ	0.35	9.7	LOQ	ug/L	
	1,3-DICHLOROBENZENE	Ĵ	0.30	9.7	LOQ	ug/L	
	1,4-DICHLOROBENZENE	J	0.37	9.7	LOQ	ug/L	
	2,4,6-TRICHLOROPHENOL	J	0.33	19	LOQ	ug/L	
	2-CHLORONAPHTHALENE	J	0.39	9.7	LOQ	ug/L	
	2-METHYLNAPHTHALENE	J	0.37	9.7	LOQ	ug/L	
	ACENAPHTHENE	JQ	0.38	9.7	LOQ	ug/L	
	ACETOPHENONE	J	0.41	9.7	LOQ	ug/L	
	BENZYL ALCOHOL	J	0.31	24	LOQ	ug/L	J (all detects)
	BIS(2-CHLOROISOPROPYL) ETHER	J	0.33	9.7	LOQ	ug/L	J (all detects)
	BIS(2-ETHYLHEXYL) PHTHALATE	JH	0.77	10	LOQ	ug/L	
	DIBENZOFURAN	J	0.39	9.7	LOQ	ug/L	
	DIETHYL PHTHALATE	J	0.43	19	LOQ	ug/L	
	FLUORANTHENE	JQ	0.32	19	LOQ	ug/L	
	FLUORENE	JQ	0.34	9.7	LOQ	ug/L	
	M,P-CRESOL	J_	0.32	19	LOQ	ug/L	
	NAPHTHALENE	JQ	0.39	9.7	LOQ	ug/L	
	N-NITROSODIMETHYLAMINE		0.33	9.7	LOQ	ug/L	
	N-NITROSODIPHENYLAMINE	J	0.65	9.7	LOQ	ug/L	
	PHENANTHRENE	JQ	0.37	9.7	LOQ	ug/L	

Method: 8330B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DMW23042015	2-NITROTOLUENE	JM	0.13	0.44	LOQ	ug/L	J (all detects)

Method: 9056

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW10042015	NITRATE	JD	0.17	1.0	LOQ	mg/L	J (all detects)
TMW25042015	NITRATE	J	0.45	0.50	LOQ	mg/L	J (all detects)



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67484-1 Method: 6010C DMW23042015 S2AVE 280-67484-6 FD 3005A 4/7/2015 9:40:00 AM AQ DMW23042015 280-67484-6 AQ FD 3010A 4/7/2015 9:40:00 AM S2AVE DTW26042015 280-67484-7 FD 3005A 4/7/2015 1:55:00 PM S2AVE AQ DTW26042015 280-67484-7 FD 3010A 4/7/2015 1:55:00 PM S2AVE AQ S2AVE MW23042015 280-67484-5 AQ Ν 3005A 4/7/2015 9:40:00 AM S2AVE MW23042015 280-67484-5 AQ Ν 3010A 4/7/2015 9:40:00 AM MW23042015MS 280-67484-5MS MS S2AVE AQ 3005A 4/7/2015 9:40:00 AM MW23042015MS 280-67484-5MS AQ MS 3010A 4/7/2015 9:40:00 AM S2AVE MW23042015MSD 280-67484-5MSD MSD 3005A 4/7/2015 9:40:00 AM S2AVE AQ MW23042015MSD 280-67484-5MSD MSD 3010A 4/7/2015 9:40:00 AM S2AVE AQ S2AVE TMW01042015 280-67484-9 AQ Ν 3005A 4/7/2015 9:05:00 AM S2AVE TMW01042015 280-67484-9 AQ Ν 3010A 4/7/2015 9:05:00 AM S2AVE TMW10042015 280-67484-8 AQ Ν 3005A 4/7/2015 11:40:00 AM TMW10042015 280-67484-8 AQ Ν 3010A 4/7/2015 11:40:00 AM S2AVE TMW17042015 280-67484-11 Ν 3005A 4/7/2015 1:50:00 PM S2AVE AQ S2AVE TMW17042015 280-67484-11 Ν 3010A 4/7/2015 1:50:00 PM AQ S2AVE TMW25042015 280-67484-3 Ν 3005A AQ 4/7/2015 9:50:00 AM TMW25042015 280-67484-3 Ν 3010A 4/7/2015 9:50:00 AM S2AVE AQ S2AVE TMW26042015 280-67484-10 Ν 3005A 4/7/2015 1:55:00 PM AQ TMW26042015 280-67484-10 Ν 3010A 4/7/2015 1:55:00 PM S2AVE AQ TMW27042015 280-67484-2 Ν 3005A 4/7/2015 8:50:00 AM S2AVE AQ TMW27042015 280-67484-2 Ν 3010A 4/7/2015 8:50:00 AM S2AVE AQ

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Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6010C TMW28042015 Ν 3005A S2AVE 280-67484-1 4/7/2015 11:50:00 AM AQ TMW28042015 280-67484-1 Ν 3010A 4/7/2015 11:50:00 AM S2AVE AQ Method: 6020A DMW23042015 280-67484-6 FD 3005A 4/7/2015 9:40:00 AM S2AVE AQ FD S2AVE DMW23042015 280-67484-6 AQ 3020A 4/7/2015 9:40:00 AM DTW26042015 280-67484-7 AQ FD 3005A 4/7/2015 1:55:00 PM S2AVE DTW26042015 280-67484-7 AQ FD 3020A 4/7/2015 1:55:00 PM S2AVE Ν S2AVE MW23042015 280-67484-5 AQ 3005A 4/7/2015 9:40:00 AM S2AVE MW23042015 280-67484-5 Ν 3020A 4/7/2015 9:40:00 AM AQ S2AVE MW23042015MS 280-67484-5MS AQ MS 3005A 4/7/2015 9:40:00 AM MW23042015MS 280-67484-5MS MS 3020A 4/7/2015 9:40:00 AM S2AVE AQ S2AVE MW23042015MSD 280-67484-5MSD AQ MSD 3005A 4/7/2015 9:40:00 AM MW23042015MSD 280-67484-5MSD AQ MSD 3020A 4/7/2015 9:40:00 AM S2AVE TMW01042015 280-67484-9 Ν 3005A 4/7/2015 9:05:00 AM S2AVE AQ S2AVE TMW01042015 280-67484-9 Ν 3020A 4/7/2015 9:05:00 AM AQ S2AVE TMW10042015 280-67484-8 AQ Ν 3005A 4/7/2015 11:40:00 AM S2AVE TMW10042015 280-67484-8 Ν 3020A 4/7/2015 11:40:00 AM AQ 280-67484-11 TMW17042015 Ν 3005A 4/7/2015 1:50:00 PM S2AVE AQ TMW17042015 280-67484-11 AQ Ν 3020A 4/7/2015 1:50:00 PM S2AVE TMW25042015 280-67484-3 Ν 3005A 4/7/2015 9:50:00 AM S2AVE AQ TMW25042015 280-67484-3 Ν 3020A 4/7/2015 9:50:00 AM S2AVE AQ TMW26042015 280-67484-10 AQ Ν 3005A 4/7/2015 1:55:00 PM S2AVE S2AVE TMW26042015 280-67484-10 AQ Ν 3020A 4/7/2015 1:55:00 PM S2AVE TMW27042015 280-67484-2 AQ Ν 3005A 4/7/2015 8:50:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 1:57:49 PM Page 2 of 7



Reviewed By:			Approved By:		Labo	oratory: TA DEN
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 6020A						
TMW27042015	280-67484-2	AQ	N	3020A	4/7/2015 8:50:00 AM	S2AVE
TMW28042015	280-67484-1	AQ	N	3005A	4/7/2015 11:50:00 AM	S2AVE
TMW28042015	280-67484-1	AQ	N	3020A	4/7/2015 11:50:00 AM	S2AVE
Method: 6860						
DMW23042015	280-67484-6	AQ	FD	METHOD	4/7/2015 9:40:00 AM	S2AVE
DTW26042015	280-67484-7	AQ	FD	METHOD	4/7/2015 1:55:00 PM	S2AVE
MW23042015	280-67484-5	AQ	N	METHOD	4/7/2015 9:40:00 AM	S2AVE
MW23042015MS	280-67484-5MS	AQ	MS	METHOD	4/7/2015 9:40:00 AM	S2AVE
MW23042015MSD	280-67484-5MSD	AQ	MSD	METHOD	4/7/2015 9:40:00 AM	S2AVE
TMW01042015	280-67484-9	AQ	N	METHOD	4/7/2015 9:05:00 AM	S2AVE
TMW10042015	280-67484-8	AQ	N	METHOD	4/7/2015 11:40:00 AM	S2AVE
TMW17042015	280-67484-11	AQ	N	METHOD	4/7/2015 1:50:00 PM	S2AVE
TMW26042015	280-67484-10	AQ	N	METHOD	4/7/2015 1:55:00 PM	S2AVE
TMW27042015	280-67484-2	AQ	N	METHOD	4/7/2015 8:50:00 AM	S2AVE
Method: 7470A						
DMW23042015	280-67484-6	AQ	FD	7470A	4/7/2015 9:40:00 AM	S2AVE
DTW26042015	280-67484-7	AQ	FD	7470A	4/7/2015 1:55:00 PM	S2AVE
MW23042015	280-67484-5	AQ	N	7470A	4/7/2015 9:40:00 AM	S2AVE
MW23042015MS	280-67484-5MS	AQ	MS	7470A	4/7/2015 9:40:00 AM	S2AVE
MW23042015MSD	280-67484-5MSD	AQ	MSD	7470A	4/7/2015 9:40:00 AM	S2AVE
TMW01042015	280-67484-9	AQ	N	7470A	4/7/2015 9:05:00 AM	S2AVE
TMW10042015	280-67484-8	AQ	N	7470A	4/7/2015 11:40:00 AM	S2AVE
TMW17042015	280-67484-11	AQ	N	7470A	4/7/2015 1:50:00 PM	S2AVE
TMW25042015	280-67484-3	AQ	N	7470A	4/7/2015 9:50:00 AM	S2AVE
5/15/2015 1:57:49 PM		ADR version 1.9.	0.325 (Licensed For Use On US	ACE Projects Only)		Page 3 of 7



Reviewed By:			Approved By:		Labo	oratory: TA DEN
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 7470A						
TMW26042015	280-67484-10	AQ	N	7470A	4/7/2015 1:55:00 PM	S2AVE
TMW27042015	280-67484-2	AQ	N	7470A	4/7/2015 8:50:00 AM	S2AVE
TMW28042015	280-67484-1	AQ	N	7470A	4/7/2015 11:50:00 AM	S2AVE
Method: 8081A						
DMW23042015	280-67484-6	AQ	FD	3510C	4/7/2015 9:40:00 AM	S2AVE
MW23042015	280-67484-5	AQ	N	3510C	4/7/2015 9:40:00 AM	S2AVE
MW23042015MS	280-67484-5MS	AQ	MS	3510C	4/7/2015 9:40:00 AM	S2AVE
MW23042015MSD	280-67484-5MSD	AQ	MSD	3510C	4/7/2015 9:40:00 AM	S2AVE
Method: 8260B						
DMW23042015	280-67484-6	AQ	FD	503	4/7/2015 9:40:00 AM	S2AVE
DTW26042015	280-67484-7	AQ	FD	503	4/7/2015 1:55:00 PM	S2AVE
MW23042015	280-67484-5	AQ	N	503	4/7/2015 9:40:00 AM	S2AVE
MW23042015MS	280-67484-5MS	AQ	MS	503	4/7/2015 9:40:00 AM	S2AVE
MW23042015MSD	280-67484-5MSD	AQ	MSD	503	4/7/2015 9:40:00 AM	S2AVE
TB-05-042015	280-67484-4	AQ	ТВ	503	4/7/2015 8:00:00 AM	S2AVE
TMW01042015	280-67484-9	AQ	N	503	4/7/2015 9:05:00 AM	S2AVE
TMW10042015	280-67484-8	AQ	N	503	4/7/2015 11:40:00 AM	S2AVE
TMW17042015	280-67484-11	AQ	N	503	4/7/2015 1:50:00 PM	S2AVE
TMW25042015	280-67484-3	AQ	N	503	4/7/2015 9:50:00 AM	S2AVE
TMW26042015	280-67484-10	AQ	N	503	4/7/2015 1:55:00 PM	S2AVE
TMW27042015	280-67484-2	AQ	N	503	4/7/2015 8:50:00 AM	S2AVE
TMW28042015	280-67484-1	AQ	N	503	₆₀ 4/7/2015 11:50:00 AM	S2AVE
Method: 8270D						
DMW23042015	280-67484-6	AQ	FD	3520C	4/7/2015 9:40:00 AM	S2AVE
5/15/2015 1:57:49 PM		ADR version 1.9	0.325 (Licensed For Use On USAC	E Projects Only)		Page 4 of 7



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 8270D MW23042015 280-67484-5 3520C S2AVE Ν 4/7/2015 9:40:00 AM AQ MW23042015MS 280-67484-5MS MS 3520C 4/7/2015 9:40:00 AM S2AVE AQ MW23042015MSD 280-67484-5MSD AQ MSD 3520C 4/7/2015 9:40:00 AM S2AVE Method: 8330B FD S2AVE DMW23042015 280-67484-6 AQ 4/7/2015 9:40:00 AM 3535 DTW26042015 280-67484-7 AQ FD 4/7/2015 1:55:00 PM S2AVE 3535 MW23042015 280-67484-5 AQ Ν 4/7/2015 9:40:00 AM S2AVE 3535 MW23042015MS 280-67484-5MS MS S2AVE AQ 4/7/2015 9:40:00 AM 3535 S2AVE MW23042015MSD 280-67484-5MSD MSD AQ 4/7/2015 9:40:00 AM 3535 S2AVE TMW01042015 280-67484-9 AQ Ν 4/7/2015 9:05:00 AM 3535 TMW10042015 280-67484-8 Ν S2AVE AQ 4/7/2015 11:40:00 AM 3535 S2AVE TMW25042015 280-67484-3 AQ Ν 4/7/2015 9:50:00 AM 3535 TMW26042015 280-67484-10 AQ Ν 4/7/2015 1:55:00 PM S2AVE 3535 Method: 9056 DMW23042015 280-67484-6 FD **METHOD** 4/7/2015 9:40:00 AM S2AVE AQ DTW26042015 280-67484-7 FD **METHOD** 4/7/2015 1:55:00 PM S2AVE AQ MW23042015 280-67484-5 Ν **METHOD** 4/7/2015 9:40:00 AM S2AVE AQ MW23042015DUP 280-67484-5DUP DUP **METHOD** S2AVE AQ 4/7/2015 9:40:00 AM S2AVE MW23042015MS 280-67484-5MS MS **METHOD** AQ 4/7/2015 9:40:00 AM MW23042015MSD 280-67484-5MSD AQ MSD **METHOD** 4/7/2015 9:40:00 AM S2AVE TMW01042015 280-67484-9 Ν **METHOD** 4/7/2015 9:05:00 AM S2AVE AQ METHOD S2AVE TMW10042015 280-67484-8 Ν 4/7/2015 11:40:00 AM AQ TMW17042015 280-67484-11 Ν **METHOD** 4/7/2015 1:50:00 PM S2AVE AQ S2AVE TMW25042015 280-67484-3 Ν **METHOD** AQ 4/7/2015 9:50:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 1:57:49 PM Page 5 of 7



Reviewed By: Laboratory: TA DEN

Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 9056						
TMW26042015	280-67484-10	AQ	N	METHOD	4/7/2015 1:55:00 PM	S2AVE



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Laboratory: TA DEN

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67484-1

EDD Filename: 280-67484-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 2	.00-07404-1		eQAPP Name: Ftwingar	te_Primary_120405	
<i>Method:</i> 8260E <i>Matrix:</i> AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TB-05-042015	DIBROMOFLUOROMETHANE	116	85.00-115.00	All Target Analytes	J(all detects)
Method: 8270 Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DMW23042015	Terphenyl-d14	43	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67484-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for two water samples received April 8, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 2.5°C, 0.3°C, 0.3°C, 0.3°C, 0.3°C, 1.3°C and 1.0°C.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67484-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples MW23042015 (280-67484-5) and DMW23042015 (280-67484-6) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/09/2015 and analyzed on 04/18/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67484-2

eQapp Name: FtWingate_Primary_120405

Associated	Sample Collection
Samples	Date

Field QC DMW23042015

QC Type: FD

MW23042015

4/7/2015 9:40:00 AM



Lab Reporting Batch ID: 280-67484-2

EDD Filename: 280-67484-2

Laboratory: TA DEN

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67484-2

Laboratory: TA DEN

EDD Filename: 280-67484-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
A
A
N
N
A
SR
A
N
N
A
A
A
N
N



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Matrix Sample Type Validation Code Method **Collection Date** Lab Reporting Batch: 280-67484-2 Method: 8270D DMW23042015 280-67484-6 FD 3520C 4/7/2015 9:40:00 AM S2AVE AQ S2AVE MW23042015 280-67484-5 AQ Ν 3520C 4/7/2015 9:40:00 AM MW23042015MS S2AVE 280-67484-5MS MS 3520C 4/7/2015 9:40:00 AM AQ MW23042015MSD 280-67484-5MSD AQ MSD 3520C 4/7/2015 9:40:00 AM S2AVE



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67484-2 Laboratory: TA DEN

EDD Filename: 280-67484-2 eQAPP Name: FtWingate_Primary_120405

Method: 8270 Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DMW23042015	Terphenyl-d14	43	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67561-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for twelve water samples received April 9, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 1.3°C, 4.5°C, 3.5°C, 3.6°C, 1.4°C, 1.4°C, 1.6°C and 4.4°C.

Sample TMW18D042015 is listed on the chain-of-custody; however, no sample containers with this ID were received. The laboratory received containers for sample MW18D042015 (280-67561-5) which were not listed on the chain-of-custody. All containers were logged for sample MW18D042015 per the volume received. The client was notified on April 9, 2015.

Please note the Caprolactam data are reported under separate cover (280-67561-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TB-06-042015 (280-67561-1), TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/13/2015 and 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Sample MW18D042015 (280-67561-5) was received at the laboratory with insufficient preservation measuring a pH of 7. If samples are not preserved to a pH of 2.0 and analyses are performed outside a 7 day holding time, experimental evidence suggests that some aromatic compounds in wastewater samples, notably Benzene, Toluene, and Ethylbenzene are susceptible to biological degradation. The sample was analyzed within 7 days of sample collection.

Surrogates 1,2-Dichloroethane-d4 and/or Dibromofluoromethane were recovered above the QC control limits in samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), DTW15042015 (280-67561-8) and SMW01042015 (280-67561-10). This is an indicator that data may be biased high. As the samples do not contain any detectable concentrations for constituents associated with these surrogates, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

Methylene Chloride was detected in method blank MB 280-272656/6 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for analytical batches 280-272493 and 280-272656 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples TMW14A042015 (280-67561-3), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9) and SMW01042015 (280-67561-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/10/2015 and analyzed on 04/14/2015.

Please note the Caprolactam data are reported under separate cover (280-67561-2), as the laboratory does not hold DOD ELAP certification for this compound.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows:

The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 11-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272095 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Gasoline Range Organics - 8015C

Samples TB-44-042015 (280-67561-2), MW18D042015 (280-67561-5) and TMW08042015 (280-67561-11) were analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 04/17/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples MW18D042015 (280-67561-5) and TMW08042015 (280-67561-11) were received at the laboratory with a pH value >2. The containers indicate the volumes were preserved with hydrochloric acid. The samples were analyzed within the normal 14 day holding time, but outside a 7 day holding time.

The Gasoline Range Organics concentration reported for sample MW18D042015 (280-67561-5) is due to the presence of discrete peaks.

MS/MSD analyses for analytical batch 280-273239 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Diesel Range Organics - 8015C

Samples MW18D042015 (280-67561-5) and TMW08042015 (280-67561-11) were analyzed for Diesel Range Organics in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 04/09/2015 and analyzed on 04/16/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-271997 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples TMW38042015 (280-67561-9), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/10/2015 and analyzed on 04/14/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples MB 280-272174/1-A and LCS 280-272174/2-Arequired a mercury clean-up to reduce matrix interferences caused by sulfur.

MS/MSD analyses for prep batch 280-272174 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10) and TMW24042015 (280-67561-12) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/09/2015 and analyzed on 04/11/2015 and 04/15/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows:

The cartridges were eluted with 0.1% Acetic Acid in ACN instead of ACN to increase Tetryl recovery. This deviation was performed with QA and supervisor approval. The SOP is currently under revision to capture this change.

Sample MW18D042015 (280-67561-5) required filtration to reduce matrix interferences.

Sample TMW24042015 (280-67561-12) went dry on the cartridge while on the vacuum despite repeated attempts to address the

improper seal between the cartridge/cap/line. All together, the time spent dry on the cartridge was less than 4-5 minutes before a proper seal was achieved and the cartridge no longer went dry.

o-Nitrotoluene was detected in method blank MB 280-271968/1-A at a level that was less than one half the reporting limit on the confirmation column; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-271968 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/18/2015 and 04/21/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference on the internal standard, samples SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

MS/MSD analyses for analytical batches 280-273223 and 280-273667 were not requested.

The closing Continuing Calibration Blank (CCB) associated with analytical batch 280-273667 did not contain enough volume in the vial; therefore, the internal standard (IS) recovery was low. A new CCB was re-injected two times after to show the instrument is in control. Results were within control limits for the IS and non-detect for Perchlorate.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/10/2015 and analyzed on 04/13/2015 and 04/29/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with prep batch 280-271980 was performed on sample TMW14A042015 (280-67561-3). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271980 was performed on sample TMW14A042015 (280-67561-3). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the SD performed on this sample was in control. The SD was not calculable and the PDS exhibited a percent recovery outside the control limits for Iron. The associated Iron data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), MW22S042015 (280-67561-6), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/10/2015 and analyzed on 04/13/2015 and 04/29/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Magnesium and Sodium were detected in method blank MB 280-271976/1-A at levels that were less than one half the reporting limits; therefore, corrective action was deemed unnecessary. The values should be considered estimates, and have been flagged "J" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-271976 was performed on sample TMW14A042015 (280-67561-3). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271976 was performed on sample

TMW14A042015 (280-67561-3). The PDS exhibited a percent recovery outside the control limits for Sodium; however, the SD performed on this sample was in control. The SD exhibited a percent recovery outside the control limits for Calcium; however, the PDS performed on this sample was in control. The SD was not calculable and the PDS exhibited a percent recovery outside the control limits for Iron. The associated Iron data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/10/2015 and analyzed on 04/11/2015, 04/14/2015, 04/15/2015 and 04/16/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Antimony and Thallium were detected in method blank MB 280-271978/1-A at levels that were less than one half the reporting limits; therefore, corrective action was deemed unnecessary. The values should be considered estimates, and have been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-271978 was performed on sample TMW11042015 (280-67561-4). The SD exhibited percent recoveries outside the control limits for Barium and Manganese; however, the PDS performed on this sample was in control.

The ICSA solutions associated with analytical batches 280-272815 and 280-272766 were above DOD QSM Version 4.2 criteria of less than the LOD for Cadmium. The laboratory has confirmed with the vendor that this element is a trace impurity in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), MW22S042015 (280-67561-6), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/10/2015 and analyzed on 04/11/2015 and 04/13/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Thallium was detected in method blank MB 280-271975/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD OSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272085 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), MW22S042015 (280-67561-6), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/13/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272072 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW14A042015 (280-67561-3), TMW11042015 (280-67561-4), MW18D042015 (280-67561-5), TMW15042015 (280-67561-7),

DTW15042015 (280-67561-8), TMW38042015 (280-67561-9), SMW01042015 (280-67561-10), TMW08042015 (280-67561-11) and TMW24042015 (280-67561-12) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/09/2015 and 04/10/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or matrix interference, samples MW18D042015 (280-67561-5), DTW15042015 (280-67561-8) and TMW08042015 (280-67561-11) had to be analyzed at a dilution. The reporting limits and method detection limits have been adjusted relative to the dilution required.

Nitrate as N was detected in method blank MB 280-271866/13 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67561-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC DTW15042015		
QC Type: FD		
QO Type.		
	TMW15042015	4/8/2015 12:50:00 PM
Field QC TB-06-042015		
QC Type: TB		
	DTW45040045	4/0/0045 40:50:00 DM
	DTW15042015	4/8/2015 12:50:00 PM
	MW18D042015	4/8/2015 12:10:00 PM
	MW22S042015	4/8/2015 1:10:00 PM
	SMW01042015	4/8/2015 10:45:00 AM
	TMW08042015	4/8/2015 9:20:00 AM
	TMW11042015	4/8/2015 9:00:00 AM
	TMW14A042015	4/8/2015 10:25:00 AM
	TMW15042015	4/8/2015 12:50:00 PM
	TMW24042015	4/8/2015 1:45:00 PM
	TMW38042015	4/8/2015 10:32:00 AM
Field QC TB-44-042015		
QC Type: TB		
	DTW15042015	4/8/2015 12:50:00 PM
	MW18D042015	4/8/2015 12:10:00 PM
	MW22S042015	4/8/2015 1:10:00 PM
	SMW01042015	4/8/2015 10:45:00 AM
	TMW08042015	4/8/2015 9:20:00 AM
	TMW11042015	4/8/2015 9:00:00 AM
	TMW14A042015	4/8/2015 10:25:00 AM
	TMW14A042015	4/8/2015 10:25:00 AM 4/8/2015 12:50:00 PM
	TMW24042015	4/8/2015 1:45:00 PM
	11010424042010	4/0/2013 1.43.00 PIVI



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

Method Category:	GENCHEM									
Method:	9056			Ma	ntrix:	AQ				
Sample ID:DTW150420	Collec	4/8/2015 12:50:00 Collected:PM Analysis Type:RE2/TOT					Dilution: 50			
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		270	D	5.0	LOD	25	LOQ	mg/L	J	Fd
Sample ID:MW18D0420	4/8/2015 12:10:00 pple ID:MW18D042015			<i>Type:</i> RES	утот	E	ilution: 2			
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITRATE		0.11	JD	0.20	LOD	1.0	LOQ	mg/L	U	Mb
Sample ID:TMW150420	15	Collec	4/8/20 ted:PM	15 12:50		nalysis ī	<i>Type:</i> RES	утот	E	ilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Analyte					LOD	0.50	LOQ	mg/L	J	Fd

Method Category:	METALS	
Method:	6010C	Matrix: AQ

Sample ID:DTW15042015	Collec	4/8/2015 12:50: Collected: PM				0:00 Analysis Type:RES/DIS			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	46	J	30	LOD	100	LOQ	ug/L	J	RI, Fd
POTASSIUM	730	J	250	LOD	3000	LOQ	ug/L	J	RI
		4/8/20	15 12:50	:00					

Sample ID:DTW15042015	Collec	Collected: PM			Analysis Type:RES/TOT				Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	26	J	31	LOD	300	LOQ	ug/L	J	RI		
POTASSIUM	740	J	250	LOD	3000	LOQ	ug/L	J	RI		
	•	4/8/20	15 12:10	:00	-						

Sample ID:MW18D042015	Collec	Collected: PM			Analysis Type: RES/DIS				Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	49	J	31	LOD	300	LOQ	ug/L	J	RI		
IRON	63	J	30	LOD	100	LOQ	ug/L	J	RI		
POTASSIUM	1600	J	250	LOD	3000	LOQ	ug/L	J	RI		

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method Category: META	LS .	
Method: 6010C	Matrix:	AQ

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1300	J	250	LOD	3000	LOQ	ug/L	J	RI
Comple ID CMMM04042045		4/8/20	15 10:45	:00		Turne DEC			Dilustia m. 4

Sample ID:SMW01042015	Collec	Collected: AM			nalysis	ype:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	87	J	31	LOD	300	LOQ	ug/L	J	RI
IRON	64	J	30	LOD	100	LOQ	ug/L	J	RI
POTASSIUM	630	J	250	LOD	3000	LOQ	ua/L	J	RI

Sample ID:SMW01042015	Collec	4/8/20 cted: AM	15 10:45		nalysis 1	<i>Type:</i> RES	утот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	20	J	31	LOD	300	LOQ	ug/L	J	RI
POTASSIUM	590	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW08042015	Collec	ted:4/8/20	/DIS	Dilution: 1					
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
-									
IRON	57	J	30	LOD	100	LOQ	ug/L	J	RI

Sample ID:TMW08042015	Collected:4/8/2015 9:20:00 AM Analysis Type:RES/TOT								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	37	J	31	LOD	300	LOQ	ug/L	J	RI		

Sample ID:TMW11042015	Collec	cted:4/8/20	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	83	J	31	LOD	300	LOQ	ug/L	J	RI
IRON	43	J	30	LOD	100	LOQ	ug/L	J	RI
POTASSIUM	770	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW11042015	Collected:4/8/2015 9:00:00 AM Analysis Type:RES/TOT							Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	1100	J	250	LOD	3000	LOQ	ug/L	J	RI		

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS			
Method:	6010C	Matrix:	AQ	

Sample ID:TMW14A042015 Analyte	Collec	4/8/2015 10:25 Collected: AM				<i>ype:</i> RES	/DIS	Dilution: 1		
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON	26	J	30	LOD	100	LOQ	ug/L	J	RI, ProfJudg	
MAGNESIUM	390	J	25	LOD	500	LOQ	ug/L	J	RI	
POTASSIUM	780	J	250	LOD	3000	100	ua/l	J	RI	

		1		1	1	1			
Sample ID:TMW14A042015	Colle	4/8/20 cted: AM	15 10:25		nalysis 1	Гуре:RES	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	19	J	31	LOD	300	LOQ	ug/L	J	RI
IRON	26	J	30	LOD	100	LOQ	ug/L	J	RI, ProfJudg
MAGNESIUM	390	J	25	LOD	500	LOQ	ug/L	J	RI
POTASSIUM	790	J	250	LOD	3000	LOQ	ug/L	J	RI

Sample ID:TMW15042015	Collec	4/8/20 cted:PM	15 12:50		nalysis 1	Type:RES	J/DIS	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON	30	U	30	LOD	100	LOQ	ug/L	UJ	Fd	
POTASSIUM	810	.l	250	LOD	3000	100	ug/l	.l	RI	

		4/8/2015 12:50:00								
Sample ID:TMW15042015	Collec	:ted:PM		Α	nalysis 1	Type:RES	/TOT		Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	740	J	250	LOD	3000	LOQ	ug/L	J	RI	

Sample ID:TMW24042015	le ID:TMW24042015 Collected:4/8/2015 1:45:00 PM Analysis Type:RES/DIS								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ALUMINUM	34	J	31	LOD	300	LOQ	ug/L	J	RI		
IRON	69	J	30	LOD	100	LOQ	ug/L	J	RI		
POTASSIUM	990	J	250	LOD	3000	LOQ	ug/L	J	RI		

Sample ID:TMW24042015	Collected:4/8/2015 1:45:00 PM Analysis Type:RES/TOT							Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	27	J	31	LOD	300	LOQ	ug/L	J	RI
IRON	63	J	30	LOD	100	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6010C Matrix: AQ

Sample ID:TMW24042015	Collected:4/8/2015 1:45:00 PM Analysis Type:RES/TOT								Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
POTASSIUM	930	J	250	LOD	3000	LOQ	ug/L	J	RI		

4/8/2015 10:32:00 Collected: AM Sample ID:TMW38042015 Analysis Type: RES/DIS Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL Type RL Type Units Qual Code ALUMINUM 210 J 31 LOD 300 LOQ ug/L RΙ POTASSIUM 1200 250 LOD 3000 LOQ J RΙ ug/L

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1600	J	250	LOD	3000	LOQ	ug/L	J	RI

Method Category: METALS

Method: 6020A Matrix: AQ

4/8/2015 12:50:00 Collected: PM Analysis Type: RE2/TOT Sample ID:DTW15042015 Dilution: 1 Data Lab Lab DL RL Review Reason Analyte Result Qual DL RL Туре **Units** Qual Code Type MANGANESE 0.63 0.90 LOD 3.5 LOQ RΙ

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.93	J	1.5	LOD	10	LOQ	ug/L	J	RI
VANADIUM	1.1	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	7.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	1.0	J	1.5	LOD	10	LOQ	ug/L	J	RI
VANADIUM	1.5	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	7.2	J	6.0	LOD	20	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Method:

Data Qualifier Summary

Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1

eQAPP Name: FtWingate_Primary_120405

Method	Category:	METALS

6020A Matrix: AQ

Sample ID:MW18D042015	Collec	4/8/20 cted:PM	15 12:10		nalysis i	Type:RE3	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMILIM	0.80		0.40	LOD	1.0	100	ua/l	1	DI

4/8/2015 12:10:00
Sample ID:MW18D042015
Collected: PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.51	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	0.78	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.97	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.3	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.31	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	0.74	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.034	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.089	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb
ZINC	16	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/8/2015 12:10:00
Sample ID:MW18D042015

Collected: PM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.75	J	0.60	LOD	6.0	LOQ	ug/L	U	Mb
SELENIUM	1.1	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.25	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.28	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

Sample ID:MW22S042015 Collected:4/8/2015 1:10:00 PM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.95	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
BERYLLIUM	0.085	J	0.24	LOD	1.0	LOQ	ug/L	J	RI	
CHROMIUM	1.3	J	1.5	LOD	10	LOQ	ug/L	J	RI	
COBALT	0.66	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
LEAD	1.7	J	0.50	LOD	3.0	LOQ	ug/L	J	RI	
NICKEL	1.8	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
THALLIUM	0.087	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb	
VANADIUM	3.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	7.5	J	6.0	LOD	20	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

4/8	/2015	10:45:0	00
4/U	720 IJ	10.43.0	,,

Sample ID:SMW01042015 Collected: AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.52	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	0.89	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.28	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	1.7	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	2.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	2.9	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/8/2015 10:45:00

Sample ID:SMW01042015 Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.0	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.30	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	2.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW08042015

Collected: 4/8/2015 9:20:00 AM Analysis Type: RES/DIS

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.37	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.48	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.4	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	1.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	6.5	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW08042015

Collected: 4/8/2015 9:20:00 AM Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.38	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.32	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	1.4	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.039	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	1.1	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	15	J	6.0	LOD	20	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1

eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Matrix: AQ

wetnoa:	0UZUA	

Sample ID:TMW11042015	Collec	Collected:4/8/2015 9:00:00 AM Analysis Type:RES/DIS								
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
CHROMIUM	1.4	J	1.5	LOD	10	LOQ	ug/L	J	RI	
THALLIUM	0.051	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb	
VANADIUM	1.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	3.1	J	6.0	LOD	20	LOQ	ug/L	J	RI	

Sample ID:TMW11042015 Collected:4/8/2015 9:00:00 AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.55	J	0.60	LOD	6.0	LOQ	ug/L	U	Mb
CHROMIUM	2.2	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.29	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	0.38	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	1.1	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	3.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	5.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/8/2015 10:25:00 Sample ID:TMW14A042015 Collected: AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.2	J	0.60	LOD	6.0	LOQ	ug/L	J	RI
ARSENIC	0.52	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.033	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.17	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

Sample ID:TMW14A042015 Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.0	J	0.60	LOD	6.0	LOQ	ug/L	U	Mb
ARSENIC	0.63	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
NICKEL	0.30	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
THALLIUM	0.12	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS			
Method:	6020A	Matrix:	AQ	
		4/8/2015 12:50:00		

Sample ID:TMW15042015	Collec	Collected: PM				Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	0.53	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
Sample ID:TMW15042015	Collec	4/8/2015 12:50:00 Collected: PM Analysis Type: RES/DIS							Dilution: 1

Sample ID:1 MW15042015	Collec	Collected:PM Analysis Type:RES/L				אוטו/		Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.91	J	1.5	LOD	10	LOQ	ug/L	J	RI
VANADIUM	1.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	6.2	J	6.0	LOD	20	LOQ	ug/L	J	RI

		1		1	1	1	1 -		
Sample ID:TMW15042015 Analyte	Colle	4/8/20 cted:PM	15 12:50		nalysis	Type:RES	утот	•	Dilution: 1
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
СНКОМІИМ	0.92	J	1.5	LOD	10	LOQ	ug/L	J	RI
VANADIUM	1.2	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	6.7	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:1 MW24042015	Collected:4/8/2015 1:45:00 PM Analysis Type:RES/DIS Dilution: 1									
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	1.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COBALT	0.26	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
NICKEL	0.84	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
VANADIUM	1.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	2.4	J	6.0	LOD	20	LOQ	ug/L	J	RI	

Sample ID:TMW24042015	Collec	cted:4/8/20	15 1:45:0	00 PM <i>A</i>	nalysis 1	Type:RES	/тот	Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.4	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.27	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.57	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	1.0	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.1	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1

eQAPP Name: FtWingate_Primary_120405

Method Category: **METALS**

> Matrix: AQ

Method: 6020A 4/8/2015 10:32:00

Sample ID:TMW38042015	Collec	4/8/2015 10:32:00 Collected: AM			nalysis 1	Type:RES	/DIS	Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.62	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.12	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	0.24	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	0.57	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	4.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/8/2015 10:32:00 Sample ID:TMW38042015 Collected: AM Analysis Type: RES/TOT Dilution: 1

		,			•	71			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.0	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
СНКОМІИМ	1.6	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.66	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
LEAD	1.1	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	1.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
THALLIUM	0.071	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

Method Category: **METALS** 7470A Method: Matrix:

4/8/2015 12:10:00 Sample ID:MW18D042015 Collected: PM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.089	J	0.080	LOD	0.20	LOQ	ug/L	J	RI

Method Category: **SVOA** Method: 6860 Matrix: AQ

4/8/2015 12:10:00

Sample ID:MW18D042015	Collected:PM		Α	nalysis 1	<i>ype:</i> RES	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	0.0092	J	0.020	LOD	0.050	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

Dilution: 1

EDD Filename: 280-67561-1

eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 6860 Matrix: AQ

4/8/2015 10:32:00

Sample ID:1 MW38042015	Collec	Collected: AM			nalysis i	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	0.0060	J	0.020	LOD	0.050	LOQ	ug/L	J	RI

Method Category: SVOA

Method: 8015C DRO Matrix: AQ

Sample ID:TMW08042015 Collected:4/8/2015 9:20:00 AM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIESEL RANGE ORGANICS	0.066	JM	0.10	LOD	0.25	LOQ	mg/L	J	RI

Method Category: SVOA

Method: 8015C GRO Matrix: AQ

 Sample ID:MW18D042015
 4/8/2015 12:10:00

 Collected:PM
 Analysis Type:RE2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS	54	М	20	LOD	25	LOQ	ug/L	J	Preservation, ProfJuda

Sample ID:TMW08042015 Collected:4/8/2015 9:20:00 AM Analysis Type:RE2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS	20	U	20	LOD	25	LOQ	ug/L	UJ	Preservation

Method Category: SVOA

Method: 8270D Matrix: AQ

4/8/2015 12:50:00

Sample ID:DTW15042015 Collected: PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
inaryto	rtoourt			.,,,,,		.,,,,,	0,,,,,,		0000
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	53	LOQ	ug/L	UJ	Lcs

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

Laboratory: TA DEN

EDD Filename: 280-67561-1

eQAPP Name: FtWingate_Primary_120405

Method	Category:	SVOA

Matrix: AQ

Method:	8270D	
		4/0/201E 10

	4/8/2015 10:45:00	
Sample ID:SMW01042015	Collected: AM	Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	20	U	20	LOD	51	LOQ	ug/L	UJ	Lcs

4/8/2015 10:25:00
Sample ID:TMW14A042015
Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	UJ	Lcs

Sample ID:TMW15042015 Collected:PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

					,	71			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	22	U	22	LOD	55	LOQ	ug/L	UJ	Lcs

Sample ID:TMW38042015 Collected: AM Analy					nalysis 1	Type:RES	-BASE/N	EUTRAL	Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	22	U	22	LOD	56	LOQ	ug/L	UJ	Lcs

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67561-1

EDD Filename: 280-67561-1

Laboratory: TA DEN

eQAPP Name: FtWingate_Primary_120405

Reason Code Legend

Reason Code	Description
Fd	Field Duplicate Precision
Lcs	Laboratory Control Spike Lower Estimation
Mb	Method Blank Contamination
Ms	Matrix Spike Upper Estimation
Preservation	Preservation
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
Surr	Surrogate/Tracer Recovery Upper Estimation

^{*} denotes a non-reportable result

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Field Duplicates

Field Triplicates

Field Blanks

Data Review Summary

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note **Technical Holding Times** Α Temperature Α Initial Calibration Ν Continuing Calibration/Initial Calibration Verification Ν Method Blanks SR Surrogate/Tracer Spikes SR Matrix Spike/Matrix Spike Duplicates SR **Laboratory Duplicates** Α Laboratory Replicates Ν **Laboratory Control Samples** SR Compound Quantitation SR

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-272095/2-A (DTW15042015 SMW01042015 TMW14A042015 TMW15042015 TMW38042015)	HEXACHLOROCYCLOPENTADIEN	12	-	50.00-130.00	-	HEXACHLOROCYCLOPENTADIE	J (all detects) UJ (all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW14A042015MSD (TOT) (DTW15042015 MW18D042015 SMW01042015 TMW8042015 TMW11042015 TMW14A042015 TMW15042015 TMW15042015 TMW38042015 TMW38042015	SODIUM	-	121	80.00-120.00	-	SODIUM	J (all detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010 Matrix: AQ	С			
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271976/1-A	4/13/2015 7:20:00 PM	MAGNESIUM SODIUM	11.5 ug/L 352 ug/L	DTW15042015 MW18D042015 MW22S042015 SMW01042015 TMW08042015 TMW11042015 TMW14A042015 TMW15042015 TMW24042015 TMW24042015

Method: 6020 Matrix: AQ	A			
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-271975/1-A	4/11/2015 2:53:00 AM	THALLIUM	0.0890 ug/L	DTW15042015 MW18D042015 MW22S042015 SMW01042015 TMW08042015 TMW11042015 TMW14A042015 TMW15042015 TMW2042015 TMW38042015
MB 280-271978/1-A	4/11/2015 1:37:00 AM	ANTIMONY THALLIUM	0.578 ug/L 0.0810 ug/L	DTW15042015 MW18D042015 SMW01042015 TMW08042015 TMW11042015 TMW14A042015 TMW15042015 TMW24042015 TMW38042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
MW18D042015(RES/DIS)	THALLIUM	0.089 ug/L	0.089U ug/L
MW18D042015(RES/TOT)	ANTIMONY	0.75 ug/L	0.75U ug/L
MW18D042015(RES/TOT)	THALLIUM	0.28 ug/L	0.28U ug/L
MW22S042015(RES/DIS)	THALLIUM	0.087 ug/L	0.087U ug/L
TMW11042015(RES/DIS)	THALLIUM	0.051 ug/L	0.051U ug/L
TMW11042015(RES/TOT)	ANTIMONY	0.55 ug/L	0.55U ug/L
TMW14A042015(RES/DIS)	THALLIUM	0.17 ug/L	0.17U ug/L
TMW14A042015(RES/TOT)	ANTIMONY	1.0 ug/L	1.0U ug/L
TMW14A042015(RES/TOT)	THALLIUM	0.12 ug/L	0.12U ug/L
TMW38042015(RES/TOT)	THALLIUM	0.071 ug/L	0.071U ug/L

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method: Matrix:	8260B AQ				
Method Bla Sample ID	ınk	Analysis Date	Analyte	Result	Associated Samples
MB 280-272656	/6	4/14/2015 7:15:00 PM	METHYLENE CHLORIDE	0.588 ug/L	MW18D042015

Method: 9056 Matrix: AQ					
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples	
MB 280-271866/13	4/9/2015 4:04:00 PM	NITRATE	0.0516 mg/L	DTW15042015 MW18D042015 SMW01042015 TMW08042015 TMW11042015 TMW14A042015 TMW15042015 TMW24042015 TMW38042015	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
MW18D042015(RES/TOT)	NITRATE	0.11 mg/L	0.11U mg/L

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DTW15042015	ALUMINUM IRON POTASSIUM	J	26 46 730	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
MW18D042015	ALUMINUM IRON POTASSIUM	J	49 63 1600	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
MW22S042015	POTASSIUM	J	1300	3000	LOQ	ug/L	J (all detects)
SMW01042015	ALUMINUM IRON POTASSIUM	J	87 64 630	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW08042015	ALUMINUM IRON	J	37 57	300 100	LOQ LOQ	ug/L ug/L	J (all detects)
TMW11042015	ALUMINUM IRON POTASSIUM	J	83 43 770	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW14A042015	ALUMINUM IRON MAGNESIUM POTASSIUM	J	19 26 390 780	300 100 500 3000	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
TMW15042015	POTASSIUM	J	810	3000	LOQ	ug/L	J (all detects)
TMW24042015	ALUMINUM IRON POTASSIUM	J	34 69 990	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW38042015	ALUMINUM POTASSIUM	J	210 1200	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DTW15042015	CHROMIUM MANGANESE VANADIUM ZINC	J	0.93 0.63 1.1 7.8	10 3.5 6.0 20	LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L	J (all detects)
MW18D042015	ANTIMONY ARSENIC CADMIUM COBALT COPPER LEAD SELENIUM SILVER THALLIUM ZINC))))	0.51 0.78 0.89 0.97 1.3 0.31 0.74 0.034 0.089	6.0 5.0 1.0 1.0 2.0 3.0 5.0 5.0 1.0	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)

Project Name and Number: 102012 - FWDA 102012 GW

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A

Matrix: AQ

O	Analyte	Lab	D#	Reporting	RL	11-21-	El
SampleID	Analyte	Qual	Result	Limit	Туре	Units	Flag
MW22S042015	ARSENIC	ļ	0.95	5.0	LOQ	ug/L	
	BERYLLIUM	J	0.085	1.0	LOQ	ug/L	
	CHROMIUM	ļ	1.3	10	LOQ	ug/L	
	COBALT	J	0.66	1.0	LOQ	ug/L	I (all data ata)
	LEAD NICKEL	J	1.7	3.0	LOQ	ug/L	J (all detects)
	THALLIUM	J	1.8 0.087	3.0 1.0	LOQ LOQ	ug/L	
	VANADIUM	J	3.7	6.0	LOQ	ug/L	
	ZINC	J	3.7 7.5	20	LOQ	ug/L ug/L	
SMW01042015	ANTIMONY	J	0.52	6.0	LOQ	ug/L	
	ARSENIC	J	0.89	5.0	LOQ	ug/L	
	COBALT	J	0.28	1.0	LOQ	ug/L	J (all detects)
	NICKEL	J	1.7	3.0	LOQ	ug/L	o (an actorio)
	VANADIUM	J	2.0	6.0	LOQ	ug/L	
	ZINC	J	2.9	20	LOQ	ug/L	
TMW08042015	ARSENIC	J	0.37	5.0	LOQ	ug/L	
	COBALT	J	0.48	1.0	LOQ	ug/L	
	COPPER	J	1.4	2.0	LOQ	ug/L	
	NICKEL	J	1.5	3.0	LOQ	ug/L	J (all detects)
	SILVER	J	0.039	5.0	LOQ	ug/L	
	VANADIUM	J	1.1	6.0	LOQ	ug/L	
	ZINC	J	6.5	20	LOQ	ug/L	
TMW11042015	ANTIMONY	J	0.55	6.0	LOQ	ug/L	
	CHROMIUM	J	1.4	10	LOQ	ug/L	
	COBALT	J	0.29	1.0	LOQ	ug/L	
	LEAD	J	0.38	3.0	LOQ		
	NICKEL	J	1.1	3.0	LOQ	ug/L	o (dii dotooto)
	THALLIUM	J	0.051	1.0	LOQ	ug/L	
	VANADIUM	l j	1.6	6.0	LOQ	ug/L	
	ZINC	J	3.1	20	LOQ	ug/L	
TMW14A042015	ANTIMONY	J	1.2	6.0	LOQ	ug/L	
	ARSENIC	J	0.52	5.0	LOQ	ug/L	1 /-!! -!
	NICKEL SILVER	J	0.30 0.033	3.0 5.0	LOQ LOQ	ug/L	J (all detects)
	THALLIUM	J	0.033	1.0	LOQ	ug/L	
TMW15042015	CHROMIUM	J	0.17	1.0	LOQ	ug/L ug/L	
110100 13042013	MANGANESE	J	0.53	3.5	LOQ	ug/L ug/L	
	VANADIUM	J	1.2	6.0	LOQ	ug/L ug/L	J (all detects)
	ZINC	J	6.2	20	LOQ	ug/L ug/L	
TMW24042015	ARSENIC	J	1.1	5.0	LOQ	ug/L	
	COBALT	J	0.26	1.0	LOQ	ug/L	
	COPPER	J	0.57	2.0	LOQ	ug/L	J (all detects)
	NICKEL	J	0.84	3.0	LOQ	ug/L	o (an acteois)
	VANADIUM	J	1.0	6.0	LOQ	ug/L	
	ZINC	J	2.4	20	LOQ	ug/L	
TMW38042015	ARSENIC	J	0.62	5.0	LOQ	ug/L	
	CHROMIUM	J	1.6	10	LOQ	ug/L	
	COBALT	J	0.12	1.0	LOQ	ug/L	
	LEAD	J	0.24	3.0	LOQ	ug/L	J (all detects)
	NICKEL	J	0.57	3.0	LOQ	ug/L	- (0.00.0)
	THALLIUM	ļ	0.071	1.0	LOQ	ug/L	
	VANADIUM	J	1.4	6.0	LOQ	ug/L	
	ZINC	J	4.8	20	LOQ	ug/L	

Project Name and Number: 102012 - FWDA 102012 GW

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67561-1 **Laboratory: TA DEN**

	7561-1			eQAPP Na	ille. Ftv	villgate	_Primary_120405
Method: 6020A							
Matrix: AQ							
SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
Method: 6860							
Matrix: AQ							
SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW18D042015	PERCHLORATE	J	0.0092	0.050	LOQ	ug/L	J (all detects)
TMW38042015	PERCHLORATE	J	0.0060	0.050	LOQ	ug/L	J (all detects)
Method: 7470A							
Matrix: AQ							
		Lab		Reporting	RL		
SampleID	Analyte	Qual	Result	Limit	Туре	Units	Flag
SampleID MW18D042015	Analyte MERCURY		Result 0.089			Units ug/L	J (all detects)
	MERCURY	Qual		Limit	Туре		
MW18D042015	MERCURY	Qual		Limit	Туре		
MW18D042015 Method: 8015C DRC	MERCURY	Qual		Limit	Туре		
MW18D042015 Method: 8015C DR0 Matrix: AQ	MERCURY	Qual J	0.089	Limit 0.20 Reporting	Type LOQ RL	ug/L	J (all detects)
MW18D042015 Method: 8015C DRC Matrix: AQ SampleID	MERCURY Analyte	Qual J Lab Qual	0.089	Limit 0.20 Reporting Limit	Type LOQ RL Type	ug/L Units	J (all detects)
MW18D042015 Method: 8015C DRC Matrix: AQ SampleID TMW08042015	MERCURY Analyte	Qual J Lab Qual	0.089	Limit 0.20 Reporting Limit	Type LOQ RL Type	ug/L Units	J (all detects)
MW18D042015 Method: 8015C DRC Matrix: AQ SampleID TMW08042015 Method: 9056	MERCURY Analyte	Qual J Lab Qual	0.089	Limit 0.20 Reporting Limit	Type LOQ RL Type	ug/L Units	J (all detects)



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67561-1 Method: 6010C DTW15042015 S2AVE 280-67561-8 FD 3005A 4/8/2015 12:50:00 PM AQ DTW15042015 280-67561-8 AQ FD 3010A 4/8/2015 12:50:00 PM S2AVE MW18D042015 280-67561-5 Ν 3005A 4/8/2015 12:10:00 PM S2AVE AQ MW18D042015 280-67561-5 Ν 3010A 4/8/2015 12:10:00 PM S2AVE AQ S2AVE MW22S042015 280-67561-6 AQ Ν 3005A 4/8/2015 1:10:00 PM SMW01042015 S2AVE 280-67561-10 AQ Ν 3005A 4/8/2015 10:45:00 AM SMW01042015 S2AVE 280-67561-10 AQ Ν 3010A 4/8/2015 10:45:00 AM TMW08042015 280-67561-11 AQ Ν 3005A 4/8/2015 9:20:00 AM S2AVE TMW08042015 3010A 4/8/2015 9:20:00 AM S2AVE 280-67561-11 AQ Ν TMW11042015 280-67561-4 Ν 3005A 4/8/2015 9:00:00 AM S2AVE AQ S2AVE TMW11042015 280-67561-4 AQ Ν 3010A 4/8/2015 9:00:00 AM S2AVE TMW14A042015 280-67561-3 AQ Ν 3005A 4/8/2015 10:25:00 AM S2AVE TMW14A042015 280-67561-3 AQ Ν 3010A 4/8/2015 10:25:00 AM TMW14A042015MS 280-67561-3MS AQ MS 3005A 4/8/2015 10:25:00 AM S2AVE TMW14A042015MS 280-67561-3MS MS 3010A S2AVE AQ 4/8/2015 10:25:00 AM MSD S2AVE TMW14A042015MSD 280-67561-3MSD 3005A 4/8/2015 10:25:00 AM AQ MSD S2AVE TMW14A042015MSD 280-67561-3MSD 3010A AQ 4/8/2015 10:25:00 AM TMW15042015 280-67561-7 Ν 3005A 4/8/2015 12:50:00 PM S2AVE AQ S2AVE TMW15042015 280-67561-7 Ν 3010A 4/8/2015 12:50:00 PM AQ TMW24042015 280-67561-12 Ν 3005A 4/8/2015 1:45:00 PM S2AVE AQ TMW24042015 280-67561-12 Ν 3010A 4/8/2015 1:45:00 PM S2AVE AQ TMW38042015 280-67561-9 Ν 3005A 4/8/2015 10:32:00 AM S2AVE AQ

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Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6010C TMW38042015 3010A S2AVE 280-67561-9 Ν 4/8/2015 10:32:00 AM AQ Method: 6020A DTW15042015 280-67561-8 FD 3005A 4/8/2015 12:50:00 PM S2AVE AQ DTW15042015 280-67561-8 FD 3020A 4/8/2015 12:50:00 PM S2AVE AQ S2AVE MW18D042015 280-67561-5 AQ Ν 3005A 4/8/2015 12:10:00 PM MW18D042015 280-67561-5 AQ Ν 3020A 4/8/2015 12:10:00 PM S2AVE MW22S042015 280-67561-6 AQ Ν 3005A 4/8/2015 1:10:00 PM S2AVE SMW01042015 S2AVE 280-67561-10 AQ Ν 3005A 4/8/2015 10:45:00 AM S2AVE SMW01042015 280-67561-10 Ν 3020A 4/8/2015 10:45:00 AM AQ S2AVE TMW08042015 280-67561-11 AQ Ν 3005A 4/8/2015 9:20:00 AM TMW08042015 280-67561-11 Ν 3020A 4/8/2015 9:20:00 AM S2AVE AQ S2AVE TMW11042015 280-67561-4 AQ Ν 3005A 4/8/2015 9:00:00 AM TMW11042015 280-67561-4 AQ Ν 3020A 4/8/2015 9:00:00 AM S2AVE TMW11042015MS 280-67561-4MS MS 3005A 4/8/2015 9:00:00 AM S2AVE AQ S2AVE TMW11042015MS 280-67561-4MS MS 3020A 4/8/2015 9:00:00 AM AQ S2AVE TMW11042015MSD 280-67561-4MSD AQ MSD 3005A 4/8/2015 9:00:00 AM S2AVE TMW11042015MSD 280-67561-4MSD MSD 3020A 4/8/2015 9:00:00 AM AQ TMW14A042015 280-67561-3 Ν 3005A 4/8/2015 10:25:00 AM S2AVE AQ TMW14A042015 280-67561-3 AQ Ν 3020A 4/8/2015 10:25:00 AM S2AVE TMW15042015 280-67561-7 Ν 3005A 4/8/2015 12:50:00 PM S2AVE AQ TMW15042015 280-67561-7 Ν 3020A 4/8/2015 12:50:00 PM S2AVE AQ TMW24042015 280-67561-12 AQ Ν 3005A 4/8/2015 1:45:00 PM S2AVE S2AVE TMW24042015 280-67561-12 AQ Ν 3020A 4/8/2015 1:45:00 PM S2AVE TMW38042015 280-67561-9 AQ Ν 3005A 4/8/2015 10:32:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 1:11:04 PM Page 2 of 6



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6020A TMW38042015 3020A S2AVE 280-67561-9 Ν 4/8/2015 10:32:00 AM AQ Method: 6860 DTW15042015 280-67561-8 FD **METHOD** 4/8/2015 12:50:00 PM S2AVE AQ MW18D042015 280-67561-5 Ν **METHOD** 4/8/2015 12:10:00 PM S2AVE AQ **METHOD** S2AVE SMW01042015 280-67561-10 AQ Ν 4/8/2015 10:45:00 AM TMW08042015 280-67561-11 AQ Ν **METHOD** 4/8/2015 9:20:00 AM S2AVE TMW11042015 280-67561-4 AQ Ν **METHOD** 4/8/2015 9:00:00 AM S2AVE TMW15042015 Ν **METHOD** S2AVE 280-67561-7 AQ 4/8/2015 12:50:00 PM S2AVE TMW24042015 280-67561-12 Ν **METHOD** 4/8/2015 1:45:00 PM AQ S2AVE TMW38042015 280-67561-9 AQ Ν **METHOD** 4/8/2015 10:32:00 AM Method: 7470A DTW15042015 FD S2AVE 280-67561-8 7470A 4/8/2015 12:50:00 PM AQ 4/8/2015 12:10:00 PM MW18D042015 280-67561-5 7470A S2AVE AQ Ν MW22S042015 280-67561-6 AQ Ν 7470A 4/8/2015 1:10:00 PM S2AVE SMW01042015 280-67561-10 7470A 4/8/2015 10:45:00 AM S2AVE AQ Ν TMW08042015 280-67561-11 Ν 7470A 4/8/2015 9:20:00 AM S2AVE AQ TMW11042015 280-67561-4 Ν 7470A 4/8/2015 9:00:00 AM S2AVE AQ 7470A S2AVE TMW14A042015 280-67561-3 AQ Ν 4/8/2015 10:25:00 AM S2AVE TMW15042015 280-67561-7 7470A AQ Ν 4/8/2015 12:50:00 PM TMW24042015 280-67561-12 AQ Ν 7470A 4/8/2015 1:45:00 PM S2AVE TMW38042015 280-67561-9 Ν 7470A 4/8/2015 10:32:00 AM S2AVE AQ Method: 8015C DRO S2AVE MW18D042015 280-67561-5 AQ Ν 3510C 4/8/2015 12:10:00 PM TMW08042015 280-67561-11 Ν 3510C 4/8/2015 9:20:00 AM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 1:11:04 PM Page 3 of 6



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 8015C GRO MW18D042015 **METHOD** S2AVE 280-67561-5 Ν 4/8/2015 12:10:00 PM AQ TB-44-042015 TB **METHOD** 4/8/2015 8:00:00 AM S2AVE 280-67561-2 AQ TMW08042015 280-67561-11 AQ Ν **METHOD** 4/8/2015 9:20:00 AM S2AVE Method: 8081A TMW08042015 S2AVE 280-67561-11 AQ Ν 3510C 4/8/2015 9:20:00 AM TMW24042015 280-67561-12 AQ Ν 3510C 4/8/2015 1:45:00 PM S2AVE TMW38042015 280-67561-9 AQ Ν 3510C 4/8/2015 10:32:00 AM S2AVE Method: 8260B DTW15042015 S2AVE 280-67561-8 AQ FD 4/8/2015 12:50:00 PM 5030 MW18D042015 S2AVE 280-67561-5 AQ Ν 4/8/2015 12:10:00 PM 5030 SMW01042015 280-67561-10 Ν S2AVE AQ 4/8/2015 10:45:00 AM 5030 S2AVE TB-06-042015 280-67561-1 TB 4/8/2015 8:00:00 AM AQ 5030 TMW08042015 280-67561-11 S2AVE AQ Ν 4/8/2015 9:20:00 AM 5030 TMW11042015 280-67561-4 AQ Ν 4/8/2015 9:00:00 AM S2AVE 5030 TMW14A042015 280-67561-3 S2AVE AQ Ν 4/8/2015 10:25:00 AM 5030 TMW15042015 280-67561-7 Ν 4/8/2015 12:50:00 PM S2AVE AQ 5030 TMW24042015 280-67561-12 Ν 4/8/2015 1:45:00 PM S2AVE AQ 5030 TMW38042015 280-67561-9 S2AVE AQ Ν 4/8/2015 10:32:00 AM Method: 8270D DTW15042015 FD 3520C S2AVE 280-67561-8 AQ 4/8/2015 12:50:00 PM SMW01042015 280-67561-10 Ν 3520C S2AVE AQ 4/8/2015 10:45:00 AM S2AVE TMW14A042015 280-67561-3 Ν 3520C 4/8/2015 10:25:00 AM AQ S2AVE TMW15042015 280-67561-7 AQ Ν 3520C 4/8/2015 12:50:00 PM TMW38042015 280-67561-9 Ν 3520C 4/8/2015 10:32:00 AM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 1:11:04 PM Page 4 of 6



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 8330B DTW15042015 280-67561-8 FD S2AVE 4/8/2015 12:50:00 PM AQ 3535 MW18D042015 280-67561-5 Ν S2AVE AQ 4/8/2015 12:10:00 PM 3535 SMW01042015 280-67561-10 AQ Ν 4/8/2015 10:45:00 AM S2AVE 3535 S2AVE TMW11042015 280-67561-4 Ν 4/8/2015 9:00:00 AM AQ 3535 TMW14A042015 280-67561-3 Ν 4/8/2015 10:25:00 AM S2AVE AQ 3535 TMW15042015 S2AVE 280-67561-7 AQ Ν 4/8/2015 12:50:00 PM 3535 TMW24042015 280-67561-12 Ν 4/8/2015 1:45:00 PM S2AVE AQ 3535 TMW38042015 280-67561-9 Ν S2AVE AQ 4/8/2015 10:32:00 AM 3535 Method: 9056 FD **METHOD** S2AVE DTW15042015 280-67561-8 AQ 4/8/2015 12:50:00 PM MW18D042015 280-67561-5 Ν **METHOD** 4/8/2015 12:10:00 PM S2AVE AQ 280-67561-10 S2AVE SMW01042015 AQ Ν **METHOD** 4/8/2015 10:45:00 AM TMW08042015 280-67561-11 Ν **METHOD** 4/8/2015 9:20:00 AM S2AVE AQ TMW11042015 280-67561-4 **METHOD** 4/8/2015 9:00:00 AM S2AVE Ν AQ S2AVE TMW14A042015 280-67561-3 Ν **METHOD** 4/8/2015 10:25:00 AM AQ S2AVE TMW14A042015DUP 280-67561-3DUP AQ DUP **METHOD** 4/8/2015 10:25:00 AM S2AVE TMW14A042015MS 280-67561-3MS MS **METHOD** 4/8/2015 10:25:00 AM AQ TMW14A042015MSD 280-67561-3MSD MSD **METHOD** 4/8/2015 10:25:00 AM S2AVE AQ TMW15042015 280-67561-7 AQ Ν **METHOD** 4/8/2015 12:50:00 PM S2AVE TMW24042015 280-67561-12 Ν **METHOD** 4/8/2015 1:45:00 PM S2AVE AQ TMW38042015 280-67561-9 Ν **METHOD** 4/8/2015 10:32:00 AM S2AVE AQ



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

<i>Method:</i> 8260E <i>Matrix:</i> AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DTW15042015	1,2-DICHLOROETHANE-D4 DIBROMOFLUOROMETHANE	123 124	70.00-120.00 85.00-115.00	All Target Analytes	J (all detects)
SMW01042015	DIBROMOFLUOROMETHANE	120	85.00-115.00	All Target Analytes	J(all detects)
TMW11042015	1,2-DICHLOROETHANE-D4 DIBROMOFLUOROMETHANE	124 123	70.00-120.00 85.00-115.00	All Target Analytes	J(all detects)
TMW14A042015	DIBROMOFLUOROMETHANE	117	85.00-115.00	All Target Analytes	J(all detects)

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67561-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for five water samples received April 9, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 1.3°C, 4.5°C, 3.5°C, 3.6°C, 1.4°C, 1.4°C, 1.6°C and 4.4°C.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67561-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW14A042015 (280-67561-3), TMW15042015 (280-67561-7), DTW15042015 (280-67561-8), TMW38042015 (280-67561-9) and SMW01042015 (280-67561-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/10/2015 and analyzed on 04/14/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272540 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67561-2

eQapp Name: FtWingate_Primary_120405

Associated	Sample Collection
Samples	Date

Field QC DTW15042015

QC Type: FD

TMW15042015 4/8/2015 12:50:00 PM



Lab Reporting Batch ID: 280-67561-2

Laboratory: TA DEN
EDD Filename: 280-67561-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67561-2

Laboratory: TA DEN
EDD Filename: 280-67561-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

Technical Holding Times	A
Temperature	A
Initial Calibration	N
Continuing Calibration/Initial Calibration Verification	N
Method Blanks	A
Surrogate/Tracer Spikes	A
Matrix Spike/Matrix Spike Duplicates	N
Laboratory Duplicates	N
Laboratory Replicates	N
Laboratory Control Samples	A
Compound Quantitation	A
Field Duplicates	A
Field Triplicates	N
Field Blanks	N



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Matrix Sample Type Validation Code Method **Collection Date** Lab Reporting Batch: 280-67561-2 Method: 8270D DTW15042015 280-67561-8 FD 3520C 4/8/2015 12:50:00 PM S2AVE AQ S2AVE SMW01042015 280-67561-10 AQ Ν 3520C 4/8/2015 10:45:00 AM S2AVE TMW14A042015 280-67561-3 Ν 3520C 4/8/2015 10:25:00 AM AQ TMW15042015 280-67561-7 AQ Ν 3520C 4/8/2015 12:50:00 PM S2AVE TMW38042015 280-67561-9 Ν 3520C 4/8/2015 10:32:00 AM S2AVE AQ



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

CASE NARRATIVE

Client: Sundance Consulting, Inc. Project: Fort Wingate, New Mexico Report Number: 280-67662-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for ten water samples received April 10, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 1.8°C, 0.3°C, 0.4°C, 0.3°C, 0.3°C, 0.5°C, -0.7°C and 3.5°C.

Sample TMW04042015 (280-67662-2) is marked for both 8270D and 8081A on the chain-of-custody. Two 1L amber bottles were received for this sample, both indicating 8270D analysis. Sufficient volume is available for the two requested analyses. The client was notified on April 13, 2015, and instructed the laboratory to cancel the 8081A analysis for this sample.

Please note the Caprolactam data are reported under separate cover (280-67662-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TB-07-042015 (280-67662-1), TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for analytical batch 280-272517 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW45042015 (280-67662-8) and TMW06042015 (280-67662-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/11/2015 and analyzed on 04/18/2015 and 04/23/2015.

Please note the Caprolactam data are reported under separate cover (280-67662-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows:

The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 1-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

Due to analyst oversight, MB 280-272314/1-A and LCS 280-272314/2-A were S-evaporated lower than directed in the SOP. Please note temperature sensitive surrogate/LCS compounds may be affected.

Surrogate Terphenyl-d14 was recovered below the QC control limits in sample TMW04042015 (280-67662-2). This is an indicator that data may be biased low. This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

Phenanthrene was detected in method blank MB 280-272314/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The LCS/LCSD associated with prep batch 280-272314 exhibited a percent recovery and/or RPD data outside the QC control limits for Benzidine and Hexachlorocyclopentadiene. Benzidine and Hexachlorocyclopentadiene have been identified as poor performing analytes when analyzed using this method; therefore, corrective action was deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-272314 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5) and TMW45042015 (280-67662-8) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/13/2015 and analyzed on 04/15/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples MB 280-272509/1-A and LCS 280-272509/2-A required a mercury clean-up to reduce matrix interferences caused by sulfur.

MS/MSD analyses for prep batch 280-272509 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8) and TMW06042015 (280-67662-10) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/13/2015 and analyzed on 04/16/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows:

The cartridges were eluted with 0.1% Acetic Acid in ACN instead of ACN to increase Tetryl recovery. This deviation was performed with QA and supervisor approval. The SOP is currently under revision to capture this change.

After review of chromatograms for samples TMW04042015 (280-67662-2) and TMW03042015 (280-67662-7), it is the opinion of the analyst that the evident matrix interferences may be causing false positive and/or false negative results.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, matrix interference and/or analytes present above the linear calibration curve, sample TMW03042015 (280-67662-7) had to be analyzed at a dilution. Surrogate recoveries could not be accurately calculated for the diluted analysis because the extract was diluted beyond the ability to reliably quantitate recoveries. The reporting limits and method detection limits have been adjusted relative to the dilution required.

Surrogate 1,2-Dinitrobenzene was recovered above the QC control limits in sample TMW04042015 (280-67662-2). This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

The RPD between the primary and confirmation columns exceeded 40% for 1,3,5-Trinitrobenzene, 2,4-Dinitrotoluene, 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoleune, HMX, o-Nitrotoluene, RDX and Tetryl in sample TMW04042015 (280-67662-2). The RPD between the primary and confirmation columns exceeded 40% for 2-Amino-4,6-dinitrotoluene and 4-Amino-2,6-dinitrotoleune in sample TMW02042015 (280-67662-6). The RPD between the primary and confirmation columns exceeded 40% for 1,2-Dinitrobenzene, 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoleune and HMX in sample TMW03042015 (280-67662-7). The lower of the two values has been reported, as matrix interference is evident. The results in the analytical report have been flagged with "J" in accordance with the DOD QSM.

2-Amino-4,6-dinitrotoluene was detected in method blank MB 280-272447/1-A at a level that was less than the reporting limit on the confirmation column. The primary column result is ND; therefore, the method blank is ND. As the samples are reporting 2-Amino-4,6-dinitrotoluene from the primary column which was in control, corrective action is deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-272447 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8) and TMW13042015 (280-67662-9) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/20/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or analytes present above the calibration curve, samples TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6) and TMW03042015 (280-67662-7) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

MS/MSD analyses for analytical batch 280-273667 were not requested.

The closing Continuing Calibration Blank (CCB) associated with analytical batch 280-273667 did not contain enough volume in the vial; therefore, the internal standard (IS) recovery was low. A new CCB was re-injected two times after to show the instrument is in control. Results were within control limits for the IS and non-detect for Perchlorate.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2015 and analyzed on 04/14/2015, 04/15/2015, 04/16/2015 and 04/17/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

The MS/MSD associated with prep batch 280-272256 was performed on sample TMW49042015 (280-67662-4). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-272256 was performed on sample TMW49042015 (280-67662-4). The SD exhibited a percent recovery outside the control limits for Calcium; however, the PDS performed on this sample was in control. The SD was not calculable and the PDS exhibited a percent recovery outside the control limits for Iron. The associated Iron data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2015 and analyzed on 04/16/2015, 04/17/2015 and 04/18/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

MS/MSD analyses for prep batch 280-272352 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/14/2015 and analyzed on 04/15/2015, 04/17/2015 and 04/28/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Thallium was detected in method blank MB 280-272253/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/14/2015 and analyzed on 04/15/2015 and 04/17/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Manganese was detected in method blank MB 280-272349/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for prep batch 280-272349 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/12/2015 and analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272333 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/13/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272339 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7), TMW45042015 (280-67662-8), TMW13042015 (280-67662-9) and TMW06042015 (280-67662-10) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/10/2015 and 04/11/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples TMW04042015 (280-67662-2), TMW02042015 (280-67662-6), TMW03042015 (280-67662-7) and TMW06042015 (280-67662-10) had to be analyzed at dilutions. The reporting limits and method detection limits have been adjusted relative to the dilutions required.

MS/MSD analyses for analytical batch 280-272086 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67662-1

eQapp Name: FtWingate_Primary_120405

	Associated Samples	Sample Collection Date
Field QC TB-07-042015 QC Type: TB		
	TMW02042015	4/9/2015 8:55:00 AM
	TMW03042015	4/9/2015 10:35:00 AM
	TMW04042015	4/9/2015 12:00:00 PM
	TMW06042015	4/9/2015 1:10:00 PM
	TMW13042015	4/9/2015 9:25:00 AM
	TMW32042015	4/9/2015 9:00:00 AM
	TMW40D042015	4/9/2015 12:10:00 PM
	TMW45042015	4/9/2015 11:10:00 AM
	TMW49042015	4/9/2015 10:31:00 AM

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67662-1

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280-67662-1						eQAl	PP Nam	e: FtWii	ngate_Pr	imary_120405
Method Category:	METALS									
Method:	6010C	Matrix: AQ								
Sample ID:TMW02042	Collected:4/9/2015 8:55:00 AM Analysis Type:RE2/TOT								Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1300	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW02042015		Collected:4/9/2015 8:55:00 AM Analysis Type: RE4/TOT Dilution: 5								Dilution: 5
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM		960000	D	1300	LOD	25000	LOQ	ug/L	J	Ms
Sample ID:TMW02042015		Collected: 4/9/2015 8:55:00 AM Analysis Type: RES/DIS Dilution								Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		2000	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW02042	Collected:4/9/2015 8:55:00 AM Analysis Type:RES/TOT Dilution: 1									
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		18	J	31	LOD	300	LOQ	ug/L	J	RI
Sample ID:TMW03042	4/9/2015 10:35:00 Collected:AM Analysis Type:RE2/TOT Dilution: 1								Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		510	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW03042015		Collec	4/9/2015 10:35:00 Collected: AM Analysis Type: RE4/TOT							Dilution: 5
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM		890000	D	1300	LOD	25000	LOQ	ug/L	J	Ms
Sample ID:TMW03042	4/9/2015 10:35:00 Collected: AM Analysis Type: RES/DIS Dilution: 1									
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		860	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW04042	Collec	4/9/2015 12:00:00 Collected:PM Analysis Type:RE2/TOT							Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		750	J	250	LOD	3000	LOQ	ug/L	J	RI
•				•	-		•	•	•	

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category	y: METALS										
Method:	6010C			Ma	atrix:	AQ					
Sample ID:TMW040	42015	Collec	4/9/20 ted:PM	15 12:00		nalysis 1	ype:RE4	/тот		Dilution: 5	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM		830000	D	1300	LOD	25000	LOQ	ug/L	J	Ms	
Sample ID:TMW040	42015	Collec	4/9/2015 12:00:00 Collected:PM Analysis Type:RES/DIS							Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		980	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:TMW040	42015	Collec	4/9/20 cted:PM	15 12:00		nalysis 1	ype:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON		54	J	30	LOD	100	LOQ	ug/L	J	RI	
Sample ID:TMW060	42015	Collec	ted:4/9/20	15 1:10:	00 PM <i>A</i>	nalysis 1	ype:RE2	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		430	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:TMW060	42015	Collec	ted:4/9/20	15 1:10:0	00 PM <i>A</i>	nalysis T	ype:RE4	/тот		Dilution: 5	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM		820000	D	1300	LOD	25000	LOQ	ug/L	J	Ms	
Sample ID:TMW060	42015	Collec	ted:4/9/20	15 1:10:0	00 PM <i>A</i>	nalysis 1	ype:RES	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		640	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:TMW060	42015	Collected: 4/9/2015 1:10:00 PM Analysis Type: RES/TOT Dilution: 1									
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM		24	J	31	LOD	300	LOQ	ug/L	J	RI	
IRON		24	J	30	LOD	100	LOQ	ug/L	J	RI	
		•									

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

EDD Fliename. 200-07002-1					CQAI	ı ıtanı	C. I LVVII	igate_i ii	
Method Category: METALS									
Method: 6010C			Ma	atrix:	AQ				
Sample ID:TMW13042015	Collec	ted:4/9/20	15 9:25:0	00 AM <i>A</i>	nalysis 1	ype:RE2	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	550	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW13042015	Collec	ted:4/9/20	15 9:25:0	DO AM <i>A</i>	nalvsis 1	vpe:RE4	/тот		Dilution: 5
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	510000	D	1300	LOD	25000	LOQ	ug/L	J	Ms
Sample ID:TMW13042015	Collected:4/9/2015 9:25:00 AM Analysis Type:RES/DIS								Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	810	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW32042015	Collec	ted:4/9/20	15 9:00:0	00 AM <i>A</i>	nalysis 1	ype:RE2	/тот		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	960	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW32042015	Collec	ted:4/9/20	15 9:00:0	00 AM <i>A</i>	nalysis 1	ype:RE4	/тот		Dilution: 5
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	650000	D	1300	LOD	25000	LOQ	ug/L	J	Ms
Sample ID:TMW32042015	Collec	ted:4/9/20	15 9:00:0	00 AM <i>A</i>	nalysis T	ype:RES	/DIS		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	19	J	31	LOD	300	LOQ	ug/L	J	RI
POTASSIUM	1300	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW40D042015	Collec	4/9/20 ted:PM	15 12:10	:00 <i>A</i>	nalysis 1	ype:RE2	/тот	1	Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code

POTASSIUM

LOD

3000

250

LOQ

ug/L

1100

RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category	y: METALS									
Method:	6010C			Má	atrix:	AQ				
Sample ID:TMW40D	042015	Collec	4/9/20 cted:PM	15 12:10		nalveie 1	ype:RE4	/тот		Dilution: 5
Analyte	042013	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM		650000	D	1300	LOD	25000	LOQ	ug/L	J	Ms
Sample ID:TMW40D	042015	Collec	4/9/20 cted:PM	15 12:10		nalysis 1	ype:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1300	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW40D	042015	Collec	4/9/20 ted:PM	15 12:10		nalysis 1	ype:RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		28	J	31	LOD	300	LOQ	ug/L	J	RI
4/9/2015 11:10:00 Sample ID:TMW45042015										
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		680	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW450	42015	Collec	4/9/20 cted: AM	15 11:10	:00 <i>A</i>	nalysis 1	ype:RE4	/тот		Dilution: 5
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM		830000	D	1300	LOD	25000	LOQ	ug/L	J	Ms
Sample ID:TMW450	42015	Collec	4/9/20 cted: AM	15 11:10		nalysis 1	ype:RES	/DIS		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM		1100	J	250	LOD	3000	LOQ	ug/L	J	RI
Sample ID:TMW450	42015	Collec	4/9/20 cted: AM	15 11:10		nalysis T	<i>ype:</i> RES	/тот		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM		55	J	31	LOD	300	LOQ	ug/L	J	RI
IRON		34	J	30	LOD	100	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



POTASSIUM

Data Qualifier Summary

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
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Method: 6010C Matrix: AQ

1500

Sample ID:TMW49042015	4/9/2015 10:31:0 Collected: AM				nalysis	Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code

Sample ID:TMW49042015

Collected: AM

Analysis Type: RE4/TOT

Dilution: 5

Lab

Lab

Lab

DL

Review

Reason

Analysis

Outsl

O

250

LOD

3000

LOQ

ug/L

RΙ

Analyte Result Qual DL Type RL Type Units Qual Code SODIUM 670000 DJ 1300 LOD 25000 LOQ Ms

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1600	J	250	LOD	3000	LOQ	ug/L	J	RI

4/9/2015 10:31:00
Sample ID:TMW49042015
Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	89	J	30	LOD	100	LOQ	ug/L	J	RI, ProfJudg

Method Category: METALS

Method: Matrix: AQ

Sample ID:TMW02042015 Collected:4/9/2015 8:55:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.2	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	1.2	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
MANGANESE	0.31	J	0.90	LOD	3.5	LOQ	ug/L	U	Mb
NICKEL	0.50	J	0.90	LOD	3.0	LOQ	ug/L	J	RI

Sample ID:TMW02042015 Collected: 4/9/2015 8:55:00 AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.87	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	0.52	J	1.5	LOD	10	LOQ	ug/L	J	RI
MANGANESE	0.44	J	0.90	LOD	3.5	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS					
Method:	6020A	Matrix:	A	Q		
		4/9/2015 10:35:00				

Sample ID:TMW03042015	Collec	Collected: AM			Analysis 1	Type:RE2	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	3.4	J	6.0	LOD	20	LOQ	ug/L	J	RI
Sample ID:TMW03042015	Collec	4/9/20 cted: AM	15 10:35		Analysis	Type:RES	/DIS		Dilution: 1

Sample ID:1 MW03042015	Collec	Collected: AM				ype:RES	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.63	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	1.0	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.49	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.8	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	7.7	J	6.0	LOD	20	LOQ	ug/L	J	RI
		4/9/20	15 10:35	:00					

Sample ID:TMW03042015	Collected: AM	Analysis Type:RES/TOT	Dilution: 1		
			Data		

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.52	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.089	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	1.9	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW04042015	Collec	Collected: PM Analysis Type: RE2/TOT					Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	5.1	J	6.0	LOD	20	LOQ	ug/L	J	RI
		4/9/20	15 12:00	:00					

Sample ID:TMW04042015	Collec	ted:PM	713 12.00	Analysis Type: RES/DIS				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.80	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	1.5	J	1.5	LOD	10	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.31	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
THALLIUM	0.069	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
ZINC	3.3	Л	6.0	LOD	20	100	ua/l	.I	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1

eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
Method:	6020A

Matrix: AQ

	4/9/2015 12:00	:00	
Sample ID:TMW04042015	Collected:PM	Analysis Type:RES/TOT	Dilution:

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.3	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	1.9	J	1.5	LOD	10	LOQ	ug/L	J	RI
MANGANESE	0.40	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
THALLIUM	0.067	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

Sample ID:TMW06042015 Collected:4/9/2015 1:10:00 PM Analysis Type:RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	2.0	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW06042015 Collected:4/9/2015 1:10:00 PM Analysis Type:RES/DIS Dilution: 1

					,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.94	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	0.57	J	1.5	LOD	10	LOQ	ug/L	J	RI
NICKEL	0.65	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	1.5	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.4	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	3.5	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW06042015 Collected: 4/9/2015 1:10:00 PM Analysis Type: RES/TOT Dilution: 1

					,	110000			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.74	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.067	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.8	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
SELENIUM	1.8	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	2.9	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

Sample ID:TMW13042015 Collected:4/9/2015 9:25:00 AM Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	2.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

J

RI



VANADIUM

Data Qualifier Summary

Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category:	METALS
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Method: 6020A Matrix: AQ

2.4

Sample ID:TMW13042015	D:TMW13042015 Collected:4/9/2015 9:25:00 AM Analysis Type:RES/TOT						Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	0.57	J	1.5	LOD	10	LOQ	ug/L	J	RI
MANGANESE	0.63	J	0.90	LOD	3.5	LOQ	ug/L	J	RI

1.0

LOD

6.0

LOQ

ug/L

Sample ID:TMW32042015 Collected:4/9/2015 9:00:00 AM Analysis Type:RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.1	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	0.58	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.84	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	3.2	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	4.2	J	6.0	LOD	20	LOQ	ug/L	J	RI

Sample ID:TMW32042015 Collected:4/9/2015 9:00:00 AM Analysis Type:RES/TOT Dilution: 1

						• •			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	1.4	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.31	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	0.61	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.51	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
NICKEL	1.9	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	3.7	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
SILVER	0.066	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	3.3	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

4/9/2015 12:10:00 Sample ID:TMW40D042015 Collected: PM Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	4.1	J	6.0	LOD	20	LOQ	ug/L	J	RI

		4/9/20	15 12:10					
Sample ID:TMW40D042015	Collec	ted:PM		Α	nalysis 1	vpe:RES	/DIS	Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.37	J	1.0	LOD	5.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW

5/15/2015 12:22:29 PM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only)



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

Dilution: 1

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category: **METALS**

Method: 6020A Matrix: AQ

4/9/2015 12:10:00 Collected:PM Sample ID:TMW40D042015 Analysis Type: RES/DIS

Campio ibiliili 1020 izolo	CONCOUCUT! F IMI			nuny olo .	, poc	, 5.0	Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	0.075	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.72	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SELENIUM	3.1	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	2.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	4.6	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/9/2015 12:10:00 Collected: PM Analysis Type: RES/TOT Sample ID:TMW40D042015 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.41	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COBALT	0.065	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
SELENIUM	3.3	J	2.0	LOD	5.0	LOQ	ug/L	J	RI
VANADIUM	2.9	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

4/9/2015 11:10:00 **Sample ID:**TMW45042015 Collected: AM

Analysis Type: RES/DIS Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.85	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	1.8	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	1.2	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	4.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

4/9/2015 11:10:00 Sample ID:TMW45042015 Collected: AM Analysis Type: RES/TOT Dilution: 1

Cample ID. I III 1 400 420 10	Oonec	Oonected. Alvi			nany sis i	ype.neo	,	Dilution. 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	0.95	J	1.0	LOD	5.0	LOQ	ug/L	J	RI	
COBALT	0.15	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
COPPER	1.3	J	1.5	LOD	2.0	LOQ	ug/L	J	RI	
NICKEL	1.3	J	0.90	LOD	3.0	LOQ	ug/L	J	RI	
SELENIUM	1.1	J	2.0	LOD	5.0	LOQ	ug/L	J	RI	
SILVER	0.051	J	0.10	LOD	5.0	LOQ	ug/L	J	RI	
VANADIUM	3.7	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category: METALS

Method: 6020A Matrix: AQ

 Sample ID:TMW49042015
 4/9/2015 10:31:00 Collected: AM Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	4.5	J	6.0	LOD	20	LOQ	ug/L	J	RI

 Sample ID:TMW49042015
 4/9/2015 10:31:00
 Analysis Type: RES/DIS
 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.57	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
COPPER	1.3	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.31	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
ZINC	6.8	J	6.0	LOD	20	LOQ	ug/L	J	RI

4/9/2015 10:31:00
Sample ID:TMW49042015
Collected: AM Analysis Type: RES/TOT Dilution: 1

					-				
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	0.78	J	1.0	LOD	5.0	LOQ	ug/L	J	RI
CHROMIUM	0.54	J	1.5	LOD	10	LOQ	ug/L	J	RI
COBALT	0.088	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
LEAD	0.18	J	0.50	LOD	3.0	LOQ	ug/L	J	RI
MANGANESE	0.55	J	0.90	LOD	3.5	LOQ	ug/L	J	RI
NICKEL	1.5	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.066	J	0.10	LOD	5.0	LOQ	ug/L	J	RI
THALLIUM	0.084	J	0.20	LOD	1.0	LOQ	ug/L	U	Mb

Method Category: SVOA Method: 8270D Matrix: AQ

4/9/2015 12:00:00
Sample ID:TMW04042015
Collected: PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZALDEHYDE	2.1	U	2.1	LOD	10	LOQ	ug/L	UJ	Lcs
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	UJ	Lcs
DIETHYL PHTHALATE	0.52	J	1.0	LOD	21	LOQ	ug/L	J	RI
HEXACHLOROCYCLOPENTADIENE	21	UQ	21	LOD	52	LOQ	ug/L	UJ	Lcs, Lcs

^{*} denotes a non-reportable result



Method:

Data Qualifier Summary

Lab Reporting Batch ID: 280-67662-1

8270D

Laboratory: TA DEN

EDD Filename: 280-67662-1

eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Matrix: AQ

Sample ID:TMW06042015

Collected: 4/9/2015 1:10:00 PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZALDEHYDE	2.2	U	2.2	LOD	11	LOQ	ug/L	UJ	Lcs
BENZIDINE	110	UQ	110	LOD	220	LOQ	ug/L	UJ	Lcs
HEXACHLOROCYCLOPENTADIENE	22	UQ	22	LOD	54	LOQ	ug/L	UJ	Lcs, Lcs

Sample ID:TMW32042015

Collected: 4/9/2015 9:00:00 AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZALDEHYDE	2.3	U	2.3	LOD	11	LOQ	ug/L	UJ	Lcs
BENZIDINE	110	UQ	110	LOD	230	LOQ	ug/L	UJ	Lcs
HEXACHLOROCYCLOPENTADIENE	23	UQ	23	LOD	57	LOQ	ug/L	UJ	Lcs, Lcs

4/9/2015 12:10:00

Sample ID:TMW40D042015

Collected: PM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZALDEHYDE	2.1	U	2.1	LOD	10	LOQ	ug/L	UJ	Lcs
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	UJ	Lcs
HEXACHLOROCYCLOPENTADIENE	21	UQ	21	LOD	52	LOQ	ug/L	UJ	Lcs, Lcs

4/9/2015 11:10:00 Sample ID:TMW45042015 Collected: AM

Collected: AM Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	10	J	52	LOD	84	LOQ	ug/L	J	RI

4/9/2015 11:10:00

Sample ID:TMW45042015 Collected: AM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZALDEHYDE	2.1	U	2.1	LOD	10	LOQ	ug/L	UJ	Lcs
BENZIDINE	100	UQ	100	LOD	210	LOQ	ug/L	UJ	Lcs
HEXACHLOROCYCLOPENTADIENE	21	UQ	21	LOD	52	LOQ	ug/L	UJ	Lcs, Lcs

4/9/2015 10:31:00

Sample ID:TMW49042015

Collected: AM

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

		,				71				
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BENZALDEHYDE	2.2	U	2.2	LOD	11	LOQ	ug/L	UJ	Lcs	
BENZIDINE	110	UQ	110	LOD	220	LOQ	ug/L	UJ	Lcs	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

EDD Filename: 280-67662-1

eQAPP Name: FtWingate_Primary_120405

Method Category: **SVOA**

Method: 8270D Matrix: AQ

4/9/2015 10:31:00 Collected: AM Sample ID:TMW49042015 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROCYCLOPENTADIENE	22	UQ	22	LOD	55	LOQ	ug/L	UJ	Lcs, Lcs

Method Category: **SVOA**

Method: 8330B Matrix: AQ

Sample ID:TMW02042015 Collected: 4/9/2015 8:55:00 AM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-AMINO-4,6-DINITROTOLUENE	0.42	J	0.17	LOD	0.23	LOQ	ug/L	J	ProfJudg
4-AMINO-2,6-DINITROTOLUENE	0.41	J	0.17	LOD	0.23	LOQ	ug/L	J	ProfJudg

4/9/2015 10:35:00 Sample ID:TMW03042015 Collected: AM Analysis Type: DL2 Dilution: 50

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	420	Q D	7.7	LOD	10	LOQ	ug/L	J	ProfJudg

4/9/2015 10:35:00 Collected: AM Sample ID:TMW03042015 Dilution: 1 Analysis Type: RE2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Dinitrotoluene, 2,6-	0.15	UQ	0.15	LOD	0.21	LOQ	ug/L	UJ	ProfJudg
NITROBENZENE	0.15	UQ	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg

4/9/2015 10:35:00 Sample ID:TMW03042015 Collected: AM Analysis Type: RES Dilution: 1

Sample ID. Hitt 00042010	Oonected. Alvi			Analysis Type. NEO				Dilution.	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	0.41	U	0.41	LOD	1.0	LOQ	ug/L	UJ	ProfJudg
1,3-DINITROBENZENE	0.15	U	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
2,4,6-TRINITROTOLUENE	0.15	U	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
2-AMINO-4,6-DINITROTOLUENE	2.4	J	0.15	LOD	0.21	LOQ	ug/L	J	ProfJudg
2-NITROTOLUENE	0.15	U	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
3-NITROTOLUENE	0.15	U	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
4-AMINO-2,6-DINITROTOLUENE	2.2	J	0.15	LOD	0.21	LOQ	ug/L	J	ProfJudg
4-NITROTOLUENE	0.41	U	0.41	LOD	1.0	LOQ	ug/L	UJ	ProfJudg
Dinitrotoluene, 2,4-	0.44		0.15	LOD	0.41	LOQ	ug/L	J	ProfJudg
METHYL-2,4,6-TRINITROPHENYLNITRAMINE	0.15	U	0.15	LOD	0.25	LOQ	ug/L	UJ	ProfJudg

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN

Dilution: 1

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8330B Matrix: AQ

				7 many or 1 ypermen						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4.0	МJ	0.15	LOD	0.41	LOQ	ug/L	J	ProfJudg	

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	3.1	JQ	0.41	LOD	1.0	LOQ	ug/L	J	ProfJudg
Dinitrotoluene, 2,6-	0.15	UQ	0.15	LOD	0.20	LOQ	ug/L	UJ	ProfJudg
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	16	JQ	0.15	LOD	0.20	LOQ	ug/L	J	ProfJudg
METHYL-2,4,6-TRINITROPHENYLNITRAMINE	0.49	QJ	0.15	LOD	0.25	LOQ	ug/L	J	ProfJudg
NITROBENZENE	0.15	UQ	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg

4/9/2015 12:00:00
Sample ID:TMW04042015
Collected: PM Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	0.15	UQ	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
2,4,6-TRINITROTOLUENE	0.15	UQ	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
2-AMINO-4,6-DINITROTOLUENE	2.9	JMQ	0.15	LOD	0.20	LOQ	ug/L	J	Surr, ProfJudg
2-NITROTOLUENE	1.5	JMQ	0.15	LOD	0.41	LOQ	ug/L	J	Surr, ProfJudg
3-NITROTOLUENE	0.15	UQ	0.15	LOD	0.41	LOQ	ug/L	UJ	ProfJudg
4-AMINO-2,6-DINITROTOLUENE	2.6	JMQ	0.15	LOD	0.20	LOQ	ug/L	J	Surr, ProfJudg
4-NITROTOLUENE	40	JMQ	0.41	LOD	1.0	LOQ	ug/L	J	Surr, ProfJudg
Dinitrotoluene, 2,4-	0.39	JMQ	0.15	LOD	0.41	LOQ	ug/L	J	RI, Surr, ProfJudg
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	5.1	JMQ	0.15	LOD	0.41	LOQ	ug/L	J	Surr, ProfJudg

Method Category: VOA

Method: 8260B Matrix: AQ

Sample 10:1 B-07-042015	Conected: 4/3/2015 6:00:00 AW Arraysis Type: RES Dilution: 1								Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.3	J	6.4	LOD	10	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280	ename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405									
Method Category:	VOA									
Method:	8260B			Ma	atrix:	AQ				
Sample ID:TMW020420	115	Collec	ted:4/9/20	15 8:55:0	00 AM <i>A</i>	nalysis ī	Гуре:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		3.6	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW030420	15	Collec	4/9/20 cted: AM	15 10:35		nalysis ī	Type:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		4.1	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW040420	115	Collec	4/9/20 cted:PM	15 12:00	:00 A	nalysis	Гуре:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		3.9	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW060420	15	Collected:4/9/2015 1:10:00 PM Analysis Type: RES Dilution: 1								
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		5.6	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW130420	15	Collec	ted:4/9/20	15 9:25:0	00 AM <i>A</i>	nalysis ī	Type:RES			Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		3.0	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW320420	15	Collec	ted:4/9/20	15 9:00:	00 AM <i>A</i>	nalysis ī	Гуре:RES	;		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		3.1	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW40D042	2015	Collec	4/9/20 ted:PM	15 12:10		nalysis	Type:RES			Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		3.3	J	6.4	LOD	10	LOQ	ug/L	U	Tb
Sample ID:TMW450420	15	Collec	4/9/20 cted: AM	15 11:10	:00 <i>A</i>	nalysis ī	Type:RES	i		Dilution: 1
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE		5.8	J	6.4	LOD	10	LOQ	ug/L	U	Tb

^{*} denotes a non-reportable result

Project Name and Number: 102012 - FWDA 102012 GW

Laboratory: TA DEN



Data Qualifier Summary

Lab Reporting Batch ID: 280-67662-1

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Category: VOA

Method: 8260B Matrix: AQ

4/9/2015 10:31:00

Sample ID:TMW49042015	Collec	4/9/2015 10:31 Collected: AM			Analysis Type: RES				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ACETONE	3.8	J	6.4	LOD	10	LOQ	ug/L	U	Tb	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67662-1

Laboratory: TA DEN eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280-67662-1

Reason Code Legend

Reason Code	Description
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Upper Estimation
Tb	Trip Blank Contamination

^{*} denotes a non-reportable result



Data Review Summary

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
A
A
N
N
SR
SR
SR
N
N
SR
SR
N
N
SR

Field Duplicate Outlier Report

Lab Reporting Batch ID: 280-67561-1 Laboratory: TA DEN

EDD Filename: 280-67561-1 eQAPP Name: FtWingate_Primary_120405

Method:	6010C
Matrix	40

	Concentra	ntion (ug/L)			
Analyte	TMW15042015 (DIS)	DTW15042015 (DIS)	Sample RPD	eQAPP RPD	Flag
IRON	100 U	46	200	50.00	J (all detects) UJ (all non-detects)

Method: 9056 Matrix: AQ

	Concentra	tion (mg/L)				
Analyte	TMW15042015	DTW15042015	Sample RPD	eQAPP RPD	Flag	
NITRATE	8.2	270	188	50.00	J(all detects) UJ(all non-detects)	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ QC Sample ID LCSD RPD (Associated **LCS** %R Affected %R %R Flag Samples) Compound Limits (Limits) Compounds LCS 280-272314/2-A BENZALDEHYDE BENZALDEHYDE LCSD 280-272314/3-A (TMW04042015 BENZIDINE HEXACHLOROCYCLOPENTADIEN 10.00-110.00 50.00-130.00 44 (30.00) BENZIDINE HEXACHLOROCYCLOPENTADIE 5 10 74 (30.00) TMW06042015 J (all detects) TMW32042015 UJ (all non-detects) TMW40D042015 TMW45042015 TMW49042015)



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW02042	015								
2-AMINO-4,6-DINITROTOLU	IENE 8330B	RES	0.42	ug/L	Professional Judgment		J	5/15/2015	11:43
Reason for change:	>40% confirmation col								
4-AMINO-2,6-DINITROTOLU	IENE 8330B	RES	0.41	ug/L	Professional Judgment		J	5/15/2015	11:44
Reason for change:	>40% confirmation col								
SODIUM	6010C	RE4/TOT	960000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4X rule applied								
Field Sample ID: TMW03042	015								
1,3,5-TRINITROBENZENE	8330B	RES	0.41	ug/L	Professional Judgment		UJ	5/15/2015	11:33
Reason for change:	matrix may cause false posit	ive or negative o	lata						
1,3-DINITROBENZENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:34
Reason for change:	matrix may cause false posit	ive or negative o	lata						
2,4,6-TRINITROTOLUENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:34
Reason for change:	matrix may cause false posit	ive or negative o	lata						
2-AMINO-4,6-DINITROTOLU	JENE 8330B	RES	2.4	ug/L	Professional Judgment		J	5/15/2015	11:34
Reason for change:	matrix may cause false posit	ive or negative o	lata						
2-NITROTOLUENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:34
Reason for change:	matrix may cause false posit	ive or negative o	lata						
3-NITROTOLUENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:34
Reason for change:	matrix may cause false posit	ive or negative of	lata						

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
rield Sample ID: TMW030420	15								
4-AMINO-2,6-DINITROTOLUE	ENE 8330B	RES	2.2	ug/L	Professional Judgment		J	5/15/2015	11:34
Reason for change:	matrix may cause false pos	sitive or negative	data						
4-NITROTOLUENE	8330B	RES	0.41	ug/L	Professional Judgment		UJ	5/15/2015	11:34
Reason for change:	matrix may cause false pos	sitive or negative	data						
Dinitrotoluene, 2,4-	8330B	RES	0.44	ug/L	Professional Judgment		J	5/15/2015	11:34
Reason for change:	matrix may cause false pos	sitive or negative	data						
Dinitrotoluene, 2,6-	8330B	RE2	0.15	ug/L	Professional Judgment		U	5/15/2015	11:33
Reason for change:	matrix may cause false pos	sitive or negative	data						
Dinitrotoluene, 2,6-	8330B	RE2	0.15	ug/L	Professional Judgment	U	UJ	5/15/2015	11:33
Reason for change:	matrix may cause false pos	sitive or negative	data						
HEXAHYDRO-1,3,5-TRINITRO	O-1,3,5- 8330B	DL2	420	ug/L	Professional Judgment		J	5/15/2015	11:33
Reason for change:	matrix may cause false pos	sitive or negative	data						
METHYL-2,4,6-	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:35
Reason for change:	matrix may cause false pos	sitive or negative	data						
NITROBENZENE	8330B	RE2	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:33
Reason for change:	matrix may cause false pos	sitive or negative	data						
Octahydro-1,3,5,7-tetranitro-	1,3,5,7- 8330B	RES	4.0	ug/L	Professional Judgment		J	5/15/2015	11:35
Reason for change:	matrix may cause false pos	sitive or negative	data						
SODIUM	6010C	RE4/TOT	890000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4X rule applied								
eld Sample ID: TMW040420	15								
1,3,5-TRINITROBENZENE	8330B	RE2	3.1	ug/L	Professional Judgment		J	5/15/2015	11:31
Reason for change:	matrix may cause false pos	sitive or negative	data						
15/2015 12:17:37 PM		ADR version 1.9	0 325 (Licer	sed For I	Use On USACE Projects Only)				Page 2 of

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW04042	015								
1,3-DINITROBENZENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:31
Reason for change:	matrix may cause false posi	tive or negative	data						
2,4,6-TRINITROTOLUENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
2-AMINO-4,6-DINITROTOLU	JENE 8330B	RES	2.9	ug/L	Professional Judgment		J	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
2-NITROTOLUENE	8330B	RES	1.5	ug/L	Professional Judgment		J	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
3-NITROTOLUENE	8330B	RES	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
4-AMINO-2,6-DINITROTOLU	JENE 8330B	RES	2.6	ug/L	Professional Judgment		J	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
4-NITROTOLUENE	8330B	RES	40	ug/L	Professional Judgment		J	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
Dinitrotoluene, 2,4-	8330B	RES	0.39	ug/L	Professional Judgment		J	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative of	data						
Dinitrotoluene, 2,6-	8330B	RE2	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:31
Reason for change:	matrix may cause false posi	tive or negative of	data						
HEXAHYDRO-1,3,5-TRINITE	RO-1,3,5- 8330B	RE2	16	ug/L	Professional Judgment		J	5/15/2015	11:31
Reason for change:	matrix may cause false posi	tive or negative of	data						
METHYL-2,4,6-	8330B	RE2	0.49	ug/L	Professional Judgment		J	5/15/2015	11:31
Reason for change:	matrix may cause false posi	tive or negative of	data						

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW04042	2015								
NITROBENZENE	8330B	RE2	0.15	ug/L	Professional Judgment		UJ	5/15/2015	11:31
Reason for change:	matrix may cause false posi	tive or negative	data						
Octahydro-1,3,5,7-tetranitr		RES	5.1	ug/L	Professional Judgment		J	5/15/2015	11:32
Reason for change:	matrix may cause false posi	tive or negative (data						
SODIUM	6010C 4X rule applied	RE4/TOT	830000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4A Tule applied								
Field Sample ID: TMW06042	2015								
SODIUM	6010C	RE4/TOT	820000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4X rule applied								
Field Sample ID: TMW13042	2015								
SODIUM	6010C	RE4/TOT	510000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4X rule applied								
Field Sample ID: TMW32042	2015								
SODIUM	6010C	RE4/TOT	650000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4X rule applied			Ü	,				
Field Sample ID: TMW40D0	42015								
SODIUM	6010C	RE4/TOT	650000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Reason for change:	4X rule applied								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW45042	2015								
SODIUM Reason for change:	6010C 4X rule applied	RE4/TOT	830000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07
Field Sample ID: TMW49042	2015								
IRON Reason for change:	6010C post spike out of control as	RES/TOT well as serial dilu	89 ution	ug/L	Professional Judgment		J	5/15/2015	12:10
SODIUM Reason for change:	6010C 4X rule applied	RE4/TOT	670000	ug/L	Matrix Spike Lower Rejection	J		5/15/2015	12:07



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DTW150420)15									
IRON	nost snika a	6010C an serial dilution o	RES/TOT	30	ug/L	Professional Judgment		UJ	5/15/2015	12:58
Reason for change:	post spike a	in Senai dilution ot	at .							
IRON		6010C	RES/TOT	30	ug/L	Professional Judgment	UJ		5/15/2015	12:59
Reason for change:	flagged in e	rror for post spike	, no flag needed	on this sar	mple					
SODIUM		6010C	RE2/TOT	550000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57
Reason for change:	4X rule									
Field Sample ID: MW18D0420	015									
GASOLINE RANGE ORGANI	ICS	8015C GRO	RE2	54	ug/L	Preservation		J	5/15/2015	12:50
Reason for change:	pH >2 analy	zed within14 days	s but >7							
GASOLINE RANGE ORGANI	ICS	8015C GRO	RE2	54	ug/L	Professional Judgment		J	5/15/2015	12:51
Reason for change:	possible nor	nGRO, concentrat	tion due to discre	et peaks						
SODIUM		6010C	RE2/TOT	2000000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57
Reason for change:	4X rule									
Field Sample ID: SMW010420	015									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	790000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57

Analyte		Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: TMW080420	015									
GASOLINE RANGE ORGAN Reason for change:		8015C GRO zed within14 days	RE2 s but >7	20	ug/L	Preservation		UJ	5/15/2015	12:50
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	3900000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57
Field Sample ID: TMW110420	015									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	520000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57
Field Sample ID: TMW14A04	2015									
IRON Reason for change:	post spike a	6010C and serial dilution	RES/DIS out	26	ug/L	Professional Judgment		J	5/15/2015	13:01
IRON Reason for change:	post spike a	6010C and serial dilution	RES/TOT out	26	ug/L	Professional Judgment		J	5/15/2015	12:59
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	410000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57
Field Sample ID: TMW150420	015									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	560000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57
Field Sample ID: TMW240420	015									
SODIUM Reason for change:	4X rule	6010C	RE2/TOT	930000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015	12:57

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: TMW38042015								
SODIUM Reason for change: 4X rule	6010C	RE2/TOT	620000	ug/L	Matrix Spike Upper Estimation	J		5/15/2015 12:57

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW49042015MS (TOT) TMW49042015MSD (TOT) (TMW02042015 TMW03042015 TMW04042015 TMW06042015 TMW13042015 TMW32042015 TMW40D042015 TMW40D042015 TMW40D042015 TMW40042015 TMW49042015	SODIUM	-81	42	80.00-120.00	-	SODIUM	J (all detects) R (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-272253/1-A	4/15/2015 6:54:00 AM	THALLIUM	0.0680 ug/L	TMW02042015 TMW03042015 TMW04042015 TMW06042015 TMW13042015 TMW32042015 TMW40D042015 TMW40D042015 TMW49042015
MB 280-272349/1-A	4/15/2015 3:11:00 AM	MANGANESE	0.542 ug/L	TMW02042015 TMW03042015 TMW04042015 TMW06042015 TMW13042015 TMW32042015 TMW40D042015 TMW45042015 TMW45042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
TMW02042015(RES/DIS)	MANGANESE	0.31 ug/L	0.31U ug/L
TMW04042015(RES/TOT)	THALLIUM	0.067 ug/L	0.067U ug/L
TMW49042015(RES/TOT)	THALLIUM	0.084 ug/L	0.084U ug/L

Method: Matrix:	8270D AQ				
Method Blan Sample ID	k	Analysis Date	Analyte	Result	Associated Samples
MB 280-272314/1	-A	4/17/2015 5:08:00 PM	PHENANTHRENE	0.308 ug/L	TMW04042015 TMW06042015 TMW32042015 TMW40D042015 TMW45042015 TMW45042015

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW02042015	ALUMINUM POTASSIUM	J	18 1300	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW03042015	POTASSIUM	J	510	3000	LOQ	ug/L	J (all detects)
TMW04042015	IRON POTASSIUM	J	54 750	100 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW06042015	ALUMINUM IRON POTASSIUM	7 7 7	24 24 430	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW13042015	POTASSIUM	J	550	3000	LOQ	ug/L	J (all detects)
TMW32042015	ALUMINUM POTASSIUM	J	19 960	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW40D042015	ALUMINUM POTASSIUM	J	28 1100	300 3000	LOQ LOQ	ug/L ug/L	J (all detects)
TMW45042015	ALUMINUM IRON POTASSIUM	J	55 34 680	300 100 3000	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW49042015	IRON POTASSIUM	J	89 1500	100 3000	LOQ LOQ	ug/L ug/L	J (all detects)

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
Sampleib	Allalyte	Quai	Nesuit	Lillit	Туре	Ullits	riay
TMW02042015	ARSENIC	J	1.2	5.0	LOQ	ug/L	
	CHROMIUM	J	0.52	10	LOQ	ug/L	
	COPPER	J	1.2	2.0	LOQ	ug/L	J (all detects)
	MANGANESE	J	0.31	3.5	LOQ	ug/L	
	NICKEL	J	0.50	3.0	LOQ	ug/L	
TMW03042015	ARSENIC	J	0.63	5.0	LOQ	ug/L	
	COBALT	J	0.089	1.0	LOQ	ug/L	
	COPPER	J	1.0	2.0	LOQ	ug/L	I (all datacta)
	NICKEL	J	0.49	3.0	LOQ	ug/L	J (all detects)
	VANADIUM	J	1.8	6.0	LOQ	ug/L	
	ZINC	J	3.4	20	LOQ	ug/L	
TMW04042015	ARSENIC	J	0.80	5.0	LOQ	ug/L	
	CHROMIUM	J	1.5	10	LOQ	ug/L	
	COPPER	J	1.1	2.0	LOQ	ug/L	
	MANGANESE	J	0.40	3.5	LOQ	ug/L	J (all detects)
	NICKEL	J	0.31	3.0	LOQ	ug/L	
	THALLIUM	J	0.069	1.0	LOQ	ug/L	
	ZINC	J	5.1	20	LOQ	ug/L	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67662-1 **Laboratory: TA DEN** eQAPP Name: FtWingate_Primary_120405

EDD Filename: 280-67662-1

Method: 6020A Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW06042015	ARSENIC CHROMIUM COBALT COPPER NICKEL]]]	0.94 0.57 0.067 1.8 0.65	5.0 10 1.0 2.0 3.0	LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L	J (all detects)
	SELENIUM VANADIUM ZINC	J	1.5 3.4 2.0	5.0 6.0 20	LOQ LOQ LOQ	ug/L ug/L ug/L	
TMW13042015	CHROMIUM MANGANESE VANADIUM	J	0.57 0.63 2.7	10 3.5 6.0	LOQ LOQ LOQ	ug/L ug/L ug/L	J (all detects)
TMW32042015	ARSENIC COBALT COPPER LEAD NICKEL SELENIUM SILVER VANADIUM ZINC]]]]	1.1 0.31 0.58 0.51 0.84 3.2 0.066 3.0 4.2	5.0 1.0 2.0 3.0 3.0 5.0 5.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW40D042015	ARSENIC COBALT NICKEL SELENIUM VANADIUM ZINC)))	0.37 0.075 0.72 3.1 2.7 4.1	5.0 1.0 3.0 5.0 6.0 20	LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW45042015	ARSENIC COBALT COPPER NICKEL SELENIUM SILVER VANADIUM))))	0.85 0.15 1.8 1.2 1.1 0.051 4.0	5.0 1.0 2.0 3.0 5.0 5.0 6.0	LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
TMW49042015	ARSENIC CHROMIUM COBALT COPPER LEAD MANGANESE NICKEL SILVER THALLIUM ZINC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.57 0.54 0.088 1.3 0.18 0.55 0.31 0.066 0.084 4.5	5.0 10 1.0 2.0 3.0 3.5 3.0 5.0 1.0	LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ LOQ	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-07-042015	ACETONE	J	2.3	10	LOQ	ug/L	J (all detects)

Project Name and Number: 102012 - FWDA 102012 GW

Reporting Limit Outliers

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW02042015	ACETONE	J	3.6	10	LOQ	ug/L	J (all detects)
TMW03042015	ACETONE	J	4.1	10	LOQ	ug/L	J (all detects)
TMW04042015	ACETONE	J	3.9	10	LOQ	ug/L	J (all detects)
TMW06042015	ACETONE	J	5.6	10	LOQ	ug/L	J (all detects)
TMW13042015	ACETONE	J	3.0	10	LOQ	ug/L	J (all detects)
TMW32042015	ACETONE	J	3.1	10	LOQ	ug/L	J (all detects)
TMW40D042015	ACETONE	J	3.3	10	LOQ	ug/L	J (all detects)
TMW45042015	ACETONE	J	5.8	10	LOQ	ug/L	J (all detects)
TMW49042015	ACETONE	J	3.8	10	LOQ	ug/L	J (all detects)

Method: 8270D

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW04042015	DIETHYL PHTHALATE	J	0.52	21	LOQ	ug/L	J (all detects)
TMW45042015	BENZOIC ACID	J	10	84	LOQ	ug/L	J (all detects)

Method: 8330B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TMW04042015	Dinitrotoluene, 2,4-	JMQ	0.39	0.41	LOQ	ug/L	J (all detects)



Approved By: Laboratory: TA DEN Reviewed By: Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67662-1 Method: 6010C TMW02042015 S2AVE 280-67662-6 Ν 3005A 4/9/2015 8:55:00 AM AQ TMW02042015 280-67662-6 AQ Ν 3010A 4/9/2015 8:55:00 AM S2AVE TMW03042015 280-67662-7 Ν 3005A 4/9/2015 10:35:00 AM S2AVE AQ TMW03042015 280-67662-7 Ν 3010A 4/9/2015 10:35:00 AM S2AVE AQ S2AVE TMW04042015 280-67662-2 AQ Ν 3005A 4/9/2015 12:00:00 PM TMW04042015 S2AVE 280-67662-2 AQ Ν 3010A 4/9/2015 12:00:00 PM TMW06042015 280-67662-10 S2AVE AQ Ν 3005A 4/9/2015 1:10:00 PM TMW06042015 280-67662-10 AQ Ν 3010A 4/9/2015 1:10:00 PM S2AVE TMW13042015 280-67662-9 3005A 4/9/2015 9:25:00 AM S2AVE AQ Ν TMW13042015 280-67662-9 Ν 3010A 4/9/2015 9:25:00 AM S2AVE AQ S2AVE TMW32042015 280-67662-5 AQ Ν 3005A 4/9/2015 9:00:00 AM S2AVE TMW32042015 280-67662-5 AQ Ν 3010A 4/9/2015 9:00:00 AM S2AVE TMW40D042015 280-67662-3 AQ Ν 3005A 4/9/2015 12:10:00 PM TMW40D042015 280-67662-3 AQ Ν 3010A 4/9/2015 12:10:00 PM S2AVE TMW45042015 280-67662-8 Ν 3005A S2AVE AQ 4/9/2015 11:10:00 AM S2AVE TMW45042015 280-67662-8 Ν 3010A 4/9/2015 11:10:00 AM AQ S2AVE TMW49042015 280-67662-4 Ν 3005A AQ 4/9/2015 10:31:00 AM TMW49042015 280-67662-4 Ν 3010A 4/9/2015 10:31:00 AM S2AVE AQ S2AVE TMW49042015MS 280-67662-4MS MS 3010A 4/9/2015 10:31:00 AM AQ TMW49042015MSD 280-67662-4MSD MSD 3010A 4/9/2015 10:31:00 AM S2AVE AQ Method: 6020A TMW02042015 280-67662-6 AQ Ν 3005A 4/9/2015 8:55:00 AM S2AVE TMW02042015 280-67662-6 3020A 4/9/2015 8:55:00 AM S2AVE AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 12:18:19 PM Page 1 of 6



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6020A TMW03042015 280-67662-7 Ν 3005A S2AVE 4/9/2015 10:35:00 AM AQ TMW03042015 280-67662-7 Ν 3020A S2AVE AQ 4/9/2015 10:35:00 AM TMW04042015 280-67662-2 AQ Ν 3005A 4/9/2015 12:00:00 PM S2AVE S2AVE TMW04042015 280-67662-2 Ν 3020A 4/9/2015 12:00:00 PM AQ TMW06042015 280-67662-10 Ν 3005A 4/9/2015 1:10:00 PM S2AVE AQ TMW06042015 3020A S2AVE 280-67662-10 AQ Ν 4/9/2015 1:10:00 PM TMW13042015 280-67662-9 Ν 3005A 4/9/2015 9:25:00 AM S2AVE AQ TMW13042015 280-67662-9 S2AVE AQ Ν 3020A 4/9/2015 9:25:00 AM TMW32042015 280-67662-5 AQ Ν 3005A 4/9/2015 9:00:00 AM S2AVE TMW32042015 280-67662-5 Ν 3020A 4/9/2015 9:00:00 AM S2AVE AQ S2AVE TMW40D042015 280-67662-3 AQ Ν 3005A 4/9/2015 12:10:00 PM TMW40D042015 280-67662-3 Ν 3020A S2AVE AQ 4/9/2015 12:10:00 PM S2AVE TMW40D042015MS 280-67662-3MS AQ MS 3020A 4/9/2015 12:10:00 PM S2AVE TMW40D042015MSD 280-67662-3MSD AQ MSD 3020A 4/9/2015 12:10:00 PM S2AVE TMW45042015 280-67662-8 AQ Ν 3005A 4/9/2015 11:10:00 AM TMW45042015 280-67662-8 Ν 3020A 4/9/2015 11:10:00 AM S2AVE AQ 3005A S2AVE TMW49042015 280-67662-4 Ν 4/9/2015 10:31:00 AM AQ TMW49042015 S2AVE 280-67662-4 Ν 3020A 4/9/2015 10:31:00 AM AQ Method: 6860 TMW02042015 280-67662-6 Ν **METHOD** 4/9/2015 8:55:00 AM S2AVE AQ TMW03042015 280-67662-7 Ν **METHOD** 4/9/2015 10:35:00 AM S2AVE AQ S2AVE TMW04042015 280-67662-2 AQ Ν **METHOD** 4/9/2015 12:00:00 PM **METHOD** S2AVE TMW13042015 280-67662-9 AQ Ν 4/9/2015 9:25:00 AM S2AVE TMW32042015 280-67662-5 AΩ Ν **METHOD** 4/9/2015 9:00:00 AM ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) Page 2 of 6 5/15/2015 12:18:19 PM



Reviewed By:			Approved By:		Labo	oratory: TA DEN
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 6860						
TMW40D042015	280-67662-3	AQ	N	METHOD	4/9/2015 12:10:00 PM	S2AVE
TMW45042015	280-67662-8	AQ	N	METHOD	4/9/2015 11:10:00 AM	S2AVE
TMW49042015	280-67662-4	AQ	N	METHOD	4/9/2015 10:31:00 AM	S2AVE
Method: 7470A						
TMW02042015	280-67662-6	AQ	N	7470A	4/9/2015 8:55:00 AM	S2AVE
TMW03042015	280-67662-7	AQ	N	7470A	4/9/2015 10:35:00 AM	S2AVE
TMW04042015	280-67662-2	AQ	N	7470A	4/9/2015 12:00:00 PM	S2AVE
TMW06042015	280-67662-10	AQ	N	7470A	4/9/2015 1:10:00 PM	S2AVE
TMW13042015	280-67662-9	AQ	N	7470A	4/9/2015 9:25:00 AM	S2AVE
TMW32042015	280-67662-5	AQ	N	7470A	4/9/2015 9:00:00 AM	S2AVE
TMW40D042015	280-67662-3	AQ	N	7470A	4/9/2015 12:10:00 PM	S2AVE
TMW45042015	280-67662-8	AQ	N	7470A	4/9/2015 11:10:00 AM	S2AVE
TMW49042015	280-67662-4	AQ	N	7470A	4/9/2015 10:31:00 AM	S2AVE
Method: 8081A						
TMW32042015	280-67662-5	AQ	N	3510C	4/9/2015 9:00:00 AM	S2AVE
TMW40D042015	280-67662-3	AQ	N	3510C	4/9/2015 12:10:00 PM	S2AVE
TMW45042015	280-67662-8	AQ	N	3510C	4/9/2015 11:10:00 AM	S2AVE
TMW49042015	280-67662-4	AQ	N	3510C	4/9/2015 10:31:00 AM	S2AVE
Method: 8260B						
TB-07-042015	280-67662-1	AQ	ТВ	50	030 4/9/2015 8:00:00 AM	S2AVE
TMW02042015	280-67662-6	AQ	N	50	030 4/9/2015 8:55:00 AM	S2AVE
TMW03042015	280-67662-7	AQ	N	50	030 4/9/2015 10:35:00 AM	S2AVE
TMW04042015	280-67662-2	AQ	N	50	030 4/9/2015 12:00:00 PM	S2AVE
TMW06042015	280-67662-10	AQ	N	50	030 4/9/2015 1:10:00 PM	S2AVE
5/15/2015 12:18:19 PM		ADR version 1.9	.0.325 (Licensed For Use On USA	ACE Projects Only)		Page 3 of 6



Reviewed By:			Approved By:		Laboratory: TA	
Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 8260B						
TMW13042015	280-67662-9	AQ	N	5030	4/9/2015 9:25:00 AM	S2AVE
TMW32042015	280-67662-5	AQ	N	5030	4/9/2015 9:00:00 AM	S2AVE
TMW40D042015	280-67662-3	AQ	N	5030	4/9/2015 12:10:00 PM	S2AVE
TMW45042015	280-67662-8	AQ	N	5030	4/9/2015 11:10:00 AM	S2AVE
TMW49042015	280-67662-4	AQ	N	5030	4/9/2015 10:31:00 AM	S2AVE
Method: 8270D						
TMW04042015	280-67662-2	AQ	N	3520C	4/9/2015 12:00:00 PM	S2AVE
TMW06042015	280-67662-10	AQ	N	3520C	4/9/2015 1:10:00 PM	S2AVE
TMW32042015	280-67662-5	AQ	N	3520C	4/9/2015 9:00:00 AM	S2AVE
TMW40D042015	280-67662-3	AQ	N	3520C	4/9/2015 12:10:00 PM	S2AVE
TMW45042015	280-67662-8	AQ	N	3520C	4/9/2015 11:10:00 AM	S2AVE
TMW49042015	280-67662-4	AQ	N	3520C	4/9/2015 10:31:00 AM	S2AVE
Method: 8330B						
TMW02042015	280-67662-6	AQ	N	3535	4/9/2015 8:55:00 AM	S2AVE
TMW03042015	280-67662-7	AQ	N	3535	4/9/2015 10:35:00 AM	S2AVE
TMW04042015	280-67662-2	AQ	N	3535	4/9/2015 12:00:00 PM	S2AVE
TMW06042015	280-67662-10	AQ	N	3535	4/9/2015 1:10:00 PM	S2AVE
TMW32042015	280-67662-5	AQ	N	3535	4/9/2015 9:00:00 AM	S2AVE
TMW40D042015	280-67662-3	AQ	N	3535	4/9/2015 12:10:00 PM	S2AVE
TMW45042015	280-67662-8	AQ	N	3535	4/9/2015 11:10:00 AM	S2AVE
TMW49042015	280-67662-4	AQ	N	3535	4/9/2015 10:31:00 AM	S2AVE
Method: 9056						
TMW02042015	280-67662-6	AQ	N	METHOD	4/9/2015 8:55:00 AM	S2AVE
TMW03042015	280-67662-7	AQ	N	METHOD	4/9/2015 10:35:00 AM	S2AVE
5/15/2015 12:18:19 PM		ADR version 1.9.	0.325 (Licensed For Use On US)	ACE Projects Only)		Page 4 of 6



Reviewed By: Approved By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Sample Type Validation Code Matrix **Collection Date** Method Method: 9056 TMW04042015 280-67662-2 Ν METHOD 4/9/2015 12:00:00 PM S2AVE AQ TMW06042015 Ν S2AVE 280-67662-10 **METHOD** 4/9/2015 1:10:00 PM AQ S2AVE TMW13042015 280-67662-9 AQ Ν **METHOD** 4/9/2015 9:25:00 AM TMW32042015 280-67662-5 **METHOD** S2AVE AQ Ν 4/9/2015 9:00:00 AM TMW40D042015 280-67662-3 AQ Ν **METHOD** 4/9/2015 12:10:00 PM S2AVE TMW45042015 280-67662-8 Ν **METHOD** 4/9/2015 11:10:00 AM S2AVE AQ TMW49042015 280-67662-4 AQ Ν **METHOD** 4/9/2015 10:31:00 AM S2AVE



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN

137

EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270I Matrix: AQ					
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
ΓMW04042015	Terphenyl-d14	41	50.00-135.00	No Affected Compounds	
Method: 8330E Matrix: AQ	3				
Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery	Affected Compounds	Flag

75.00-118.00

All Target Analytes

1,2-DINITROBENZENE

TMW04042015

Trip Blank Outlier Report

Lab Reporting Batch ID: 280-67662-1 Laboratory: TA DEN EDD Filename: 280-67662-1 eQAPP Name: FtWingate_Primary_120405

Method: 8260B Matrix: AQ				
Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
TB-07-042015(RES)	4/9/2015 8:00:00 AM	ACETONE	2.3 ug/L	TMW02042015 TMW03042015 TMW04042015 TMW06042015 TMW13042015 TMW32042015 TMW40D042015 TMW40D042015 TMW49042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
TMW02042015(RES)	ACETONE	3.6 ug/L	3.6U ug/L
TMW03042015(RES)	ACETONE	4.1 ug/L	4.1U ug/L
TMW04042015(RES)	ACETONE	3.9 ug/L	3.9U ug/L
TMW06042015(RES)	ACETONE	5.6 ug/L	5.6U ug/L
TMW13042015(RES)	ACETONE	3.0 ug/L	3.0U ug/L
TMW32042015(RES)	ACETONE	3.1 ug/L	3.1U ug/L
TMW40D042015(RES)	ACETONE	3.3 ug/L	3.3U ug/L
TMW45042015(RES)	ACETONE	5.8 ug/L	5.8U ug/L
TMW49042015(RES)	ACETONE	3.8 ug/L	3.8U ug/L

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67662-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for six water samples received April 10, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 1.8°C, 0.3°C, 0.3°C, 0.3°C, 0.5°C, -0.7°C and 3.5°C.

Sample TMW04042015 (280-67662-2) is marked for both 8270D and 8081A on the chain-of-custody. Two 1L amber bottles were received for this sample, both indicating 8270D analysis. Sufficient volume is available for the two requested analyses. The client was notified on April 13, 2015, and instructed the laboratory to cancel the 8081A analysis for this sample.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67662-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW04042015 (280-67662-2), TMW40D042015 (280-67662-3), TMW49042015 (280-67662-4), TMW32042015 (280-67662-5), TMW45042015 (280-67662-8) and TMW06042015 (280-67662-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/11/2015 and analyzed on 04/18/2015 and 04/23/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-272761 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Lab Reporting Batch ID: 280-67662-2

Laboratory: TA DEN
EDD Filename: 280-67662-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67662-2

Laboratory: TA DEN

EDD Filename: 280-67662-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

Technical Holding Times	А
Temperature	A
Initial Calibration	N
Continuing Calibration/Initial Calibration Verification	N
Method Blanks	A
Surrogate/Tracer Spikes	SR
Matrix Spike/Matrix Spike Duplicates	N
Laboratory Duplicates	N
Laboratory Replicates	N
Laboratory Control Samples	A
Compound Quantitation	A
Field Duplicates	N
Field Triplicates	N
Field Blanks	N



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Matrix Sample Type Validation Code Method **Collection Date** Lab Reporting Batch: 280-67662-2 Method: 8270D TMW04042015 280-67662-2 3520C 4/9/2015 12:00:00 PM S2AVE AQ Ν S2AVE TMW06042015 280-67662-10 AQ Ν 3520C 4/9/2015 1:10:00 PM 280-67662-5 TMW32042015 Ν 3520C 4/9/2015 9:00:00 AM S2AVE AQ TMW40D042015 280-67662-3 AQ Ν 3520C 4/9/2015 12:10:00 PM S2AVE TMW45042015 3520C S2AVE 280-67662-8 AQ Ν 4/9/2015 11:10:00 AM TMW49042015 280-67662-4 Ν 3520C 4/9/2015 10:31:00 AM S2AVE AQ



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Surrogate Outlier Report

Lab Reporting Batch ID: 280-67662-2 Laboratory: TA DEN

EDD Filename: 280-67662-2 eQAPP Name: FtWingate_Primary_120405

Method: Matrix:	8270E AQ)				
Samp (Analysis		Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
TMW04042	015	Terphenyl-d14	41	50.00-135.00	No Affected Compounds	

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67711-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for four water samples received April 11, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 1.0°C, 1.4°C, 5.6°C, 0.9°C and 1.2°C.

The 8081A page of the chain-of-custody lists the sample ID as DMW43042015, but all other pages of the COC lists the ID as DTW43042015 (280-67711-2). The sample ID was logged as DTW43042015. The client was notified on April 13, 2015.

Please note the Caprolactam data are reported under separate cover (280-67711-2), as the laboratory does not hold DOD ELAP certification for this compound.

No other anomalies were encountered during sample receipt.

GC/MS Volatiles - 8260B

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2), TB-08-042015 (280-67711-3) and TMW47042015 (280-67711-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/21/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Methylene Chloride was detected in method blank MB 280-273642/8 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semivolatiles - 8270D

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/15/2015 and analyzed on 04/18/2015.

Please note the Caprolactam data are reported under separate cover (280-67711-2), as the laboratory does not hold DOD ELAP certification for this compound.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The LCS associated with prep batch 280-273368 exhibited a percent recovery below the QC control limits for 2,3,4,6-Tetrachlorophenol. The laboratory's spike mix was updated in early 2015 to include 2,3,4,6-Tetrachlorophenol, but this compound was not part of the original project spike list. The project spike list has been updated to include this compound going forward. As this anomaly was determined after the holding times had expired, corrective action was not performed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The LCS associated with prep batch 280-273368 exhibited a percent recovery below the QC control limits for Acetophenone. As the recovery is within marginal exceedance limits (62-135%), corrective action is deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

The MS/MSD associated with prep batch 280-273368 was performed on sample TMW43042015 (280-67711-1). The MS/MSD exhibited spike compound recoveries and/or RPD data outside the QC control limits for several analytes. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organochlorine Pesticides - 8081A

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A. The samples were prepared on 04/13/2015 and analyzed on 04/15/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Samples MB 280-272509/1-A and LCS 280-272509/2-A required a mercury clean-up to reduce matrix interferences caused by sulfur.

The MS/MSD associated with prep batch 280-272509 was performed on sample TMW43042015 (280-67711-1). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Toxaphene. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - 8330B

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 04/13/2015 and analyzed on 04/16/2015 and 04/17/2015.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows:

The cartridges were eluted with 0.1% Acetic Acid in ACN instead of ACN to increase Tetryl recovery. This deviation was performed with QA and supervisor approval. The SOP is currently under revision to capture this change.

2-Amino-4,6-dinitrotoluene was detected in method blank MB 280-272447/1-A at a level that was less than the reporting limit on the back column. The front column result is ND; therefore, the method blank is ND. Detections in the associated samples less than 10X the amount found in the blank are suspect due to potential interferences on the confirmation column. As no detectable concentration of 2-Amino-4,6-dinitrotoluene is present in the associated samples, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Perchlorate - 6860

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for Perchlorate in accordance with SW846 6860. The samples were analyzed on 04/22/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6010C

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2015 and analyzed on 04/14/2015, 04/27/2015 and 04/28/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with prep batch 280-272377 was performed on sample TMW43042015 (280-67711-1). The MS/MSD exhibited a spike compound recovery outside the QC control limits for Aluminum. In addition, the MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample have been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6010C

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2015 and analyzed on 04/16/2015,

04/17/2015 and 04/18/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes and/or matrix interference, samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

The MS/MSD associated with prep batch 280-272352 was performed on sample TMW43042015 (280-67711-1). The MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Sodium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Metals - 6020A

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 04/14/2015 and analyzed on 04/16/2015 and 04/17/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Silver was detected in method blank MB 280-272372/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The ICSA solution associated with analytical batch 280-273341 was above DOD QSM Version 4.2 criteria of less than the LOD for Chromium. The laboratory has confirmed with the vendor that this element is a trace impurity in the ICSA solution; therefore, no corrective action was needed. The associated data have been flagged "Q" in accordance with the DOD QSM.

The post digestion spike (PDS) and serial dilution (SD) associated with prep batch 280-273341 was performed on sample TMW43042015 (280-67711-1). The SD exhibited a percent recovery outside the control limits for Barium; however, the PDS performed on this sample was in control.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Metals - 6020A

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 04/14/2015 and analyzed on 04/15/2015 and 04/17/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Manganese was detected in method blank MB 280-272349/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

The low level Continuing Calibration Verification (CCVL) standard associated with analytical batch 280-273341 exhibited a %Difference (%D) value out of range, biased high, for Barium. As the detections in the associated samples are greater than ten times the CCVL level, corrective action was deemed unnecessary. The associated data have been flagged "Q" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Total Mercury - 7470A

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/12/2015 and analyzed on 04/14/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dissolved Mercury - 7470A

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/13/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-66686 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Nitrate & Nitrite - 9056

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for anions (48 hours) in accordance with EPA SW-846 Method 9056. The samples were analyzed on 04/11/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

The MS/MSD associated with analytical batch 280-272288 was performed on sample TMW43042015 (280-67711-1). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Nitrate as N. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged "J" in accordance with the DOD QSM.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67711-1

eQapp Name: FtWingate_Primary_120405

Associated Samples	Sample Collection Date
3042015	
TMW43042015	4/10/2015 8:25:00 AM
042015	
DTW/00/00/5	4/40/2045 2.25 20 4M
D1W43042015	4/10/2015 8:25:00 AM
TMW43042015	4/10/2015 8:25:00 AM
	Samples 3042015 TMW43042015 DTW43042015



Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

EDD Filename: 200-	0//11-1					eQAI	PP INAIII	e. FLVVII	igate_Fi	iiiiai y_ 12040	
Method Category:	METALS										
Method:	6010C	Matrix: AQ									
Sample ID:DTW4304201	5	4/10/2015 8:25:00 Collected: AM Analysis Type: RES/DIS Dilution: 1						Dilution: 1			
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		1100	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:DTW4304201	5	Collec	4/10/2 cted: AM	015 8:25		nalysis 1	ype:RES	/тот		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM		41	J	31	LOD	300	LOQ	ug/L	J	RI, Ms	
IRON		25	J	30	LOD	100	LOQ	ug/L	J	RI	
POTASSIUM		800	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:TMW4304201	15	Collec	4/10/2 cted: AM	015 8:25	:00 <i>A</i>	nalysis 1	ype:RE2	/тот	Dilution: 1		
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		790	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:TMW4304201	15	Collec	4/10/2 cted: AM	015 8:25	:00 <i>A</i>	nalysis 1	ype:RES	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		1000	J	250	LOD	3000	LOQ	ug/L	J	RI	
Sample ID:TMW4304201	15	Collec	4/10/2 cted: AM	015 8:25		nalvsis 1	<i>ype:</i> RES	/TOT		Dilution: 1	
Analyte	•	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ALUMINUM		200	J	31	LOD	300	LOQ	ug/L	J	RI, Ms	
Sample ID:TMW4704201	15	Collec	4/10/2 cted: AM	015 9:30		nalysis 1	ype:RE2	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
IRON		27	J	30	LOD	100	LOQ	ug/L	J	RI	
Sample ID:TMW4704201	15	Collec	4/10/2 cted: AM	015 9:30	:00 <i>A</i>	nalysis 1	ype:RES	/DIS		Dilution: 1	
Analyte		Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM		1200	J	250	LOD	3000	LOQ	ug/L	J	RI	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67711-1

Laboratory: TA DEN

EDD Filename: 280-67711-1

eQAPP Name: FtWingate_Primary_120405

Method Category: **METALS**

Method: 6010C Matrix: AQ

4/10/2015 9:30:00 Collected: AM Sample ID:TMW47042015 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Review Qual	Reason Code
ALUMINUM	23	J	31	LOD	300	LOQ	ug/L	J	RI, Ms
IRON	31	J	30	LOD	100	LOQ	ug/L	J	RI
POTASSIUM	800	J	250	LOD	3000	LOQ	ug/L	J	RI

Method Category: **METALS** Method:

6020A Matrix:

4/10/2015 8:25:00 Collected: AM **Sample ID:**DTW43042015 Dilution: 1 Analysis Type: RES/DIS

						• •			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.11	J	0.24	LOD	1.0	LOQ	ug/L	J	RI, Fd
COBALT	0.094	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.32	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.14	J	0.10	LOD	5.0	LOQ	ug/L	J	RI, Fd
THALLIUM	0.13	J	0.20	LOD	1.0	LOQ	ug/L	J	RI, Fd
VANADIUM	2.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

4/10/2015 8:25:00

Sample ID:DTW43042015 Collected: AM Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.23	J	0.24	LOD	1.0	LOQ	ug/L	J	RI
COBALT	0.12	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
THALLIUM	0.13	J	0.20	LOD	1.0	LOQ	ug/L	J	RI
VANADIUM	1.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

4/10/2015 8:25:00

Sample ID:TMW43042015 Analysis Type: RES/DIS Collected: AM Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.24	U	0.24	LOD	1.0	LOQ	ug/L	UJ	Fd
COBALT	0.096	J	0.10	LOD	1.0	LOQ	ug/L	J	RI
NICKEL	0.38	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
SILVER	0.10	U	0.10	LOD	5.0	LOQ	ug/L	UJ	Fd
THALLIUM	0.057	J	0.20	LOD	1.0	LOQ	ug/L	J	RI, Fd
VANADIUM	1.6	J	1.0	LOD	6.0	LOQ	ug/L	J	RI

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67711-1 **Laboratory: TA DEN**

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

METALS Method Category:

Matrix: Method: 6020A AQ

Sample ID:TMW43042015 Analyte	Colle	4/10/2 ected: AM	2015 8:25	15 8:25:00 Analysis Type:RES/TOT					Dilution: 1	
	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
COBALT	0.095	J	0.10	LOD	1.0	LOQ	ug/L	J	RI	
THALLIUM	0.13	J	0.20	LOD	1.0	LOQ	ug/L	J	RI	
VANADIUM	1.5	J	1.0	LOD	6.0	LOQ	ug/L	J	RI	
ZINC	2.1	J	6.0	LOD	20	LOQ	ug/L	J	RI	

4/10/2015 9:30:00 Sample ID:TMW47042015 Collected: AM Analysis Type: RES/DIS Dilution: 1 Data Lab Lab DL RL Review Reason DL RL Analyte Result Qual Type Type Units Qual Code COBALT 0.072 0.10 LOD 1.0 LOQ RΙ

4/10/2015 9:30:00 Collected: AM Dilution: 1 Sample ID:TMW47042015 Analysis Type: RES/TOT

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	1.1	J	1.5	LOD	2.0	LOQ	ug/L	J	RI
NICKEL	0.38	J	0.90	LOD	3.0	LOQ	ug/L	J	RI
VANADIUM	1.0	J	1.0	LOD	6.0	LOQ	ug/L	J	RI
ZINC	3.0	J	6.0	LOD	20	LOQ	ug/L	J	RI

Method Category: **SVOA** Method: 8081A Matrix: AQ

4/10/2015 8:25:00 Sample ID:DTW43042015 Collected: AM Analysis Type: RES Dilution: 1 Data DL RL Review Lab Lab Reason Result Qual DL RL **Units** Qual Code Analyte Type Type

TOXAPHENE 0.88 0.88 LOD LOQ Ms U 5.5 UJ 4/10/2015 8:25:00

Collected: AM Sample ID:TMW43042015 Analysis Type: RES Dilution: 1 Data DL Lab Lab RL Review Reason Result DL RL **Units** Analyte Qual Type Type Qual Code TOXAPHENE 0.96 UJ 0.96 LOD LOQ Ms 6.0 4/10/2015 9:30:00

Analysis Type: RES Sample ID:TMW47042015 Collected: AM Dilution: 1 Data DL RL Lab Lab Review Reason Result DL RL **Units** Qual Code Analyte Qual Type Type TOXAPHENE LOD 0.84 U 0.84 5.2 LOQ ug/L Ms

Project Name and Number: 102012 - FWDA 102012 GW

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

Method Category: SVOA

Method: 8081A Matrix: AQ

Method Category: SVOA

Method: 8270D Matrix: AQ

4/10/2015 8:25:00

Sample ID:DTW43042015 Collected: AM Analysis Type: RES-ACID Dilution: 1

Data

I ah I ab DL RI Review Reason Analyte Result Qual DL Type RL Type **Units** Qual Code LOD ug/L 2,3,4,6-TETRACHLOROPHENOL 1.9 UQ 49 LOQ UJ 1.9 Lcs

4/10/2015 8:25:00
Sample ID:DTW43042015

Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Data Lab Lab DL Review Reason Analyte Result Qual DL RL **Units** Qual Type Type Code BENZALDEHYDE LOD 1.9 U 1.9 9.7 LOQ ug/L UJ Ms, Lcs BENZIDINE ug/L 97 U 97 LOD 190 LOQ UJ Ms HEXACHLOROCYCLOPENTADIENE 19 U 19 LOD LOQ ug/L UJ Ms, Lcs

4/10/2015 8:25:00

Sample ID:TMW43042015 Collected: AM Analysis Type: RES-ACID Dilution: 1

Data Lab Lab DL RL Review Reason Result DL RL Units Qual Code Analyte Qual **Type** Type 2,3,4,6-TETRACHLOROPHENOL 2.2 UJQ 2.2 LOD

4/10/2015 8:25:00
Sample ID:TMW43042015
Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Data DL RL Review Lab Lab Reason Analyte Result Qual DL **Type** RL **Units** Qual Code Type BENZALDEHYDE 2.2 LOD LOQ Ms, Lcs 22 UJ11 ug/L IJJ BENZIDINE UЈ LOD LOQ UJ 110 110 220 Ms ug/L HEXACHLOROCYCLOPENTADIENE 22 UJ 22 LOD 54 LOQ ug/L UJ Ms, Lcs

Sample ID:TMW47042015 Collected: AM Analysis Type: RES-ACID Dilution: 1

Data Lab Lab DL RL Reason Review Analyte Result Qual DL **Type** RL Type **Units** Qual Code 2,3,4,6-TETRACHLOROPHENOL 2.1 UQ 2.1 LOD LOQ UJ 52 Lcs ug/L

4/10/2015 9:30:00

4/10/2015 9:30:00
Sample ID:TMW47042015
Collected: AM Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZALDEHYDE	2.1	U	2.1	LOD	10	LOQ	ug/L	UJ	Ms, Lcs
BENZIDINE	100	U	100	LOD	210	LOQ	ug/L	UJ	Ms
HEXACHLOROCYCLOPENTADIENE	21	U	21	LOD	52	LOQ	ug/L	UJ	Ms, Lcs

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

	01/04		
Method Category:	SVOA		
Method:	8330B	Matrix:	AQ

Sample ID:DTW43042015	Collec	4/10/2 ted: AM	015 8:25		nalysis 1	<i>ype:</i> RES		Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	0.27	JM	0.17	LOD	0.44	LOQ	ug/L	J	RI, Fd

Sample ID:TMW43042015	Collec	4/10/2 ted: AM	015 8:25		nalysis 1	ype:RES	;		Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	U	0.17	LOD	0.44	LOQ	ug/L	UJ	Fd

Method Category:	VOA		
Method:	8260B	Matrix: AQ	
		4/10/2015 8:25:00	

ample ID:DTW43042015	Collec	ted: AM	.013 0.23		nalysis	Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.46	J	0.80	LOD	5.0	LOQ	ug/L	U	Mb, Tb
<u> </u>	<u>'</u>	4/10/2	015 8:00	:00					

Sample ID:TB-08-042015	Collec	cted: AM		Analysis Type: RES				Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
METHYLENE CHLORIDE	0.46	J	0.80	LOD	5.0	LOQ	ug/L	U	Mb	
	1	4/10/2	015 8-25	-00		1				

Sample ID:TMW43042015	Collec	4/10/2 cted: AM	2015 8:25	Analysis Type:RES				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.43	J	0.80	LOD	5.0	LOQ	ug/L	U	Mb, Tb

Sample ID:TMW47042015	Collec	ted:AM	015 9:30	Analysis Type:RES				Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
CARBON DISULFIDE	0.65	J	1.6	LOD	2.0	LOQ	ug/L	J	RI	
METHYLENE CHLORIDE	0.45	J	0.80	LOD	5.0	LOQ	ug/L	U	Mb, Tb	

^{*} denotes a non-reportable result



Lab Reporting Batch ID: 280-67711-1

EDD Filename: 280-67711-1

Laboratory: TA DEN

eQAPP Name: FtWingate_Primary_120405

Reason Code Legend

Reason Code	Description
Fd	Field Duplicate Precision
Lcs	Laboratory Control Spike Lower Estimation
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Precision
RI	Reporting Limit Trace Value
Tb	Trip Blank Contamination

^{*} denotes a non-reportable result

SR

Ν

SR



Field Duplicates

Field Triplicates

Field Blanks

Data Review Summary

Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

Validation Area Note **Technical Holding Times** Α Temperature Α Initial Calibration Ν Continuing Calibration/Initial Calibration Verification Ν Method Blanks SR Surrogate/Tracer Spikes Α Matrix Spike/Matrix Spike Duplicates SR **Laboratory Duplicates** Α Laboratory Replicates Ν **Laboratory Control Samples** SR Compound Quantitation SR

Field Duplicate Outlier Report

Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

Method: 6020A Matrix: AQ

	Concentra	ation (ug/L)			
Analyte	TMW43042015 (DIS)	DTW43042015 (DIS)	Sample RPD	eQAPP RPD	Flag
BERYLLIUM SILVER THALLIUM	1.0 U 5.0 U 0.057	0.11 0.14 0.13	200 200 78	50.00 50.00 50.00	J (all detects) UJ (all non-detects)

Method: 8330B Matrix: AQ

	Concentration (ug/L)				
Analyte	TMW43042015	DTW43042015	Sample RPD	eQAPP RPD	Flag
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (0.44 U	0.27	200	50.00	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

Method: 8270D Matrix: AQ							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-273368/2-A (DTW43042015 TMW43042015 TMW47042015)	BENZALDEHYDE HEXACHLOROCYCLOPENTADIEN	56 13	-	70.00-130.00 50.00-130.00	-	BENZALDEHYDE HEXACHLOROCYCLOPENTADIE	J (all detects) UJ (all non-detects)



History of Manual Changes to Automated Data Review Qualifiers

Changed by: Doug Scott

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DTW43042015									
2,3,4,6-TETRACHLOROPHENOL Reason for change: Low recov	8270D very LCS	RES	1.9	ug/L	Laboratory Control Spike Lower		UJ	5/15/2015	10:40
SODIUM Reason for change: 4X rule	6010C	RES/TOT	510000	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	10:46
Field Sample ID: TMW43042015									
2,3,4,6-TETRACHLOROPHENOL Reason for change: Low recov	8270D very LCS	RES	2.2	ug/L	Laboratory Control Spike Lower		UJ	5/15/2015	10:40
SODIUM Reason for change: 4X rule	6010C	RE2/TOT	590000	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	10:46
Field Sample ID: TMW47042015									
2,3,4,6-TETRACHLOROPHENOL Reason for change: Low recov	8270D very LCS	RES	2.1	ug/L	Laboratory Control Spike Lower		UJ	5/15/2015	10:40
SODIUM Reason for change: 4X rule	6010C	RES/TOT	410000	ug/L	Matrix Spike Lower Estimation	J		5/15/2015	10:46

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

Method:	6010C
Matrix:	40

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW43042015MS (TOT) TMW43042015MSD (TOT) (DTW43042015 TMW43042015 TMW47042015)	ALUMINUM SODIUM	- 55	78 62	80.00-120.00 80.00-120.00		ALUMINUM SODIUM	J (all detects) UJ (all non-detects)

Method: 8081A Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW43042015MSD (DTW43042015 TMW43042015 TMW47042015)	TOXAPHENE	-	61	63.00-142.00	-	TOXAPHENE	J(all detects) UJ(all non-detects)

Method: 8270D Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW43042015MSD	BENZALDEHYDE BENZIDINE HEXACHLOROCYCLOPENTADIEN	42 0 -	42 0 -	70.00-130.00 10.00-110.00 0.00-53.00	-	BENZALDEHYDE BENZIDINE HEXACHLOROCYCLOPENTADIE	J(all detects) UJ(all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

	020A .Q				
Method Blank Sample ID		Analysis Date	Analyte	Result	Associated Samples
MB 280-272349/1-A		4/15/2015 3:11:00 AM	MANGANESE	0.542 ug/L	DTW43042015 TMW43042015 TMW47042015
MB 280-272372/1-A		4/16/2015 2:25:00 AM	SILVER	0.0560 ug/L	DTW43042015 TMW43042015 TMW47042015

Method: Matrix:	8260B AQ				
Method Bla Sample ID	ink	Analysis Date	Analyte	Result	Associated Samples
MB 280-273642	2/8	4/20/2015 8:58:00 PM	METHYLENE CHLORIDE	0.993 ug/L	DTW43042015 TB-08-042015 TMW43042015 TMW47042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DTW43042015(RES)	METHYLENE CHLORIDE	0.46 ug/L	0.46U ug/L
TB-08-042015(RES)	METHYLENE CHLORIDE	0.46 ug/L	0.46U ug/L
TMW43042015(RES)	METHYLENE CHLORIDE	0.43 ug/L	0.43U ug/L
TMW47042015(RES)	METHYLENE CHLORIDE	0.45 ug/L	0.45U ug/L



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Validation Code Matrix Sample Type **Collection Date** Method Lab Reporting Batch: 280-67711-1 Method: 6010C DTW43042015 S2AVE 280-67711-2 FD 3005A 4/10/2015 8:25:00 AM AQ DTW43042015 280-67711-2 AQ FD 3010A 4/10/2015 8:25:00 AM S2AVE TMW43042015 280-67711-1 Ν 3005A 4/10/2015 8:25:00 AM S2AVE AQ TMW43042015 280-67711-1 Ν 3010A 4/10/2015 8:25:00 AM S2AVE AQ S2AVE TMW43042015MS 280-67711-1MS AQ MS 3005A 4/10/2015 8:25:00 AM S2AVE TMW43042015MS 280-67711-1MS AQ MS 3010A 4/10/2015 8:25:00 AM TMW43042015MSD 280-67711-1MSD MSD 3005A S2AVE AQ 4/10/2015 8:25:00 AM TMW43042015MSD 280-67711-1MSD AQ MSD 3010A 4/10/2015 8:25:00 AM S2AVE TMW47042015 280-67711-4 3005A 4/10/2015 9:30:00 AM S2AVE Ν AQ TMW47042015 280-67711-4 Ν 3010A 4/10/2015 9:30:00 AM S2AVE AQ Method: 6020A DTW43042015 280-67711-2 AQ FD 3005A 4/10/2015 8:25:00 AM S2AVE FD S2AVE DTW43042015 280-67711-2 3020A AQ 4/10/2015 8:25:00 AM TMW43042015 S2AVE 280-67711-1 Ν 3005A 4/10/2015 8:25:00 AM AQ S2AVE TMW43042015 280-67711-1 AQ Ν 3020A 4/10/2015 8:25:00 AM S2AVE TMW43042015MS 280-67711-1MS AQ MS 3005A 4/10/2015 8:25:00 AM TMW43042015MS 280-67711-1MS MS 3020A 4/10/2015 8:25:00 AM S2AVE AQ TMW43042015MSD 280-67711-1MSD AQ MSD 3005A 4/10/2015 8:25:00 AM S2AVE TMW43042015MSD 280-67711-1MSD MSD 3020A S2AVE 4/10/2015 8:25:00 AM AQ TMW47042015 280-67711-4 Ν 3005A 4/10/2015 9:30:00 AM S2AVE AQ S2AVE TMW47042015 280-67711-4 AQ Ν 3020A 4/10/2015 9:30:00 AM Method: 6860 **METHOD** S2AVE DTW43042015 280-67711-2 FD 4/10/2015 8:25:00 AM AQ ADR version 1.9.0.325 (Licensed For Use On USACE Projects Only) 5/15/2015 10:56:51 AM Page 1 of 4



Approved By: Reviewed By: Laboratory: TA DEN Preparation Validation Code Client Sample ID Lab Sample ID Matrix Sample Type **Collection Date** Method Method: 6860 TMW43042015 **METHOD** S2AVE 280-67711-1 Ν 4/10/2015 8:25:00 AM AQ TMW43042015MS 280-67711-1MS MS **METHOD** 4/10/2015 8:25:00 AM S2AVE AQ TMW43042015MSD 280-67711-1MSD AQ MSD **METHOD** 4/10/2015 8:25:00 AM S2AVE S2AVE TMW47042015 280-67711-4 AQ Ν **METHOD** 4/10/2015 9:30:00 AM Method: 7470A DTW43042015 280-67711-2 AQ FD 7470A 4/10/2015 8:25:00 AM S2AVE TMW43042015 280-67711-1 AQ Ν 7470A 4/10/2015 8:25:00 AM S2AVE TMW43042015MS MS 7470A S2AVE 280-67711-1MS AQ 4/10/2015 8:25:00 AM S2AVE TMW43042015MSD 280-67711-1MSD MSD 7470A 4/10/2015 8:25:00 AM AQ S2AVE TMW47042015 280-67711-4 AQ Ν 7470A 4/10/2015 9:30:00 AM Method: 8081A DTW43042015 FD 3510C S2AVE 280-67711-2 4/10/2015 8:25:00 AM AQ TMW43042015 280-67711-1 3510C 4/10/2015 8:25:00 AM S2AVE AQ Ν TMW43042015MS 280-67711-1MS AQ MS 3510C 4/10/2015 8:25:00 AM S2AVE TMW43042015MSD 280-67711-1MSD MSD 3510C 4/10/2015 8:25:00 AM S2AVE AQ TMW47042015 280-67711-4 Ν 3510C 4/10/2015 9:30:00 AM S2AVE AQ Method: 8260B DTW43042015 FD S2AVE 280-67711-2 AQ 4/10/2015 8:25:00 AM 5030 S2AVE TB-08-042015 280-67711-3 TB AQ 4/10/2015 8:00:00 AM 5030 TMW43042015 280-67711-1 S2AVE AQ Ν 4/10/2015 8:25:00 AM 5030 TMW43042015MS 280-67711-1MS MS S2AVE AQ 4/10/2015 8:25:00 AM 5030 MSD S2AVE TMW43042015MSD 280-67711-1MSD AQ 4/10/2015 8:25:00 AM 5030 S2AVE TMW47042015 280-67711-4 AQ Ν 4/10/2015 9:30:00 AM



Approved By: Reviewed By: Laboratory: TA DEN Preparation Sample Type Validation Code Client Sample ID Lab Sample ID Matrix **Collection Date** Method Method: 8270D DTW43042015 280-67711-2 FD 3520C 4/10/2015 8:25:00 AM S2AVE AQ S2AVE TMW43042015 280-67711-1 Ν 3520C 4/10/2015 8:25:00 AM AQ TMW43042015MS 280-67711-1MS AQ MS 3520C 4/10/2015 8:25:00 AM S2AVE S2AVE TMW43042015MSD 280-67711-1MSD MSD 3520C 4/10/2015 8:25:00 AM AQ TMW47042015 280-67711-4 Ν 3520C 4/10/2015 9:30:00 AM S2AVE AQ Method: 8330B DTW43042015 280-67711-2 AQ FD 4/10/2015 8:25:00 AM S2AVE 3535 TMW43042015 280-67711-1 Ν S2AVE AQ 4/10/2015 8:25:00 AM 3535 S2AVE TMW43042015MS 280-67711-1MS MS 4/10/2015 8:25:00 AM AQ 3535 S2AVE TMW43042015MSD 280-67711-1MSD AQ MSD 4/10/2015 8:25:00 AM TMW47042015 280-67711-4 AQ Ν 4/10/2015 9:30:00 AM S2AVE 3535 Method: 9056 DTW43042015 280-67711-2 FD **METHOD** 4/10/2015 8:25:00 AM S2AVE AQ TMW43042015 280-67711-1 AQ Ν **METHOD** 4/10/2015 8:25:00 AM S2AVE TMW43042015DUP 280-67711-1DUP DUP **METHOD** 4/10/2015 8:25:00 AM S2AVE AQ TMW43042015MS 280-67711-1MS MS **METHOD** 4/10/2015 8:25:00 AM S2AVE AQ TMW43042015MSD 280-67711-1MSD AQ MSD **METHOD** 4/10/2015 8:25:00 AM S2AVE **METHOD** S2AVE TMW47042015 280-67711-4 Ν 4/10/2015 9:30:00 AM AQ



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A

Trip Blank Outlier Report

Lab Reporting Batch ID: 280-67711-1 Laboratory: TA DEN

EDD Filename: 280-67711-1 eQAPP Name: FtWingate_Primary_120405

Method: Matrix:	8260B AQ				
Trip Blank Sample ID		Collected Date	Analyte	Result	Associated Samples
TB-08-042015(F	RES)	4/10/2015 8:00:00 AM	METHYLENE CHLORIDE	0.46 ug/L	DTW43042015 TMW43042015 TMW47042015

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DTW43042015(RES)	METHYLENE CHLORIDE	0.46 ug/L	0.46U ug/L
TMW43042015(RES)	METHYLENE CHLORIDE	0.43 ug/L	0.43U ug/L
TMW47042015(RES)	METHYLENE CHLORIDE	0.45 ug/L	0.45U ug/L

CASE NARRATIVE

Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-67711-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for three water samples received April 11, 2015, according to documented sample acceptance procedures. The samples were received at temperatures of 1.0°C, 1.4°C, 5.6°C, 0.9°C and 1.2°C.

The 8081A page of the chain-of-custody lists the sample ID as DMW43042015, but all other pages of the COC lists the ID as DTW43042015 (280-67711-2). The sample ID was logged as DTW43042015. The client was notified on April 13, 2015.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-67711-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW43042015 (280-67711-1), DTW43042015 (280-67711-2) and TMW47042015 (280-67711-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/15/2015 and analyzed on 04/18/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

A deviation from the Standard Operating Procedure (SOP) occurred. The details are as follows:

The samples were extracted per SW-846 3520C for 18 hours at a pH of 1-2 and 18 hours at a pH of 11-12; however, the laboratory's SOP requires the samples be extracted for 24 hours at each pH range. The laboratory's SOP is in the process of being revised for these changes.

Due to an analyst oversight, the MS/MSD was spiked with the LCS Main and LCS Supp after the acid had been added. Per the SOP, the acid is supposed to be added after the samples are spiked.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Field QC Assignments and Associated Samples

EDD File Name: 280-67711-2

eQapp Name: FtWingate_Primary_120405

Associated	Sample Collection
Samples	Date
Campio	

Field QC DTW43042015

QC Type: FD

TMW43042015 4/10/2015 8:25:00 AM



Lab Reporting Batch ID: 280-67711-2

Laboratory: TA DEN
EDD Filename: 280-67711-2

eQAPP Name: FtWingate_Primary_120405

No Data Review Qualifiers Applied.



Data Review Summary

Lab Reporting Batch ID: 280-67711-2

Laboratory: TA DEN

EDD Filename: 280-67711-2

eQAPP Name: FtWingate_Primary_120405

Validation Area Note

11010
A
A
N
N
A
A
A
N
N
A
A
A
N
N



Approved By: Reviewed By: Laboratory: TA DEN Preparation Client Sample ID Lab Sample ID Matrix Sample Type Validation Code Method **Collection Date** Lab Reporting Batch: 280-67711-2 Method: 8270D DTW43042015 280-67711-2 FD 3520C 4/10/2015 8:25:00 AM S2AVE AQ S2AVE TMW43042015 280-67711-1 AQ Ν 3520C 4/10/2015 8:25:00 AM 4/10/2015 8:25:00 AM S2AVE TMW43042015MS 280-67711-1MS MS 3520C AQ TMW43042015MSD 280-67711-1MSD AQ MSD 3520C 4/10/2015 8:25:00 AM S2AVE TMW47042015 280-67711-4 Ν 3520C 4/10/2015 9:30:00 AM S2AVE AQ



Reviewed By:

Approved By:

Laboratory: TA DEN

Preparation

Client Sample ID Lab Sample ID Matrix Sample Type Method Collection Date Validation Code

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A