



REASONABLE CONFIDENCE PROTOCOL

LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name:
Alliance Technical Group LLC

Client: Nobis Group

Project Location: Stratford, CT

Project Number: 95700

Sampling Date(s): 05/07/25

Laboratory Sample ID(s): Q1984

List RCP Methods Used

(9012B, 8151A, 7471B, 6010D, 8082A, 8081B, 8270E, 8260D, 7470A, 1312, 6020B)

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	<u>VPH and EPH Methods only:</u> Was the VPH or EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (<6° C°)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	a) Were reporting limits specified or referenced on the chain-of-custody? b) Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: _____ **Position:** QC SUPERVISOR

Printed Name: NIMISHA N. PANDYA **Date:** _____

Name of Laboratory: Alliance Technical Group LLC

This certification form is to be used for RCP methods only.

CTDEP RCP Laboratory Analysis QA/QC Certification Form – November 2007

Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocol

Cover Page

Order ID : Q1984

Project ID : Raymark Superfund Site

Client : Nobis Group

Lab Sample Number

Q1984-01
Q1984-02
Q1984-03
Q1984-04
Q1984-05
Q1984-06
Q1984-07
Q1984-08
Q1984-09
Q1984-10
Q1984-11
Q1984-12
Q1984-13
Q1984-14
Q1984-15
Q1984-16
Q1984-19

Client Sample Number

OU4-PCS-TC-33-050725
OU4-PCS-TC-33-050725
OU4-PCS-TC-34-050725
OU4-PCS-TC-34-050725
OU4-PCS-TC-35-050725
OU4-PCS-TC-35-050725
OU4-TS-24-050725
OU4-TS-24-050725
OU4-TS-25-050725
OU4-TS-25-050725
OU4-TS-26-050725
OU4-TS-26-050725
OU4-TS-27-050725
OU4-TS-27-050725
OU4-TS-28-050725
OU4-TS-28-050725
OU4-TB01-050725

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 5/23/2025



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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: VOCMS Group3

A. Number of Samples and Date of Receipt:

17 Solid samples were received on 05/08/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for VOCMS Group3.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of VOCMS Group3 was based on method 8260D.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for OU4-TS-24-050725 [4-Bromofluorobenzene - 64%], OU4-TS-24-050725RE [4-Bromofluorobenzene - 75%], OU4-TS-28-050725 [4-Bromofluorobenzene - 61%] and OU4-TS-28-050725RE [4-Bromofluorobenzene - 78%],

All the failure samples in surrogates were reanalyzed to confirm the failure as per method and reported.

Sample # OU4-TS-28-050725 and OU4-TS-28-050725RE not match for positive hit of lab contaminant Acetone but now no more vial for confirmation therefore no corrective action taken .

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.



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E. Additional Comments:

The Samples OU4-TS-27-050725 and OU4-TS-28-050725RE have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

As per special requirement for this project form-1 are reported in mg/kg.

The SDG Q1984 is logged for VOCMS group3. Lab is not certified for Tetrahydrofuran and trans-1,4-dichloro-2-butene compounds for 8260D method.

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

The not QT review data is reported in the Miscellaneous.

The soil samples results are based on a dry weight basis.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: SVOCMS Group3

A. Number of Samples and Date of Receipt:

17 Solid samples were received on 05/08/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for SVOCMS Group3.

C. Analytical Techniques:

The samples were analyzed on instrument BNA_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOCMS Group3 was based on method 8270E and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for,

OU4-TS-24-050725 [Terphenyl-d14 - 46%],

OU4-TS-25-050725 [Terphenyl-d14 - 43%],

OU4-TS-26-050725 [Terphenyl-d14 - 40%],

OU4-TS-28-050725 [Terphenyl-d14 - 44%],

TP-13MS [Terphenyl-d14 - 49%],

TP-13MSD [Terphenyl-d14 - 50%],

TP-13MS [Terphenyl-d14 - 49%],

TP-13MSD [Terphenyl-d14 - 50%], As per SOW one Base surrogate is allowed to fail,

Therefore no further corrective action was taken.

and

OU4-TS-27-050725 [2-Fluorobiphenyl - 41%, Terphenyl-d14 - 35%],

OU4-TS-27-050725RX [2-Fluorobiphenyl - 42%, Terphenyl-d14 - 40%], Sample was re extracted to confirm surrogate failure, Both the analysis were reported for the hardcopy.

and

L2-WC-5MS [2-Fluorobiphenyl - 37%, Nitrobenzene-d5 - 35%, Terphenyl-d14 - 38%],
L2-WC-5MSD [2-Fluorobiphenyl - 37%, Nitrobenzene-d5 - 34%, Terphenyl-d14 - 40%].
Base surrogates are biased low in the proving matrix interference. Hence no corrective action is required.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD met criteria.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.
The Tuning criteria met requirements.

E. Additional Comments:

As per special requirement for this project form-1 are reported in mg/kg.
The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.
The not QT review data is reported in the Miscellaneous.
The soil samples results are based on a dry weight basis.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.



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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: Pesticide-TCL

A. Number of Samples and Date of Receipt:

17 Solid samples were received on 05/08/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for Pesticide-TCL.

C. Analytical Techniques:

The analysis was performed on instrument ECD_D. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df.; Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11. The analysis of Pesticide-TCLs was based on method 8081B and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for
OU4-TS-25-050725 [Decachlorobiphenyl(1) - 45%, Decachlorobiphenyl(2) - 34%],
OU4-TS-25-050725RE [Decachlorobiphenyl(1) - 53%, Decachlorobiphenyl(2) - 46%],
OU4-TS-26-050725 [Decachlorobiphenyl(1) - 35%, Decachlorobiphenyl(2) - 28%],
OU4-TS-26-050725RE [Decachlorobiphenyl(1) - 26%, Decachlorobiphenyl(2) - 28%],
OU4-TS-27-050725 [Decachlorobiphenyl(1) - 45%, Decachlorobiphenyl(2) - 36%],
OU4-TS-27-050725RE [Decachlorobiphenyl(1) - 36%, Decachlorobiphenyl(2) - 31%],
OU4-TS-28-050725 [Decachlorobiphenyl(1) - 37%, Decachlorobiphenyl(2) - 27%],
OU4-TS-28-050725RE [Decachlorobiphenyl(1) - 27% and Decachlorobiphenyl(2) - 26%]
All the failure samples in surrogates with both columns were reanalyzed to confirm the results as per method and reported in the data.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds .

The MSD recoveries met the acceptable requirements .

The RPD met criteria .

The Blank Spike met requirements for all samples .



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The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID PD088573.D met the requirements except for alpha-BHC is failing in 1st column but it is passing in 2nd column therefore no corrective action taken.

E. Additional Comments:

As per special requirement for this project form-1 are reported in mg/kg.
The not QT review data is reported in the Miscellaneous.
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: PCB

A. Number of Samples and Date of Receipt:

16 Solid samples were received on 05/08/2025.

1 Water sample was received on 05/08/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for PCB.

C. Analytical Techniques:

The analyses were performed on instrument GCECD_P. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11. The analyses were performed on instrument GCECD_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11. The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for OU4-TS-26-050725 [Decachlorobiphenyl(1) - 34%, Decachlorobiphenyl(2) - 48%], OU4-TS-26-050725MS [Decachlorobiphenyl(1) - 38%, Decachlorobiphenyl(2) - 54%] and OU4-TS-26-050725MSD [Decachlorobiphenyl(1) - 34%, Decachlorobiphenyl(2) - 46%] Surrogate failure for MS-MSD confirmed with Original sample.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD for {Q1984-11MSD} with File ID: PO111019.D met criteria except for AR1260[24%] due to difference in results of MS-MSD.

The Blank Spike met requirements for all samples .



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The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID PO111005.D met the requirements except for Decachlorobiphenyl is failing in 1st column but it is passing in 2nd column therefore no corrective action taken.

The Continuous Calibration File ID PO111020.D met the requirements except for Decachlorobiphenyl is failing in 1st column but it is passing in 2nd column therefore no corrective action taken.

The Continuous Calibration File ID PP072003.D met the requirements except for Decachlorobiphenyl is failing in 2nd column but it is passing in 1st column therefore no corrective action taken.

E. Additional Comments:

The not QT review data is reported in the Miscellaneous.
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: Herbicide Group1

A. Number of Samples and Date of Receipt:

17 Solid samples were received on 05/08/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for Herbicide Group1.

C. Analytical Techniques:

The analysis was performed on instrument ECD_S. The front column is RTX-CLPesticides which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 11139. The rear column is RTX-CLPesticides2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 11324. The analysis of Herbicide Group1s was based on method 8151A and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Retention Times were acceptable for all samples.

The MS {Q1982-08MS} with File ID: PS030237.D recoveries met the requirements for all compounds except for [Dinoseb(1)- 7%],[Dinoseb(2)- 8%],[Dalapon(1)- 68%],[Dalapon(2)- 133%] due to matrix interference.

The MSD {Q1982-08MSD} with File ID: PS030238.D recoveries met the acceptable requirements except for [Dinoseb(1)- 0%],[Dinoseb(2)- 7%] due to matrix interference.

The RPD for {Q1982-08MSD} with File ID: PS030238.D met criteria except for [Dinoseb(1)- 200%], [Dinoseb(2)- 13%] due to difference in results of MS-MSD.

The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .



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E. Additional Comments:

As per special requirement for this project form-1 are reported in mg/kg.

The not QT review data is reported in the Miscellaneous.

The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: Mercury, Metals ICP-TAL

A. Number of Samples and Date of Receipt:

17 Solid samples were received on 05/08/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for Mercury, Metals ICP-TAL.

C. Analytical Techniques:

The analysis of Metals ICP-TAL was based on method 6010D, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate (OU4-TS-28-050725DUP) analysis met criteria for all samples except for Calcium due to matrix interference.

The Matrix Spike (OU4-TS-28-050725MS) analysis met criteria for all samples except for Antimony, Arsenic, Beryllium, Chromium, Cobalt, Copper, Selenium, Silver, Sodium, Vanadium due to matrix interference.

The Matrix Spike Duplicate (OU4-TS-28-050725MSD) analysis met criteria for all samples except for Antimony, Arsenic, Beryllium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, Sodium, Vanadium due to matrix interference.

The Post Digest Spike (OU4-TS-28-050725A) analysis met criteria for all samples except for Antimony, Arsenic, Beryllium, Chromium, Cobalt, Copper, Nickel, Selenium, Silver, Vanadium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis, matrix has suppression effect during addition of spike.

The Blank analysis did not indicate the presence of lab contamination.



The Calibration met the requirements.

The Serial Dilution (OU4-TS-28-050725L) met criteria for all samples except for Arsenic, Calcium, Chromium, Copper, Iron, Magnesium, Manganese, Zinc due to unknown interference.

The Serial Dilution (VNJ-218L) met criteria for all samples except for Mercury due to unknown interference.

E. Additional Comments:

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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: SPLP Mercury, SPLP MetalGroup3

A. Number of Samples and Date of Receipt:

17 Solid samples were received on 05/08/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for SPLP Mercury, SPLP MetalGroup3.

C. Analytical Techniques:

The analysis of SPLP MetalGroup3 was based on method 6020B, digestion based on method 3010 (Water). The analysis of SPLP Mercury was based on method 7470A and digestion was based on method 7470 (Water).

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (OU4-TS-28-050725MS) analysis met criteria for all samples except for Arsenic and Silver due to Chemical Interference during Digestion Process.

The Matrix Spike Duplicate (OU4-TS-28-050725MSD) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (OU4-TS-28-050725MSD) analysis met criteria for all samples except for Arsenic and Silver due to Chemical Interference during Digestion Process.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:

The Post Digest Spike (OU4-TS-28-050725A) analysis met criteria for all samples except for Arsenic and Silver due to unknown chemical interferences of matrix with the addition of spike amount after digestion and before analysis, matrix has suppression effect during addition of spike.

Q1984 SPLP all samples diluted 5X Straight due to SPLP fluid which cannot be injected as is without dilution to avoid damage to detector of instrument.



Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

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CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Order ID # Q1984

Test Name: Cyanide

A. Number of Samples and Date of Receipt:

16 Solid samples were received on 05/08/2025.

1 Water sample was received on 05/08/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3, VOCMS Group1 and VOCMS Group3. This data package contains results for Cyanide.

C. Analytical Techniques:

The analysis of Cyanide was based on method 9012B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

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DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
OR	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1984

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 05/23/2025