

Wickham, Jerry, Env. Health

From: Peter Sims <psims@ninyoandmoore.com>
Sent: Wednesday, November 12, 2014 1:09 PM
To: Wickham, Jerry, Env. Health
Subject: RE: Ashland Housing Project Stockpile SPC

Thanks Jerry, stockpile SPC will be disposed off-site.

I'll have the in-situ samples analyzed for naphthalene in addition to the analyses previously discussed.

Peter D. Sims, LEED AP
Project Environmental Geologist

Ninyo & Moore

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-----Original Message-----

From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]
Sent: Wednesday, November 12, 2014 12:49 PM
To: Peter Sims
Subject: RE: Ashland Housing Project Stockpile SPC

Peter,

Alameda County Environmental Health has reviewed the submitted information and finds that the second soil stockpile (SPC) does not appear to be suitable for reuse on site. Although the concentration of TPH as motor oil (430 mg/kg) is below the IRAP Cleanup Goal of 500 mg/kg, it is above the current ESL ceiling level of 100 mg/kg and the concentration of TPH as diesel (85 mg/kg) is near the ESL ceiling level of 100 mg/kg.

There is one item that I missed in reviewing the proposed analytes for the in-situ soil sampling in Kent Avenue. Please include naphthalene at an analyte for the discrete soil samples using EPA Method 8260.

Regards,
Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
phone: 510-567-6791
jerry.wickham@acgov.org

From: Peter Sims [mailto:psims@ninyoandmoore.com]
Sent: Wednesday, November 12, 2014 9:26 AM

To: Wickham, Jerry, Env. Health
Subject: Ashland Housing Project Stockpile SPC

Hi Jerry

The lab results are in for the second stockpile (SPC) we sampled and it is acceptable for reuse based on the site cleanup goals (ESLs included in the IRAP). Please confirm that the soil is acceptable for reuse and/or provide comments based on the below information.

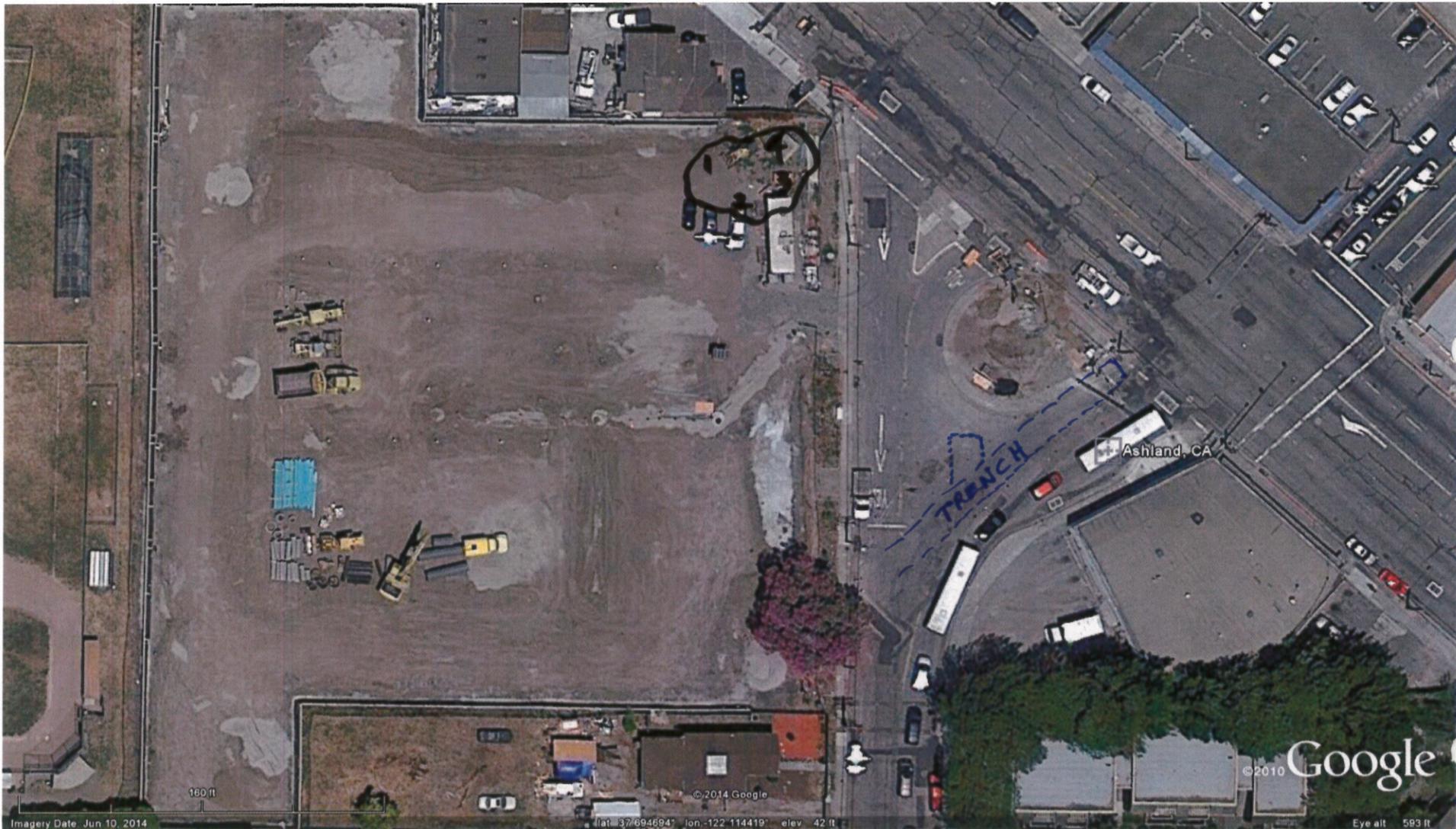
- 1) A map or aerial photo showing the general area where the fill came from. See attached figure showing the location of stockpile SPC and the trench in Kent Avenue where the fill came from.
- 2) The volume of the stockpiles and volume that each sample represents and which sample goes with which stockpile. The stockpile SPC is approximately 9 cubic yards, each discrete sample represents approximately 2.2 cubic yards.
- 3) The type of samples - composite or discrete. Composite sample COMP C was analyzed by TPHd, TPHmo, and Title 22 Metals. Discrete sample SPC-3 was analyzed for TPHg and BTEX.
- 4) The type of fill and the heterogeneity. The fill was observed to be dark brown, moist, silty sand and was generally homogenous.
- 5) Whether the fill contains any debris or construction material. No debris or construction material was observed in the stockpiled soil.
- 6) Whether any staining or odor was observed. No staining or odor was observed in the stockpiled soil.
- 7) Confirmation of where the soil is to be reused. Soil is to be reused as backfill beneath Building A.
- 8) Laboratory analytical results. See Attached.

Thanks,

Peter D. Sims, LEED AP
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From stockpile sampling
on

12' x 15' x 4'

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-61118-1
Client Project/Site: Ashland

For:
Ninyo & Moore
1956 Webster Street
Suite 400
Oakland, California 94612

Attn: Mr. Peter D. Sims



Authorized for release by:
11/11/2014 5:15:08 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Qualifiers

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D. |
| X | Surrogate is outside control limits |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ▫ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

Case Narrative

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Job ID: 720-61118-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-61118-1

Comments

No additional comments.

Receipt

The samples were received on 11/7/2014 3:41 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

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

GC VOA

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

GC Semi VOA

Method 8015B: The following sample required a dilution due to the nature of the sample matrix: COMP C (720-61118-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Metals

Method 6010B: The following sample was diluted due to the abundance of non-target analyte: COMP C (720-61118-5). Elevated reporting limits (RLs) are provided.

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

Organic Prep

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

Detection Summary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Client Sample ID: SPC-3

Lab Sample ID: 720-61118-3

No Detections.

Client Sample ID: COMP C

Lab Sample ID: 720-61118-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------------------|--------|-----------|--------|-----|-------|---------|---|--------|-----------------------|
| Diesel Range Organics [C10-C28] | 85 | | 4.9 | | mg/Kg | 5 | | 8015B | Silica Gel Cleanup |
| Motor Oil Range Organics [C24-C36] | 430 | | 250 | | mg/Kg | 5 | | 8015B | Silica Gel Cleanup |
| Arsenic | 4.5 | | 3.1 | | mg/Kg | 4 | | 6010B | Total/NA |
| Barium | 120 | | 1.5 | | mg/Kg | 4 | | 6010B | Total/NA |
| Chromium | 30 | | 1.5 | | mg/Kg | 4 | | 6010B | Total/NA |
| Cobalt | 8.2 | | 0.62 | | mg/Kg | 4 | | 6010B | Total/NA |
| Copper | 22 | | 4.6 | | mg/Kg | 4 | | 6010B | Total/NA |
| Lead | 7.3 | | 1.5 | | mg/Kg | 4 | | 6010B | Total/NA |
| Nickel | 35 | | 1.5 | | mg/Kg | 4 | | 6010B | Total/NA |
| Vanadium | 33 | | 1.5 | | mg/Kg | 4 | | 6010B | Total/NA |
| Zinc | 53 | | 4.6 | | mg/Kg | 4 | | 6010B | Total/NA |
| Mercury | 0.041 | | 0.0095 | | mg/Kg | 1 | | 7471A | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Client Sample ID: SPC-3

Lab Sample ID: 720-61118-3

Date Collected: 11/07/14 11:41

Matrix: Solid

Date Received: 11/07/14 15:41

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzene | ND | | 4.9 | | ug/Kg | | 11/10/14 10:00 | 11/10/14 14:03 | 1 |
| Ethylbenzene | ND | | 4.9 | | ug/Kg | | 11/10/14 10:00 | 11/10/14 14:03 | 1 |
| Toluene | ND | | 4.9 | | ug/Kg | | 11/10/14 10:00 | 11/10/14 14:03 | 1 |
| Xylenes, Total | ND | | 9.8 | | ug/Kg | | 11/10/14 10:00 | 11/10/14 14:03 | 1 |
| Gasoline Range Organics (GRO) -C5-C12 | ND | | 250 | | ug/Kg | | 11/10/14 10:00 | 11/10/14 14:03 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene | 80 | | 45 - 131 | 11/10/14 10:00 | 11/10/14 14:03 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 60 - 140 | 11/10/14 10:00 | 11/10/14 14:03 | 1 |
| Toluene-d8 (Surr) | 87 | | 58 - 140 | 11/10/14 10:00 | 11/10/14 14:03 | 1 |

Client Sample Results

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Client Sample ID: COMP C

Lab Sample ID: 720-61118-5

Date Collected: 11/07/14 11:39

Matrix: Solid

Date Received: 11/07/14 15:41

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------------|------------------|------------------|---------------|-----|-------|---|-----------------|-----------------|----------------|
| Diesel Range Organics [C10-C28] | 85 | | 4.9 | | mg/Kg | | 11/10/14 16:59 | 11/11/14 12:19 | 5 |
| Motor Oil Range Organics [C24-C36] | 430 | | 250 | | mg/Kg | | 11/10/14 16:59 | 11/11/14 12:19 | 5 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | | | | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
| Capric Acid (Surr) | 0 | | 0 - 1 | | | | 11/10/14 16:59 | 11/11/14 12:19 | 5 |
| p-Terphenyl | 0 | XD | 38 - 148 | | | | 11/10/14 16:59 | 11/11/14 12:19 | 5 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Antimony | ND | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Arsenic | 4.5 | | 3.1 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Barium | 120 | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Beryllium | ND | | 0.31 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Cadmium | ND | | 0.38 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Chromium | 30 | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Cobalt | 8.2 | | 0.62 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Copper | 22 | | 4.6 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Lead | 7.3 | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Molybdenum | ND | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Nickel | 35 | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Selenium | ND | | 3.1 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Silver | ND | | 0.77 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Thallium | ND | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Vanadium | 33 | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |
| Zinc | 53 | | 4.6 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 19:48 | 4 |

Method: 7471A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|--------|-----|-------|---|----------------|----------------|---------|
| Mercury | 0.041 | | 0.0095 | | mg/Kg | | 11/08/14 17:04 | 11/10/14 17:24 | 1 |

QC Sample Results

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-170545/5

Matrix: Solid

Analysis Batch: 170545

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene | ND | | 5.0 | | ug/Kg | | | 11/10/14 09:07 | 1 |
| Ethylbenzene | ND | | 5.0 | | ug/Kg | | | 11/10/14 09:07 | 1 |
| Toluene | ND | | 5.0 | | ug/Kg | | | 11/10/14 09:07 | 1 |
| Xylenes, Total | ND | | 10 | | ug/Kg | | | 11/10/14 09:07 | 1 |
| Gasoline Range Organics (GRO) -C5-C12 | ND | | 250 | | ug/Kg | | | 11/10/14 09:07 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 93 | | 45 - 131 | | 11/10/14 09:07 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 60 - 140 | | 11/10/14 09:07 | 1 |
| Toluene-d8 (Surr) | 94 | | 58 - 140 | | 11/10/14 09:07 | 1 |

Lab Sample ID: LCS 720-170545/6

Matrix: Solid

Analysis Batch: 170545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene | 50.0 | 48.0 | | ug/Kg | | 96 | 70 - 130 |
| Ethylbenzene | 50.0 | 42.5 | | ug/Kg | | 85 | 80 - 137 |
| Toluene | 50.0 | 43.1 | | ug/Kg | | 86 | 80 - 128 |
| m-Xylene & p-Xylene | 50.0 | 43.1 | | ug/Kg | | 86 | 70 - 146 |
| o-Xylene | 50.0 | 44.5 | | ug/Kg | | 89 | 70 - 140 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene | 88 | | 45 - 131 |
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 60 - 140 |
| Toluene-d8 (Surr) | 94 | | 58 - 140 |

Lab Sample ID: LCS 720-170545/8

Matrix: Solid

Analysis Batch: 170545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--|-------------|------------|---------------|-------|---|------|--------------|
| Gasoline Range Organics (GRO) -C5-C12 | 1000 | 969 | | ug/Kg | | 97 | 61 - 128 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene | 93 | | 45 - 131 |
| 1,2-Dichloroethane-d4 (Surr) | 85 | | 60 - 140 |
| Toluene-d8 (Surr) | 94 | | 58 - 140 |

Lab Sample ID: LCSD 720-170545/7

Matrix: Solid

Analysis Batch: 170545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene | 50.0 | 47.7 | | ug/Kg | | 95 | 70 - 130 | 1 | 20 |
| Ethylbenzene | 50.0 | 43.7 | | ug/Kg | | 87 | 80 - 137 | 3 | 20 |

TestAmerica Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-170545/7

Matrix: Solid

Analysis Batch: 170545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Toluene | 50.0 | 44.1 | | ug/Kg | | 88 | 80 - 128 | 2 | 20 |
| m-Xylene & p-Xylene | 50.0 | 44.3 | | ug/Kg | | 89 | 70 - 146 | 3 | 20 |
| o-Xylene | 50.0 | 45.3 | | ug/Kg | | 91 | 70 - 140 | 2 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|------------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene | 91 | | 45 - 131 |
| 1,2-Dichloroethane-d4 (Surr) | 74 | | 60 - 140 |
| Toluene-d8 (Surr) | 93 | | 58 - 140 |

Lab Sample ID: LCSD 720-170545/9

Matrix: Solid

Analysis Batch: 170545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Gasoline Range Organics (GRO) -C5-C12 | 1000 | 951 | | ug/Kg | | 95 | 61 - 128 | 2 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|------------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene | 91 | | 45 - 131 |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 60 - 140 |
| Toluene-d8 (Surr) | 92 | | 58 - 140 |

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-170589/1-A

Matrix: Solid

Analysis Batch: 170563

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 170589

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------------|-----------|--------------|------|-----|-------|---|----------------|----------------|---------|
| Diesel Range Organics [C10-C28] | ND | | 0.98 | | mg/Kg | | 11/10/14 13:15 | 11/10/14 21:48 | 1 |
| Motor Oil Range Organics [C24-C36] | ND | | 49 | | mg/Kg | | 11/10/14 13:15 | 11/10/14 21:48 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|--------------|--------------|----------|----------------|----------------|---------|
| Capric Acid (Surr) | 0.02 | | 0 - 1 | 11/10/14 13:15 | 11/10/14 21:48 | 1 |
| p-Terphenyl | 90 | | 38 - 148 | 11/10/14 13:15 | 11/10/14 21:48 | 1 |

Lab Sample ID: LCS 720-170589/2-A

Matrix: Solid

Analysis Batch: 170563

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 170589

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Diesel Range Organics [C10-C28] | 83.0 | 54.3 | | mg/Kg | | 65 | 36 - 112 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------|---------------|---------------|----------|
| p-Terphenyl | 91 | | 38 - 148 |

TestAmerica Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-170539/1-A
Matrix: Solid
Analysis Batch: 170581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170539

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|------|-----|-------|---|----------------|----------------|---------|
| Antimony | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Arsenic | ND | | 1.0 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Barium | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Beryllium | ND | | 0.10 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Cadmium | ND | | 0.13 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Chromium | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Cobalt | ND | | 0.20 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Copper | ND | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Lead | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Molybdenum | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Nickel | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Selenium | ND | | 1.0 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Silver | ND | | 0.25 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Thallium | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Vanadium | ND | | 0.50 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |
| Zinc | ND | | 1.5 | | mg/Kg | | 11/08/14 13:47 | 11/10/14 09:50 | 1 |

Lab Sample ID: LCS 720-170539/2-A
Matrix: Solid
Analysis Batch: 170581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170539

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------|-------------|------------|---------------|-------|---|------|--------------|
| Antimony | 50.0 | 43.2 | | mg/Kg | | 86 | 80 - 120 |
| Arsenic | 50.0 | 47.7 | | mg/Kg | | 95 | 80 - 120 |
| Barium | 50.0 | 50.5 | | mg/Kg | | 101 | 80 - 120 |
| Beryllium | 50.0 | 48.8 | | mg/Kg | | 98 | 80 - 120 |
| Cadmium | 50.0 | 50.1 | | mg/Kg | | 100 | 80 - 120 |
| Chromium | 50.0 | 52.1 | | mg/Kg | | 104 | 80 - 120 |
| Cobalt | 50.0 | 49.4 | | mg/Kg | | 99 | 80 - 120 |
| Copper | 50.0 | 49.7 | | mg/Kg | | 99 | 80 - 120 |
| Lead | 50.0 | 49.6 | | mg/Kg | | 99 | 80 - 120 |
| Molybdenum | 50.0 | 50.2 | | mg/Kg | | 100 | 80 - 120 |
| Nickel | 50.0 | 50.5 | | mg/Kg | | 101 | 80 - 120 |
| Selenium | 50.0 | 47.5 | | mg/Kg | | 95 | 80 - 120 |
| Silver | 25.0 | 25.0 | | mg/Kg | | 100 | 80 - 120 |
| Thallium | 50.0 | 50.2 | | mg/Kg | | 100 | 80 - 120 |
| Vanadium | 50.0 | 49.5 | | mg/Kg | | 99 | 80 - 120 |
| Zinc | 50.0 | 45.8 | | mg/Kg | | 92 | 80 - 120 |

Lab Sample ID: LCSD 720-170539/3-A
Matrix: Solid
Analysis Batch: 170581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 170539

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Antimony | 50.0 | 47.2 | | mg/Kg | | 94 | 80 - 120 | 9 | 20 |
| Arsenic | 50.0 | 47.7 | | mg/Kg | | 95 | 80 - 120 | 0 | 20 |
| Barium | 50.0 | 50.0 | | mg/Kg | | 100 | 80 - 120 | 1 | 20 |
| Beryllium | 50.0 | 48.9 | | mg/Kg | | 98 | 80 - 120 | 0 | 20 |

TestAmerica Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 720-170539/3-A
Matrix: Solid
Analysis Batch: 170581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 170539

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. | | RPD Limit |
|------------|-------------|-------------|----------------|-------|---|------|----------|-----|-----------|
| | | | | | | | Limits | RPD | |
| Cadmium | 50.0 | 50.1 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Chromium | 50.0 | 51.4 | | mg/Kg | | 103 | 80 - 120 | 1 | 20 |
| Cobalt | 50.0 | 49.3 | | mg/Kg | | 99 | 80 - 120 | 0 | 20 |
| Copper | 50.0 | 49.6 | | mg/Kg | | 99 | 80 - 120 | 0 | 20 |
| Lead | 50.0 | 49.1 | | mg/Kg | | 98 | 80 - 120 | 1 | 20 |
| Molybdenum | 50.0 | 50.7 | | mg/Kg | | 101 | 80 - 120 | 1 | 20 |
| Nickel | 50.0 | 50.1 | | mg/Kg | | 100 | 80 - 120 | 1 | 20 |
| Selenium | 50.0 | 47.8 | | mg/Kg | | 96 | 80 - 120 | 1 | 20 |
| Silver | 25.0 | 24.9 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Thallium | 50.0 | 50.3 | | mg/Kg | | 101 | 80 - 120 | 0 | 20 |
| Vanadium | 50.0 | 48.9 | | mg/Kg | | 98 | 80 - 120 | 1 | 20 |
| Zinc | 50.0 | 50.0 | | mg/Kg | | 100 | 80 - 120 | 9 | 20 |

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-170541/1-A
Matrix: Solid
Analysis Batch: 170610

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170541

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-----|-------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Mercury | ND | | 0.010 | | mg/Kg | | 11/08/14 17:04 | 11/10/14 16:28 | 1 |

Lab Sample ID: LCS 720-170541/2-A
Matrix: Solid
Analysis Batch: 170610

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170541

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. | |
|---------|-------------|------------|---------------|-------|---|------|----------|-----|
| | | | | | | | Limits | RPD |
| Mercury | 0.833 | 0.858 | | mg/Kg | | 103 | 80 - 120 | |

Lab Sample ID: LCSD 720-170541/3-A
Matrix: Solid
Analysis Batch: 170610

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 170541

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. | | RPD Limit |
|---------|-------------|-------------|----------------|-------|---|------|----------|-----|-----------|
| | | | | | | | Limits | RPD | |
| Mercury | 0.833 | 0.850 | | mg/Kg | | 102 | 80 - 120 | 1 | 20 |

QC Association Summary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

GC/MS VOA

Analysis Batch: 170545

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|---------------|------------|
| 720-61118-3 | SPC-3 | Total/NA | Solid | 8260B/CA_LUFT | 170587 |
| LCS 720-170545/6 | Lab Control Sample | Total/NA | Solid | MS | |
| LCS 720-170545/8 | Lab Control Sample | Total/NA | Solid | 8260B/CA_LUFT | |
| LCS 720-170545/7 | Lab Control Sample Dup | Total/NA | Solid | MS | |
| LCS 720-170545/9 | Lab Control Sample Dup | Total/NA | Solid | 8260B/CA_LUFT | |
| MB 720-170545/5 | Method Blank | Total/NA | Solid | MS | |

Prep Batch: 170587

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 720-61118-3 | SPC-3 | Total/NA | Solid | 5030B | |

GC Semi VOA

Analysis Batch: 170563

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|--------------------|--------|--------|------------|
| LCS 720-170589/2-A | Lab Control Sample | Silica Gel Cleanup | Solid | 8015B | 170589 |
| MB 720-170589/1-A | Method Blank | Silica Gel Cleanup | Solid | 8015B | 170589 |

Prep Batch: 170589

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|--------------------|--------|--------|------------|
| 720-61118-5 | COMP C | Silica Gel Cleanup | Solid | 3546 | |
| LCS 720-170589/2-A | Lab Control Sample | Silica Gel Cleanup | Solid | 3546 | |
| MB 720-170589/1-A | Method Blank | Silica Gel Cleanup | Solid | 3546 | |

Analysis Batch: 170657

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|--------------------|--------|--------|------------|
| 720-61118-5 | COMP C | Silica Gel Cleanup | Solid | 8015B | 170589 |

Metals

Prep Batch: 170539

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 720-61118-5 | COMP C | Total/NA | Solid | 3050B | |
| LCS 720-170539/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |
| LCS 720-170539/3-A | Lab Control Sample Dup | Total/NA | Solid | 3050B | |
| MB 720-170539/1-A | Method Blank | Total/NA | Solid | 3050B | |

Prep Batch: 170541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 720-61118-5 | COMP C | Total/NA | Solid | 7471A | |
| LCS 720-170541/2-A | Lab Control Sample | Total/NA | Solid | 7471A | |
| LCS 720-170541/3-A | Lab Control Sample Dup | Total/NA | Solid | 7471A | |
| MB 720-170541/1-A | Method Blank | Total/NA | Solid | 7471A | |

TestAmerica Pleasanton

QC Association Summary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Metals (Continued)

Analysis Batch: 170581

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| LCS 720-170539/2-A | Lab Control Sample | Total/NA | Solid | 6010B | 170539 |
| LCSD 720-170539/3-A | Lab Control Sample Dup | Total/NA | Solid | 6010B | 170539 |
| MB 720-170539/1-A | Method Blank | Total/NA | Solid | 6010B | 170539 |

Analysis Batch: 170610

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| LCS 720-170541/2-A | Lab Control Sample | Total/NA | Solid | 7471A | 170541 |
| LCSD 720-170541/3-A | Lab Control Sample Dup | Total/NA | Solid | 7471A | 170541 |
| MB 720-170541/1-A | Method Blank | Total/NA | Solid | 7471A | 170541 |

Analysis Batch: 170623

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 720-61118-5 | COMP C | Total/NA | Solid | 7471A | 170541 |

Analysis Batch: 170628

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 720-61118-5 | COMP C | Total/NA | Solid | 6010B | 170539 |

Lab Chronicle

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Client Sample ID: SPC-3

Lab Sample ID: 720-61118-3

Date Collected: 11/07/14 11:41

Matrix: Solid

Date Received: 11/07/14 15:41

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 5030B | | | 170587 | 11/10/14 10:00 | YYB | TAL PLS |
| Total/NA | Analysis | 8260B/CA_LUFTMS | | 1 | 170545 | 11/10/14 14:03 | ASC | TAL PLS |

Client Sample ID: COMP C

Lab Sample ID: 720-61118-5

Date Collected: 11/07/14 11:39

Matrix: Solid

Date Received: 11/07/14 15:41

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|--------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Silica Gel Cleanup | Prep | 3546 | | | 170589 | 11/10/14 16:59 | AFM | TAL PLS |
| Silica Gel Cleanup | Analysis | 8015B | | 5 | 170657 | 11/11/14 12:19 | JL | TAL PLS |
| Total/NA | Prep | 3050B | | | 170539 | 11/08/14 13:47 | CTD | TAL PLS |
| Total/NA | Analysis | 6010B | | 4 | 170628 | 11/10/14 19:48 | SLK | TAL PLS |
| Total/NA | Prep | 7471A | | | 170541 | 11/08/14 17:04 | ASB | TAL PLS |
| Total/NA | Analysis | 7471A | | 1 | 170623 | 11/10/14 17:24 | SLK | TAL PLS |

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|------------|---------------|------------|------------------|-----------------|
| California | State Program | 9 | 2496 | 01-31-16 |

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|--------|---------|
|-----------------|-------------|--------|---------|

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Method Summary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

| Method | Method Description | Protocol | Laboratory |
|---------------------|----------------------------------|----------|------------|
| 8260B/CA_LUFTM S | 8260B / CA LUFT MS | SW846 | TAL PLS |
| 8015B | Diesel Range Organics (DRO) (GC) | SW846 | TAL PLS |
| 6010B | Metals (ICP) | SW846 | TAL PLS |
| 7471A | Mercury (CVAA) | SW846 | TAL PLS |

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

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Sample Summary

Client: Ninyo & Moore
Project/Site: Ashland

TestAmerica Job ID: 720-61118-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 720-61118-3 | SPC-3 | Solid | 11/07/14 11:41 | 11/07/14 15:41 |
| 720-61118-5 | COMP C | Solid | 11/07/14 11:39 | 11/07/14 15:41 |

- 1
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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
 1220 Quarry Lane • Pleasanton CA 94566-4756
 Phone: (925) 484-1919 Fax: (925) 600-3002
720-761118

Reference #: 157467
 Date 11/14/14 Page 1 of 1

Report To

Analysis Request

Attr: Peter Sims
 Company: Ninjo & Moore
 Address: _____
 Email: psims@ninjomadmoore.com
 Bill To: Same Sampled By: N. Terry
 Phone: 610.343.3000

Volatile Organics GC/MS (VOCs)
 EPA 8260B
 HVOCs by EPA 8260B
 EPA 8260B: Gas BTEX
 5 Oxygenates DCA, EDB Ethanol
 TEPH EPA 8015B Silica Gel
 Diesel Motor Oil Other
 SemiVolatile Organics GC/MS
 EPA 8270C
 PNA/PAH's by 8270C
 8270C SIM
 Oil and Grease Petroleum
 (EPA 1664/9071) Total
 Pesticides EPA 8081
 PCBs EPA 8082
 CAM17 Metals
 (EPA 6010/7470/7471)
 Metals: 6010B 200.7
 Lead LUFT RCRA Other: _____
 Metals: 6020 200.8
 (ICP-MS): _____
 W.E.T (STLC)
 W.E.T (DI) TCLP
 Hex. Chrom by EPA 7196
 or EPA 7199
 pH 9040
 SM4500
 Spec. Cond. Alkalinity
 TSS SS TDS
 Anions: Cl SO₄ NO₃ F
 Br NO₂ PO₄
 Perchlorate by EPA 314.0
 COD EPA 410.4 SM5220D
 Turbidity

| Sample ID | Date | Time | Mat | Preserv |
|-----------|-------|-------|------|---------|
| SPC-1 | 11/14 | 11:39 | Soil | ice |
| SPC-2 | 11/14 | 11:40 | 11 | 11 |
| SPC-3 | 11/14 | 11:41 | 11 | 11 |
| SPC-4 | 11/14 | 11:42 | 11 | 11 |



RUSH

Analyze SPC-3 for
 TPH Gasoline & BTEX
 and THe 22 Metals
 Analyze COMP C for
 TPH Diesel & motor oil w/Sec
 and THe 22 Metals

Project Info

Sample Receipt

Project Name: # Askland
 # of Containers: 402090002
 Head Space: _____
 Temp: 8.9c

1) Relinquished by:
 Signature: NTerry Time: 11/14/14
 Printed Name: Nissa Terry
 Company: Ninjo & Moore

2) Relinquished by:
 Signature: Leith Hennecke Time: 11-7-14
 Printed Name: Leith Hennecke
 Company: TJ

3) Relinquished by:
 Signature: _____ Time: _____
 Printed Name: _____
 Company: _____

Credit Card Y/N: _____
 If yes, please call with payment information ASAP

1) Received by:
 Signature: Leith Hennecke Time: 11/14/14
 Printed Name: Leith Hennecke
 Company: TJ

2) Received by:
 Signature: Steven Muller Time: 11-7-14
 Printed Name: Steven Muller
 Company: test America

3) Received by:
 Signature: _____ Time: _____
 Printed Name: _____
 Company: _____

Report: Routine Level 3 Level 4 EDD EDF
 Special Instructions / Comments: Global ID _____

| T | A | 10 | 5 | 4 | 3 | 2 | 1 | Other |
|---|---|-----|-----|-----|-----|-----|-----|-------|
| | | Day | Day | Day | Day | Day | Day | |

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-61118-1

Login Number: 61118

List Number: 1

Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is <=/ background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

