



**DEPARTMENT OF THE ARMY**  
**US ARMY INSTALLATION MANAGEMENT COMMAND - READINESS**  
**HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MCCOY**  
**2171 SOUTH 8TH AVENUE**  
**FORT MCCOY, WISCONSIN 54656**

June 16, 2020

Environmental Division

Mr. Timothy Zeichert  
Wisconsin Department of Natural Resources  
PO Box 7921  
Madison, WI 53707-7921

Mr. Zeichert:

I have attached the report summarizing the soil sampling results for the waste areas disturbed during installation of the new water main at Fort McCoy. All of the results are below the NR 720 RCLs for both the Industrial and Non-Industrial settings.

If you have any questions or need any additional information, please contact Mr. Craig Bartholomew (608) 388-8453.

Sincerely,

A handwritten signature in black ink that reads "Brent A. Friedl".

Brent A. Friedl  
Environmental Division Chief  
Directorate of Public Works

Enclosure

**Soil Sampling  
Wastewater Treatment Plant  
Water Main Project**

*Located at*

**Fort McCoy, Wisconsin**

*Prepared by*

**Environmental Compliance Branch  
Directorate of Public Works  
Fort McCoy, Wisconsin**

2171 South 8<sup>th</sup> Avenue • Fort McCoy, WI 54656 • (608) 388-8453

**June 2020**

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**Soil Sampling  
Wastewater Treatment Plant  
Water Main Project**

*Located at*

**Fort McCoy, WI**

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**Environmental Compliance Branch  
Directorate of Public works  
Fort McCoy, Wisconsin 54656**

2171 South 8<sup>th</sup> Avenue • Fort McCoy, WI 54656 • (608) 388-8453

**June 2020**

I, Craig O. Bartholomew, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

BARTHOLOMEW.C  
RAIG.OWEN.12675  
29465

Digitally signed by  
BARTHOLOMEW.CRAIG.OWEN.  
1267529465  
Date: 2020.06.11 13:46:46 -05'00'

**6/11/2020**

Craig O. Bartholomew, P.G.  
Environmental Protection Specialist  
State of Wisconsin P.G. No: 451-013.

Date

# Part 1: Background

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## 1.0 BACKGROUND

Fort McCoy is located in the west central portion of Wisconsin. The Installation encompasses nearly 60,000 acres, with the majority of the land area being undeveloped. Nearly all of the developed land is located within the Cantonment, South Post housing, and airfield areas. The mission of the installation is to provide readiness training to all branches of the United States military. Fort McCoy generally provides training to over 120,000 troops each year.

Between World War II and the 1960's three incinerators were utilized for disposal of waste generated on the installation. Closed Landfill 2 (CLF2; BRRTS No. 02-42-279977) was used for disposal of incinerator ash, some demolition wastes, and other non-recyclable materials. Reports indicate that the landfill was closed in 1949. The Wisconsin Department of Natural Resources (WDNR) issued Final Case Closure with Continuing Obligations on 3 June 2016. Continuing obligations require maintaining the engineered cover south of Treatment Drive and the soil cover north of Treatment Drive over the waste materials to minimize direct contact risks.

Records indicate that Closed Landfill 3 (CLF3; BRRTS No. 02-42-279983) was only used during 1950 for disposal of clinker, ash, and noncombustible refuse. The Grit Area consisted of shallow piles of residual solids from the Wastewater Treatment Plant (WWTP). Based upon aerial photos, the WWTP has been in use since at least 1946. It is not known when the solids were placed in the Grit Area. However, disposal of this material ended sometime prior to 1992. The WDNR issued Final Case Closure with Continuing Obligations on 22 May 2012. Continuing obligations require maintaining a soil barrier over the residual contamination to minimize direct contact risks.

Fort McCoy recently completed installation of a water main from Ski Hill facility to the installation Wastewater Treatment Plant (WWTP). The Ski Hill facility is located approximately 1 mile northwest of the WWTP. This project was completed to improve fire protection capabilities at the WWTP (Figures 1 and 2).

The water main consists of 10 inch HDPE pipe with a minimum soil cover of 6 feet to avoid freezing. Trench depth extended to approximately 7.5 below grade. Backfilling of the trench was topped with 4 inches of topsoil to support a vegetative cover composed of grasses.

The water main route ran adjacent to the southern border of the northern portion of CFL2, south across Treatment Drive, along the inside of the western fence line of the WWTP, along the inside of the southern fence line of the plant through the northern

## Part 1: Background

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portion of CLF3, under the eastern fence, and north along the outside of the eastern fence through the Grit Area (Figure 2). The National Environmental Policy Act (NEPA) review conducted for this project during July 2018, missed the fact that these former waste disposal areas were likely to be disturbed during installation of the water main. Fort McCoy became aware of this issue in April 2020, just after the water main had been installed, and initially notified Mr. Tim Zeichert of the Wisconsin Department of Natural Resources (WDNR) by email on 17 April 2020. Due to the likelihood of residual contamination ending up near land surface during excavation and backfill operations, potentially creating direct contact risks, it was determined that Fort McCoy should evaluate the presence of contaminant concentrations within two feet of ground surface in these areas.

### **2.0 AREA LAND USE**

The WWTP is located southwest of the Fort McCoy cantonment area (Figure 1). Installation recycling facilities are located east of the treatment plant. CLF2 borders the western boundary, and CLF3 and the Former Grit Area border the southern and eastern sides of the WWTP. The La Crosse River is located adjacent to the western boundary of CLF2. Forested land is present south and east of the plant, and Treatment Drive is located north of the WWTP (Figure 2).

Installation property between the La Crosse River and the western boundary of Fort McCoy (0.65 miles of the WWTP) is utilized as military training lands. No residences, barracks, or office buildings are located within 0.65 miles of the WWTP. There are no wells present between the WWTP and the western installation boundary located downgradient. The nearest upgradient potable well is located over 3 miles northeast of the WWTP.

### 3.0 SOIL SAMPLING

On 1 May 2020, Fort McCoy and the WDNR agreed on a soil sampling plan (Appendix A). Based upon a review of analytical results from previous investigations conducted at the northern portion of CLF2, and at CLF3 & the Grit Area, it was determined that there was no need to sample the trench in the Grit Area. Analytical parameters were selected based upon what had been detected during these investigations. It was determined that one soil sample, analyzed for polynuclear aromatic hydrocarbons (PAHs) and Resource Conservation and total concentrations of Recovery Act (RCRA) metals, should be collected from inside the WWTP fence line within the footprint of CLF3. In addition, two samples were to be collected adjacent to the northern portion of CLF2 just south of the fence line north of Treatment Drive. These two samples were to be analyzed for pesticides, herbicides, and total concentrations of RCRA metals (Figure 2).

Samples were collected utilizing a hand shovel. At each sampling location, the hand shovel was utilized to excavate to a depth of two feet below grade. Excavated soil was placed in a clean PVC bucket and composited following excavation. A separate bucket was used for each sampling location. The shovel was cleaned with soap and water between sampling locations. Decontamination water was disposed on the ground at each sampling site. Sample bottles were filled by hand wearing nitrile gloves. A new pair of nitrile gloves was utilized for each sample. After filling sample bottles, remaining soil was placed back into each excavation.



## Part 4: Results and Conclusions

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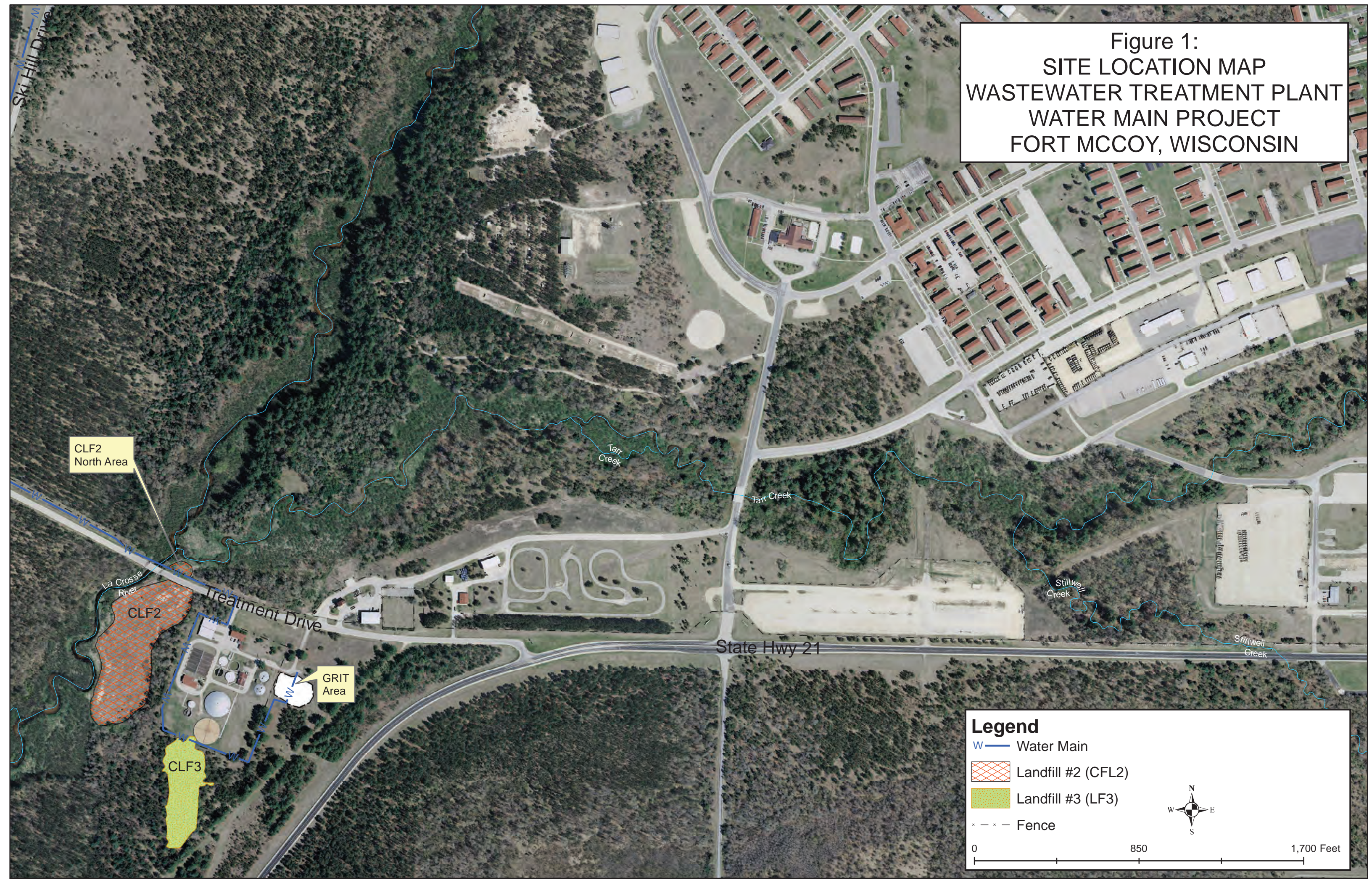
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### 4.0 RESULTS AND CONCLUSIONS

Table 1 summarizes parameters detected in the three soil samples, and analytical reports along with the Chain of Custody are included in Appendix B. In addition, Table 1 compares the detected concentrations with the generic NR 720 Residual Contaminant Levels (RCLs) from the United States Environmental Protection Agency (USEPA) web calculator ([http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl\\_search](http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search) [Chicago climate zone]), for both Industrial and Non-Industrial settings. For arsenic, barium, and chromium, the table compares the detected values to the Wisconsin background threshold values from the United States Geological Survey (USGS) listed in NR 720 RCL Tables. As shown, the reported concentrations, in every case, are below the NR 720 generic RCLs or background threshold values. In most cases significantly below these values.

Based upon these results, it appears that installation of the new water main did not increase the direct contact risks in the areas of CLF2 and CLF3. Therefore, Fort McCoy recommends that no further action be required with regard to this issue.

Figure 1:  
SITE LOCATION MAP  
WASTEWATER TREATMENT PLANT  
WATER MAIN PROJECT  
FORT MCCOY, WISCONSIN



CLF2  
North Area

Tar  
Creek

Tar  
Creek

Stillwell  
Creek

Stillwell  
Creek

La Crosse  
River

Treatment Drive

State Hwy 21

GRIT  
Area

CLF3

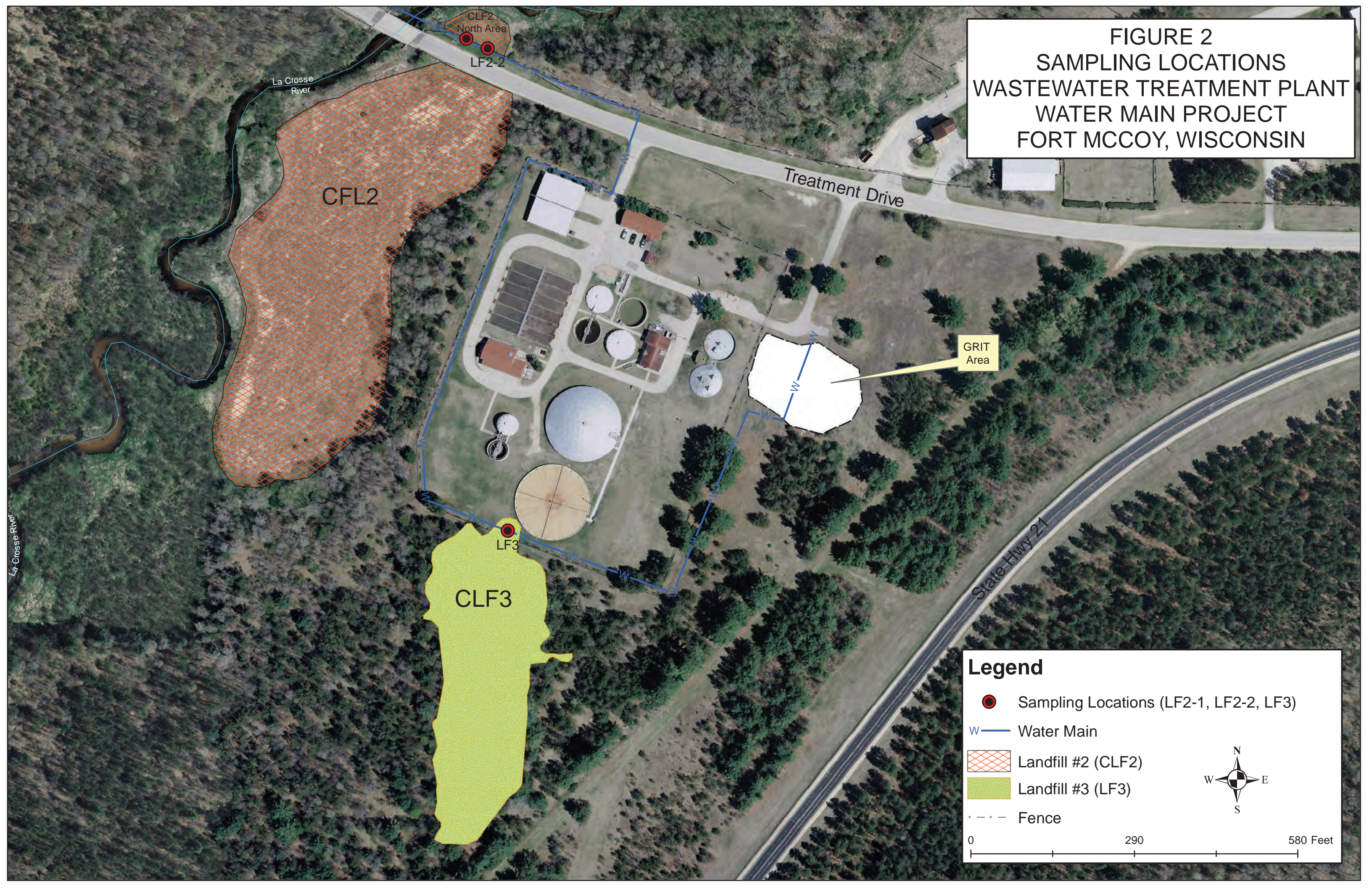
**Legend**

- W — Water Main
- Landfill #2 (CFL2)
- Landfill #3 (LF3)
- x - x - Fence








0 850 1,700 Feet

**FIGURE 2**  
**SAMPLING LOCATIONS**  
**WASTEWATER TREATMENT PLANT**  
**WATER MAIN PROJECT**  
**FORT MCCOY, WISCONSIN**



**Legend**

-  Sampling Locations (LF2-1, LF2-2, LF3)
-  Water Main
-  Landfill #2 (CLF2)
-  Landfill #3 (LF3)
-  Fence

0 290 580 Feet




TABLE 1  
ANALYTICAL PARAMETERS DETECTED IN SOIL  
SAMPLES

(Collected 5/21/2020)

WASTE WATER TREATMENT PLANT  
WATER MAIN PROJECT  
FORT MCCOY, WISCONSIN

| PARAMETER   | SAMPLE LOCATION |        |         | NR 720 SOIL<br>RCL <sup>1</sup> | NR 720 SOIL<br>RCL <sup>1</sup>  |
|---|-----------------|--------|---------|---------------------------------|----------------------------------|
|   | LF2-1           | LF2-2  | LF3     | Industrial<br>Direct Contact    | Non-Industrial<br>Direct Contact |
|   | (mg/kg)         |        |         |                                 |                                  |
| <b>Metals (Method 6010C)</b>                            |                 |        |         |                                 |                                  |
| Arsenic   | 1.5             | 1.9    | 1.0     | <b>8<sup>2</sup></b>            | <b>8<sup>2</sup></b>             |
| Barium  | 26              | 23     | 36      | <b>364<sup>2</sup></b>          | <b>364<sup>2</sup></b>           |
| Cadmium   | 0.16J           | 0.14J  | 0.54    | <b>985</b>                      | <b>71.1</b>                      |
| Chromium  | 4.0             | 4.0    | 4.8     | <b>44<sup>2</sup></b>           | <b>44<sup>2</sup></b>            |
| Lead  | 5.5             | 7.0    | 14      | <b>800</b>                      | <b>400</b>                       |
| Silver  | 0.35J           | 0.38J  | 3.3     | <b>5,840</b>                    | <b>391</b>                       |
| Mercury   | 0.033           | 0.047  | 0.35    | <b>3.13</b>                     | <b>3.13</b>                      |
| <b>Polynuclear Aromatic Hydrocarbons (Method 8279D)</b> |                 |        |         |                                 |                                  |
| Benzo[a]anthracene                                      | NA              | NA     | 0.017J  | <b>20.8</b>                     | <b>1.14</b>                      |
| Benzo[a]pyrene  | NA              | NA     | 0.020J  | <b>2.11</b>                     | <b>0.115</b>                     |
| Benzo[b]fluoranthene                                    | NA              | NA     | 0.029J  | <b>21.1</b>                     | <b>1.15</b>                      |
| Chrysene  | NA              | NA     | 0.020J  | <b>2,110</b>                    | <b>115</b>                       |
| Fluoranthene  | NA              | NA     | 0.030J  | <b>30,100</b>                   | <b>2,390</b>                     |
| Indeno[1,2,3-cd]pyrene                                  | NA              | NA     | 0.010J  | <b>21.1</b>                     | <b>1.15</b>                      |
| Phenanthrene  | NA              | NA     | 0.0091J | <b>No RCL</b>                   | <b>No RCL</b>                    |
| Pyrene  | NA              | NA     | 0.027J  | <b>22,600</b>                   | <b>1,790</b>                     |
| <b>Pesticides (Method 8081B)</b>                        |                 |        |         |                                 |                                  |
| 4,4'-DDD  | <0.00038        | 0.0033 | NA      | <b>9.57</b>                     | <b>1.9</b>                       |
| 4,4'-DDE  | 0.0052          | 0.029  | NA      | <b>9.38</b>                     | <b>2</b>                         |
| 4,4'-DDT  | 0.0041          | 0.015  | NA      | <b>8.53</b>                     | <b>1.89</b>                      |

<sup>1</sup>RCL=Residual Contaminant Level.

<sup>2</sup>Background threshold value in Wisconsin.

J = Result is less than the RL but greater than the MDL and the concentration is an approximate value.

NA=Not Analyzed.

## **APPENDIX A**

### **EMAIL FROM TIM ZEICHERT (WDNR) 1 MAY 2020**

## Bartholomew, Craig O CIV USARMY USAG (USA)

---

**From:** Zeichert, Timothy A - DNR <Timothy.Zeichert@wisconsin.gov>  
**Sent:** Friday, May 1, 2020 2:35 PM  
**To:** Bartholomew, Craig O CIV USARMY USAG (USA)  
**Subject:** RE: [Non-DoD Source] RE: Fort McCoy Water Main Issue (UNCLASSIFIED)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

----

Yes, it will. Thank you.

We are committed to service excellence.

Visit our survey at [Caution-http://dnr.wi.gov/customersurvey](http://dnr.wi.gov/customersurvey) to evaluate how I did.

Tim Zeichert

Phone: 608-266-5788 (please contact my cell phone during the COVID-19 health crisis)

Cell: 608-575-1082

[Timothy.Zeichert@wisconsin.gov](mailto:Timothy.Zeichert@wisconsin.gov)

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

**From:** Bartholomew, Craig O CIV USARMY USAG (USA) <[craig.o.bartholomew2.civ@mail.mil](mailto:craig.o.bartholomew2.civ@mail.mil)>

**Sent:** Friday, May 1, 2020 1:54 PM

**To:** Zeichert, Timothy A - DNR <[Timothy.Zeichert@wisconsin.gov](mailto:Timothy.Zeichert@wisconsin.gov)>

**Cc:** Herzog Blumer, Susan R CIV USARMY IMCOM (USA) <[susan.r.herzogblumer.civ@mail.mil](mailto:susan.r.herzogblumer.civ@mail.mil)>;

Friedl, Brent A CIV USARMY USAG (USA) <[brent.a.friedl.civ@mail.mil](mailto:brent.a.friedl.civ@mail.mil)>

**Subject:** RE: [Non-DoD Source] RE: Fort McCoy Water Main Issue (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Tim,

The composite samples that I was referring to are for one composite for each sampling location, not area. Therefore, based upon what you have required below, I will plan on two composite samples north of the roadway, and one composite sample at the Landfill 3 area north of the southern fence line.

You specify below that each area should be analyzed for the COCs for the specific area. Therefore, based upon my review of the historical information, I will plan to analyze the samples collected from north of the roadway for total RCRA metals, plus pesticides and herbicides, and the sample collected from the Landfill 3 area for total RCRA metals, and PAH constituents. Will this meet the requirements of the closure committee?

Please let me know and I will move forward to get this work completed.

Thanks for all your help.

Craig O. Bartholomew  
Environmental Protection Specialist  
Directorate of Public Works  
ATTN: IMMC-PWE-C  
2171 S. 8th Avenue  
Fort McCoy, WI 54656  
craig.o.bartholomew2.civ@mail.mil  
Telework: (608) 633-5994  
Office: (608) 388-8453 (DSN 280)  
Fax (608) 388-6235

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

From: Zeichert, Timothy A - DNR [Caution-mailto:Timothy.Zeichert@wisconsin.gov]  
Sent: Friday, May 1, 2020 12:41 PM  
To: Bartholomew, Craig O CIV USARMY USAG (USA) <craig.o.bartholomew2.civ@mail.mil>  
Subject: [Non-DoD Source] RE: Fort McCoy Water Main Issue (UNCLASSIFIED)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

Hi Craig,

Sorry for the delay. I reviewed the closure documents and discussed this with the closure committee. We have decided that the following soil sampling should occur:

- \* North side of Treatment Drive - the trench through the capped area appears to be approximately 150'. We would like two soil samples from 0-2' from this area. Roughly 50' from each end would essentially be 1/3 of the length.
- \* Landfill 3 north of the treatment plant fence - one soil sample from this area from 0-2' will suffice.
- \* Grit Area - NO soil sampling will be required.

The samples from each area should be analyzed for the COC for that specific area.

The question arose whether or not your reference regarding composite sampling was for each individual sample location, or a composite of ALL sample locations. We are ok with composite samples from each location, not a composite of ALL locations.

I hope this makes sense. If you have any questions, or need clarification, let me know. Thanks.

We are committed to service excellence.

Visit our survey at [Caution-Caution-http://dnr.wi.gov/customersurvey](http://dnr.wi.gov/customersurvey) to evaluate how I did.

Tim Zeichert

Phone: 608-266-5788 (please contact my cell phone during the COVID-19 health crisis)

Cell: 608-575-1082

[Timothy.Zeichert@wisconsin.gov](mailto:Timothy.Zeichert@wisconsin.gov)

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

From: Bartholomew, Craig O CIV USARMY USAG (USA) <[craig.o.bartholomew2.civ@mail.mil](mailto:craig.o.bartholomew2.civ@mail.mil)>

Sent: Tuesday, April 28, 2020 7:39 AM

To: Zeichert, Timothy A - DNR <[Timothy.Zeichert@wisconsin.gov](mailto:Timothy.Zeichert@wisconsin.gov)>

Cc: Friedl, Brent A CIV USARMY USAG (USA) <[brent.a.friedl.civ@mail.mil](mailto:brent.a.friedl.civ@mail.mil)>; Herzog Blumer, Susan R CIV USARMY IMCOM (USA) <[susan.r.herzogblumer.civ@mail.mil](mailto:susan.r.herzogblumer.civ@mail.mil)>

Subject: Fort McCoy Water Main Issue (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Tim,

The general route of the water main we discussed the other day is shown on



the attached map (Water Main Route from Ski Hill to WWTP). Last Thursday I went out to walk the trench over the Grit Area & Closed Landfill 3 (CLF3; BRRTS No. 02-42-279983). The contractor was in the process of backfilling the trench along the north side of Treatment Drive (formerly Buckley Court), just north of Closed Landfill 2 (CLF2; BRRTS No. 02-42-279977; see Area North of CLF2 and Map of CLF2-CLF3 Aerial Photo). As shown on the attached map (Area North of CLF2), hand auger borings were advanced along the fence-line in 2010. Incinerator ash was observed in those hand auger borings. At that time it was believed that the CLF2 waste (which is incinerator ash) might extend beneath the roadway. However, an investigation conducted during 2011 showed that any ash that extended south of the hand auger borings was removed when the ditch was installed along the roadway many years ago. The ash north of the road, between the fence and the creek in this area, contained two locations where transite was visible, and Mae requested that the area be capped with 2 feet of soil. In 2011 Fort McCoy capped the ash north of the fence with 2 feet of sand, added topsoil, and planted grass (see Map CLF2-CLF3 Aerial Photo).

The 2009/2010 investigation included excavation and removal of incinerator ash that was located just east of this area, just north of the current Fort McCoy Recycling Center, where the incinerators were formerly located. The area north of CLF2 was discovered during this work and had not been included in the contract for the work. Therefore, it was not excavated. Analytical samples collected during the 2009/2010 work showed that the ash contained metals and pesticides (see attached Incinerator Ash Characterization). The only parameter that exceeded the USEPA Regional Screen Levels was dieldrin.

The main reason that Mae requested that this area be capped was due to the observed transite.

On Thursday, the contractor excavation ran right along the fence line north of the roadway. The north edge of the excavation (1-2 feet wide) contained incinerator ash mixed with soil from just below ground surface to a depth of 1-2 feet. No transite was observed. I realize this section will also need to be sampled. As the incinerator ash has a different composition than the Grit Area & CLF3 waste, the sampling parameters will be a bit different at this location. I assume the parameter list for this area will at least need to include RCRA metals, and pesticides. I can send you the reports for this area if you don't have them digitally.

On Thursday I walked around the Grit Area and the south side of the WWTP by CLF3. The water main goes down the east side of the fence through the Grit Area, then turns west and continues through the east fence line about 15 feet north of the south fence line (see attached Actual Water Main Route South of WWTP). The main then runs along the north side of the south fence line, then turns north before reaching the west fence line and stays inside the fence until it reaches the north fence line. Therefore, the area of CLF3 that may have been disturbed is pretty small.

As we discussed, please let me know what analytical parameters you would like to see in each of these 3 areas, and what sample spacing you would like to see along the trench. The plan will be to use a hand shovel and collect composite samples from zero to 2 feet deep along the trench line in each of

these 3 areas. Let me know if you have any questions or require additional information. Thanks for all your help.

Craig O. Bartholomew

Environmental Protection Specialist

Directorate of Public Works

ATTN: IMMC-PWE-C

2171 S. 8th Avenue

Fort McCoy, WI 54656

[craig.o.bartholomew2.civ@mail.mil](mailto:craig.o.bartholomew2.civ@mail.mil) <

Caution-Caution-mailto:craig.o.bartholomew2.civ@mail.mil >

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Fax (608) 388-6235

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## **APPENDIX B**

# **ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION**

## ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-182452-1  
Client Project/Site: Fort McCoy Soil Sampling

For:  
U.S. Army  
2171 South 8th Ave  
Fort McCoy, Wisconsin 54656

Attn: Jeffrey Beaty



Authorized for release by:  
6/8/2020 1:39:56 PM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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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# Case Narrative

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

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## Job ID: 500-182452-1

---

Laboratory: Eurofins TestAmerica, Chicago

### Narrative

---

#### Job Narrative 500-182452-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 5/22/2020 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.3° C.

#### GC/MS Semi VOA

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

#### GC Semi VOA

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

#### Metals

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

#### Organic Prep

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

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# Detection Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Client Sample ID: LF2-1

## Lab Sample ID: 500-182452-1

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 4,4'-DDE | 5.2    |           | 2.0   | 0.32   | ug/Kg | 1       | ☼ | 8081B  | Total/NA  |
| 4,4'-DDT | 4.1    |           | 2.0   | 1.0    | ug/Kg | 1       | ☼ | 8081B  | Total/NA  |
| Arsenic  | 1.5    |           | 1.1   | 0.39   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Barium   | 26     |           | 1.1   | 0.13   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Cadmium  | 0.16   | J         | 0.23  | 0.041  | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Chromium | 4.0    |           | 1.1   | 0.56   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Lead     | 5.5    |           | 0.56  | 0.26   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Silver   | 0.35   | J         | 0.56  | 0.15   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Mercury  | 0.033  |           | 0.019 | 0.0062 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

## Client Sample ID: LF2-2

## Lab Sample ID: 500-182452-2

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 4,4'-DDD | 3.3    |           | 1.8   | 0.36   | ug/Kg | 1       | ☼ | 8081B  | Total/NA  |
| 4,4'-DDE | 29     |           | 1.8   | 0.30   | ug/Kg | 1       | ☼ | 8081B  | Total/NA  |
| 4,4'-DDT | 15     |           | 1.8   | 0.95   | ug/Kg | 1       | ☼ | 8081B  | Total/NA  |
| Arsenic  | 1.9    |           | 1.0   | 0.36   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Barium   | 23     |           | 1.0   | 0.12   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Cadmium  | 0.14   | J         | 0.21  | 0.038  | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Chromium | 4.0    |           | 1.0   | 0.52   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Lead     | 7.0    |           | 0.52  | 0.24   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Silver   | 0.38   | J         | 0.52  | 0.14   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Mercury  | 0.047  |           | 0.018 | 0.0060 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

## Client Sample ID: LF3

## Lab Sample ID: 500-182452-3

| Analyte                | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene     | 17     | J         | 35    | 4.8    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 20     | J         | 35    | 6.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 29     | J         | 35    | 7.7    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Chrysene               | 20     | J         | 35    | 9.7    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Fluoranthene           | 30     | J         | 35    | 6.6    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 10     | J         | 35    | 9.3    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Phenanthrene           | 9.1    | J         | 35    | 5.0    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Pyrene                 | 27     | J         | 35    | 7.1    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Arsenic                | 1.0    |           | 0.99  | 0.34   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Barium                 | 36     |           | 0.99  | 0.11   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Cadmium                | 0.54   |           | 0.20  | 0.036  | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Chromium               | 4.8    |           | 0.99  | 0.49   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Lead                   | 14     |           | 0.50  | 0.23   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Silver                 | 3.3    |           | 0.50  | 0.13   | mg/Kg | 1       | ☼ | 6010C  | Total/NA  |
| Mercury                | 0.35   |           | 0.017 | 0.0057 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Method Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

| Method   | Method Description                     | Protocol | Laboratory |
|----------|--|----------|------------|
| 8270D    | Semivolatile Organic Compounds (GC/MS) | SW846    | TAL CHI    |
| 8081B    | Organochlorine Pesticides (GC)         | SW846    | TAL CHI    |
| 8151A    | Herbicides (GC)                        | SW846    | TAL CHI    |
| 6010C    | Metals (ICP)                           | SW846    | TAL CHI    |
| 7471B    | Mercury (CVAA)                         | SW846    | TAL CHI    |
| Moisture | Percent Moisture                       | EPA      | TAL CHI    |
| 3050B    | Preparation, Metals                    | SW846    | TAL CHI    |
| 3541     | Automated Soxhlet Extraction           | SW846    | TAL CHI    |
| 7471B    | Preparation, Mercury                   | SW846    | TAL CHI    |
| 8151A    | Extraction (Herbicides)                | SW846    | TAL CHI    |

#### Protocol References:

EPA = US Environmental Protection Agency

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

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 500-182452-1  | LF2-1            | Solid  | 05/21/20 09:00 | 05/22/20 09:25 |          |
| 500-182452-2  | LF2-2            | Solid  | 05/21/20 09:05 | 05/22/20 09:25 |          |
| 500-182452-3  | LF3              | Solid  | 05/21/20 08:30 | 05/22/20 09:25 |          |

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# Client Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

**Client Sample ID: LF2-1**

**Lab Sample ID: 500-182452-1**

**Date Collected: 05/21/20 09:00**

**Matrix: Solid**

**Date Received: 05/22/20 09:25**

**Percent Solids: 86.3**

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte             | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin              | <0.80      |           | 2.0 | 0.80 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| alpha-BHC           | <0.49      |           | 2.0 | 0.49 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| beta-BHC            | <0.60      |           | 2.0 | 0.60 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| cis-Chlordane       | <0.97      |           | 2.0 | 0.97 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| 4,4'-DDD            | <0.38      |           | 2.0 | 0.38 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| <b>4,4'-DDE</b>     | <b>5.2</b> |           | 2.0 | 0.32 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| <b>4,4'-DDT</b>     | <b>4.1</b> |           | 2.0 | 1.0  | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| delta-BHC           | <0.61      |           | 2.0 | 0.61 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Dieldrin            | <0.26      |           | 2.0 | 0.26 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Endosulfan I        | <0.84      |           | 2.0 | 0.84 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Endosulfan II       | <0.31      |           | 2.0 | 0.31 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Endosulfan sulfate  | <0.35      |           | 2.0 | 0.35 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Endrin              | <0.27      |           | 2.0 | 0.27 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Endrin aldehyde     | <0.32      |           | 2.0 | 0.32 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Endrin ketone       | <0.44      |           | 2.0 | 0.44 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| gamma-BHC (Lindane) | <0.42      |           | 2.0 | 0.42 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Heptachlor          | <0.81      |           | 2.0 | 0.81 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Heptachlor epoxide  | <0.69      |           | 2.0 | 0.69 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Methoxychlor        | <0.37      |           | 9.6 | 0.37 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Toxaphene           | <8.1       |           | 19  | 8.1  | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| trans-Chlordane     | <0.51      |           | 2.0 | 0.51 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 21:41 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl | 117       |           | 33 - 148 | 06/04/20 08:01 | 06/04/20 21:41 | 1       |
| Tetrachloro-m-xylene   | 75        |           | 30 - 121 | 06/04/20 08:01 | 06/04/20 21:41 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 2,4-D             | <110   |           | 380 | 110 | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:23 | 10      |
| 2,4-DB            | <110   |           | 380 | 110 | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:23 | 10      |
| Dicamba           | <79    |           | 380 | 79  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:23 | 10      |
| Dichlorprop       | <100   |           | 380 | 100 | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:23 | 10      |
| Silvex (2,4,5-TP) | <98    |           | 380 | 98  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:23 | 10      |
| 2,4,5-T           | <93    |           | 380 | 93  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:23 | 10      |

| Surrogate | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA      | 53        |           | 25 - 120 | 05/28/20 18:36 | 05/30/20 14:23 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte         | Result      | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|-------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>  | <b>1.5</b>  |           | 1.1  | 0.39  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |
| <b>Barium</b>   | <b>26</b>   |           | 1.1  | 0.13  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |
| <b>Cadmium</b>  | <b>0.16</b> | J         | 0.23 | 0.041 | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |
| <b>Chromium</b> | <b>4.0</b>  |           | 1.1  | 0.56  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |
| <b>Lead</b>     | <b>5.5</b>  |           | 0.56 | 0.26  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |
| Selenium        | <0.66       |           | 1.1  | 0.66  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |
| <b>Silver</b>   | <b>0.35</b> | J         | 0.56 | 0.15  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:39 | 1       |

## Method: 7471B - Mercury (CVAA)

| Analyte        | Result       | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| <b>Mercury</b> | <b>0.033</b> |           | 0.019 | 0.0062 | mg/Kg | ☼ | 05/28/20 14:00 | 05/29/20 09:25 | 1       |

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

**Client Sample ID: LF2-2**

**Lab Sample ID: 500-182452-2**

**Date Collected: 05/21/20 09:05**

**Matrix: Solid**

**Date Received: 05/22/20 09:25**

**Percent Solids: 90.5**

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte             | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin              | <0.75      |           | 1.8 | 0.75 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| alpha-BHC           | <0.46      |           | 1.8 | 0.46 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| beta-BHC            | <0.56      |           | 1.8 | 0.56 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| cis-Chlordane       | <0.91      |           | 1.8 | 0.91 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| <b>4,4'-DDD</b>     | <b>3.3</b> |           | 1.8 | 0.36 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| <b>4,4'-DDE</b>     | <b>29</b>  |           | 1.8 | 0.30 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| <b>4,4'-DDT</b>     | <b>15</b>  |           | 1.8 | 0.95 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| delta-BHC           | <0.57      |           | 1.8 | 0.57 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Dieldrin            | <0.25      |           | 1.8 | 0.25 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Endosulfan I        | <0.79      |           | 1.8 | 0.79 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Endosulfan II       | <0.29      |           | 1.8 | 0.29 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Endosulfan sulfate  | <0.33      |           | 1.8 | 0.33 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Endrin              | <0.25      |           | 1.8 | 0.25 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Endrin aldehyde     | <0.30      |           | 1.8 | 0.30 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Endrin ketone       | <0.41      |           | 1.8 | 0.41 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| gamma-BHC (Lindane) | <0.39      |           | 1.8 | 0.39 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Heptachlor          | <0.76      |           | 1.8 | 0.76 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Heptachlor epoxide  | <0.64      |           | 1.8 | 0.64 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Methoxychlor        | <0.35      |           | 9.0 | 0.35 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Toxaphene           | <7.6       |           | 18  | 7.6  | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| trans-Chlordane     | <0.47      |           | 1.8 | 0.47 | ug/Kg | ☼ | 06/04/20 08:01 | 06/04/20 22:02 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl | 111       |           | 33 - 148 | 06/04/20 08:01 | 06/04/20 22:02 | 1       |
| Tetrachloro-m-xylene   | 85        |           | 30 - 121 | 06/04/20 08:01 | 06/04/20 22:02 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 2,4-D             | <100   |           | 360 | 100 | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:42 | 10      |
| 2,4-DB            | <110   |           | 360 | 110 | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:42 | 10      |
| Dicamba           | <76    |           | 360 | 76  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:42 | 10      |
| Dichlorprop       | <99    |           | 360 | 99  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:42 | 10      |
| Silvex (2,4,5-TP) | <93    |           | 360 | 93  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:42 | 10      |
| 2,4,5-T           | <89    |           | 360 | 89  | ug/Kg | ☼ | 05/28/20 18:36 | 05/30/20 14:42 | 10      |

| Surrogate | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA      | 53        |           | 25 - 120 | 05/28/20 18:36 | 05/30/20 14:42 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte         | Result      | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|-------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>  | <b>1.9</b>  |           | 1.0  | 0.36  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |
| <b>Barium</b>   | <b>23</b>   |           | 1.0  | 0.12  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |
| <b>Cadmium</b>  | <b>0.14</b> | <b>J</b>  | 0.21 | 0.038 | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |
| <b>Chromium</b> | <b>4.0</b>  |           | 1.0  | 0.52  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |
| <b>Lead</b>     | <b>7.0</b>  |           | 0.52 | 0.24  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |
| Selenium        | <0.62       |           | 1.0  | 0.62  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |
| <b>Silver</b>   | <b>0.38</b> | <b>J</b>  | 0.52 | 0.14  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:43 | 1       |

## Method: 7471B - Mercury (CVAA)

| Analyte        | Result       | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| <b>Mercury</b> | <b>0.047</b> |           | 0.018 | 0.0060 | mg/Kg | ☼ | 05/28/20 14:00 | 05/29/20 09:27 | 1       |

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

**Client Sample ID: LF3**

**Lab Sample ID: 500-182452-3**

Date Collected: 05/21/20 08:30

Matrix: Solid

Date Received: 05/22/20 09:25

Percent Solids: 93.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                       | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                  | <6.4       |           | 35 | 6.4 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Acenaphthylene                | <4.7       |           | 35 | 4.7 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Anthracene                    | <6.0       |           | 35 | 6.0 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Benzo[a]anthracene</b>     | <b>17</b>  | <b>J</b>  | 35 | 4.8 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Benzo[a]pyrene</b>         | <b>20</b>  | <b>J</b>  | 35 | 6.9 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Benzo[b]fluoranthene</b>   | <b>29</b>  | <b>J</b>  | 35 | 7.7 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Benzo[g,h,i]perylene          | <11        |           | 35 | 11  | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Benzo[k]fluoranthene          | <11        |           | 35 | 11  | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Chrysene</b>               | <b>20</b>  | <b>J</b>  | 35 | 9.7 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Dibenz(a,h)anthracene         | <6.9       |           | 35 | 6.9 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Fluoranthene</b>           | <b>30</b>  | <b>J</b>  | 35 | 6.6 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Fluorene                      | <5.0       |           | 35 | 5.0 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Indeno[1,2,3-cd]pyrene</b> | <b>10</b>  | <b>J</b>  | 35 | 9.3 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| 1-Methylnaphthalene           | <8.7       |           | 72 | 8.7 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| 2-Methylnaphthalene           | <6.6       |           | 72 | 6.6 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Naphthalene                   | <5.5       |           | 35 | 5.5 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Phenanthrene</b>           | <b>9.1</b> | <b>J</b>  | 35 | 5.0 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| <b>Pyrene</b>                 | <b>27</b>  | <b>J</b>  | 35 | 7.1 | ug/Kg | ☼ | 06/01/20 16:31 | 06/03/20 03:45 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 85        |           | 43 - 145 | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 37 - 147 | 06/01/20 16:31 | 06/03/20 03:45 | 1       |
| Terphenyl-d14 (Surr)    | 88        |           | 42 - 157 | 06/01/20 16:31 | 06/03/20 03:45 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte         | Result      | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|-------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>  | <b>1.0</b>  |           | 0.99 | 0.34  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |
| <b>Barium</b>   | <b>36</b>   |           | 0.99 | 0.11  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |
| <b>Cadmium</b>  | <b>0.54</b> |           | 0.20 | 0.036 | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |
| <b>Chromium</b> | <b>4.8</b>  |           | 0.99 | 0.49  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |
| <b>Lead</b>     | <b>14</b>   |           | 0.50 | 0.23  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |
| Selenium        | <0.58       |           | 0.99 | 0.58  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |
| <b>Silver</b>   | <b>3.3</b>  |           | 0.50 | 0.13  | mg/Kg | ☼ | 05/26/20 17:32 | 05/27/20 08:47 | 1       |

## Method: 7471B - Mercury (CVAA)

| Analyte        | Result      | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| <b>Mercury</b> | <b>0.35</b> |           | 0.017 | 0.0057 | mg/Kg | ☼ | 05/28/20 14:00 | 05/29/20 09:33 | 1       |

# Definitions/Glossary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | 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             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MQL            | Method Quantitation Limit   |
| 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 (Radiochemistry)   |
| 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)   |

# QC Association Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## GC/MS Semi VOA

### Prep Batch: 545331

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-3       | LF3                | Total/NA  | Solid  | 3541   |            |
| MB 500-545331/1-A  | Method Blank       | Total/NA  | Solid  | 3541   |            |
| LCS 500-545331/2-A | Lab Control Sample | Total/NA  | Solid  | 3541   |            |

### Analysis Batch: 545460

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 500-545331/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 545331     |
| LCS 500-545331/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 545331     |

### Analysis Batch: 545591

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 500-182452-3  | LF3              | Total/NA  | Solid  | 8270D  | 545331     |

## GC Semi VOA

### Prep Batch: 544852

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1       | LF2-1              | Total/NA  | Solid  | 8151A  |            |
| 500-182452-2       | LF2-2              | Total/NA  | Solid  | 8151A  |            |
| MB 500-544852/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 500-544852/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 545153

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1       | LF2-1              | Total/NA  | Solid  | 8151A  | 544852     |
| 500-182452-2       | LF2-2              | Total/NA  | Solid  | 8151A  | 544852     |
| MB 500-544852/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 544852     |
| LCS 500-544852/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 544852     |

### Prep Batch: 545912

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1       | LF2-1              | Total/NA  | Solid  | 3541   |            |
| 500-182452-2       | LF2-2              | Total/NA  | Solid  | 3541   |            |
| MB 500-545912/1-A  | Method Blank       | Total/NA  | Solid  | 3541   |            |
| LCS 500-545912/2-A | Lab Control Sample | Total/NA  | Solid  | 3541   |            |

### Analysis Batch: 545964

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1       | LF2-1              | Total/NA  | Solid  | 8081B  | 545912     |
| 500-182452-2       | LF2-2              | Total/NA  | Solid  | 8081B  | 545912     |
| MB 500-545912/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 545912     |
| LCS 500-545912/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 545912     |

## Metals

### Prep Batch: 544381

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1       | LF2-1              | Total/NA  | Solid  | 3050B  |            |
| 500-182452-2       | LF2-2              | Total/NA  | Solid  | 3050B  |            |
| 500-182452-3       | LF3                | Total/NA  | Solid  | 3050B  |            |
| MB 500-544381/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 500-544381/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

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# QC Association Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Metals

### Analysis Batch: 544575

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1       | LF2-1              | Total/NA  | Solid  | 6010C  | 544381     |
| 500-182452-2       | LF2-2              | Total/NA  | Solid  | 6010C  | 544381     |
| 500-182452-3       | LF3                | Total/NA  | Solid  | 6010C  | 544381     |
| MB 500-544381/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 544381     |
| LCS 500-544381/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 544381     |

### Prep Batch: 544793

| Lab Sample ID       | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1        | LF2-1              | Total/NA  | Solid  | 7471B  |            |
| 500-182452-2        | LF2-2              | Total/NA  | Solid  | 7471B  |            |
| 500-182452-3        | LF3                | Total/NA  | Solid  | 7471B  |            |
| MB 500-544793/12-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 500-544793/13-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 545013

| Lab Sample ID       | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------|-----------|--------|--------|------------|
| 500-182452-1        | LF2-1              | Total/NA  | Solid  | 7471B  | 544793     |
| 500-182452-2        | LF2-2              | Total/NA  | Solid  | 7471B  | 544793     |
| 500-182452-3        | LF3                | Total/NA  | Solid  | 7471B  | 544793     |
| MB 500-544793/12-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 544793     |
| LCS 500-544793/13-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 544793     |

## General Chemistry

### Analysis Batch: 544339

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 500-182452-1  | LF2-1            | Total/NA  | Solid  | Moisture |            |
| 500-182452-2  | LF2-2            | Total/NA  | Solid  | Moisture |            |
| 500-182452-3  | LF3              | Total/NA  | Solid  | Moisture |            |



# Surrogate Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |
|--------------------|--------------------|--|-----------------|------------------|
|                    |                    | FBP<br>(43-145)                                | NBZ<br>(37-147) | TPHL<br>(42-157) |
| 500-182452-3       | LF3                | 85   | 70              | 88               |
| LCS 500-545331/2-A | Lab Control Sample | 96   | 94              | 90               |
| MB 500-545331/1-A  | Method Blank       | 89   | 92              | 98               |

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |
|--------------------|--------------------|--|------------------|
|                    |                    | DCBP1<br>(33-148)                              | TCX1<br>(30-121) |
| 500-182452-1       | LF2-1              | 117  | 75               |
| 500-182452-2       | LF2-2              | 111  | 85               |
| LCS 500-545912/2-A | Lab Control Sample | 128  | 101              |
| MB 500-545912/1-A  | Method Blank       | 129  | 102              |

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID   | DCPAA1   |
|--------------------|--------------------|----------|
|                    |                    | (25-120) |
| 500-182452-1       | LF2-1              | 53       |
| 500-182452-2       | LF2-2              | 53       |
| LCS 500-544852/2-A | Lab Control Sample | 61       |
| MB 500-544852/1-A  | Method Blank       | 62       |

#### Surrogate Legend

DCPAA = DCAA

# QC Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-545331/1-A**  
**Matrix: Solid**  
**Analysis Batch: 545460**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 545331**

| Analyte                | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | <6.0      |              | 33 | 6.0 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Acenaphthylene         | <4.4      |              | 33 | 4.4 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Anthracene             | <5.6      |              | 33 | 5.6 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Benzo[a]anthracene     | <4.5      |              | 33 | 4.5 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Benzo[a]pyrene         | <6.4      |              | 33 | 6.4 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Benzo[b]fluoranthene   | <7.2      |              | 33 | 7.2 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Benzo[g,h,i]perylene   | <11       |              | 33 | 11  | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Benzo[k]fluoranthene   | <9.8      |              | 33 | 9.8 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Chrysene               | <9.1      |              | 33 | 9.1 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Dibenz(a,h)anthracene  | <6.4      |              | 33 | 6.4 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Fluoranthene           | <6.2      |              | 33 | 6.2 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Fluorene               | <4.7      |              | 33 | 4.7 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Indeno[1,2,3-cd]pyrene | <8.6      |              | 33 | 8.6 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| 1-Methylnaphthalene    | <8.1      |              | 67 | 8.1 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| 2-Methylnaphthalene    | <6.1      |              | 67 | 6.1 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Naphthalene            | <5.1      |              | 33 | 5.1 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Phenanthrene           | <4.6      |              | 33 | 4.6 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Pyrene                 | <6.6      |              | 33 | 6.6 | ug/Kg |   | 06/01/20 16:31 | 06/02/20 14:03 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 89           |              | 43 - 145 | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Nitrobenzene-d5 (Surr)  | 92           |              | 37 - 147 | 06/01/20 16:31 | 06/02/20 14:03 | 1       |
| Terphenyl-d14 (Surr)    | 98           |              | 42 - 157 | 06/01/20 16:31 | 06/02/20 14:03 | 1       |

**Lab Sample ID: LCS 500-545331/2-A**  
**Matrix: Solid**  
**Analysis Batch: 545460**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 545331**

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|------------------------|-------------|------------|---------------|-------|---|------|----------|
| Acenaphthene           | 1330        | 1270       |               | ug/Kg |   | 95   | 65 - 124 |
| Acenaphthylene         | 1330        | 1250       |               | ug/Kg |   | 94   | 68 - 120 |
| Anthracene             | 1330        | 1230       |               | ug/Kg |   | 92   | 70 - 114 |
| Benzo[a]anthracene     | 1330        | 1400       |               | ug/Kg |   | 105  | 67 - 122 |
| Benzo[a]pyrene         | 1330        | 1340       |               | ug/Kg |   | 100  | 65 - 133 |
| Benzo[b]fluoranthene   | 1330        | 1250       |               | ug/Kg |   | 94   | 69 - 129 |
| Benzo[g,h,i]perylene   | 1330        | 1520       |               | ug/Kg |   | 114  | 72 - 131 |
| Benzo[k]fluoranthene   | 1330        | 1280       |               | ug/Kg |   | 96   | 68 - 127 |
| Chrysene               | 1330        | 1400       |               | ug/Kg |   | 105  | 63 - 120 |
| Dibenz(a,h)anthracene  | 1330        | 1430       |               | ug/Kg |   | 107  | 64 - 131 |
| Fluoranthene           | 1330        | 1210       |               | ug/Kg |   | 91   | 62 - 120 |
| Fluorene               | 1330        | 1280       |               | ug/Kg |   | 96   | 62 - 120 |
| Indeno[1,2,3-cd]pyrene | 1330        | 1430       |               | ug/Kg |   | 107  | 68 - 130 |
| 1-Methylnaphthalene    | 1330        | 1350       |               | ug/Kg |   | 101  | 68 - 111 |
| 2-Methylnaphthalene    | 1330        | 1390       |               | ug/Kg |   | 105  | 69 - 112 |
| Naphthalene            | 1330        | 1350       |               | ug/Kg |   | 102  | 63 - 110 |
| Phenanthrene           | 1330        | 1220       |               | ug/Kg |   | 91   | 62 - 120 |
| Pyrene                 | 1330        | 1350       |               | ug/Kg |   | 101  | 61 - 128 |

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# QC Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** LCS 500-545331/2-A  
**Matrix:** Solid  
**Analysis Batch:** 545460

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 545331

| Surrogate               | LCS LCS   |           | Limits   |
|-------------------------|-----------|-----------|----------|
|                         | %Recovery | Qualifier |          |
| 2-Fluorobiphenyl (Surr) | 96        |           | 43 - 145 |
| Nitrobenzene-d5 (Surr)  | 94        |           | 37 - 147 |
| Terphenyl-d14 (Surr)    | 90        |           | 42 - 157 |

## Method: 8081B - Organochlorine Pesticides (GC)

**Lab Sample ID:** MB 500-545912/1-A  
**Matrix:** Solid  
**Analysis Batch:** 545964

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 545912

| Analyte             | MB MB  |           | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
|                     | Result | Qualifier |     |      |       |   |                |                |         |
| Aldrin              | <0.69  |           | 1.7 | 0.69 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| alpha-BHC           | <0.42  |           | 1.7 | 0.42 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| beta-BHC            | <0.52  |           | 1.7 | 0.52 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| cis-Chlordane       | <0.85  |           | 1.7 | 0.85 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| 4,4'-DDD            | <0.33  |           | 1.7 | 0.33 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| 4,4'-DDE            | <0.28  |           | 1.7 | 0.28 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| 4,4'-DDT            | <0.88  |           | 1.7 | 0.88 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| delta-BHC           | <0.53  |           | 1.7 | 0.53 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Dieldrin            | <0.23  |           | 1.7 | 0.23 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Endosulfan I        | <0.73  |           | 1.7 | 0.73 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Endosulfan II       | <0.27  |           | 1.7 | 0.27 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Endosulfan sulfate  | <0.31  |           | 1.7 | 0.31 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Endrin              | <0.23  |           | 1.7 | 0.23 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Endrin aldehyde     | <0.28  |           | 1.7 | 0.28 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Endrin ketone       | <0.38  |           | 1.7 | 0.38 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| gamma-BHC (Lindane) | <0.36  |           | 1.7 | 0.36 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Heptachlor          | <0.70  |           | 1.7 | 0.70 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Heptachlor epoxide  | <0.59  |           | 1.7 | 0.59 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Methoxychlor        | <0.32  |           | 8.3 | 0.32 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Toxaphene           | <7.0   |           | 17  | 7.0  | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| trans-Chlordane     | <0.44  |           | 1.7 | 0.44 | ug/Kg |   | 06/04/20 08:01 | 06/04/20 18:14 | 1       |

| Surrogate              | MB MB     |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
|                        | %Recovery | Qualifier |          |                |                |         |
| DCB Decachlorobiphenyl | 129       |           | 33 - 148 | 06/04/20 08:01 | 06/04/20 18:14 | 1       |
| Tetrachloro-m-xylene   | 102       |           | 30 - 121 | 06/04/20 08:01 | 06/04/20 18:14 | 1       |

**Lab Sample ID:** LCS 500-545912/2-A  
**Matrix:** Solid  
**Analysis Batch:** 545964

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 545912

| Analyte       | Spike Added | LCS LCS |           | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|---------|-----------|-------|---|------|--------------|
|               |             | Result  | Qualifier |       |   |      |              |
| Aldrin        | 13.3        | 13.4    |           | ug/Kg |   | 101  | 52 - 122     |
| alpha-BHC     | 13.3        | 13.1    |           | ug/Kg |   | 98   | 50 - 123     |
| beta-BHC      | 13.3        | 15.4    |           | ug/Kg |   | 116  | 44 - 140     |
| cis-Chlordane | 13.3        | 13.8    |           | ug/Kg |   | 104  | 52 - 129     |
| 4,4'-DDD      | 13.3        | 15.0    |           | ug/Kg |   | 112  | 47 - 137     |
| 4,4'-DDE      | 13.3        | 13.7    |           | ug/Kg |   | 102  | 50 - 130     |

Euofins TestAmerica, Chicago

# QC Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 500-545912/2-A  
Matrix: Solid  
Analysis Batch: 545964

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 545912

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|---------------------|-------------|------------|---------------|-------|---|------|----------|
| 4,4'-DDT            | 13.3        | 13.7       |               | ug/Kg |   | 103  | 46 - 143 |
| delta-BHC           | 13.3        | 14.9       |               | ug/Kg |   | 112  | 57 - 125 |
| Dieldrin            | 13.3        | 14.1       |               | ug/Kg |   | 106  | 51 - 133 |
| Endosulfan I        | 13.3        | 13.5       |               | ug/Kg |   | 101  | 30 - 120 |
| Endosulfan II       | 13.3        | 14.8       |               | ug/Kg |   | 111  | 30 - 120 |
| Endosulfan sulfate  | 13.3        | 15.9       |               | ug/Kg |   | 120  | 42 - 150 |
| Endrin              | 13.3        | 14.2       |               | ug/Kg |   | 106  | 43 - 144 |
| Endrin aldehyde     | 13.3        | 14.3       |               | ug/Kg |   | 107  | 39 - 131 |
| Endrin ketone       | 13.3        | 15.3       |               | ug/Kg |   | 115  | 51 - 135 |
| gamma-BHC (Lindane) | 13.3        | 12.8       |               | ug/Kg |   | 96   | 50 - 122 |
| Heptachlor          | 13.3        | 13.6       |               | ug/Kg |   | 102  | 53 - 129 |
| Heptachlor epoxide  | 13.3        | 13.6       |               | ug/Kg |   | 102  | 50 - 139 |
| Methoxychlor        | 13.3        | 14.8       |               | ug/Kg |   | 111  | 45 - 144 |
| trans-Chlordane     | 13.3        | 15.1       |               | ug/Kg |   | 113  | 52 - 132 |

| Surrogate              | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl | 128           |               | 33 - 148 |
| Tetrachloro-m-xylene   | 101           |               | 30 - 121 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-544852/1-A  
Matrix: Solid  
Analysis Batch: 545153

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 544852

| Analyte           | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| 2,4-D             | <94       |              | 330 | 94  | ug/Kg |   | 05/28/20 18:36 | 05/30/20 06:57 | 10      |
| 2,4-DB            | <98       |              | 330 | 98  | ug/Kg |   | 05/28/20 18:36 | 05/30/20 06:57 | 10      |
| Dicamba           | <69       |              | 330 | 69  | ug/Kg |   | 05/28/20 18:36 | 05/30/20 06:57 | 10      |
| Dichlorprop       | <90       |              | 330 | 90  | ug/Kg |   | 05/28/20 18:36 | 05/30/20 06:57 | 10      |
| Silvex (2,4,5-TP) | <85       |              | 330 | 85  | ug/Kg |   | 05/28/20 18:36 | 05/30/20 06:57 | 10      |
| 2,4,5-T           | <81       |              | 330 | 81  | ug/Kg |   | 05/28/20 18:36 | 05/30/20 06:57 | 10      |

| Surrogate | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|--------------|----------|----------------|----------------|---------|
| DCAA      | 62           |              | 25 - 120 | 05/28/20 18:36 | 05/30/20 06:57 | 10      |

Lab Sample ID: LCS 500-544852/2-A  
Matrix: Solid  
Analysis Batch: 545153

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 544852

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|-------------------|-------------|------------|---------------|-------|---|------|----------|
| 2,4-D             | 1350        | 856        |               | ug/Kg |   | 63   | 20 - 115 |
| 2,4-DB            | 1350        | 841        |               | ug/Kg |   | 63   | 20 - 120 |
| Dicamba           | 1340        | 757        |               | ug/Kg |   | 56   | 25 - 110 |
| Dichlorprop       | 1340        | 819        |               | ug/Kg |   | 61   | 25 - 110 |
| Silvex (2,4,5-TP) | 1340        | 740        |               | ug/Kg |   | 55   | 29 - 115 |
| 2,4,5-T           | 1340        | 917        |               | ug/Kg |   | 68   | 25 - 115 |

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 500-544852/2-A  
Matrix: Solid  
Analysis Batch: 545153

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 544852

| Surrogate | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-----------|------------------|------------------|----------|
| DCAA      | 61               |                  | 25 - 120 |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-544381/1-A  
Matrix: Solid  
Analysis Batch: 544575

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 544381

| Analyte  | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic  | <0.34        |                 | 1.0  | 0.34  | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |
| Barium   | <0.11        |                 | 1.0  | 0.11  | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |
| Cadmium  | <0.036       |                 | 0.20 | 0.036 | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |
| Chromium | <0.50        |                 | 1.0  | 0.50  | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |
| Lead     | <0.23        |                 | 0.50 | 0.23  | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |
| Selenium | <0.59        |                 | 1.0  | 0.59  | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |
| Silver   | <0.13        |                 | 0.50 | 0.13  | mg/Kg |   | 05/26/20 17:32 | 05/27/20 07:33 | 1       |

Lab Sample ID: LCS 500-544381/2-A  
Matrix: Solid  
Analysis Batch: 544575

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 544381

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | Limits   |
|----------|----------------|---------------|------------------|-------|---|------|----------|
| Arsenic  | 10.0           | 9.44          |                  | mg/Kg |   | 94   | 80 - 120 |
| Barium   | 200            | 204           |                  | mg/Kg |   | 102  | 80 - 120 |
| Cadmium  | 5.00           | 4.70          |                  | mg/Kg |   | 94   | 80 - 120 |
| Chromium | 20.0           | 19.1          |                  | mg/Kg |   | 95   | 80 - 120 |
| Lead     | 10.0           | 9.12          |                  | mg/Kg |   | 91   | 80 - 120 |
| Selenium | 10.0           | 8.87          |                  | mg/Kg |   | 89   | 80 - 120 |
| Silver   | 5.00           | 4.36          |                  | mg/Kg |   | 87   | 80 - 120 |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-544793/12-A  
Matrix: Solid  
Analysis Batch: 545013

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 544793

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | <0.0056      |                 | 0.017 | 0.0056 | mg/Kg |   | 05/28/20 14:00 | 05/29/20 08:29 | 1       |

Lab Sample ID: LCS 500-544793/13-A  
Matrix: Solid  
Analysis Batch: 545013

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 544793

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | Limits   |
|---------|----------------|---------------|------------------|-------|---|------|----------|
| Mercury | 0.167          | 0.152         |                  | mg/Kg |   | 91   | 80 - 120 |

# Lab Chronicle

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Client Sample ID: LF2-1

Date Collected: 05/21/20 09:00

Date Received: 05/22/20 09:25

## Lab Sample ID: 500-182452-1

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 544339       | 05/26/20 13:49       | LWN     | TAL CHI |

## Client Sample ID: LF2-1

Date Collected: 05/21/20 09:00

Date Received: 05/22/20 09:25

## Lab Sample ID: 500-182452-1

Matrix: Solid

Percent Solids: 86.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Prep       | 3541         |     |                 | 545912       | 06/04/20 08:01       | BSO     | TAL CHI |
| Total/NA  | Analysis   | 8081B        |     | 1               | 545964       | 06/04/20 21:41       | PJ1     | TAL CHI |
| Total/NA  | Prep       | 8151A        |     |                 | 544852       | 05/28/20 18:36       | ACK     | TAL CHI |
| Total/NA  | Analysis   | 8151A        |     | 10              | 545153       | 05/30/20 14:23       | JBj     | TAL CHI |
| Total/NA  | Prep       | 3050B        |     |                 | 544381       | 05/26/20 17:32       | BDE     | TAL CHI |
| Total/NA  | Analysis   | 6010C        |     | 1               | 544575       | 05/27/20 08:39       | JEF     | TAL CHI |
| Total/NA  | Prep       | 7471B        |     |                 | 544793       | 05/28/20 14:00       | MJG     | TAL CHI |
| Total/NA  | Analysis   | 7471B        |     | 1               | 545013       | 05/29/20 09:25       | MJG     | TAL CHI |

## Client Sample ID: LF2-2

Date Collected: 05/21/20 09:05

Date Received: 05/22/20 09:25

## Lab Sample ID: 500-182452-2

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 544339       | 05/26/20 13:49       | LWN     | TAL CHI |

## Client Sample ID: LF2-2

Date Collected: 05/21/20 09:05

Date Received: 05/22/20 09:25

## Lab Sample ID: 500-182452-2

Matrix: Solid

Percent Solids: 90.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Prep       | 3541         |     |                 | 545912       | 06/04/20 08:01       | BSO     | TAL CHI |
| Total/NA  | Analysis   | 8081B        |     | 1               | 545964       | 06/04/20 22:02       | PJ1     | TAL CHI |
| Total/NA  | Prep       | 8151A        |     |                 | 544852       | 05/28/20 18:36       | ACK     | TAL CHI |
| Total/NA  | Analysis   | 8151A        |     | 10              | 545153       | 05/30/20 14:42       | JBj     | TAL CHI |
| Total/NA  | Prep       | 3050B        |     |                 | 544381       | 05/26/20 17:32       | BDE     | TAL CHI |
| Total/NA  | Analysis   | 6010C        |     | 1               | 544575       | 05/27/20 08:43       | JEF     | TAL CHI |
| Total/NA  | Prep       | 7471B        |     |                 | 544793       | 05/28/20 14:00       | MJG     | TAL CHI |
| Total/NA  | Analysis   | 7471B        |     | 1               | 545013       | 05/29/20 09:27       | MJG     | TAL CHI |

## Client Sample ID: LF3

Date Collected: 05/21/20 08:30

Date Received: 05/22/20 09:25

## Lab Sample ID: 500-182452-3

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 544339       | 05/26/20 13:49       | LWN     | TAL CHI |

# Lab Chronicle

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

**Client Sample ID: LF3**

**Lab Sample ID: 500-182452-3**

**Date Collected: 05/21/20 08:30**

**Matrix: Solid**

**Date Received: 05/22/20 09:25**

**Percent Solids: 93.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Prep       | 3541         |     |                 | 545331       | 06/01/20 16:31       | ACK     | TAL CHI |
| Total/NA  | Analysis   | 8270D        |     | 1               | 545591       | 06/03/20 03:45       | SS      | TAL CHI |
| Total/NA  | Prep       | 3050B        |     |                 | 544381       | 05/26/20 17:32       | BDE     | TAL CHI |
| Total/NA  | Analysis   | 6010C        |     | 1               | 544575       | 05/27/20 08:47       | JEF     | TAL CHI |
| Total/NA  | Prep       | 7471B        |     |                 | 544793       | 05/28/20 14:00       | MJG     | TAL CHI |
| Total/NA  | Analysis   | 7471B        |     | 1               | 545013       | 05/29/20 09:33       | MJG     | TAL CHI |

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: U.S. Army  
Project/Site: Fort McCoy Soil Sampling

Job ID: 500-182452-1

## Laboratory: Eurofins TestAmerica, Chicago

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

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State   | 999580010             | 08-31-20        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |
| Moisture        |             | Solid  | Percent Solids   |





# Chain of Custody Record

397308






Environment Testing  
TestAmerica

TAL-8210

Address: \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other:

|  |       |  |             |  |        |  |                       |                        |             |                         |      |   |
|--|-------|--|-------------|--|--------|--|-----------------------|------------------------|-------------|-------------------------|------|---|
| <b>Client Contact</b><br>Company Name: FORT MCGOY<br>Address: 2171 South 8th Ave<br>City/State/Zip: Fort McCoy WI 54651<br>Phone: 608-388-8034<br>Fax:<br>Project Name: Fort McCoy Soil Sampling<br>Site: Fort McCoy<br>PO# 50012338 |       | <b>Project Manager:</b> Sandie Friedrich<br>Tel/Email: 920-261-1660<br><b>Analysis Turnaround Time</b><br><input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS<br>TAT if different from Below<br><input checked="" type="checkbox"/> 2 weeks<br><input type="checkbox"/> 1 week<br><input type="checkbox"/> 2 days<br><input type="checkbox"/> 1 day                    |             | <b>Site Contact:</b><br>Lab Contact:<br>Date: 21 MAY 2020<br>Carrier:<br>COC No: _____ of _____ COCs<br>Sampler:<br>For Lab Use Only:<br>Walk-in Client: _____<br>Lab Sampling: _____<br>Job / SDG No.: 500-182452<br>Sample Specific Notes: |        |  |                       |                        |             |                         |      |   |
| <b>Sample Identification</b>   |       | Sample Date  | Sample Time | Sample Type<br>(C=Comp, G=Grab)  | Matrix | # of Cont.   | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | RCRA Metals | PEST / HERB             | PAHs | 500-182452 COC<br> |
| 1  | LF2-1 | 5-21-20  | 0900        | C  | Solid  | 2  | N                     | N                      | X           | X                       |      |   |
| 2  | LF2-2 | 5-21-20  | 0905        | C  | Solid  | 2  | N                     | N                      | X           | X                       |      |   |
| 3  | LF3   | 5-21-20  | 0830        | C  | Solid  | 2  | N                     | N                      | X           | X                       |      |   |
| <b>Preservation Used:</b> 1= Ice; 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____   |       | <b>Possible Hazard Identification:</b><br>Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown |             |  |        |  |                       |                        |             |                         |      |   |
| <b>Special Instructions/QC Requirements &amp; Comments:</b>  |       | <b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month )</b><br><input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months  |             |  |        |  |                       |                        |             |                         |      |   |
| Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  |       | Custody Seal No.: 1327004-1327005  |             | Cooler Temp. (°C): Obs'd: _____  |        | Corr'd: _____  |                       | Therm ID No.: _____    |             |                         |      |   |
| Relinquished by:    |       | Company: FORT MCGOY  |             | Date/Time: 5-21-20/1000  |        | Received by:   |                       | Company:               |             | Date/Time:              |      |   |
| Relinquished by:   |       | Company:   |             | Date/Time:   |        | Received by:   |                       | Company:               |             | Date/Time:              |      |   |
| Relinquished by:   |       | Company:   |             | Date/Time:   |        | Received in Laboratory by:  |                       | Company: TA            |             | Date/Time: 5/22/20 0925 |      |   |

# Login Sample Receipt Checklist

Client: U.S. Army

Job Number: 500-182452-1

**Login Number: 182452**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: James, Jeff A**

| Question   | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.      | True   |         |
| The cooler's custody seal, if present, is intact.  | True   |         |
| Sample custody seals, if present, are intact.  | True   |         |
| 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   | -0.3    |
| 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 (excluding tests with immediate HTs)            | 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.  | True   |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs         | True   |         |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | N/A    |         |
| Multiphasic samples are not present.   | True   |         |
| Samples do not require splitting or compositing.   | True   |         |
| Residual Chlorine Checked.   | N/A    |         |