

WESTERN ENVIRONMENT AND ECOLOGY, INC

February 7th, 2017

Kent Carlson
Carlson and Associates
12460 1st Street
P.O. Box 274
Eastlake, Colorado 80614-0247

Subject: Limited Phase II Environmental Site Assessment for the Holly Hills Subdivision at 144th Avenue and Holly Street, Thornton, Colorado. Western Environment and Ecology, Inc. Project Number 82-052-01.

Dear Mr. Carlson:

Western Environment and Ecology, Inc. (Western Environment) is pleased to present the following Limited Phase II Environment Site Assessment of the above referenced property (Figure 1). This assessment was performed in accordance with the conclusions presented in a limited Phase II Environmental Site Assessment prepared by CTL Thompson Inc. dated January 9th, 2017 (Project # DN48,669.000-205), and following a January 16th, 2017 meeting between yourself and Scott Carlson of Carlson and Associates, Terry Hodge and Tony Dunning of Toll Brothers, Matthew Wardlow of CTL Thompson and Western Environment. The purpose of this investigation is to determine the extent and magnitude of soil and groundwater contamination encountered in the January 9th CTL assessment. It was the opinion Mr. Wardlow that the contamination was a result of petroleum production activities, likely a leaking valve connected to a produced water tank. The tank and all ancillary production equipment had been removed in 2015.

On January 23rd, 2017, Western Environment completed three groundwater monitoring wells adjacent to, and down gradient of, the CTL Thompson borings that encountered petroleum contamination. These wells were advanced using a Mobil 60 truck mounted drill with 8 inch hollow stem augers and a continuous sampler. The borings for wells TB-19, 20 and 21 were extended to a maximum depth of 35 feet below grade. The extracted soil samples were screened both visually and using a photo-ionization detector (PID) for indications of contamination. No soil samples exhibited elevated PID values or were visually contaminated, therefore no soil from the monitoring wells was selected for analysis. Lithologic logs and well completion diagrams were constructed using USCS soil classification system and are attached to this report.

Upon completion of the borings, screw-type 2" PVC casing was extended to the total depth of the hole. Ten or fifteen feet of 20 slot well screen was placed at the bottom of the wells with 10/20 silica sand set from the bottom to approximately 2 feet above the screened interval. Bentonite "crumbles" were then set to the surface and hydrated. Tamper resistant well covers were installed on all the wells. The top of casing datums were surveyed for each of the wells and was used to prepare the potentiometric surface map that indicated groundwater flow to the west (Figure 2).

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Subsequently, on January 24th, 2017 Western Environment advanced eleven soil borings bracketing the CTL Thompson borings that identified petroleum contamination. The borings were completed with a 7730 Track Mounted GeoProbe using 2 inch drive rods. Continuous soil samples were taken from each boring to a maximum depth of 19 feet or refusal. Lithologic logs, constructed using USCS soil classification system, are attached to this report.

The extracted soil samples were again screened with a PID and visually inspected for evidence of contamination. One soil sample from each boring that displayed the highest PID value was selected for analysis. If no elevated PID readings were detected and visually the sample did not appear contaminated, no sample was acquired for analysis. The samples selected for analysis were taken, using appropriate quality assurance and quality control methods and transported, under chain of custody controls, to Technology Laboratories in Fort Collins, Colorado. The samples were analyzed for benzene, toluene, ethyl-benzene and xylene (BTEX) and Total Volatile Petroleum Hydrocarbons (TVPH) utilizing EPA Method 8260B. The results are attached to the Appendix of the report. Additionally, the wells, completed the prior day, were developed in accordance with US EPA Guidance Document SW-846 in anticipation of sampling.

On January 25th, 2017, the static water level and water quality, consisting of pH, conductivity and dissolved oxygen, was measured in each well. Two 40.0 ml vials were collected from the wells for BTEX and TVPH analysis and also transported to Technology Laboratories in Fort Collins, the results are attached.

On February 2nd, 2017 Western Environment received the analytical results from the soil and water samples. These results and the Colorado Oil and Gas Conservation Commission (COGCC) Rule 900 soil and groundwater guideline concentrations are presented on the attached Table 1. Both water samples taken were below COGCC and US EPA Drinking Water Maximum Concentrations Levels (MCL's). Laboratory analysis of the soil samples reported that several of the samples exceeded the COGCC concentrations levels.

Therefore, based upon these results, and the opinions presented during the January 17th meeting, Western Environment recommends that the petroleum hydrocarbon contaminated soil identified, currently estimated to be approximately 550 cubic yards (Figure 3), be excavated, transported and disposed of at an approved facility. However, we currently do not recommend any groundwater remediation, however, we would recommend four quarters of monitoring and analysis for BTEX and TVPH to confirm groundwater concentrations below drinking water MCL's.

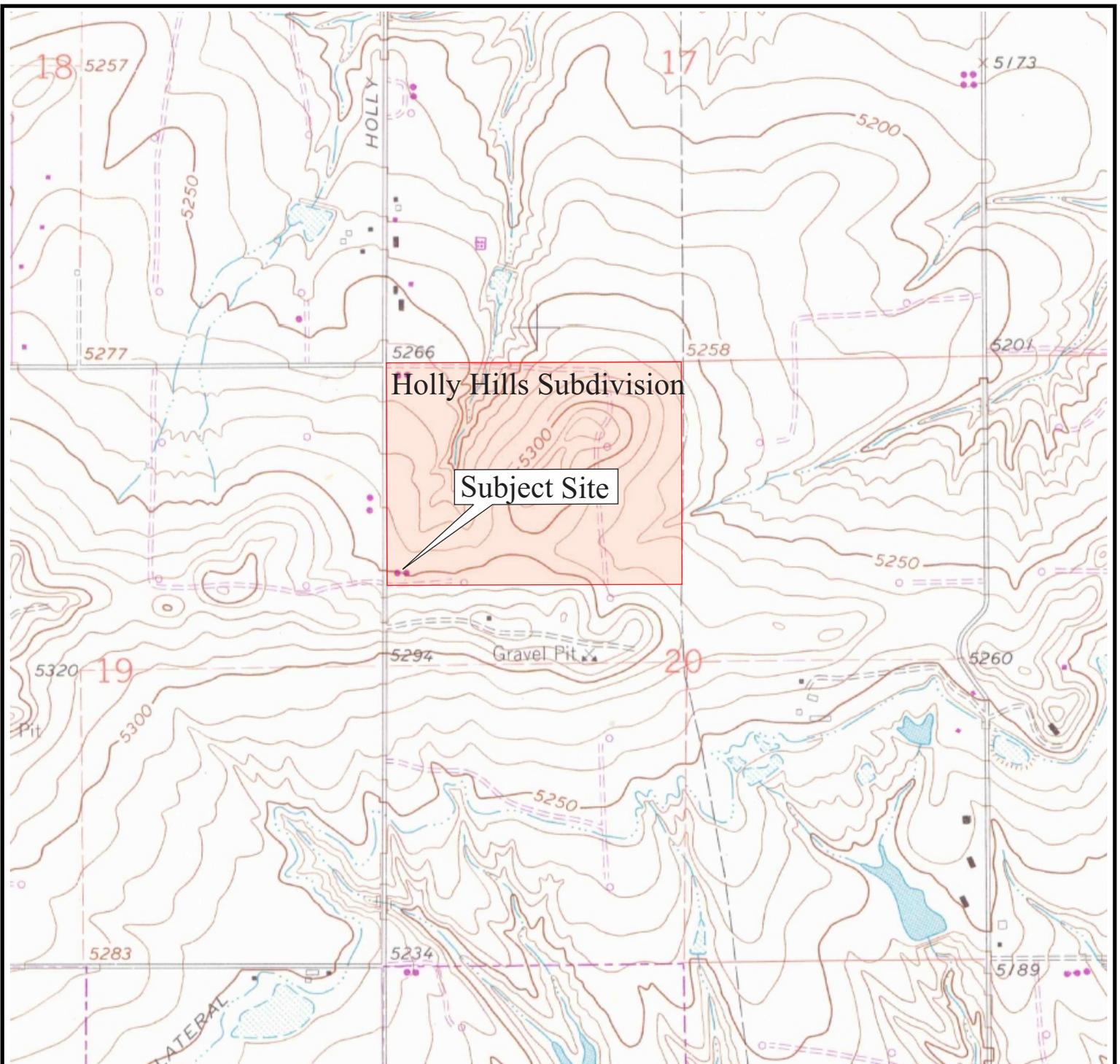
At our request Jack McCartney of McCartney Engineering, LLC, the approved signatory for the current facility operator Energy Search, filed a Form 19 Report of a Release with the COGCC. He also provided us a Form 27 Remediation Plan that we will complete and following your review, he will file.

We appreciate the opportunity to provide you with this assessment. Please feel free to contact us if you have any questions or comments.

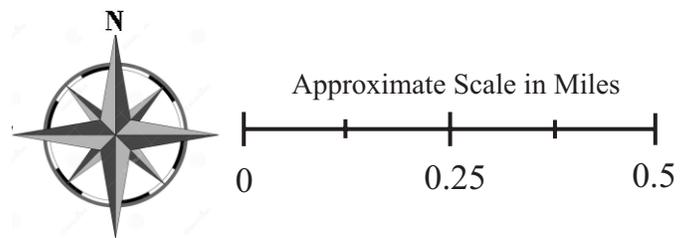
Sincerely,
WESTERN ENVIRONMENT AND ECOLOGY, INC.

Greg D. Sherman P.G.
President

att.



USGS Eastlake Qaudrangle, 7.5 Minutes Series, 1980



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Figure 1 - Site Location Map
Holly Hills Subdivision
144th Avenue and Holly Street
Thornton, Colorado



● Temporary monitoring well

○ Soil Boring Location

○ Approximate Extent of Soil Contamination

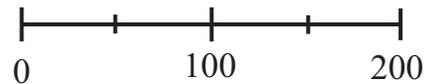
) 69.80 Groundwater Elevation
as of January 24th, 2017

TH-14,15,16 installed by CTL-Thompson, Inc.

TH-19,20,21 installed by Western Environment and Ecology, Inc.

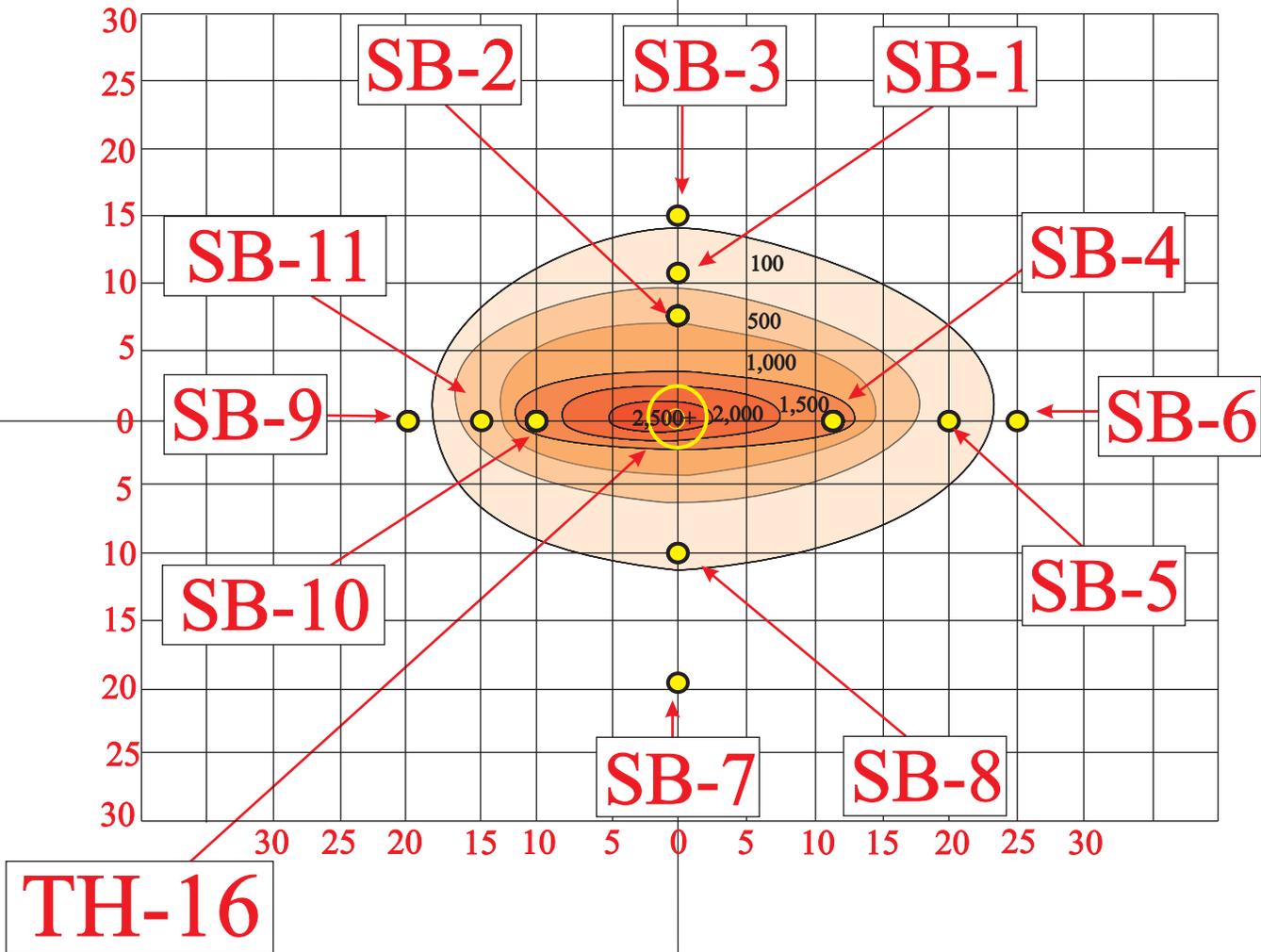


Approximate scale in feet



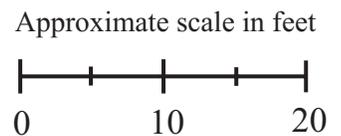
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Figure 2 - Groundwater Well Location Map
Holly Hills Subdivision
144th Avenue and Holly Street
Thornton, Colorado



-  TH-16 Groundwater Monitoring Well
-  SB-7 Soil Borings
-  Approximate Extent of Soil Contamination of TPH -Total Petroleum Hydrocarbons (mg/Kg)

TH-16 installed by CTL-Thompson, Inc.
 SB-1 through 11 completed by Western Environment and Ecology, Inc.



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Figure 3 - Soil Boring Location Map
 Holly Hills Subdivision
 144th Avenue and Holly Street
 Thornton, Colorado

| | | | | | |
|------------------|------------------------|-----------------------------|-----------|----------------|--------------------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/23/2017 | Date Completed | 1/23/2017 |
| Project Location | 144th and Holly | Method | Mobile 60 | Total Depth | 39.0' |
| Boring No. | TH-19 | Well Completion Information | | | |
| Logged by | A. Curry, R. Corrales | Screen/Casing Diameter | 2" | Screen Length | 15' |
| Approved by | Greg Sherman | Slot Size | 20 | Casing Length | 24' |
| Drilled by | Site Services | Top of Casing Datum | 91.78' | Type | PVC 1.5 foot riser |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|---|-------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 0 | | 0 ppm | CS | SC | | | |
| 5 | Light brown clayey sand, dry. | 0 ppm | ↓ | SC | | | |
| | Light brown/white clayey sand, dry. | 0 ppm | | | | | |
| | Light reddish yellow clayey sand, dry. | 0 ppm | | | | | |
| 10 | | 0 ppm | | | | | |
| | Dark gray sandy clay with limonite staining and calcite streaks, dry. | 0 ppm | | | CL | | |
| 15 | | 0 ppm | | | | | |
| 20 | | 0 ppm | | | | | |
| 25 | | 0 ppm | | | | | |
| | Light gray claystone, with limonite staining, dry. | 0 ppm | | | | | |
| 30 | | 0 ppm | | | | | |

| Legend | |
|--------|-----------|
| | Concrete |
| | Bentonite |
| | Sand |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | | | |
|------------------|------------------------|-----------------------------|-----------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 674-002-02 | Date Started | 1/23/2017 | Date Completed | 1/23/2017 |
| Project Location | 144th and Holly | Method | Mobile 60 | Total Depth | 39.0' |
| Boring No. | TH-19 | Well Completion Information | | | |
| Logged by | A. Curry, R. Corrales | Screen/Casing Diameter | 2" | Screen Length | 15' |
| Approved by | Greg Sherman | Slot Size | 20 | Casing Length | 24' |
| Drilled by | Site Services | Top of Casing Datum | 91.78 | Type | PVC |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|--------------------------|-------|---------------------------------|--------------------------|---|---|--------------------------------------|
| 30 | Sample at 31.0' | 0 ppm | CS ↓ | |  |  | Dry at 39' 1/24/2017 1/31/2017 |
| | | 0 ppm | | | | | |
| | | 0 ppm | | | | | |
| | Dark gray claystone dry. | 0 ppm | | | | | |
| 35 | Horizontal bedding | 0 ppm | | | | | |
| | | 0 ppm | | | | | |
| | | 0 ppm | | | | | |
| 40 | Total Depth 39.0' | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

| Legend | |
|---|-----------|
|  | Concrete |
|  | Bentonite |
|  | Sand |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | | | |
|------------------|------------------------|-----------------------------|-----------|----------------|---------------------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/23/2017 | Date Completed | 1/23/2017 |
| Project Location | 144th and Holly | Method | Mobile 60 | Total Depth | 34.0' |
| Boring No. | TH-20 | Well Completion Information | | | |
| Logged by | A. Curry, R. Corrales | Screen/Casing Diameter | 2" | Screen Length | 10' |
| Approved by | Greg Sherman | Slot Size | 20 | Casing Length | 19' |
| Drilled by | Site Services | Top of Casing Datum | 91.78' | Type | PVC with 1.5' riser |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classification | Blow Count | Well Completion | Water Level |
|------------|--|-------|---------------------------------|---------------------|------------|-----------------|-------------|
| 0 | | 0 ppm | CS | SC | | | |
| 5 | Light brown clayey sand, dry, calcite streaking from 3-4 feet. | 0 ppm | | | | | |
| 10 | Calcite streaking, dry. | 0 ppm | | | | | |
| 15 | Light gray clayey sand, dry. | 0 ppm | | | | | |
| 20 | Dark gray sandy clay with reddish yellow limonite staining, dry. | 0 ppm | | CL | | | |
| 25 | Light gray to light brown sandy clay, dry. | 0 ppm | | | | | |
| 30 | Dark gray sandy clay, dry. | 0 ppm | | | | | |
| 30 | Light gray claystone, dry, horizontal bedding. | 0 ppm | | | | | |

| Legend | |
|---|-----------|
|  | Concrete |
|  | Bentonite |
|  | Sand |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

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|------------------|------------------------|-----------------------------|-----------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 674-002-02 | Date Started | 1/23/2017 | Date Completed | 1/23/2017 |
| Project Location | 144th and Holly | Method | Mobile 60 | Total Depth | 34.0' |
| Boring No. | TH-20 | Well Completion Information | | | |
| Logged by | A. Curry, R. Corrales | Screen/Casing Diameter | 2" | Screen Length | 10' |
| Approved by | Greg Sherman | Slot Size | 20 | Casing Length | 19' |
| Drilled by | Site Services | Top of Casing Datum | 91.78 | Type | PVC |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|--|-------|---|--------------------------|---|---|--------------------------------------|
| 30 | Sample at 31.0' Dark gray claystone with limonite staining, dry. | 0 ppm | CS  | |  |  | Dry at 34' 1-24-2017 1/31/2017 |
| | | 0 ppm | | | | | |
| | | 0 ppm | | | | | |
| | | 0 ppm | | | | | |
| 35 | Total Depth 34.0' | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

| Legend | |
|---|-----------|
|  | Concrete |
|  | Bentonite |
|  | Sand |

SS - Split Spoon Sample Type CS - Continuous Sampler
 ST - Pressed Shelby Tube CBS - California Barrel Sampler

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|------------------|------------------------|-----------------------------|-----------|----------------|---------------------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/23/2017 | Date Completed | 1/23/2017 |
| Project Location | 144th and Holly | Method | Mobile 60 | Total Depth | 34.0' |
| Boring No. | TH-21 | Well Completion Information | | | |
| Logged by | A. Curry, R. Corrales | Screen/Casing Diameter | 2" | Screen Length | 10' |
| Approved by | Greg Sherman | Slot Size | 20 | Casing Length | 19' |
| Drilled by | Site Services | Top of Casing Datum | 91.78' | Type | PVC with 1.5' riser |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|--|-------|---------------------------------|--------------------------|---------------|--------------------|-----------------------|
| 0 | | 0 ppm | CS | SC | | | |
| 5 | Light brown clayey sand, dry. | 0 ppm | | | | | |
| 10 | Medium brown to reddish yellow clayey sand dry. | 0 ppm | | | | | |
| 15 | Calcite streaking, dry. | 0 ppm | | | | | |
| 20 | Light gray, medium-fine grain sand with limonite staining. | 0 ppm | | SP | | | |
| 25 | Reddish brown, medium-fine grained sand, dry. | 0 ppm | | | | | |
| 30 | Light to medium brown fine to medium grained sand, wet. | 0 ppm | | | | | WL 29.2' 1/24/2017 |

| Legend | |
|--------|-----------|
| | Concrete |
| | Bentonite |
| | Sand |

SS - Split Spoon Sample Type CS - Continuous Sampler
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| Client Carlson and Associates | | Drilling Information | | | | | |
|----------------------------------|-------------------------------------|-----------------------------|---------------------------------|--------------------------|---|---|----------------|
| Project Number 674-002-02 | | Date Started 1/23/2017 | | Date Completed 1/23/2017 | | | |
| Project Location 144th and Holly | | Method Mobile 60 | | Total Depth 34.0' | | | |
| Boring No. TH-21 | | Well Completion Information | | | | | |
| Logged by A. Curry, R. Corrales | | Screen/Casing Diameter 2" | | Screen Length 10' | | | |
| Approved by Greg Sherman | | Slot Size 20 | | Casing Length 19' | | | |
| Drilled by Site Services | | Top of Casing Datum 91.78 | | Type PVC | | | |
| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
| 30 | Light brown fine grained sand, wet. | 0 ppm | CS ↓ | SP |  |  | |
| | | 0 ppm | | | | | |
| | | 0 ppm | | | | | |
| 35 | Total Depth 34.0' | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

| Legend | |
|---|-----------|
|  | Concrete |
|  | Bentonite |
|  | Sand |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | |
|-----------------------------|------------------------|------------------------|-----------------------------|
| Client | Carlson and Associates | Drilling Information | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 |
| Project Location | 144th and Holly | Date Completed | 1/24/2017 |
| Boring No. | SB-1 | Method | 7730 Track Mounted GeoProbe |
| | | Total Depth | 19' |
| Well Completion Information | | | |
| Logged by | Austin Curry | Screen/Casing Diameter | - |
| Approved by | Greg Sherman | Screen Length | - |
| Drilled by | Site Services Drilling | Slot Size | - |
| | | Casing Length | - |
| | | Top of Casing Datum | - |
| | | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|--|----------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 5 | Light brown clayey sand dry. | 0 ppm | CS ↓ | SC | | | |
| 10 | Light brown clayey sand. (Sample @ 10.0') | 22.9 ppm | | | | | |
| 15 | Grayish brown, sandy clay | 35.6 ppm | | | CL | | |
| 20 | Reddish yellow, sandy clay | 0 ppm | | | | | |
| 25 | Total depth 19.0' | 0ppm | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
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|-----------------------------|------------------------|------------------------|-----------------------------|
| Client | Carlson and Associates | Drilling Information | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 |
| Project Location | 144th and Holly | Date Completed | 1/24/2017 |
| Boring No. | SB-2 | Method | 7730 Track Mounted GeoProbe |
| | | Total Depth | 12' |
| Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - |
| Approved by | Greg Sherman | Screen Length | - |
| Drilled by | Site Services Drilling | Slot Size | - |
| | | Casing Length | - |
| | | Top of Casing Datum | - |
| | | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|---|-----------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 5 | Light brown, clay sand, dry. | 65.5 ppm | CS ↓ | SC | | | |
| | | 10.0ppm | | | | | |
| | Dark gray, clayey sand, hydrocarbon staining. | 1.5 ppm | | | | | |
| | | 2.5 ppm | | | | | |
| 10 | Dark gray, clayey sand, hydrocarbon staining. (Sample @ 10.0') | 258.0 ppm | | | | | |
| | | 335.0ppm | | | | | |
| | Refusal at 12.0 ft | 33.6ppm | | | | | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | |
|-----------------------------|------------------------|------------------------|-----------------------------|
| Client | Carlson and Associates | Drilling Information | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 |
| Project Location | 144th and Holly | Date Completed | 1/24/2017 |
| Boring No. | SB-3 | Method | 7730 Track Mounted GeoProbe |
| Well Completion Information | | Total Depth | 17' |
| Logged by | A. Curry | Screen/Casing Diameter | - |
| Approved by | Greg Sherman | Screen Length | - |
| Drilled by | Site Services Drilling | Slot Size | - |
| | | Casing Length | - |
| | | Top of Casing Datum | - |
| | | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|-------------------------------|------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 5 | Light brown clayey sand, dry. | 0ppm | CS ↓ | SC | | | |
| 10 | Light brown clayey sand, dry. | 0ppm | | SC | | | |
| 15 | | 0ppm | | | | | |
| 20 | Refusal at 17.0 ft | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

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|-----------------------------------|------------------------------------|--------------------------|-----|
| Client Carlson and Associates | | Drilling Information | |
| Project Number 82-052-01 | Date Started 1/24/2017 | Date Completed 1/24/2017 | |
| Project Location 144th and Holly | Method 7730 Track Mounted GeoProbe | Total Depth | 15' |
| Boring No. SB-4 | Well Completion Information | | |
| Logged by A. Curry | Screen/Casing Diameter - | Screen Length - | |
| Approved by Greg Sherman | Slot Size - | Casing Length - | |
| Drilled by Site Services Drilling | Top of Casing Datum - | Type - | |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|---|--|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 0 | Light brown, sandy clay | 0 ppm | CS ↓ | SC | | | |
| 5 | Dark gray clayey sand, with hydrocarbon staining. | 36.0 ppm 69.0 ppm | | | | | |
| 10 | Dark gray clayey sand with hydrocarbon staining. | 125.0 ppm 225.0 ppm 257.0 ppm 275.0 ppm | | | SC | | |
| 13.0 | (Sample @ 13.0') | 409.0 ppm 450.0 ppm | | | | | |
| 15 | Refusal at 15.0 ft | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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|------------------|------------------------|-----------------------------|-----------------------------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 | Date Completed | 1/24/2017 |
| Project Location | 144th and Holly | Method | 7730 Track Mounted GeoProbe | Total Depth | 16' |
| Boring No. | SB-5 | Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - | Screen Length | - |
| Approved by | Greg Sherman | Slot Size | - | Casing Length | - |
| Drilled by | Site Services Drilling | Top of Casing Datum | Type - | | |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|---|---------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| — | Light brown clayey sand, dry. | 0ppm | CS ↓ | SC | | | |
| 5 | Light brown clayey sand, dry. | 0ppm | | | | | |
| 10 | Brownish yellow clayey sand, dry. | 0ppm | | | SC | | |
| 15 | Dark gray sand with hydrocarbon staining. (Sample @ 15.5') | 70.5ppm | | | | | |
| | Refusal at 16.0 ft. | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

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|------------------|------------------------|-----------------------------|-----------------------------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 | Date Completed | 1/24/2017 |
| Project Location | 144th and Holly | Method | 7730 Track Mounted GeoProbe | Total Depth | 17' |
| Boring No. | SB-6 | Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - | Screen Length | - |
| Approved by | Greg Sherman | Slot Size | - | Casing Length | - |
| Drilled by | Site Services Drilling | Top of Casing Datum | - | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|-----------------------------------|-------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 0 | Light brown clayey sand, dry. | 0 ppm | CS | SC | | | |
| 5 | Light brown clayey sand, dry. | 0 ppm | | | | | |
| 10 | Brownish yellow clayey sand, dry. | 0 ppm | | SC | | | |
| 15 | | 0 ppm | | | | | |
| 17.0 | Refusal at 17.0 ft | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
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| | | | |
|-----------------------------|------------------------|------------------------|-----------------------------|
| Client | Carlson and Associates | Drilling Information | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 |
| Project Location | 144th and Holly | Date Completed | 1/24/2017 |
| Boring No. | SB-7 | Method | 7730 Track Mounted GeoProbe |
| | | Total Depth | 16.5' |
| Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - |
| Approved by | Greg Sherman | Screen Length | - |
| Drilled by | Site Services Drilling | Slot Size | - |
| | | Casing Length | - |
| | | Top of Casing Datum | - |
| | | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|-----------------------------------|-------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 5 | Light brown clayey sand, dry. | 0 ppm | CS ↓ | SC | | | |
| 10 | Light brown clayey sand, dry. | 0 ppm | | SC | | | |
| 15 | Brownish yellow clayey sand, dry. | 0 ppm | | | | | |
| 20 | Refusal at 17.0 ft | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | | | |
|------------------|------------------------|-----------------------------|-----------------------------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 | Date Completed | 1/24/2017 |
| Project Location | 144th and Holly | Method | 7730 Track Mounted GeoProbe | Total Depth | 15' |
| Boring No. | SB-8 | Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - | Screen Length | - |
| Approved by | Greg Sherman | Slot Size | - | Casing Length | - |
| Drilled by | Site Services Drilling | Top of Casing Datum | - | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------------------|--|---|---------------------------------|--------------------------|---------------|--------------------|----------------|
| — — — — 5 | Light brown clayey sand, dry. | 0 ppm | CS ↓ | SC | | | |
| — — — — 10 | Brownish yellow clayey sand, dry. | 0 ppm | | | | | |
| — — — — 15 | Dark gray clayey sand with hydrocarbon staining. | 4.0 ppm 2.0 ppm 4.0 ppm 40.0 ppm | | | | | |
| — — — — 20 | (Sample @ 14.0') | 150.0 ppm | | | | | |
| — — — — 25 | Refusal at 15.0 ft | 15.0 ppm | | | | | |
| — — — — 30 | | | | | | | |

Sample Type
 SS - Split Spoon CS - Continuous Sampler
 ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | | | |
|------------------|------------------------|-----------------------------|-----------------------------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 | Date Completed | 1/24/2017 |
| Project Location | 144th and Holly | Method | 7730 Track Mounted GeoProbe | Total Depth | 15' |
| Boring No. | SB-9 | Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - | Screen Length | - |
| Approved by | Greg Sherman | Slot Size | - | Casing Length | - |
| Drilled by | Site Services Drilling | Top of Casing Datum | - | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level | |
|------------|-----------------------------------|--------------------------------|---------------------------------|--------------------------|---------------|--------------------|----------------|--|
| 0 | Light brown clayey sand, dry. | 0 ppm | CS ↓ | SC | | | | |
| 5 | Light brown clayey sand, dry. | 0 ppm | | | | | | |
| 10 | Brownish yellow clayey sand, dry. | 3.0 ppm 5.0 ppm 17.0 ppm | | | SC | | | |
| 15 | Refusal at 15.0 ft | 2.0 ppm | | | | | | |
| 20 | | | | | | | | |
| 25 | | | | | | | | |
| 30 | | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | | | |
|-------------------------------|------------------------|-----------------------------|-----------------------------|----------------|-----------|
| Client Carlson and Associates | | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 | Date Completed | 1/24/2017 |
| Project Location | 144th and Holly | Method | 7730 Track Mounted GeoProbe | Total Depth | 15' |
| Boring No. | SB-10 | Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - | Screen Length | - |
| Approved by | Greg Sherman | Slot Size | - | Casing Length | - |
| Drilled by | Site Services Drilling | Top of Casing Datum | - | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|--|-----------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 5 | Dark gray clayey sand with hydrocarbon staining. | | CS | SC | | | |
| | | 40.0 ppm | ↓ | | | | |
| | | 180.0 ppm | | | | | |
| | Dark gray clayey sand with hydrocarbon staining. | 45.0 ppm | | | | | |
| | | 195.0 ppm | | | | | |
| | | 595.0 ppm | | | | | |
| 10 | (Sample @ 19.0') | 705.0 ppm | | | | | |
| | | 135.0 ppm | | | | | |
| | | 105.0 ppm | | | | | |
| | | 225.0 ppm | | | | | |
| | | 225.0 ppm | | | | | |
| 15 | Refusal at 15.0 ft | 250.0 ppm | | | | | |
| | | 695.0 ppm | | | | | |
| | | 697.0 ppm | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler

| | | | | | |
|------------------|------------------------|-----------------------------|-----------------------------|----------------|-----------|
| Client | Carlson and Associates | Drilling Information | | | |
| Project Number | 82-052-01 | Date Started | 1/24/2017 | Date Completed | 1/24/2017 |
| Project Location | 144th and Holly | Method | 7730 Track Mounted GeoProbe | Total Depth | 15' |
| Boring No. | SB-11 | Well Completion Information | | | |
| Logged by | A. Curry | Screen/Casing Diameter | - | Screen Length | - |
| Approved by | Greg Sherman | Slot Size | - | Casing Length | - |
| Drilled by | Site Services Drilling | Top of Casing Datum | - | Type | - |

| Depth (ft) | Description | PID | Sample Interval/ Sample Type | Soil Classi- fication | Blow Count | Well Completion | Water Level |
|------------|--|-----------|---------------------------------|--------------------------|---------------|--------------------|----------------|
| 5 | Dark gray clayey sand with hydrocarbon staining. | 65.0 ppm | CS ↓ | SC | | | |
| | | 225.0 ppm | | | | | |
| | Dark gray clayey sand with hydrocarbon staining. | 240.0 ppm | | | | | |
| 10 | | 250.0 ppm | | | | | |
| | | 525.0 ppm | | | | | |
| | Brownish yellow clayey sand. | 499.0 ppm | | | | | |
| 15 | Refusal at 15.0 ft | 50.0 ppm | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

SS - Split Spoon Sample Type CS - Continuous Sampler
ST - Pressed Shelby Tube CBS - California Barrel Sampler



TECHNOLOGY LABORATORY, INC.

CENTRE PROFESSIONAL PARK

1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sample ID: SB-1 @ 10.0'

Laboratory ID B5644-01

Sampled: 01/24/17

Received: 01/26/17

Project No.: 082-052-01

Matrix: Soil

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 108-88-3 | Toluene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 100-41-4 | Ethylbenzene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 1330-20-7 | Total Xylenes | 0.02 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| N/A | GRO (TVPH) | 328 | mg/Kg | 0.5 | EPA-8260B | 01/30/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 117 | 68-120 |
| Toluene-d8 | 90 | 81-128 |
| Bromofluorobenzene | 95 | 70-113 |


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The results contained in this report relate only to those items tested.



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CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sample ID: SB-2 @ 10.0'

Laboratory ID B5644-02

Sampled: 01/24/17

Received: 01/26/17

Project No.: 082-052-01

Matrix: Soil

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 108-88-3 | Toluene | 0.09 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 100-41-4 | Ethylbenzene | 2.07 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 1330-20-7 | Total Xylenes | 7.81 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| N/A | GRO (TVPH) | 709 | mg/Kg | 0.5 | EPA-8260B | 01/27/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 99 | 68-120 |
| Toluene-d8 | 99 | 81-128 |
| Bromofluorobenzene | 90 | 70-113 |


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CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sample ID: SB-4 @ 13.0'

Laboratory ID B5644-03

Sampled: 01/24/17

Received: 01/26/17

Project No.: 082-052-01

Matrix: Soil

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | 0.13 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 108-88-3 | Toluene | 0.06 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 100-41-4 | Ethylbenzene | 7.98 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 1330-20-7 | Total Xylenes | 44.5 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| N/A | GRO (TVPH) | 1725 | mg/Kg | 0.5 | EPA-8260B | 01/27/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 101 | 68-120 |
| Toluene-d8 | 99 | 81-128 |
| Bromofluorobenzene | 93 | 70-113 |


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CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sample ID: SB-5 @ 15.5'

Laboratory ID B5644-04

Sampled: 01/24/17

Received: 01/26/17

Project No.: 082-052-01

Matrix: Soil

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 108-88-3 | Toluene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 100-41-4 | Ethylbenzene | 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 1330-20-7 | Total Xylenes | 0.04 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| N/A | GRO (TVPH) | 239 | mg/Kg | 0.5 | EPA-8260B | 01/30/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 110 | 68-120 |
| Toluene-d8 | 93 | 81-128 |
| Bromofluorobenzene | 96 | 70-113 |


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CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sampled: 01/24/17
Received: 01/26/17

Sample ID: SB-8 @ 14.0'
Laboratory ID B5644-05

Project No.: 082-052-01
Matrix: Soil

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 108-88-3 | Toluene | < 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 100-41-4 | Ethylbenzene | 0.01 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| 1330-20-7 | Total Xylenes | 0.08 | mg/Kg | 0.01 | EPA-8260B | 01/27/17 |
| N/A | GRO (TVPH) | 114 | mg/Kg | 0.5 | EPA-8260B | 01/27/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 99 | 68-120 |
| Toluene-d8 | 101 | 81-128 |
| Bromofluorobenzene | 87 | 70-113 |


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Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sampled: 01/24/17
Received: 01/26/17

Sample ID: SB-10 @ 9.0'
Laboratory ID B5644-06

Project No.: 082-052-01
Matrix: Soil

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | 1.04 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 108-88-3 | Toluene | 9.04 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 100-41-4 | Ethylbenzene | 7.19 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| 1330-20-7 | Total Xylenes | 42.4 | mg/Kg | 0.01 | EPA-8260B | 01/30/17 |
| N/A | GRO (TVPH) | 1938 | mg/Kg | 0.5 | EPA-8260B | 01/30/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 105 | 68-120 |
| Toluene-d8 | 91 | 81-128 |
| Bromofluorobenzene | 97 | 70-113 |


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(970) 490-1414

CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sample ID: TH-16
Laboratory ID B5644-07

Sampled: 01/25/17
Received: 01/26/17

Project No.: 082-052-01
Matrix: Water

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | 0.002 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| 108-88-3 | Toluene | < 0.001 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| 100-41-4 | Ethylbenzene | 0.015 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| 1330-20-7 | Total Xylenes | 0.086 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| N/A | GRO (TVPH) | 0.71 | mg/L | 0.5 | EPA-8260B | 01/27/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 99 | 68-120 |
| Toluene-d8 | 102 | 81-128 |
| Bromofluorobenzene | 92 | 70-113 |


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Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Western Environment & Ecology
2217 W. Powers Ave
Littleton, CO 80120

Sample ID: TH-21
Laboratory ID B5644-08

Sampled: 01/25/17
Received: 01/26/17

Project No.: 082-052-01
Matrix: Water

| <u>CAS Number</u> | <u>Parameter</u> | <u>Result</u> | <u>Units</u> | <u>MDL</u> | <u>Method</u> | <u>Date Analyzed</u> |
|-------------------|------------------|---------------|--------------|------------|---------------|----------------------|
| 71-43-2 | Benzene | < 0.001 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| 108-88-3 | Toluene | 0.001 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| 100-41-4 | Ethylbenzene | < 0.001 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| 1330-20-7 | Total Xylenes | 0.002 | mg/L | 0.001 | EPA-8260B | 01/27/17 |
| N/A | GRO (TVPH) | < 0.5 | mg/L | 0.5 | EPA-8260B | 01/27/17 |

QA/QC SURROGATE RECOVERIES

| <u>Compound</u> | <u>% Recovery</u> | <u>% Rec. Limits</u> |
|----------------------|-------------------|----------------------|
| Dibromofluoromethane | 102 | 68-120 |
| Toluene-d8 | 102 | 81-128 |
| Bromofluorobenzene | 92 | 70-113 |


TECHNOLOGY LABORATORY, INC.

The results contained in this report relate only to those items tested.

January 9, 2017

Toll Brothers, Inc.
10 Inverness Drive East, Suite 215
Englewood, Colorado 80112

Attention: Mr. Terry Hodge
Mr. Tony Dunning

Subject: Limited Phase II Environmental Site Assessment (ESA)
Holly Hills Subdivision
CTL Project No. DN48,669.000-205

INTRODUCTION

This report presents the field and analytical results for soil and groundwater samples collected during the Limited Phase II Environmental Site Assessment (ESA) of the proposed Holly Hills Subdivision located southeast of East 144th Avenue and Holly Street in Thornton, Colorado.

BACKGROUND

CTL | Thompson (CTL) conducted a Phase I ESA of the proposed Holly Hills Subdivision located southeast of East 144th Avenue and Holly Street under our Project No. DN48,669-200 (report dated November 29, 2016). The following Recognized Environmental Condition was identified:

- The current and historic presence of oil/gas wells at the Site.

The objective of this Phase II ESA was to assess soils and groundwater in the vicinity of seven oil/gas well features identified during the Phase I ESA. This scope of work is not intended to fully delineate the horizontal and vertical extent of contamination. Borings were installed in locations that would more likely indicate the presence of contamination. If contamination was identified, the limited number of borings and samples would not necessarily identify the extent or the source of contamination nor should the concentrations imply that these are the highest concentrations on the Site. For example, any one of these borings could be moved ten or more feet and higher concentrations of contamination could be identified. The presence of contamination during the Phase II is an indicator of contamination and additional investigation would be required to determine the source, extent, and highest concentration of contamination.



FIELD ASSESSMENT AND SAMPLING

Prior to mobilization, CTL notified the public and private utility locating services to have utility locations marked in the field.

On December 13 and 14, 2016, Mr. Trevor Branch of CTL mobilized to the site with subcontractor Odell Drilling. At the time of drilling, all of the surface features had been removed/abandoned. Drilling locations were established from COGCC records, aerial photo imagery and field observations during our Phase I ESA. Mr. Branch returned to the site on December 20, 2016 to complete sampling of temporary monitoring wells. A truck-mounted auger drill rig was used to advance 18 soil borings in the approximate locations shown on Figure 1 surrounding the seven separate oil/gas well features. During advancement of each boring, soil samples were collected using a split-spoon sampler in 5-foot intervals to a maximum depth of 30 feet below grade.

Soils from split-spoon samples were observed in the field using disposable nitrile examination gloves changed after every sample. After the soils were visually inspected, the soil sample was divided. A portion of the sample was transferred into a plastic zip-loc bag and sealed; the other portion of the sample was promptly placed into a uniquely identified glass jar and packed tightly to minimize voids. Sample jars were then placed into a cooler chilled with ice for in-field storage and transit to the laboratory.

We used a MiniRAE 2000 photo ionization detector (PID) and our visual and olfactory observations to field-screen soils observed during drilling. The PID was calibrated to isobutylene. We screened soil samples from varying depths in the boreholes. During field-screening, samples were placed in resealable plastic bags for testing with the PID. The bagged samples were warmed and the vapor headspace inside the bags was then field-screened. The PID detects total vapor volatile organic compounds with the ionization potential of less than or equal to 10.6 eV. The PID does not provide a direct measure of compounds in the samples and it does not identify specific compounds, therefore, the results of field-screening are identified in units of parts per million volume (in air) (ppmv).

Following completion of soil sampling, 2-inch PVC casings with slotted screen were inserted into eight borings (TH-3, TH-5, TH-6, TH-10, TH-11, TH-15, TH-16, TH-18) as temporary wells to facilitate groundwater sampling. Groundwater samples were collected using disposable bailing devices.

Soil and groundwater samples collected for laboratory analysis were delivered under chain of custody protocol to Origins Laboratory in Denver, Colorado, an independent analytical laboratory.

FIELD OBSERVATIONS

Figure 1 shows boring locations. Boring logs are presented as Attachment 1.



Soils

Soils were generally sandy clays and clayey sands underlain by claystone and sandstone bedrock. No unusual staining or odors were observed in soils collected from the borings, and no elevated PID readings were recorded in the majority of the samples. Petroleum hydrocarbon odors were noted in two of the borings (TH-6 and TH-16). In TH-6 petroleum hydrocarbon odors and staining were noted at approximately the 15-foot depth and PID reading of 60 ppmv was recorded from that sample. In TH-16 petroleum hydrocarbon odors and staining were noted in the soils from approximately a 5-foot depth to 20-foot depth with the highest PID reading of 890 recorded at 15-foot depth. Saturated soils were only encountered at the 30-foot depth in borings TH-15 and TH-16.

Groundwater

Groundwater was encountered and sampled in two of the eight temporary wells. The wells were not completed as permanent monitoring wells and were not surveyed. Groundwater was encountered at approximately 28 feet below ground surface in TH-15 and TH-16. Groundwater from each well was observed to be clear after moderately purging each well. No sheens, unusual odors or other obvious visual evidence of contamination was observed during sampling of groundwater.

LABORATORY ANALYTICAL RESULTS

Figure 2 shows soil results and Figure 3 shows groundwater results.

Soils

A total of eight samples were collected from varying depths, with at least one sample collected for each feature area. The soil samples were analyzed for the volatile organic compounds (VOCs) Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by EPA Method 8260 and Total Petroleum Hydrocarbons (TPH) by EPA Method 8015. Laboratory analytical results are presented in Attachment 2, and soil analytical results are summarized on Table 1 below.

The soil sample collected from the 15-foot depth in TH-16 was the only analyzed sample that had petroleum analytes encountered above laboratory detection limits. The laboratory results are summarized below in Table I:



Table I
Summarized Soil Results

| Analyte | TH-16 at 15' | COGCC Standard |
|-----------------|--------------|----------------|
| TPH | 5,189 | 500 |
| Benzene | 0.194 | 0.17 |
| Toluene | 0.234 | 85 |
| Ethylbenzene | 6.81 | 100 |
| Xylenes (Total) | 23.7 | 175 |

COGCC = Colorado Oil and Gas Conservation Commission

TPH = Total Petroleum Hydrocarbons

BOLD = Exceeds COGCC Standard

Note: All concentrations in milligrams per kilogram (mg/kg)

As seen in the table above, the soil sample from TH-16 exceeds the COGCC action level with regards to TPH and Benzene.

Groundwater

Of the eight temporary monitoring wells that were installed, only two produced groundwater when checked seven days after drilling, in TH-15 and TH-16. The groundwater results are summarized in the table below:

Table II
Summarized Groundwater Results

| Analyte | TH-15 | TH-16 | CDPHE GW Standard |
|-----------------|-------|-------------|-------------------|
| Benzene | ND | 55.4 | 5.0 |
| Toluene | ND | 4.56 | 560 |
| Ethylbenzene | ND | 62.4 | 700 |
| Xylenes (Total) | ND | 295 | 1,400 |

CDPHE GW = Colorado Department of Public Health and Environment Groundwater

ND = Non-Detect

BOLD = Exceeds CDPHE GW Standard

Note: All concentrations in micrograms per liter (µg/L)

As seen in the table above, the four analyzed compounds were found above laboratory detection limits; however, only Benzene exceeded the groundwater standard in the sample collected from TH-16. BTEX was non-detect in the groundwater sample collected from TH-15.

CONCLUSIONS AND RECOMMENDATIONS

Petroleum contamination was encountered in two of the eighteen borings that were installed as part of this investigation. The soil sample collected from boring TH-6 exhibited odors and staining in the field; however, the soil sample that was collected and analyzed in the laboratory did not have concentrations of BTEX or TPH above detection limits.



The soil in the area of boring TH-16 encountered noticeable contamination from the 5-foot depth to the 20-foot depth. The soil sample that was analyzed from the 15-foot depth (highest PID reading) exceeded standards for TPH and Benzene. The groundwater sample collected from this boring exceeded the state groundwater standard for Benzene.

As the purpose of this investigation was not to fully delineate the extent of contamination, it is recommended that additional investigation be conducted in the areas of TH-6 and TH-16 to determine extent of contamination if residences are planned to be constructed near these areas. CTL recommends that the operators/former operators of these wells be contacted to discuss the possibility of additional investigation and remediation. If this is not feasible than the COGCC should be contacted.

LIMITATIONS

The subsurface investigation and chemical analyses were performed for specific parameters, as detailed in this letter. The accuracy and reliability of environmental studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. An independent laboratory performed laboratory analysis. We are not responsible for the accuracy of data presented by others. The services performed should not be interpreted as providing any guarantee that the materials are free and clear of all hazardous materials.

We believe that our services were conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locality of the project. No warranty, express or implied, is made.

Thank you for choosing us to assist you with this project. If you have any questions or would like further clarification regarding this letter, please call.

Very truly yours,

CTL | THOMPSON, INC.

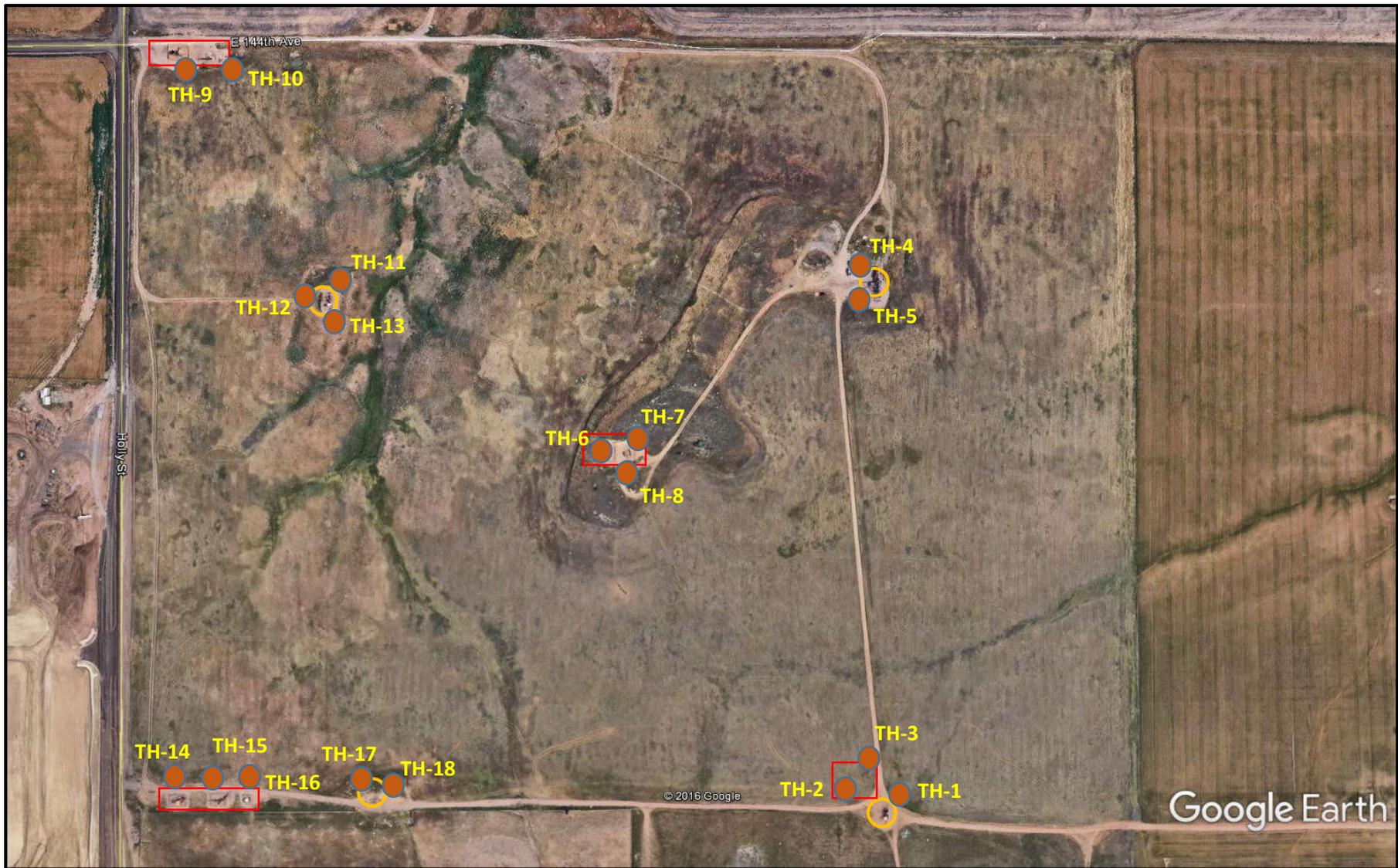
Trevor M. Branch, E.I.T.
Environmental Staff Engineer

Reviewed by:

Matthew L. Wardlow, P.E.
Environmental Department Manager

TMB:MLW/ot

Via E-mail: thodge@tollbrothersinc.com
adunning@tollbrothersinc.com



● Environmental boring location

□ Oil/gas well feature location
(i.e. tank battery/separator/water storage tank)

○ Abandoned oil/gas well location



● Environmental boring location



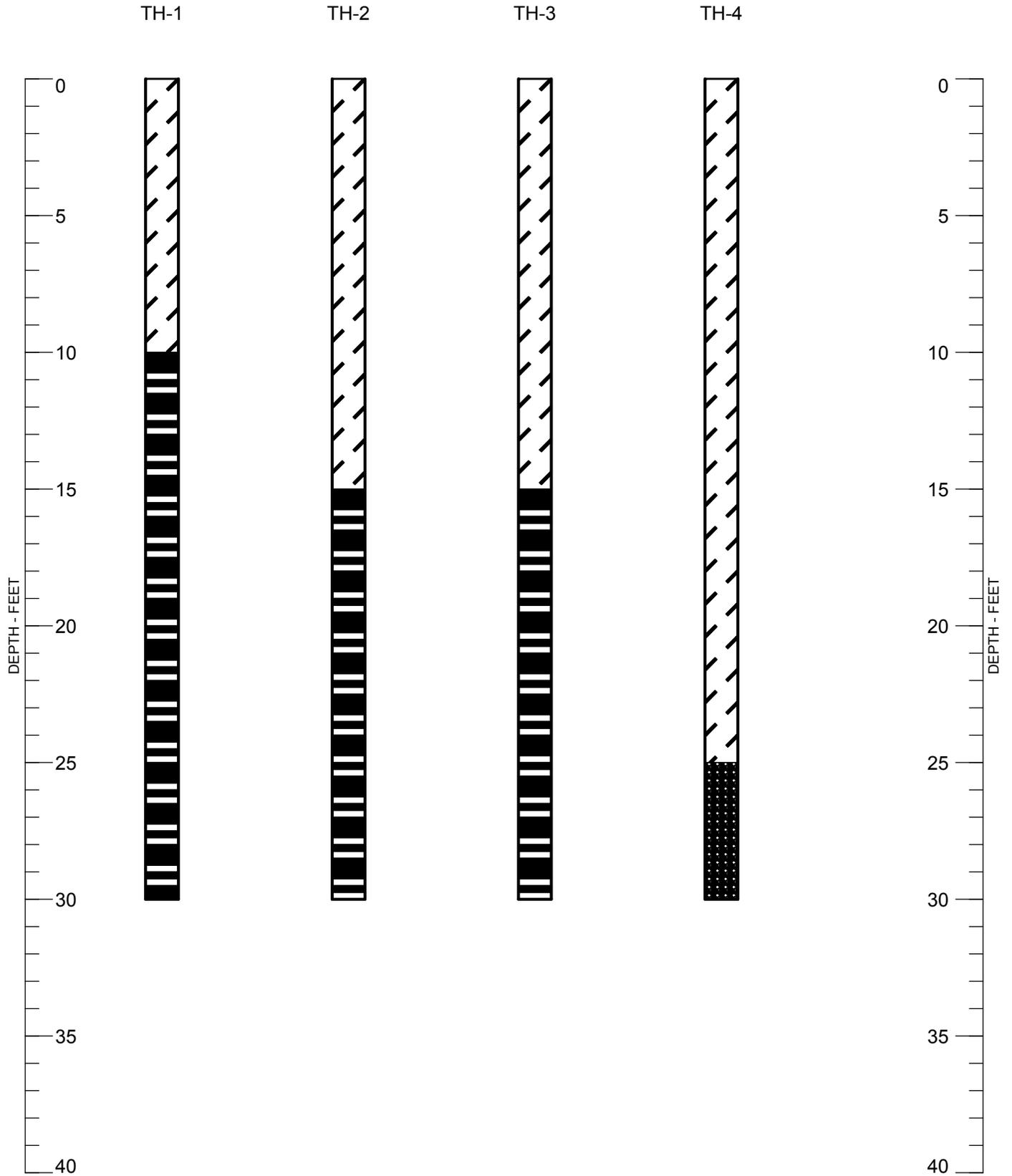
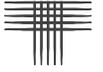
● Temporary monitoring well location

Note: All concentrations in micrograms per liter ($\mu\text{g/L}$)

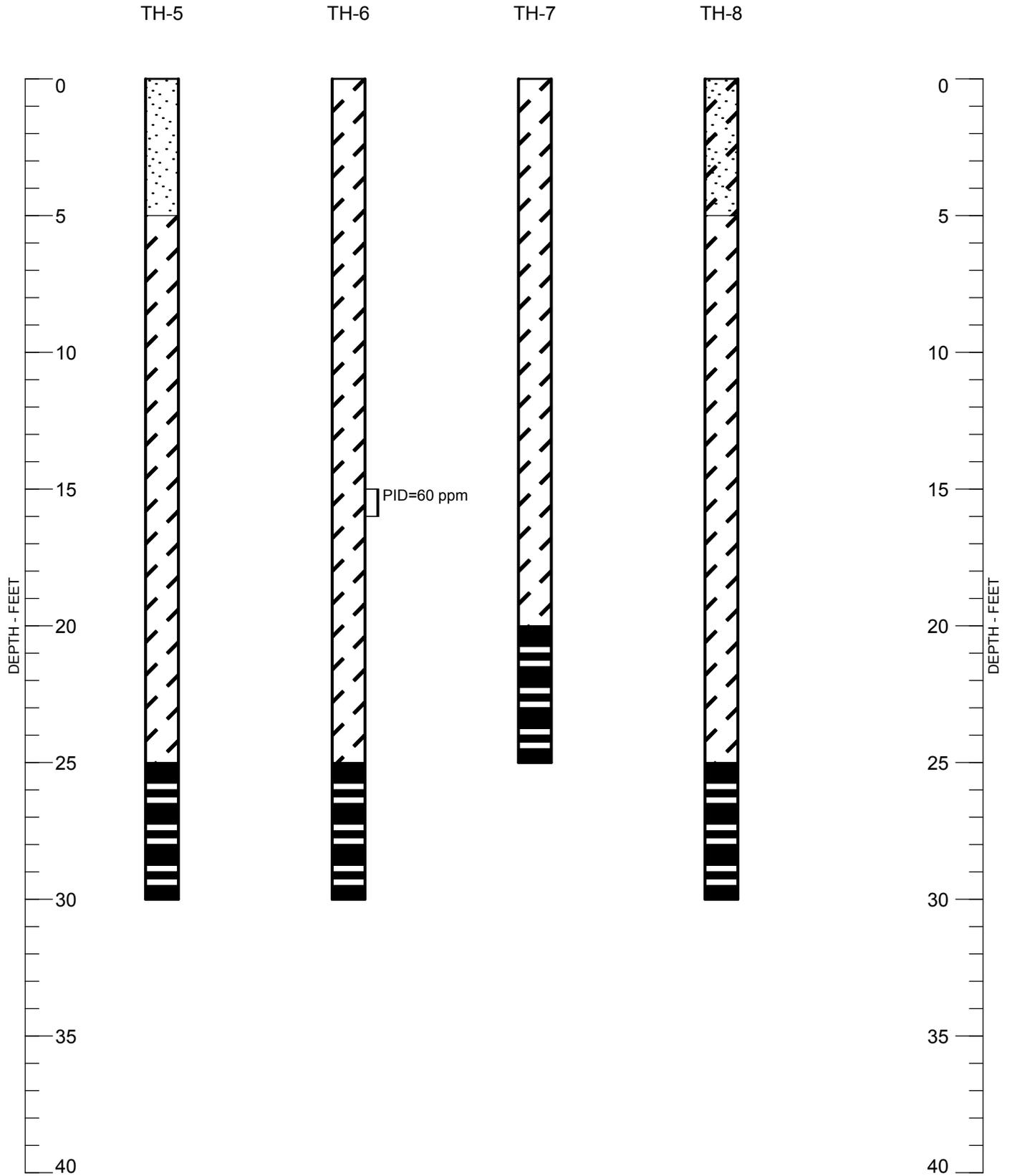
ND = Non-Detect



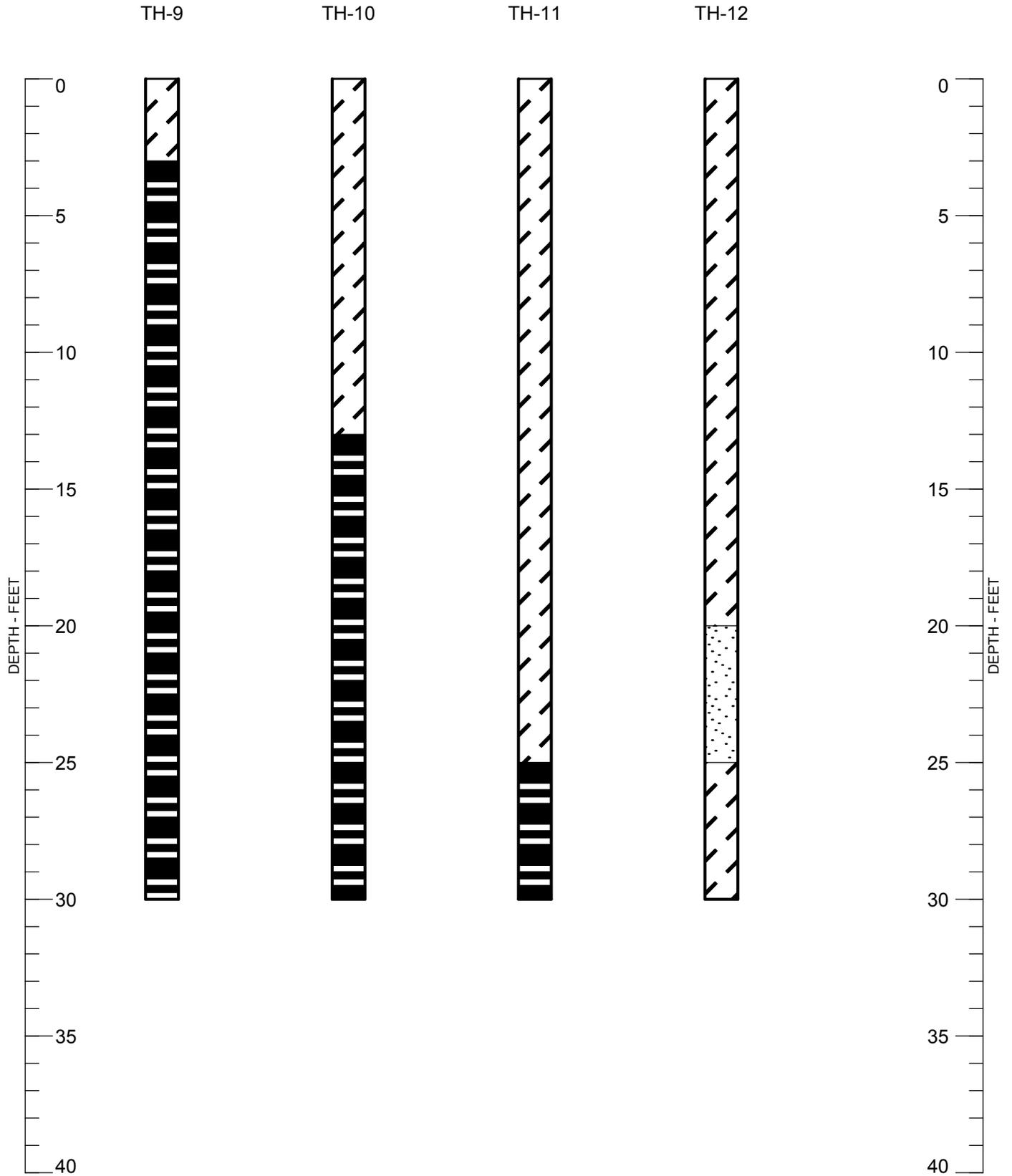
ATTACHMENT 1
BORING LOGS



SUMMARY LOGS OF EXPLORATORY BORINGS



SUMMARY LOGS OF EXPLORATORY BORINGS



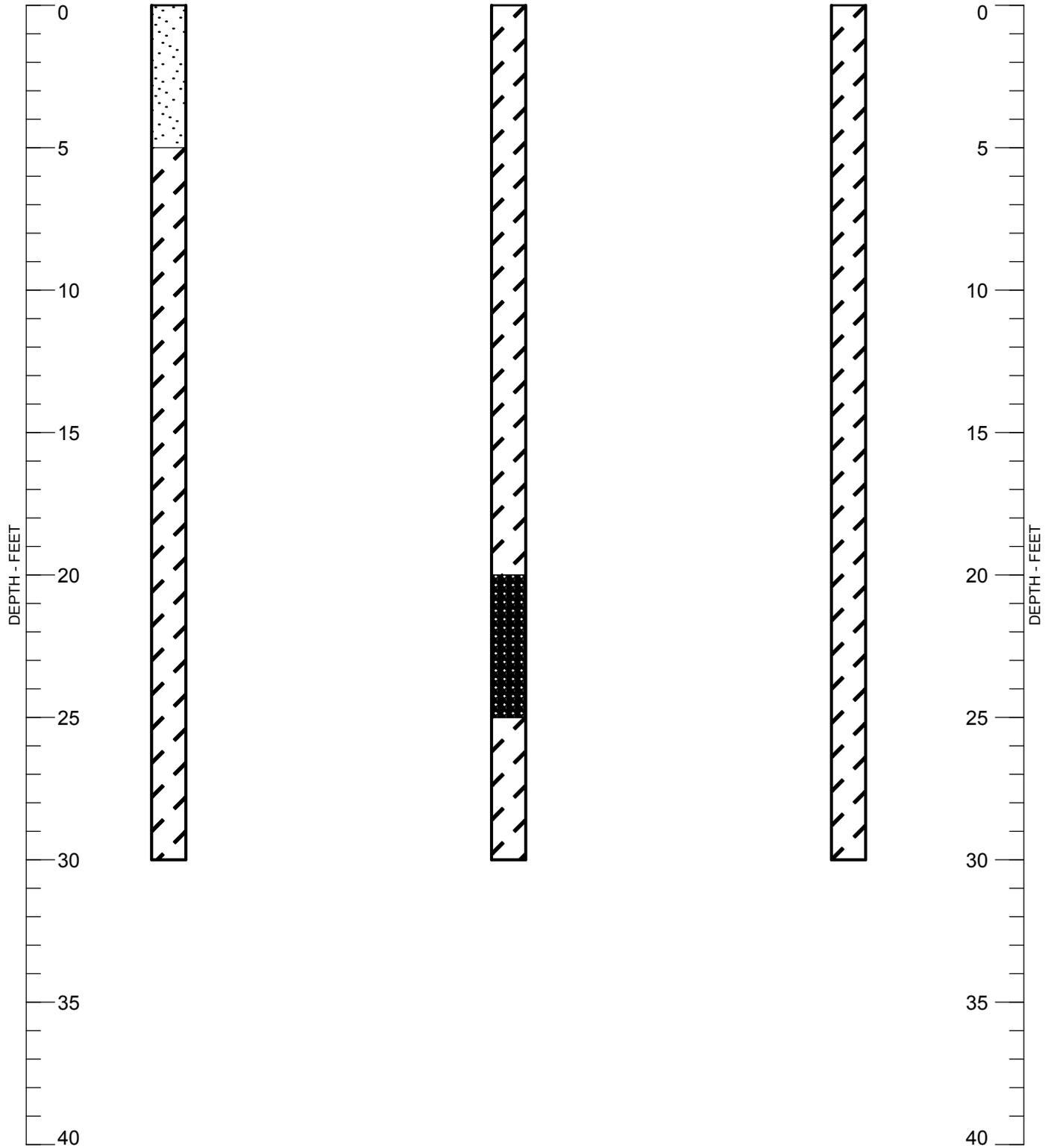
SUMMARY LOGS OF EXPLORATORY BORINGS



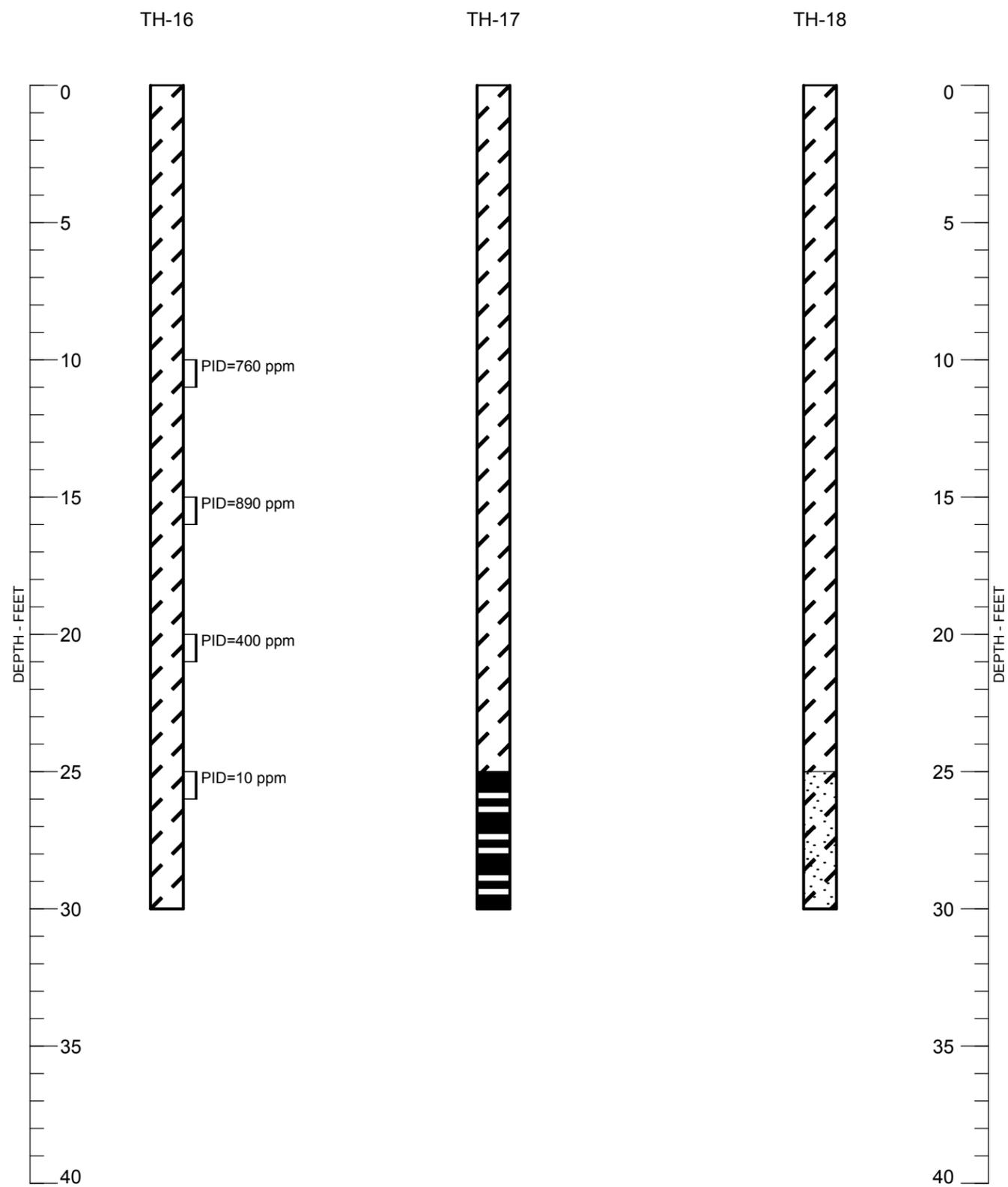
TH-13

TH-14

TH-15



SUMMARY LOGS OF EXPLORATORY BORINGS



LEGEND:

-  CLAY, SANDY, BROWN.
-  SAND, CLAYEY, BROWN.
-  SAND WITH GRAVEL.
-  BEDROCK, CLAYSTONE.

NOTES:

1. THE BORINGS WERE DRILLED ON DECEMBER 13, 2016 USING 4-INCH DIAMETER, CONTINUOUS-FLIGHT SOLID-STEM AUGER AND A TRUCK-MOUNTED CME-45 DRILL RIG.
2. GROUNDWATER WAS NOT ENCOUNTERED DURING THIS INVESTIGATION.
3. THESE LOGS ARE SUBJECT TO THE EXPLANATIONS, LIMITATIONS AND CONCLUSIONS CONTAINED IN THIS REPORT.

SUMMARY LOGS OF EXPLORATORY BORINGS



ATTACHMENT 2
LABORATORY RESULTS



December 20, 2016

CTL Thompson, Inc.

Trevor Branch

1971 West 12th Avenue

Denver CO 80204

Project Name - Holly Hills

Project Number - DN48 669-205

Attached are your analytical results for Holly Hills received by Origins Laboratory, Inc. December 16, 2016. This project is associated with Origins project number X612202-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

CTL Thompson, Inc.
1971 West 12th Avenue
Denver CO 80204

Trevor Branch
Project Number: DN48 669-205
Project: Holly Hills

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|-------------------------|------------------|
| 2 @ 20' | X612202-01 | Soil | December 13, 2016 9:00 | 12/16/2016 10:16 |
| 5 @ 15' | X612202-02 | Soil | December 13, 2016 11:00 | 12/16/2016 10:16 |
| 6 @ 14' | X612202-03 | Soil | December 13, 2016 13:00 | 12/16/2016 10:16 |
| 9 @ 25' | X612202-04 | Soil | December 13, 2016 14:00 | 12/16/2016 10:16 |
| 11 @ 20' | X612202-05 | Soil | December 13, 2016 16:00 | 12/16/2016 10:16 |
| 16 @ 15' | X612202-06 | Soil | December 14, 2016 11:30 | 12/16/2016 10:16 |
| 16 @ 25' | X612202-07 | Soil | December 14, 2016 12:00 | 12/16/2016 10:16 |
| 17 @ 30' | X612202-08 | Soil | December 14, 2016 13:00 | 12/16/2016 10:16 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

Origins Laboratory

F-012207-01-R1
 Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: X612202

Client: CTL Thompson

Client Project ID: Holly Hills

Checklist Completed by: Jeff Smith

Shipped Via: H/D

Date/time completed: 12-16-16

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: NA

Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____

Cooler Number/Temperature: 1 / 0.9 °C 1 °C 1 °C (Describe) °C

Thermometer ID: T003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-----|----|-----|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | ✓ | | | |
| Is there ice present (document if blue ice is used) | ✓ | | | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | | ✓ | | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | | ✓ | | |
| Were all samples received intact ⁽¹⁾ ? | ✓ | | | |
| Was adequate sample volume provided ⁽¹⁾ ? | ✓ | | | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | | ✓ | | |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | ✓ | | | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | ✓ | | | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | ✓ | | | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | ✓ | | | |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | | | ✓ | |
| Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH) | | | ✓ | |
| Additional Comments (if any): | | | | |

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by: [Signature] (Project Manager)

Date/Time Reviewed: 12/19/16

Origins Laboratory, Inc.

[Signature]

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

2 @ 20'

12/13/2016 9:00:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-01 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.002 | mg/kg | 1 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 98.3 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 95.5 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 101 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/19/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 80.0 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

5 @ 15'
 12/13/2016 11:00:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-02 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.002 | mg/kg | 1 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 104 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 94.7 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 100 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/19/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 77.2 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

6 @ 14'
 12/13/2016 1:00:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-03 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|----|---------|------------|------------|---|
| Benzene | ND | 0.050 | mg/kg | 25 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 94.1 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 95.4 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 101 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/20/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 72.8 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

9 @ 25'

12/13/2016 2:00:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-04 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.002 | mg/kg | 1 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 120 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 92.2 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 99.7 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/20/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 67.2 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

11 @ 20'
 12/13/2016 4:00:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-05 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.002 | mg/kg | 1 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 110 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 92.9 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 98.9 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/20/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 73.7 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

16 @ 15'
 12/14/2016 11:30:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-06 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|-------|-------|-------|-----|---------|------------|------------|--|
| Benzene | 0.194 | 0.050 | mg/kg | 25 | B6L1902 | 12/19/2016 | 12/20/2016 | |
| Toluene | 0.234 | 0.050 | " | " | " | " | " | |
| Ethylbenzene | 6.81 | 0.050 | " | " | " | " | " | |
| Xylenes, total | 23.7 | 0.498 | " | 250 | " | " | 12/20/2016 | |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|------------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 103 % | 70-130 | | | " | " | 12/20/2016 | |
| Surrogate: Toluene-d8 | 166 % | 70-130 | | | " | " | " | S-DUP |
| Surrogate: 4-Bromofluorobenzene | 98.2 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|------|------|-------|---|---------|------------|------------|--|
| Gasoline (C6-C10) | 1720 | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/20/2016 | |
| Diesel (C10-C28) | 2540 | 50.0 | " | " | " | " | " | |
| Residual Range Organics (C28-C40) | 929 | 200 | " | " | " | " | " | |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 87.4 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

16 @ 25'
 12/14/2016 12:00:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-07 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|----|---------|------------|------------|---|
| Benzene | ND | 0.050 | mg/kg | 25 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 96.9 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 98.8 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 101 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/20/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 70.0 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

17 @ 30'

12/14/2016 1:00:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612202-08 (Soil)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------|----|-------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.002 | mg/kg | 1 | B6L1902 | 12/19/2016 | 12/19/2016 | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 114 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 94.1 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 107 % | 70-130 | | | " | " | " | |

TPH-Carbon Chain by EPA Method 8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | B6L1903 | 12/19/2016 | 12/20/2016 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | " | " | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 70.0 % | 65-146 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L1902 - EPA 5030 (soil)

Blank (B6L1902-BLK1)

Prepared: 12/19/2016 Analyzed: 12/19/2016

| | | | | | | | | | | |
|----------------------------------|----|-------|-------|------|--|------|--------|--|--|---|
| Benzene | ND | 0.002 | mg/kg | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 64 | | ug/kg | 62.5 | | 102 | 70-130 | | | |
| Surrogate: Toluene-d8 | 60 | | " | 62.5 | | 95.6 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 98.1 | 70-130 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L1902 - EPA 5030 (soil)

LCS (B6L1902-BS1)

Prepared: 12/19/2016 Analyzed: 12/19/2016

| | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Benzene | 0.097 | 0.002 | mg/kg | 0.100 | | 97.0 | 77.1-124 | | | |
| Toluene | 0.085 | 0.002 | " | 0.100 | | 84.9 | 74.5-128 | | | |
| Ethylbenzene | 0.099 | 0.002 | " | 0.100 | | 98.7 | 66.4-127 | | | |
| m,p-Xylene | 0.203 | 0.004 | " | 0.200 | | 101 | 76.6-124 | | | |
| o-Xylene | 0.104 | 0.002 | " | 0.100 | | 104 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 65 | | ug/kg | 62.5 | | 103 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 98.0 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 99.2 | 70-130 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L1902 - EPA 5030 (soil)

| Matrix Spike (B6L1902-MS1) | Source: X612202-01 | | | Prepared: 12/19/2016 Analyzed: 12/19/2016 | | | | | | |
|----------------------------------|--------------------|-------|-------|---|----|------|----------|--|--|--|
| Benzene | 0.099 | 0.002 | mg/kg | 0.100 | ND | 98.8 | 71.8-126 | | | |
| Toluene | 0.085 | 0.002 | " | 0.100 | ND | 84.9 | 65.1-130 | | | |
| Ethylbenzene | 0.097 | 0.002 | " | 0.100 | ND | 96.5 | 62.2-130 | | | |
| m,p-Xylene | 0.198 | 0.004 | " | 0.200 | ND | 99.2 | 46.5-137 | | | |
| o-Xylene | 0.105 | 0.002 | " | 0.100 | ND | 105 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 67 | | ug/kg | 62.5 | | 108 | 70-130 | | | |
| Surrogate: Toluene-d8 | 60 | | " | 62.5 | | 96.2 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 97.8 | 70-130 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L1902 - EPA 5030 (soil)

| Matrix Spike Dup (B6L1902-MSD1) | Source: X612202-01 | | | Prepared: 12/19/2016 Analyzed: 12/19/2016 | | | | | | |
|--|---------------------------|-------|-------|--|----|------|----------|------|------|--|
| Benzene | 0.100 | 0.002 | mg/kg | 0.100 | ND | 100 | 71.8-126 | 1.41 | 11.3 | |
| Toluene | 0.087 | 0.002 | " | 0.100 | ND | 86.9 | 65.1-130 | 2.28 | 15.4 | |
| Ethylbenzene | 0.100 | 0.002 | " | 0.100 | ND | 100 | 62.2-130 | 3.94 | 19.6 | |
| m,p-Xylene | 0.208 | 0.004 | " | 0.200 | ND | 104 | 46.5-137 | 4.85 | 19.2 | |
| o-Xylene | 0.107 | 0.002 | " | 0.100 | ND | 107 | 54.2-134 | 2.70 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 67 | | ug/kg | 62.5 | | 108 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 97.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 101 | 70-130 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48 669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Extractable Petroleum Hydrocarbons by 8015C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L1903 - EPA 3580

Blank (B6L1903-BLK1)

Prepared: 12/19/2016 Analyzed: 12/19/2016

| | | | | | | | | | | |
|-----------------------------------|----|------|-------|--|--|--|--|--|--|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | | | | | | | U |
| Diesel (C10-C28) | ND | 50.0 | " | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |

Surrogate: o-Terphenyl

38.3

"

50.0

76.6

65-146

LCS (B6L1903-BS1)

Prepared: 12/19/2016 Analyzed: 12/19/2016

| | | | | | | | | | | |
|-----------------------------------|-----|------|-------|------|--|------|----------|--|--|--|
| Gasoline (C6-C10) | 933 | 50.0 | mg/kg | 1000 | | 93.3 | 66.7-119 | | | |
| Diesel (C10-C28) | 912 | 50.0 | " | 1000 | | 91.2 | 70.1-127 | | | |
| Residual Range Organics (C28-C40) | 850 | 200 | " | 1000 | | 85.0 | 54.5-139 | | | |

Surrogate: o-Terphenyl

39.0

"

50.0

78.1

65-146

Matrix Spike (B6L1903-MS1)

Source: X612202-01

Prepared: 12/19/2016 Analyzed: 12/19/2016

| | | | | | | | | | | |
|-----------------------------------|-----|------|-------|------|----|------|----------|--|--|--|
| Gasoline (C6-C10) | 919 | 50.0 | mg/kg | 1000 | ND | 91.9 | 56.4-132 | | | |
| Diesel (C10-C28) | 889 | 50.0 | " | 1000 | ND | 88.9 | 57.4-138 | | | |
| Residual Range Organics (C28-C40) | 852 | 200 | " | 1000 | ND | 85.2 | 47.7-129 | | | |

Surrogate: o-Terphenyl

38.8

"

50.0

77.6

65-146

Matrix Spike Dup (B6L1903-MSD1)

Source: X612202-01

Prepared: 12/19/2016 Analyzed: 12/19/2016

| | | | | | | | | | | |
|-----------------------------------|-----|------|-------|------|----|------|----------|-------|------|--|
| Gasoline (C6-C10) | 883 | 50.0 | mg/kg | 1000 | ND | 88.3 | 56.4-132 | 4.08 | 22 | |
| Diesel (C10-C28) | 884 | 50.0 | " | 1000 | ND | 88.4 | 57.4-138 | 0.593 | 18.3 | |
| Residual Range Organics (C28-C40) | 837 | 200 | " | 1000 | ND | 83.7 | 47.7-129 | 1.72 | 30.1 | |

Surrogate: o-Terphenyl

40.4

"

50.0

80.8

65-146

Origins Laboratory, Inc.



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CTL Thompson, Inc.
1971 West 12th Avenue
Denver CO 80204

Trevor Branch
Project Number: DN48 669-205
Project: Holly Hills

Notes and Definitions

U Sample is Non-Detect.

S-DUP Duplicate analysis confirmed surrogate failure due to matrix effects.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President



December 22, 2016

CTL Thompson, Inc.

Trevor Branch

1971 West 12th Avenue

Denver CO 80204

Project Name - Holly Hills

Project Number - DN48669-205

Attached are your analytical results for Holly Hills received by Origins Laboratory, Inc. December 20, 2016. This project is associated with Origins project number X612234-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

CTL Thompson, Inc.
1971 West 12th Avenue
Denver CO 80204

Trevor Branch
Project Number: DN48669-205
Project: Holly Hills

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|------------------------|------------------|
| TH-15 | X612234-01 | Water | December 20, 2016 8:45 | 12/20/2016 09:35 |
| TH-16 | X612234-02 | Water | December 20, 2016 9:00 | 12/20/2016 09:35 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48669-205
 Project: Holly Hills

Origins Laboratory

F-012207-01-R1
 Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: X612234

Client: CTL

Client Project ID: Holly Hills

Checklist Completed by: Jose Smith

Shipped Via: H/D
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 12-20-16

Airbill #: NA

Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____

Cooler Number/Temperature: 1 13.9 °C 1 °C 1 °C (Describe) _____ °C

Thermometer ID: T003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-----|----|-----|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | ✓ | | | |
| Is there ice present (document if blue ice is used) | ✓ | | | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | | ✓ | | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | | ✓ | | |
| Were all samples received intact ⁽¹⁾ ? | ✓ | | | |
| Was adequate sample volume provided ⁽¹⁾ ? | ✓ | | | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | | ✓ | | |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | ✓ | | | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | ✓ | | | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | ✓ | | | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | ✓ | | | |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | | ✓ | | |
| Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH) | ✓ | | | HCL |
| Additional Comments (if any): | | | | |

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by: [Signature] (Project Manager)

Date/Time Reviewed: 12/20/16

Origins Laboratory, Inc.

[Signature]

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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48669-205
 Project: Holly Hills

TH-15
 12/20/2016 8:45:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
 X612234-01 (Water)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------------------------|--------|--------|------|---|---------|------------|------------|---|
| Benzene | ND | 1.00 | ug/L | 1 | B6L2201 | 12/22/2016 | 12/22/2016 | U |
| Toluene | ND | 1.00 | " | " | " | " | " | U |
| Ethylbenzene | ND | 1.00 | " | " | " | " | " | U |
| Xylenes, total | ND | 1.00 | " | " | " | " | " | U |
| Surrogate: 1,2-Dichloroethane-d4 | 99.0 % | 84-121 | | | " | " | " | |
| Surrogate: Toluene-d8 | 101 % | 85-115 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 99.8 % | 84-114 | | | " | " | " | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
1971 West 12th Avenue
Denver CO 80204

Trevor Branch
Project Number: DN48669-205
Project: Holly Hills

TH-16
12/20/2016 9:00:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
X612234-02 (Water)

BTEX by EPA 8260C

| | | | | | | | | |
|----------------------------------|--------|--------|------|---|---------|------------|------------|--|
| Benzene | 55.4 | 1.00 | ug/L | 1 | B6L2201 | 12/22/2016 | 12/22/2016 | |
| Toluene | 4.56 | 1.00 | " | " | " | " | " | |
| Ethylbenzene | 62.4 | 1.00 | " | " | " | " | " | |
| Xylenes, total | 295 | 1.00 | " | " | " | " | " | |
| Surrogate: 1,2-Dichloroethane-d4 | 106 % | 84-121 | | | " | " | " | |
| Surrogate: Toluene-d8 | 86.1 % | 85-115 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 101 % | 84-114 | | | " | " | " | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L2201 - EPA 5030B (Water)

Blank (B6L2201-BLK1)

Prepared: 12/22/2016 Analyzed: 12/22/2016

| | | | | | | | | | | |
|----------------------------------|----|------|------|------|------|--|--------|--|--|---|
| Benzene | ND | 1.00 | ug/L | | | | | | | U |
| Toluene | ND | 1.00 | " | | | | | | | U |
| Ethylbenzene | ND | 1.00 | " | | | | | | | U |
| Xylenes, total | ND | 1.00 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 62 | | " | 62.5 | 99.9 | | 84-121 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | 101 | | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | 101 | | 84-114 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L2201 - EPA 5030B (Water)

LCS (B6L2201-BS1)

Prepared: 12/22/2016 Analyzed: 12/22/2016

| | | | | | | | | | | |
|----------------------------------|------|------|------|------|--|------|----------|--|--|--|
| Benzene | 47.8 | 1.00 | ug/L | 50.0 | | 95.7 | 73.3-129 | | | |
| Toluene | 47.8 | 1.00 | " | 50.0 | | 95.6 | 76.2-123 | | | |
| Ethylbenzene | 48.9 | 1.00 | " | 50.0 | | 97.8 | 73.6-130 | | | |
| m,p-Xylene | 96.8 | 2.00 | " | 100 | | 96.8 | 76.1-126 | | | |
| o-Xylene | 46.4 | 1.00 | " | 50.0 | | 92.8 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 60 | | " | 62.5 | | 95.5 | 84-121 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 97.9 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 64 | | " | 62.5 | | 102 | 84-114 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L2201 - EPA 5030B (Water)

| Matrix Spike (B6L2201-MS1) | Source: X612213-01 | | | Prepared: 12/22/2016 Analyzed: 12/22/2016 | | | | | | |
|-----------------------------------|---------------------------|------|------|--|----|------|--------|--|--|--|
| Benzene | 54.4 | 1.00 | ug/L | 50.0 | ND | 109 | 74-130 | | | |
| Toluene | 55.1 | 1.00 | " | 50.0 | ND | 110 | 73-131 | | | |
| Ethylbenzene | 54.1 | 1.00 | " | 50.0 | ND | 108 | 76-132 | | | |
| m,p-Xylene | 107 | 2.00 | " | 100 | ND | 107 | 69-139 | | | |
| o-Xylene | 50.5 | 1.00 | " | 50.0 | ND | 101 | 74-131 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 59 | | " | 62.5 | | 94.9 | 84-121 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 97.7 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 97.4 | 84-114 | | | |

Origins Laboratory, Inc.



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CTL Thompson, Inc.
 1971 West 12th Avenue
 Denver CO 80204

Trevor Branch
 Project Number: DN48669-205
 Project: Holly Hills

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B6L2201 - EPA 5030B (Water)

| Matrix Spike Dup (B6L2201-MSD1) | Source: X612213-01 | | | Prepared: 12/22/2016 Analyzed: 12/22/2016 | | | | | | |
|----------------------------------|--------------------|------|------|---|----|------|--------|------|----|--|
| Benzene | 51.2 | 1.00 | ug/L | 50.0 | ND | 102 | 74-130 | 6.19 | 20 | |
| Toluene | 51.8 | 1.00 | " | 50.0 | ND | 104 | 73-131 | 6.23 | 20 | |
| Ethylbenzene | 49.9 | 1.00 | " | 50.0 | ND | 99.9 | 76-132 | 8.02 | 20 | |
| m,p-Xylene | 99.1 | 2.00 | " | 100 | ND | 99.1 | 69-139 | 7.26 | 20 | |
| o-Xylene | 47.7 | 1.00 | " | 50.0 | ND | 95.5 | 74-131 | 5.68 | 20 | |
| Surrogate: 1,2-Dichloroethane-d4 | 60 | | " | 62.5 | | 96.7 | 84-121 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 101 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 100 | 84-114 | | | |

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Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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