

Accepted for the record. Abatement terms completed 01/06/2023

NV

## Memorandum

To:	Nelson Velez, Environmental Bureau   EMNRD - Oil Conservation Division
From:	Mitch Killough, Hilcorp Energy Company (Hilcorp)
Date:	1/5/2023
Subject:	Plugging Reports – Kaufman No. 1 (Incident No. NCS1833331001) – AP-138

Background: On 11/16/18, approximately 8 barrels (bbl) of oil and 10 bbl of produced water was released from the storage tank. Enduring Resources was the operator of record at the time of the release; Hilcorp assumed operations of the Site on or about 12/1/2018. After Hilcorp assumed operations, the well was temporarily abandoned. All surface equipment within the tank battery was removed, and impacted soil within the battery was excavated and transported to off-site disposal. Initial soil abatement included an excavation approximately 50 ft by 60 ft with a depth ranging from 1 ft to 5 ft bgs. To delineate impacted groundwater, six groundwater monitoring wells (i.e., MW1 - MW6) were installed in January 2019. Subsequent soil abatement activities were conducted in November 2019. Abatement included excavating and disposal of impacted soil in and around the initial excavation (i.e., former tank battery). Soil exceeding soil-to-groundwater migration criteria and soil exceeding the ecological protective concentration limits (PCLs) was excavated and removed from the site. The excavation was backfilled following confirmation sample and analysis. In November 2019, Timberwolf began quarterly groundwater monitoring at the Site. The monitoring included evaluation of Site groundwater and a hydrological assessment of Site groundwater and its relationship to the La Plata River. Consecutive quarterly monitoring was conducted from November 2019 through September 2021. Analytical results revealed that all constituents of concern (COCs) were below regulatory criteria. On 10/20/2022, NMOCD determined that Hilcorp met the requirements of NMAC 19.15.30 and no further action is required. Additional background data can be referenced in the Abatement Completion Report (dated 1/22/2022).

**Scope:** Hilcorp is providing copies of the monitoring well plugging reports. As requested by the NMOCD on 10/20/2022, Hilcorp is required to provide the plugging reports that were submitted to the New Mexico Office of the State Engineer. Per NMOSE Permit SJ-4327 POD1 – POD6 (dated 12/31/2018), Hilcorp followed the approved plugging plan requirements in Condition 10.

Enclosures: Plugging Records Abatement Completion Report (dated 1/22/2022, approved 10/20/2022) NMOSE Permit Approval for Monitoring Wells, SJ-4327 POD1 – POD6 (dated 12/31/2018)

> Hilcorp Energy Company 1111 Travis Street, Houston, Texas 77002 T 713.209.2400 F 713.289.2750



# PLUGGING RECORD



## NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

#### I. GENERAL / WELL OWNERSHIP:

State En	igineer Well Number: Hilcorp Kaufman #1 Release MW#	#1 SJ-4327 POD 1	
	mer: Hilcorp Energy Company	Phone No.: (505)	599-3400
Mailing	address: 382 Road 3100		
City: A		New Mexico	Zip code:87410
<u>II. WE</u>	LL PLUGGING INFORMATION:		
1)	Name of well drilling company that plugged well: MW	/ Electric Inc.	4
2)	New Mexico Well Driller License No.: WD-1842	Expiratio	on Date:
3)	Well plugging activities were supervised by the following Chad Stotts	ng well driller(s)/rig supervisor(s):	
4)	Date well plugging began: 12/27/22	Date well plugging concluded:	2/27/22
5)		-8,	sec sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as: by the following manner: <u>Ridgid Tape</u>	15 ft below ground level (bg	l),
7)	Static water level measured at initiation of plugging:	ft bgl	
8)	Date well plugging plan of operations was approved by	the State Engineer: 12/31/2018	~
9)	Were all plugging activities consistent with an approved differences between the approved plugging plan and the		If not, please describe tional pages as needed):
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Version: September 8, 2009 Page 1 of 2 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class /II neat cement from 15' (TD) to surface	2.75 gallons Neat Cerant	2.5 Gallons	Tremie	amura space also pragee , etc.
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III. SIGN		cubic yards x 201.9		the select of the	
Engineer po	ertaining to the plugging of the best of my knowledge a	f wells and that each and	at 1 am ramiliar with all of the statements in	the rules of the this Plugging F	he Office of the State Record and attachments
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#### For each interval plugged, describe within the following columns:

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Date

STATE ENGINEER OFFICE

Version: September 8, 2009 Page 2 of 2



# PLUGGING RECORD



#### NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

#### I. GENERAL / WELL OWNERSHIP:

	ngineer Well Number: Hilcorp Kaufman #1 Release MW#2 SJ-4327 POD 2	
Well ow	wher: Hilcorp Energy Company Phone No.: (505) 599-3400	
Mailing	g address: 382 Road 3100	
City: A	Aztec New Mexico Zip code: 8	7410
<u>II. WE</u>	ELL PLUGGING INFORMATION:	
1)	Name of well drilling company that plugged well: MW Electric Inc.	
2)	New Mexico Well Driller License No.: WD-1842 Expiration Date: <u>5/4/</u>	2024
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):	
4)	Date well plugging began: $\frac{12/27/22}{Date well plugging concluded: \frac{12/27}{27}$	22
5)	GPS Well Location:Latitude:N36deg,51min,36.252secLongitude:W108deg,12min,12.06sec,WGS 84	
6)	Depth of well confirmed at initiation of plugging as: ft below ground level (bgl), by the following manner: Ridgid Tape	
7)	Static water level measured at initiation of plugging:5 ft bgl	
8)	Date well plugging plan of operations was approved by the State Engineer: 12/31/2018	
9)	Were all plugging activities consistent with an approved plugging plan? <u>Yes</u> If not, plead differences between the approved plugging plan and the well as it was plugged (attach additional pages a second s	as needed):
	1022 DEC 28 AM 9 23	NEW MEXICO

Version: September 8, 2009 Page 1 of 2 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class II neat cement from 15' (TD) to surface	2,75-quillong vent Cont,	2.5 Gallons	Tremie	
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-  III. SIGN			3Y AND OBTAIN 1805 = gallons 17 = gallons		
I, Chad Ste	otts	, say th	hat I am familiar with	the rules of the	he Office of the State

#### For each interval plugged, describe within the following columns:

#### Π

I, , say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

1

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2



# PLUGGING RECORD



## NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

#### I. GENERAL / WELL OWNERSHIP:

State En	gineer Well Number: Hilcorp Kaufman #1	Release MW#3	SJ-4327 POD 3	
	mer: Hilcorp Energy Company		Phone No.: (505	i) 599-3400
Mailing	address: 382 Road 3100			
City: A		State:	New Mexico	Zip code: 87410
II. WEI	LL PLUGGING INFORMATION:			
1)	Name of well drilling company that plug	ged well: MW Electr	ic Inc.	
2)	New Mexico Well Driller License No.:	WD-1842	Expira	tion Date:
3)	Well plugging activities were supervised Chad Stotts	by the following wel	l driller(s)/rig supervisor(s)	
4)	Date well plugging began: $\frac{12/27}{27}$	22 Date	well plugging concluded: _	12/27/22
5)	GPS Well Location: Latitude: Longitude:	N36deg, W108deg,	51 min, 35.82 12 min, 11.124	_ sec _ sec, WGS 84
6)	Depth of well confirmed at initiation of p by the following manner: <u>Ridgid Tape</u>	blugging as:15	ft below ground level (b	ngl),
7)	Static water level measured at initiation of	of plugging:5_	ft bgl	
8)	Date well plugging plan of operations wa	as approved by the Sta	ate Engineer: 12/31/2018	-
9)	Were all plugging activities consistent will differences between the approved plugging	ith an approved plugg ng plan and the well a	ing plan? Yes is it was plugged (attach ad	_ If not, please describe
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10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class <b>/</b> I neat cement from 15' (TD) to surface	2,5 gallons	2.5 Gallons	Tremie	
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III. SIGN	ATURE:	MULTIPLY E cubic feet x 7.4 cubic yards x 201.5	I 3Y AND OBTAIN 1805 = gallons 17 = gallons	I	

#### For each interval plugged, describe within the following columns:

#### III. SIGNATURE:

I, <u>Chad Stotts</u>, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2



# PLUGGING RECORD



#### NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

#### I. GENERAL / WELL OWNERSHIP:

State En	ngineer Well Number: Hilcorp Kaufman #1 Release MW#4 SJ-4327 POD 4	
Well ow	Phone No.: (505) 599-3400	
Mailing	address: 382 Road 3100	
City: A	ztec State: New Mexico Zip code: 87	'410
II. WE	LL PLUGGING INFORMATION:	
1)	Name of well drilling company that plugged well: MW Electric Inc.	
2)	New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2	024
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):	
4)	Date well plugging began: $\frac{12/27/22}{12/27/22}$ Date well plugging concluded: $\frac{12/27}{27}$	122
5)	GPS Well Location:Latitude:N36deg,51min,35.28secLongitude:W108deg,12min,12.06sec,WGS 84	
6)	Depth of well confirmed at initiation of plugging as: ft below ground level (bgl), by the following manner: Ridgid Tape	
7)	Static water level measured at initiation of plugging:5 ft bgl	
8)	Date well plugging plan of operations was approved by the State Engineer:12/31/2018	
9)	Were all plugging activities consistent with an approved plugging plan? <u>Yes</u> If not, pleas differences between the approved plugging plan and the well as it was plugged (attach additional pages as	
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Version: September 8, 2009 Page 1 of 2 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class III neat cement from 15' (TD) to surface	2.75 çallors 15.2 pAG clas 1/11 wast commet	2.5 Gallons	Tremie	
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III. SIGN	ATURE:	MULTIPLY E cubic feet x 7.4 cubic yards x 201.9	3Y AND OBTAIN 1805 = gallons 37 = gallons		

#### For each interval plugged, describe within the following columns:

#### Ш

I. Chad Stotts , say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

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# PLUGGING RECORD



#### NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

#### I. GENERAL / WELL OWNERSHIP:

State En	gineer Well Number: Hilcorp Kaufman #1 Release MW#5 SJ-4327 POD 5
Well ow	Hilcorp Energy Company     Phone No.:     (505) 599-3400
Mailing	address: 382 Road 3100
City: A	ztec State: New Mexico Zip code: 87410
<u>II. WE</u>	LL PLUGGING INFORMATION:
1)	Name of well drilling company that plugged well: MW Electric Inc.
2)	New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
4)	Date well plugging began: $\frac{12/27/22}{Date well plugging concluded: \frac{12/27/22}{Date well plugging concluded: \frac{12}{27/22}}$
5)	GPS Well Location:Latitude:N36deg,51min,35.172secLongitude:W108deg,12min,12.995sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as: ft below ground level (bgl), by the following manner: Ridgid Tape
7)	Static water level measured at initiation of plugging:5 ft bgl
8)	Date well plugging plan of operations was approved by the State Engineer: 12/31/2018
9)	Were all plugging activities consistent with an approved plugging plan? <u>Yes</u> If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):
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Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class III neat cement from 15' (TD) to surface	2. 75 gallons 15. 2 pAG Class II wratent Cubic feet x 7.4 Cubic yards x 2019	3Y AND OBTAIN 805 = gallons	Tremie	STATE ENGINEER OFFICE AZTEC, NEW MEXICO 2022 DEC 28 AM 9 24

#### For each interval plugged, describe within the following columns:

#### II

I, Chad Stotts , say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2



# PLUGGING RECORD



### NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

#### I. GENERAL / WELL OWNERSHIP:

State En	gineer Well Number: Hilcorp Kaufman #1 Release MW#6	SJ-4327 POD 6	
Well ow	mer: Hilcorp Energy Company	Phone No.: (505)	) 599-3400
Mailing	address: 382 Road 3100		
City: A	ztec State:	New Mexico	Zip code: 87410
<u>II. WE</u>	LL PLUGGING INFORMATION:		
1)	Name of well drilling company that plugged well: MW Elec	tric Inc.	
2)	New Mexico Well Driller License No.: WD-1842	Expirat	ion Date:
3)	Well plugging activities were supervised by the following w Chad Stotts	ell driller(s)/rig supervisor(s):	
4)	Date well plugging began: $\frac{12/27/22}{Date}$ Date	te well plugging concluded:	(2/27/22)
5)	GPS Well Location: Latitude: <u>N36</u> deg, _ Longitude: <u>W108</u> deg, _		sec sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as:15 by the following manner:Ridgid Tape	ft below ground level (b	gl),
7)	Static water level measured at initiation of plugging:5	ft bgl	
8)	Date well plugging plan of operations was approved by the	State Engineer: 12/31/2018	
9)	Were all plugging activities consistent with an approved plu differences between the approved plugging plan and the wel	gging plan? Yes l as it was plugged (attach add	If not, please describe ditional pages as needed):
			AZTEÇ, NEVEMENICO 2022 DEC 28 AM 9 23

Version: September 8, 2009 Page 1 of 2 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class <b>№</b> neat cement from 15' (TD) to surface	2.75 gallons 15:2 ppg Natest	2.5 Gallons	Tremie	
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- - 		MULTIPLY I cubic feet x 7.4 cubic yards x 201.5	3Y AND OBTAIN 1805 = gallons 37 = gallons		

#### For each interval plugged, describe within the following columns:

#### III. SIGNATURE:

I, <u>Chad Stotts</u>, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

12/27/22

Signature of Well Driller

Date

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Review of the January 22, 2022 ABATEMENT COMPLETION REPORT: Content satisfactory

Operator has successfully completed the standards set forth in NMAC 19.15.30.9, Abatement Standards and Requirements. Director has approved this Abatement Completion Report (letter attached at the end of the report). Termination of abatement plan (AP-0138) is finalized.

## ABATEMENT COMPLETION REPORT

## KAUFMAN NO. 1 HILCORP ENERGY COMPANY SAN JUAN COUNTY, NEW MEXICO OCD No.: AP-0138

January 22, 2022

Prepared for: New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Prepared by:



TIMBERWOLF ENVIRONMENTAL, LLC

1920 W. Villa Maria, Suite 205 Bryan, Texas 77807 979-324-2139 On behalf of:



#### HILCORP ENERGY COMPANY

1111 Travis Street Houston, Texas 77002 713-209-2400

## **ABATEMENT COMPLETION REPORT**

KAUFMAN NO. 1 HILCORP ENERGY COMPANY SAN JUAN COUNTY, NEW MEXICO OCD No.: AP-0138

January 22, 2022

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report which documents soil and groundwater abatement, groundwater monitoring activities, and request for site closure.

This report was prepared by the following Timberwolf personnel:

-for-

Michael Morse Project Scientist

Ryan S. Mersmann, P.G., CPSS Vice President of Operations

" Shat

Jim Foster President

01/22/22

Date

01/22/22

Date

01/22/22

Date

## *Timberwolf Project No. HEC-180061*

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#### **Embedded Tables**

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Table 2	Soil-to-Groundwater Migration PCL for TPH
Table 3	Soil PCLs for the Southwestern Willow Flycatcher
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## 1.0 Overview

### 1.1 Introduction

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report documenting soil and groundwater abatement, groundwater monitoring activities, and a request for regulatory site closure at Kaufman No. 1 (Site). The Site is located approximately 9.1 miles north of Farmington in San Juan County, New Mexico (Figures 1 – 3).

## 1.2 Site Description and Environmental Setting

The Site is situated on Federal land (managed by the Bureau of Land Management (BLM)) and is immediately east of the La Plata River (Figures 2 and 3). The Site is comprised of approximately 1 acre, all of which is located within the La Plata River flood plain and adjacent to riparian zones and wetlands.

The Site has been temporarily abandoned following a release in November 2018. All equipment has been taken out of service including storage tanks, separators, and a glycol dehydrator. Other surface equipment at the Site includes a wellhead and gas meter.

The Site is situated in a rural area and surrounding land use is predominantly recreational use and oil and gas production. According to the U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS), the Site soil series is identified as of Walrees loam, 0 to 2 percent slope. This soil series consist of a loam underlain by stratified gravelly sand; native salinity is very slightly saline to moderately saline (2.0 to 8.0 millimhos per centimeter (mmhos/cm)).

An unnamed intermittent stream located approximately 500 feet (ft) south of the Site empties into the La Plata River flood plan and has deposited sufficient sand to form a deltaic feature. This feature extends north to within 100 ft of the Site and is visible on aerial photographs (e.g., Figure 3) and is characterized by sparse vegetation, most pronounced in the understory.

The average elevation at the Site is approximately 5,537 feet above mean sea level. Site topography is relatively flat with a slight dip west, toward the La Plata River.

## 1.3 Site Geology and Hydrogeology

Site geology consists of 0.5 ft of silt, underlain by approximately 3.5 ft of firm clay. Beneath the clay lies a groundwater sand which is comprised of medium to very coarse sand; sand becomes coarser with depth and contains rock inclusions ranging in size from pebbles to cobbles.

During the groundwater assessment and installation of monitor wells, the shallow groundwater aquifer was at full capacity and groundwater was typically encountered at 4.5 ft below ground surface (bgs). However, weathered petroleum hydrocarbon, consistent with a historical release,

were observed within the saturated zone at 9.0 ft bgs. This indicates that the aquifer may fluctuate seasonally and/or is influenced by drought.

The La Plata River is situated along the western edge of the Site and appears to be in communication with groundwater. The excavation dug during the initial spill response extended into the groundwater sand and is in direct communication with Site groundwater.

The potentiometric surface elevation (PSE) map created during the groundwater assessment conducted in January 2019 revealed the natural direction of groundwater flow to be west-southwest, towards the La Plata River (Figure 4).

## 1.4 Site History

On 11/16/18, approximately 8 barrels (bbl) of oil and 10 bbl of produced water was released from the storage tank. Enduring Resources was the operator of record at the time of the release; Hilcorp assumed operations of the Site on or about December 1, 2018.

After Hilcorp assumed operations, the well was temporarily abandoned. All surface equipment within the tank battery was removed, and impacted soil within the battery was excavated and transported to off-site disposal. The excavation was primarily along the eastern and southern portion of the tank battery. Initial soil abatement included an excavation approximately 50 ft by 60 ft with a depth ranging from 1 ft to 5 ft bgs. A safety fence was constructed along the perimeter of the excavation.

To delineate impacted groundwater, six groundwater monitoring wells (i.e., MW1 – MW6) were installed in January 2019. Groundwater delineation is documented in Timberwolf's Stage 1 Abatement Plan (pp. 12-14), dated 06/17/19.

Subsequent soil abatement activities were conducted in November 2019. Abatement included excavating and disposal of impacted soil in and around the initial excavation (i.e., former tank battery). Soil exceeding soil-to-groundwater migration criteria and soil exceeding the ecological protective concentration limits (PCLs) was excavated and removed from the site. All excavation activities were completed on 11/08/19. The excavation was backfilled following confirmation sample and analysis. Soil abatement is documented in Timberwolf's *Stage 2 Abatement Plan* (pp. 19-21), dated 01/03/20.

In November 2019, Timberwolf began quarterly groundwater monitoring at the Site. The monitoring included evaluation of Site groundwater and a hydrological assessment of Site groundwater and its relationship to the La Plata River. Consecutive quarterly monitoring was conducted from November 2019 (i.e., 4Q19) through September 2021 (i.e., 3Q21).

On 08/11/20, Timberwolf conducted an additional groundwater investigation at the Site. The purpose of the investigation was to determine if a residual groundwater plume was present between MW1 and MW5. To evaluate the area of concern, a groundwater sample was collected by installing a temporary sampling point in lieu of proposed MW7. Analytical results revealed that all

constituents of concern (COCs) were below regulatory criteria. Findings of the additional groundwater investigation are documented in Timberwolf's *Status Report – 3^{rd} Quarter 2020*, dated 09/20/20.

Other assessment and characterization activities included a wetlands investigation/delineation and threatened and endangered species surveys. The work conducted at the Site is documented in the following reports:

- Site Characterization Report and Stage 1 Abatement Plan, dated 06/18/19
- Wetland Delineation (Revised), dated 10/03/19
- Stage 2 Abatement Plan, dated 01/03/20
- *Status Report 1<sup>st</sup> Quarter 2020,* dated 04/28/20
- Status Report 2<sup>nd</sup> Quarter 2020, dated 06/19/2020
- *Status Report 3<sup>rd</sup> Quarter 2020*, dated 09/20/2020
- *Status Report 4<sup>th</sup> Quarter 2020*, dated 11/25/2020
- *Status Report 1<sup>st</sup> Quarter 2021*, dated 01/20/21
- Status Report 2<sup>nd</sup> Quarter 2021, dated 07/01/21
- Status Report 3<sup>rd</sup> Quarter 2021, dated 10/29/21.

#### 1.5 Soil Assessment

In July 2019, Timberwolf conducted soil assessments to delineate impacts and characterize the vadose zone. The assessment evaluated soil-to-groundwater migration pathways and ecological risks to threatened and endangered species (i.e., Southwestern willow flycatcher).

The assessment included collection and analysis of approximately 40 soil samples from depth ranging from the surface to 4.5 ft bgs. The samples were analyzed for TPH and/or BTEX. The vadose zone and ecological assessment revealed that additional soil abatement was required at the excavation base and sidewalls to protect groundwater and/or meet ecological PCL.

Vadose zone and ecological soil assessments are documented in Timberwolf's *Stage 2 Abatement Plan* (pp. 14-18), dated 01/03/20.

#### 1.6 Soil Abatement

Initial soil abatement was conducted during 4Q18, immediately following the release and prior to conducting the Site characterization. Subsequent soil abatement activities were conducted after Site characterization and soil delineation, in November 2019. The subsequent abatement included excavating and disposal of impacted soil in and around the initial excavation (i.e., former tank battery). Soil exceeding soil-to-groundwater migration criteria and soil exceeding the ecological

protective concentration limits (PCLs) was excavated and removed from the site.

Impacted soil was excavated and transported to Industrial Ecosystems, Inc. (IEI) for commercial disposal. The final excavation dimensions were approximately 105 ft long by 65 ft wide with an average depth of 4.5 ft bgs. The subsequent soil abatement removed approximately 784 cubic yards of soil which exceeded soil-to-groundwater migration criteria and/or soil exceeding ecological PCLs.

Soil abatement activities were completed on 11/08/19. Twenty (20) confirmation samples were collected from the abatement area to ensure that soil exceeding remedial targets had been removed from the Site prior to backfilled. The soil abatement area is depicted in Figure 5. Soil abatement activities are documented in Timberwolf's *Stage 2 Abatement Plan* (pp. 19-21), dated 01/03/20.

#### 1.7 Groundwater Assessment

The groundwater assessment was conducted in January 2019 and included installation of six 2inch monitor wells across the Site. Monitor Well 1 (i.e., MW1) was installed immediately adjacent to the point of release. All other wells (i.e., MW2 through MW6) were installed near the perimeter of the Site for horizontal delineation of groundwater constituents. A monitor well location map is provided in Figure 6.

The groundwater assessment revealed the following:

- COCs in Site groundwater included: benzene, total dissolved solids (TDS), and sulfate
- MW1 was impacted by benzene; the benzene plume was horizontally delineated
- Groundwater flow across the Site was to the west-southwest, towards the La Plata River
- Additional assessment was required to determine if TDS and sulfate concentrations observed in MW1 were a result of the release or is a native feature of Site groundwater.

The benzene plume is shown in Figure 7. The groundwater assessment is documented in Timberwolf's *Site Characterization Report and Stage 1 Abatement Plan* (pp. 12-14), dated 06/17/19.

The initial groundwater assessment revealed elevated TDS and sulfate in a sample collected from MW1. In June 2019, additional groundwater assessments was conducted to determine if the elevated TDS and sulfate was native to the Site or a result of the release. Groundwater samples were collected from MW1 and MW3, which is hydrologically upgradient from MW1. Both samples were analyzed for chloride, sulfate, and TDS. Analytical results revealed that salinity in Site groundwater is consistent between samples collected from the center of the plume (i.e., MW1) and the sample collected hydrologically upgradient from the plume (i.e., MW3). The additional groundwater assessment is documented in Timberwolf's Stage 2 Abatement Plan (pp. 22-23), dated 01/03/20.

In August 2020, an additional groundwater investigation was conducted to determine if a residual groundwater plume was present between MW1 and MW5. The groundwater sample was collected by installation of a temporary sample point. The sample was analyzed for BTEX.

Analytical results revealed that all constituents of BTEX were below regulatory criteria. The additional groundwater investigation is documented in Timberwolf's *Status Report* –  $3^{rd}$  *Quarter 2020* (pp. 5), dated 09/30/20.

### 1.8 Groundwater Abatement

Groundwater abatement occurred between the initial soil abatement and the subsequent soil abatement (i.e., November 2018 through November 2019). The initial soil abatement consisted of excavating impacted soil which extended into the upper groundwater bearing unit encountered at approximately 4.5 ft bgs.

Groundwater filled the excavation and was subjected to the high evaporation potential the arid San Juan Basin climate provides (approximately 9 inches per month evaporation during the warm season and approximately 78 inches annually). Since benzene is mobile and hydrophilic, benzene was transported to the open excavation and subjected to volatilization and ultimately ultraviolet degradation through this evaporation process. The high evaporation rate is corroborated by the June 2019 PSE map which depicts the abrupt change in groundwater flow direction towards the excavation (Figure 8).

Groundwater abatement is additionally evidenced by the reduction in benzene concentration in MW1, decreasing from 0.074 milligrams per liter (mg/L) on 01/18/19 to less than 0.001 mg/L on 10/09/19.

## 2.0 COCs, Remedial Targets, and Closure Criteria

### 2.1 Introduction

The Site in under the jurisdiction of the New Mexico Oil Conservation Division (NMOCD) and is subject to the regulations provided under New Mexico Administrative Code (NMAC) 19.15.30, *Remediation.* The constituents of concern (COCs) for the Site, applicable remedial targets for soil and groundwater, and Site closure criteria are presented below.

## 2.2 COCs

Based on the Site characterization, which is documented in Timberwolf's *Site Characterization Report and Stage 1 Abatement Plan* (pp. 7-11), dated 06/17/19, the Site's COCs for soil included TPH and BTEX.

The groundwater assessment, documented in Timberwolf's *Site Characterization Report and Stage 1 Abatement Plan* (pp. 12-14), dated 06/17/19, revealed that the COC for Site groundwater is benzene.

## 2.3 Remedial Targets for Soil

Timberwolf developed site-specific criteria for vadose zone soil which are protective of groundwater as required under NMAC 19.15.30.9, *Abatement Standards and Requirements.* Additionally, ecological criteria which is protective of area threatened and endangered species is presented.

#### Groundwater Protection Criteria

In accordance with NMAC 19.15.30.9 (A), samples impacted by petroleum hydrocarbons from the base and sidewalls of the initial excavation were analyzed for synthetic precipitation leaching procedure (SPLP) to develop a site-specific soil-to-groundwater migration criteria which is protective of groundwater which may be used for human consumption. SPLP is an Environmental Protective Agency (EPA) laboratory method (i.e., Solid Waste SW-846; Test Method 1312) designed to determine the leachability and mobility of both organic and inorganic constituents in liquids, soil, and waste.

The SPLP benzene results were compared to the groundwater regulatory criteria presented in Table 4 of this report. If the SPLP results of a soil sample was lower than the groundwater regulatory criteria, then the constituent concentration from that sample is protective of groundwater. Analytical results of the SPLP benzene and corresponding BTEX results are presented in Table 1 below.

		SPLP	Vola	Total BTEX			
Sample ID	Sample ID Date		В	т	E	х	(mg/kg)
EB3	07/11/19	0.12	6.2	17	35	410	468.2
ESW3 2.5-3.5'	07/11/19	0.0072	0.67	< 0.24	4.7	27	32.37
ESW4 2.5-3.5'	07/11/19	< 0.001	0.53	0.14	2.4	12	15.07
Groundwater Regulatory Criteria		0.005					

Table 1	Site-Specific	Soil-to-Groundwater	Migration PCI	for Benzene
	one-opeenie			

BTEX – benzene; toluene; ethylbenzene; xylene

SPLP – synthetic precipitation leaching procedure

mg/kg - milligrams per kilograms

mg/L - milligrams per liter

The SPLP results reveal that soil concentrations from the vadose zone which have a benzene concentration of 0.53 mg/kg or less do not pose a risk of leaching and percolating into underlying groundwater. Therefore, the site-specific soil protective concentration limit (PCL) for benzene is 0.53 mg/kg.

To evaluate the threat to groundwater posed by total petroleum hydrocarbons (i.e., TPH), soil which had a TPH concentration that exceeded the NMOCD regulatory limit for the Site of 100 mg/kg were analyzed using the Texas Commission on Environmental Quality (TCEQ) Method 1006 ("Method 1006"). Method 1006 is a hydrocarbon fractionation analysis which speciates hydrocarbon chains into aliphatic and aromatic hydrocarbons with much shorter chain intervals than the EPA SW-846 Method 8015 which separates petroleum hydrocarbon chains into the following ranges: gasoline range organics (GRO) C6-C10; diesel range organics (DRO) C10-C28; motor oil range organics (ORO) C29-C35.

The results of Method 1006 analysis are compared to TCEQ soil-to-groundwater migration criteria to determine if soil TPH concentrations poses a risk to underlying groundwater. The TCEQ has established protective concentrations limits (PCL) for aliphatic and aromatic chains which protect underlying groundwater for human consumption. TCEQ soil criteria for the soil-to-groundwater migration pathway is presented in Table 2 below.

Constituent	TPH PCL <sup>1</sup> (mg/kg)								
	C <sub>6</sub>	C <sub>6-8</sub>	<b>C</b> <sub>7-8</sub>	<b>C</b> <sub>8-10</sub>	<b>C</b> <sub>10-12</sub>	<b>C</b> <sub>12-16</sub>	<b>C</b> <sub>16-21</sub>	<b>C</b> <sub>21-35</sub>	
Aliphatics	170	420		3,600	25,000	1,000,000	1,000,000		
Aromatics			20.0	65.0	100	200	470	3,700	

Table 2. Soil-to-Groundwater Migration PCL for TPH

PCL - protective concentration limit

TPH - total petroleum hydrocarbons

<sup>1</sup> – PCL derived from the Texas Risk Reduction Program (TRRP)

mg/L - milligrams per liter

-- - no established criteria

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## Ecological Protection Criteria

According to the BLM and the United States Fish and Wildlife Services (USFWS), the area surrounding the Site is critical habitat for the Southwestern willow flycatcher (*Empidonax traillii extimus*). The Southwestern willow flycatcher ("flycatcher") is listed as a USFWS endangered species.

A review of toxicological databases revealed the following protective concentration limits PCLs for the flycatcher.

Creatia	Volatile Organic Compound (mg/kg) <sup>1</sup>					
Specie	В	т	E	x		
PCL for the Southwestern willow flycatcher	26.36	25.98	97.1	7.7		

Table 3. Soil PCLs for the Southwestern Willow Flycatcher

PCL – protective concentration limit

BTEX – benzene; toluene; ethylbenzene; xylene

mg/kg – milligrams per kilograms

<sup>1</sup> – Limit established by Los Alamos National Laboratory

Soil in the upper 2 ft with BTEX concentrations that exceed the PCLs presented in Table 3 pose an ecological risk to the Southwestern willow flycatcher and require mitigation or abatement.

## 2.4 Remedial Targets for Groundwater

Human health standards for usable groundwater (i.e., TDS less than 10,000 milligrams per kilograms (mg/L)) are established under NMAC 20.6.2§3103. Additionally, this statute provides standards for domestic water supply. These criteria provide standards for a variety of constituents, including: metals, anions, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), certain radioactive isotopes, salinity, and pH.

Based on process knowledge, a constituent list prepared for the Site includes:

- VOCs
- SVOCs
- arsenic, barium, cadmium, chromium, mercury, lead, selenium, and silver (i.e., Resource Conservation and Recovery Act (RCRA)-8 metals)
- anions (i.e., chloride and sulfate)
- TDS
- pH.

The regulatory criteria for human health or domestic water supply for these constituents are provided in Table 4.

Constituent	Regulatory Criteria (mg/L)
Metals	
Arsenic	0.10 <sup>1</sup>
Barium	1.00 <sup>1</sup>
Cadmium	0.01 <sup>1</sup>
Chromium	0.05 <sup>1</sup>
Lead	0.05 <sup>1</sup>
Mercury	0.0002 <sup>1</sup>
Selenium	0.05 <sup>1</sup>
Silver	0.05 <sup>1</sup>
VOCs	
Benzene	0.01 <sup>1</sup>
Toluene	0.75 <sup>1</sup>
Ethylbenzene	0.75 <sup>1</sup>
Xylenes	0.62 <sup>1</sup>
PAHs (Total Naphthalene)	0.03 <sup>1</sup>
SVOCs	
Phenols	0.005 <sup>2</sup>
General Water Chemistry	
Total Dissolved Solids	1,000 <sup>2</sup>
Chloride	250 <sup>2</sup>
Sulfate	600 <sup>2</sup>
pH (units – s.u.)	6 – 9 <sup>2</sup>

#### Table 4. Groundwater Regulatory Criteria

<sup>1</sup>New Mexico human health standard

<sup>2</sup>New Mexico Standard for domestic water supply wells

mg/L - milligrams per liter

s.u. – standard units

VOCs - volatile organic compounds

SVOCs - semi-volatile organic compounds

The state of New Mexico has not established human health criteria for TPH in groundwater. Therefore, Timberwolf utilized the TCEQ Texas Risk Reduction Program (TRRP) groundwater ingestion pathway as a PCL for the Site. TPH PCLs for groundwater are presented in Table 5 below.

#### Table 5. PCL for Human Ingestion of Groundwater

Constituent	PCL for Human Ingestion <sup>1</sup> (mg/L) <sup>1</sup>
TPH (C6-C12)	0.98
TPH (C12-C28)	0.73
TPH (C28-C35)	0.73

PCL – protective concentration limit mg/L – milligrams per liter

TPH – total petroleum hydrocarbons

<sup>1</sup> – PCL derived from the Texas Risk Reduction Program (TRRP)

## 2.5 Site Closure Criteria

As specified in NMAC 19.15.30.9 *Abatement Standards and Requirements*, the following site closure conditions are applicable for the Site and must be completed prior to submitting a abatement completion report:

- Abate the vadose zone so that water contaminants in the vadose zone will not, with reasonable probability, contaminate groundwater or surface water
- Abate groundwater with TDS of less than 10,000 mg/L to the standards provided in Table 4 of this report
- Conduct eight consecutive quarterly groundwater monitoring events in which COCs at all sampling stations (i.e., MW 1 – MW6) are below remedial targets for groundwater (i.e., BTEX concentrations in Table 4).

## 3.0 Site Monitoring

## 3.1 Introduction

Quarterly groundwater monitoring began October 2019. Eight consecutive quarters of groundwater monitoring have been completed at the Site. Prior to each event, the OCD District 3 Office was provided with 2-day advance notice of all field activities. Gauging and sampling methodology, as well as results, are documented below.

## 3.2 Groundwater Gauging Methodology

Prior to sample collection, well caps were removed to allow water within each well to equilibrate. Each well was gauged to determine depth to water and presence or absence of phase-separated hydrocarbons (PSH) using an oil-water interface probe capable of measuring to the nearest one-hundredth foot. The interface probe and measurement tape were properly decontaminated between each well using deionized water and Alconox<sup>®</sup>. Additionally, the La Plata River water elevation was measured relative to two steel stakes. On 11/19/19, NCE Survey, Inc. of Farmington, NM surveyed the elevations of tops of each monitor well casing and the two steel stakes. Depths to groundwater were calculated for each well during each gauging event; additionally, the depth to the river water was calculated.

## 3.3 Results of Gauging Data and Hydrological Assessment of the La Plata River

PSH was not observed at any monitor station during any of the eight monitoring events. PSE maps were prepared from gauging data collected. The PSE maps reveal groundwater flow is to the west-southwest, towards the La Plata River. PSE maps for each quarterly monitoring event provided in Appendix A.

Groundwater flow rates were calculated from quarterly gauging data. The flow rates are presented in the following Table 6 below.

Flow Rate (ft/yr)
25.0
32.6
38.7
38.7
48.5
21.2
34.1
19.7

ft/yr - feet per year

The PSE maps also depict La Plata River elevation relative to the two steel stakes. In each quarterly PSE map, groundwater flow was toward the La Plata River. This suggests that seasonal changes in hydrology (e.g., snow melt, flooding, drought, etc.) do not appear to influence the trajectory of groundwater, only the flow rate as shown in Table 6 above.

## 3.4 Groundwater Sample Methodology

Except for one monitoring event (i.e., 3Q21), all six sampling stations (i.e., MW1 – MW6) were sampled using the EPA low-flow technique. A submersible pump was placed within the screened interval of each well. Water was extracted from each well and pumped through a flow-through cell equipped with a YSI probe. Field water quality parameters were analyzed and recorded, which included: dissolved oxygen, conductivity, pH, temperature, and oxidation reduction potential (ORP). After water quality parameters stabilized, the YSI flow-through cell was bypassed, and samples were collected directly into laboratory-provided sample containers.

During the 3Q21 groundwater monitoring event, a YSI malfunction precluded using the EPA lowflow sampling technique. Therefore, during this event, the six sampling stations were sampled by purging three well volumes prior to sampling; this sample method is also an EPA approved technique for groundwater sampling. The depths to water measurement for each well were subtracted from the well total depth to determine to length of the water column and well volumes for each well. A minimum of three times each well volume was extracted from each well prior to sample collection. Dedicated tubing and a submersible pump were placed within each well's screened interval and used to produce water from each well.

Groundwater samples were collected immediately following well purging in laboratory provided sample containers with appropriate preservative. Sample jars were labeled, stored on ice, and transported under proper chain-of-custody protocol to Hall Environmental Analytical Laboratories, Inc. (HEAL) in Albuquerque, New Mexico and Pace Analytical (Pace) of Mt. Juliet, Tennessee for chemical analysis.

## 3.5 Analytical Results of Quarterly Groundwater Monitoring

Groundwater samples submitted to HEAL were analyzed for the following constituents: benzene, toluene, ethylbenzene, and xylenes (BTEX); samples submitted to Pace were analyzed for TPH by Method TX 1005. Analytical methods are documented on the attached laboratory reports in Appendix B. Cumulative analytical results for the eight consecutive quarters of groundwater monitoring are presented in Table 7 below.

Volatile Organic Compounds (mg/L)     TPH (mg/L)									
Sample	Date					TPH (mg/L) GRO DRO ORO			
ID		В	т	E	X	(C6-C12)	(C12-C28)	C28-C35)	
	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60	
MW-1	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600	
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606	
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60	
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60	
MW-2	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600	
IVI V V-Z	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600	
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606	
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60	
MW-3	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600	
10100-3	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606	
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606	
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60	
MW-4	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600	
11117-4	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600	
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606	
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60	
Regulato	ry Criteria	0.01	0.75	0.75	0.62	0.98	0.73	0.73	

Table 7.	Cumulative	Groundwater	Analytical I	Results
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BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH - total petroleum hydrocarbons

mg/L – milligrams per liter

- exceeds regulatory criteria

GRO – gasoline range organics

DRO - diesel range organics

ORO - oil range organics

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Sample	_	Volatile Organic Compounds (mg/L)									
ID	Date	В	т	Е	x	GRO (C6-C12)	DRO (C12-C28)	ORO C28-C35)			
	10/09/19	0.0041	< 0.001	< 0.001	< 0.001	0.0041	< 0.001	< 0.001			
	01/16/20	0.0012	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60			
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60			
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600			
MW-5	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606			
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606			
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60			
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60			
	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001			
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60			
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60			
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.630	< 0.630	< 0.630			
MW-6	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606			
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.642	< 0.642	< 0.642			
	05/26/21	< 0.001	< 0.001	< 0.001	0.0038	0.644 <sup>J</sup>	< 0.60	< 0.60			
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60			
Regulato	ry Criteria	0.01	0.75	0.75	0.62	0.98	0.73	0.73			

Table 7. Cumulative Groundwater Analytical Results (continued)

 $\mathsf{BTEX}-\mathsf{benzene},\,\mathsf{toluene},\,\mathsf{ethylbenzene},\,\mathsf{and}\,\,\mathsf{xylenes}$ 

GRO – gasoline range organics

TPH – total petroleum hydrocarbons mg/L – milligrams per liter

– exceeds regulatory criteria

DRO – diesel range organics ORO – oil range organics

The analytical results generated form quarterly monitoring reveal that:

- Concentrations of constituents of BTEX in all samples were below regulatory criteria for eight consecutive quarters
- Concentrations of TPH (GRO, DRO, and ORO) were below human ingestion PCLs.

## 3.6 Quality Assurance Program

To provide quality assurance in laboratory data, Timberwolf collected a field duplicate sample and utilized a Trip Blank during each monitor event. A field duplicated ("Dup") was collected from a monitor well to evaluate laboratory reproducibility. The field duplicate was collected immediately after the monitor well sample to ensure homogeneity between the sample and the field duplicate. The Trip Blank was maintained with the sampling kit to evaluate the potential for in-field contaminations or contaminants encountered traveling to and from the laboratory.

Both the field duplicate and trip blank were analyzed for BTEX. Analytical results are documented in the attached laboratory report provided in Appendix B and summarized in Table 8 below.

Monitoring		<b>D</b> /	V	/olatile Organic (	Compounds (mg	g/L)
Event	Sample ID	Date	В	Т	E	x
	Trip Blank	10/08/19	< 0.001	< 0.001	< 0.001	< 0.002
1010	MW6	10/08/19	< 0.001	< 0.001	< 0.001	< 0.002
4Q19	Dup	10/08/19	< 0.001	< 0.001	< 0.001	< 0.002
	RF	PD	0%	0%	0%	0%
	Trip Blank	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002
1000	MW5	01/16/20	0.0012	< 0.001	< 0.001	< 0.002
1Q20	Dup	01/16/20	0.0016	< 0.001	< 0.001	< 0.002
	RF	D	28.5%	0%	0%	0%
	Trip Blank	NA	NA	NA	NA	NA
0000	MW5	04/09/20	< 0.001	< 0.001	< 0.001	< 0.002
2Q20	Dup	04/09/20	< 0.001	< 0.001	< 0.001	< 0.002
	RF	PD	0%	0%	0%	0%
	Trip Blank	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015
2020	MW5	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015
3Q20	Dup	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015
	RF	PD	0%	0%	0%	0%
	Trip Blank	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
4Q20	MW5	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
4020	Dup	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	RF	PD	0%	0%	0%	0%
	Trip Blank	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
1Q21	MW5	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
IQ21	Dup	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	RF	PD	0%	0%	0%	0%
	Trip Blank	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002
2021	MW5	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002
2Q21	Dup	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002
	RI	)P	0%	0%	0%	0%
	Trip Blank	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002
3Q21	MW5	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002
JUZ 1	Dup	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002
	RI	OP	0%	0%	0%	0%

Table 8. Quality Assurance Result
-----------------------------------

mg/L - milligrams per liter

BTEX – benzene, toluene, ethylbenzene, and xylenes

NA – not analyzed

RPD - relative percent difference between the sample (i.e., MW5 or MW6) and the duplicate ("Dup")

.

The acceptable limit for relative percent difference (RPD) between duplicate samples for organic compounds, such as the constituents of BTEX, is 30 percent relative percent difference (i.e., 30% RDP) or less. The RDP for duplicate sample in monitoring events ranged from 0% to 28.5% RDP; the highest RDP was observed during 1Q20. This analysis validates laboratory reproducibility.

Laboratory analysis of Trip Blanks revealed that concentrations of constituents of BTEX were below laboratory detection limits. This analysis indicates that no in-field contamination occurred. [Note: A trip blank was not analyzed for the 2Q20 monitoring event, however, only one sample exceeded laboratory detection limits.]

## 4.0 Closure Request and Final Actions

## 4.1 Introduction

The following sections present a summary of abatement activities, results of the quarterly groundwater monitoring, and a request for termination of the abatement plan for the Site.

## 4.2 Abatement Activities

Soil abatement began during the 4<sup>th</sup> quarter of 2018 and was completed during the 4<sup>th</sup> quarter of 2019. Soil which posed a threat to underlying groundwater or the Southwestern flycatcher, an endangered species with suitable habitat along the La Plata River, was abated by removing from the Site for commercial disposal. Soil abatement as required under NMAC 19.15.30.9 (A) has been completed.

Groundwater abatement began during the 4<sup>th</sup> quarter of 2018 and was completed by October 2019 as demonstrated by the 4Q19 monitoring event. Groundwater abatement as required under NMAC 19.15.30.9 B) has been accomplished.

Surface water was not impacted at the Site, therefore abatement as specified under NMAC 19.15.30.9 (C) is not applicable.

## 4.3 Quarterly Monitoring Activities

Eight consecutive groundwater monitoring events conducted between 4Q19 and 3Q21 revealed the following:

- Concentrations of benzene, toluene, ethylbenzene, and xylene were below standards presented in NMAC 20.6.2§3103 in all samples
- Concentrations of TPH (i.e., GRO, DRO, and ORO) were below human ingestion PCL in all samples
- The groundwater monitoring events satisfy the requirements of NMAC 19.15.30.9 (D) for site monitoring.

## 4.4 Termination Request

Hilcorp has successfully completed the standards set forth in NMAC 19.15.30.9, *Abatement Standards and Requirements*, and requests that the director approve this Abatement Completion Report and terminate the abatement plan (AP-0138) for the Kaufman No. 1.

## 4.5 Final Actions

Upon receiving notice that the abatement plan is terminated, Hilcorp will plug and abandon (P&A) all monitor wells at the Site. Plugging reports will be submitted to the Office of State Engineer following P&A activities.

## Figures






















San Juan County, New Mexico

January 25, 2019

TE Project No.: HEC-180061

Imagery Source: ESRI Vector Source: TE

Benzene: > 0.05 mg/L



Appendix A:

Potentiometric Surface Elevation Maps from Quarterly Monitoring











Created By: ENVIRONMENTAL Chris Perez April 20, 2020 TE Project No.: HEC-180061

TIMBERWOLF

100 Kaufman No. 1 (SE1/4 NE1/4, Sec. 33, T31N, R13W) **Hilcorp Energy Company** San Juan County, New Mexico

Datum: NAD83 Imagery Source: Google Earth Vector Source: TE

Surveyed Stake Kaufman No. 1 Well Head Groundwater Gradient Direction of Flow















ENVIRONMENTAL Kevin Cole June 29, 2021 TE Project No.: HEC-180061

**Hilcorp Energy Company** San Juan County, New Mexico

Datum: NAD83 Imagery Source: Google Earth Vector Source: TE

Kaufman No. 1 Well Head Groundwater Gradient Direction of Flow



### **Appendix B:**

### Laboratory Reports and Chain-of-Custody Documents



October 16, 2019

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1910659

Dear Jim Foster:

RE: Kaufman No 1

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/10/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	mental Analysis Lal	boratory,	Inc.			Analytical Report Lab Order: 1910659 Date Reported: 10/16/2019				
	Fimberwolf Environmental Kaufman No 1				L	ab C	<b>)rder:</b> 19106	559		
Lab ID:	1910659-001		C	ollecti	on Date	: 10	)/9/2019 3:22:00 PM	М		
Client Sample ID:	MW1				Matrix	: A0	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 802	21B: VOLATILES						Ana	alyst: <b>NSB</b>		
Benzene		ND	1.0		µg/L	1	10/14/2019 9:41:10	OAM B63672		
Toluene		ND	1.0		µg/L	1	10/14/2019 9:41:10	OAM B63672		
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 9:41:10	OAM B63672		
Xylenes, Total		ND	2.0		µg/L	1	10/14/2019 9:41:10	OAM B63672		
Surr: 4-Bromoflu	orobenzene	95.4	80-120		%Rec	1	10/14/2019 9:41:10	DAM B63672		
Lab ID:	1910659-002		C	ollecti	on Date	: 10	)/9/2019 1:05:00 PI	М		
Client Sample ID:	MW2				Matrix	: A0	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 802	21B: VOLATILES						Ana	alyst: <b>NSB</b>		
Benzene		ND	1.0		µg/L	1	10/14/2019 10:28:3	38 AM B63672		
Toluene		ND	1.0		μg/L	1	10/14/2019 10:28:3	38 AM B63672		
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 10:28:3	38 AM B63672		
Xylenes, Total		ND	2.0		μg/L	1	10/14/2019 10:28:3	38 AM B63672		
Surr: 4-Bromoflu	orobenzene	95.9	80-120		%Rec	1	10/14/2019 10:28:3	38 AM B63672		
Lab ID:	1910659-003		C	ollecti	on Date	: 10	)/9/2019 12:05:00 H	PM		
Client Sample ID:	MW3				Matrix	: A0	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 802	21B: VOLATILES			_			Ana	alyst: <b>NSB</b>		
Benzene		ND	1.0		µg/L	1	10/14/2019 10:52:2	-		
Toluene		ND	1.0		µg/L	1	10/14/2019 10:52:2			
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 10:52:2			
Xylenes, Total		ND	2.0		µg/L	1	10/14/2019 10:52:2			
Surr: 4-Bromoflu	orobenzene	95.3	80-120		%Rec	1	10/14/2019 10:52:2			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Page 1 of 5

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Received by OC	CD: 1	/5/2023	9:52:13 AM	1
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Hall Environ	mental Analysis Lal	boratory, I	nc.			Analytical Report Lab Order: 1910659 Date Reported: 10/16/2019				
	Fimberwolf Environmental Kaufman No 1				L	ab C	<b>)rder:</b> 19106	59		
Lab ID:	1910659-004		C	ollecti	on Date	: 10	)/9/2019 2:50:00 PN	Л		
<b>Client Sample ID:</b>	MW4				Matrix	: A0	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 802	21B: VOLATILES						Ana	lyst: <b>NSB</b>		
Benzene		ND	1.0		µg/L	1	10/14/2019 11:16:1	2 AM B63672		
Toluene		ND	1.0		μg/L	1	10/14/2019 11:16:1	2 AM B63672		
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 11:16:1	2 AM B63672		
Xylenes, Total		ND	2.0		μg/L	1	10/14/2019 11:16:1	2 AM B63672		
Surr: 4-Bromoflu	orobenzene	102	80-120		%Rec	1	10/14/2019 11:16:1	2 AM B63672		
Lab ID:	1910659-005		C	ollecti	on Date	: 10	/9/2019 2:05:00 PM	Л		
Client Sample ID:	MW5				Matrix	: A0	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 802	21B: VOLATILES						Ana	lyst: <b>NSB</b>		
Benzene		4.1	1.0		µg/L	1	10/14/2019 11:39:4	5 AM B63672		
Toluene		ND	1.0		µg/L	1	10/14/2019 11:39:4	5 AM B63672		
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 11:39:4	5 AM B63672		
Xylenes, Total		ND	2.0		µg/L	1	10/14/2019 11:39:4	5 AM B63672		
Surr: 4-Bromoflu	orobenzene	107	80-120		%Rec	1	10/14/2019 11:39:4	5 AM B63672		
Lab ID:	1910659-006		C	ollecti	on Date	: 10	)/9/2019 1:38:00 PN	Л		
Client Sample ID:	MW6				Matrix	: A(	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 802	21B: VOLATILES						Ana	llyst: <b>NSB</b>		
Benzene		ND	1.0		µg/L	1	10/14/2019 12:03:1	1 PM B63672		
Toluene		ND	1.0		µg/L	1	10/14/2019 12:03:1			
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 12:03:1			
Xylenes, Total		ND	2.0		μg/L	1	10/14/2019 12:03:1			
Surr: 4-Bromoflu	orobenzene	106	80-120		%Rec	1	10/14/2019 12:03:1	1 PM B63672		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

Е Value above quantitation range

Analyte detected in the associated Method Blank

- Analyte detected below quantitation limits J
- Sample pH Not In Range
- P Sample pH Not RL Reporting Limit

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Page 2 of 5

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**Analytical Report** 

Hall Enviro	onmental Analysis La	boratory, In	IC.			Lab Order: <b>1910659</b> Date Reported: <b>10/16/2019</b>				
CLIENT: Project:	Timberwolf Environmental Kaufman No 1				L	ab C	<b>)rder:</b> 19106	59		
Lab ID:	1910659-007		C	ollecti	on Date	: 10	/9/2019 3:24:00 PN	Л		
Client Sample I	<b>D:</b> Dup				Matrix	: A(	QUEOUS			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Bat	tch ID	
EPA METHOD	8021B: VOLATILES						Ana	lyst:	NSB	
Benzene		ND	1.0		µg/L	1	10/14/2019 3:13:09	PM	B63672	
Toluene		ND	1.0		µg/L	1	10/14/2019 3:13:09	PM	B63672	
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 3:13:09	PM	B63672	
Xylenes, Total		ND	2.0		µg/L	1	10/14/2019 3:13:09	PM	B63672	
Surr: 4-Brom	ofluorobenzene	92.7	80-120		%Rec	1	10/14/2019 3:13:09	PM	B63672	
Lab ID:	1910659-008		C	ollecti	on Date	:				
Client Sample I	<b>D:</b> Trip Blank				Matrix	: TF	RIP BLANK			
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Bat	tch ID	
EPA METHOD	8021B: VOLATILES						Ana	lyst:	NSB	
Methyl tert-buty	l ether (MTBE)	ND	2.5		µg/L	1	10/14/2019 3:36:36	PM	B63672	
Benzene		ND	1.0		µg/L	1	10/14/2019 3:36:36	PM	B63672	
Toluene		ND	1.0		µg/L	1	10/14/2019 3:36:36	PM	B63672	
Ethylbenzene		ND	1.0		µg/L	1	10/14/2019 3:36:36	PM	B63672	
Xylenes, Total		ND	2.0		µg/L	1	10/14/2019 3:36:36	PM	B63672	
1,2,4-Trimethylk	benzene	ND	1.0		µg/L	1	10/14/2019 3:36:36	PM	B6367	
1,3,5-Trimethylt	benzene	ND	1.0		µg/L	1	10/14/2019 3:36:36	PM	B63672	
Surr: 4-Brom	ofluorobenzene	93.2	80-120		%Rec	1	10/14/2019 3:36:36	PM	B63672	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Analyte detected in the associated Method Blank в Е Value above quantitation range

Analyte detected below quantitation limits J

Sample pH Not In Range Р RL Reporting Limit

Page 3 of 5

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### QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Timberw Project: Kaufman	olf Enviro No 1	nmental								
Sample ID: RB	SampT	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBW	Batc	h ID: <b>B6</b>	3672	F	RunNo: 63672					
Prep Date:	Analysis E	Date: 10	)/14/2019		SeqNo: 2	175702	Units: µg/L			
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5			JUILEO	LOWEIIIII	riigneiniit	701 CT D		Quui
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	19		20.00		95.4	80	120			
Sample ID: 100NG BTEX LCS	S	Tes	stCode: E	PA Method	8021B: Volat	iles				
Client ID: LCSW	Batc	Batch ID: B63672			RunNo: 6	No: 63672				
Prep Date:	Analysis E	Date: 10	)/14/2019	:	SeqNo: 2	175703	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	98.1	80	119			
Benzene	20	1.0	20.00	0	99.0	80	120			
Toluene	20	1.0	20.00	0	98.6	80	120			
Ethylbenzene	20	1.0	20.00	0	99.2	80	120			
Xylenes, Total	60	2.0	60.00	0	100	80	119			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	98.7	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		98.4	80	120			
Sample ID: 1910659-001AMS	SampT	Гуре: М	6	Tes	stCode: E	PA Method	8021B: Volat	iles		
Client ID: MW1	Batc	h ID: <b>B6</b>	3672	F	RunNo: 6	3672				
Prep Date:	Analysis E	Date: 10	0/14/2019	\$	SeqNo: 2	175705	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17	2.5	20.00	0	84.0	61.3	119			
Benzene	19	1.0	20.00	0.2640	95.5	80	120			
Toluene	19	1.0	20.00	0	95.4	75.5	120			
Ethylbenzene	19	1.0	20.00	0	96.2	80	120			
Xylenes, Total	58	2.0	60.00	0	97.3	77.3	119			
				0	95.3	72.6	125			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	95.5					
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	19 19	1.0 1.0	20.00 20.00	0	93.3 93.7	68.3	127			

#### **Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

1910659

16-Oct-19

WO#:

### QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Timberwolf Environmental
Project:	Kaufman No 1

Sample ID: 1910659-001AMS	D SampT	SampType: MSD TestCode: EPA Method 8021B: Volatiles										
Client ID: MW1	Batcl	Batch ID: <b>B63672</b> RunNo: <b>63672</b>										
Prep Date:	Analysis E	is Date: 10/14/2019 SeqNo: 2175706 U					Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	87.6	61.3	119	4.21	20			
Benzene	20	1.0	20.00	0.2640	96.9	80	120	1.41	20			
Toluene	20	1.0	20.00	0	97.6	75.5	120	2.20	20			
Ethylbenzene	20	1.0	20.00	0	98.9	80	120	2.70	20			
Xylenes, Total	60	2.0	60.00	0	100	77.3	119	3.09	20			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	99.9	72.6	125	4.77	20			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.9	68.3	127	5.37	20			
Surr: 4-Bromofluorobenzene	21		20.00		105	80	120	0	0			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

WO#: **1910659** 

16-Oct-19

ENVIRONMENTAL ANALYSIS LABORATORY		TEL: 505-345	ental Analysis Labora 4901 Hawkin Albuquerque, NM 83 3975 FAX: 505-345-4 w.hallenvironmental	s NE 7109 San 4107	Sample Log-In Check List				
Client Name:	TIMBERWOLF ENVIRON	Work Order Nur	nber: <b>1910659</b>		RcptNo: 1	_			
Received By:	Juen Roja	10/10/2019 7:55:0	0 AM						
Completed By:	Leah Baca	10/11/2019 8:01:5	6 AM	Lab Bre					
Reviewed By:	LB	10/11/14		Law James					
<u>Chain of Cus</u>	<u>tody</u>								
1. Is Chain of C	ustody complete?		Yes 🗹	No 🗌	Not Present				
2. How was the	sample delivered?		<u>Courier</u>						
<u>Log In</u> 3. Was an atterr	pt made to cool the samples?	,	Yes ✔	No 🗌	NA 🗌				
4. Were all samp	les received at a temperature	of >0° C to 6.0°C	Yes 🔽	No 🗌	NA $\Box$				
5. Sample(s) in <sub>l</sub>	proper container(s)?		Yes 🗹	No 🗌					
6. Sufficient sam	ple volume for indicated test(	3)?	Yes 🗹	No 🗌					
7. Are samples (	except VOA and ONG) proper	ly preserved?	Yes 🗹	No 🗌					
8. Was preserva	ive added to bottles?		Yes 🗌	No 🗹	NA 🗌				
9. VOA vials hav	e zero headspace?		Yes 🗹	No 🗆	No VOA Vials				
0. Were any san	ple containers received brok	en?	Yes	No 🗹	# of preserved				
	rk match bottle labels? ncles on chain of custody)		Yes 🗹	No 🗌	bottles checked for pH: (<2 or ≥12 unless not	ed)			
	orrectly identified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?				
	analyses were requested?		Yes 🗹	No 🗌					
	ng times able to be met? Istomer for authorization.)		Yes 🗹	No 🗌	Checked by: DAD 10/11/1	٩			
pecial Handl	ing (if applicable)								
15. Was client no	tified of all discrepancies with	this order?	Yes 🗌	No 🗌	NA 🗹				
Person		Date							
By Who		Via:	🗌 eMail 🔲 P	hone 🔲 Fax	In Person				
Regardi									
16. Additional rei	structions:	11111111111111111111111111111111111111	11111 (h)		N + W + of a freehouses and an and freehouse a				
7. <u>Cooler Infor</u>									
Cooler No	een brees waard weter een sin tillen te staat een de seerer waarde waarde waard weter staat een staat een staa	eal Intact Seal No	Seal Date	Signed By	1				

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Received by OCD: 1/5/2023 9:52:13 AM



# ANALYTICAL REPORT

#### Timberwolf Environmental, LLC

Sample Delivery Group: Samples Received: Project Number: Description: L1163631 11/21/2019 180061 HEC - 180061

Report To:

1920 W Villa Maria, Ste 205 Bryan, TX 77807 <sup>2</sup>Tc <sup>3</sup>Ss <sup>4</sup>Cn <sup>5</sup>Sr <sup>6</sup>Qc <sup>7</sup>Gl

AI

Sc

Ср

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

PROJECT: 180061

SDG: L1163631 DATE/TIME: 11/27/19 09:31

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SDG: L1163631

DATE/TIME: 11/27/19 09:31

PAGE: 2 of 14 Received by OCD: 1/5/2023 9:52:13 AM

#### SAMPLE SUMMARY

ONE LAB. NAT Rage 65 of 252

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			Collected by	Collected date/time	Received da	te/time
MW1 L1163631-01 GW			Michael Morse	11/19/19 11:35	11/21/19 08:3	0
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 05:48	TH	Mt. Juliet, TN
MW2 L1163631-02 GW			Collected by Michael Morse	Collected date/time 11/19/19 11:20	Received da 11/21/19 08:3	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:02	TH	Mt. Juliet, TN
MW3 L1163631-03 GW			Collected by Michael Morse	Collected date/time 11/19/19 10:40	Received da 11/21/19 08:3	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:16	TH	Mt. Juliet, TN
MW4 L1163631-04 GW			Collected by Michael Morse	Collected date/time 11/19/19 12:30	Received da 11/21/19 08:3	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:29	TH	Mt. Juliet, TN
MW5 L1163631-05 GW			Collected by Michael Morse	Collected date/time 11/19/19 13:45	Received da 11/21/19 08:3	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:43	TH	Mt. Juliet, TN
MW6 L1163631-06 GW			Collected by Michael Morse	Collected date/time 11/19/19 14:00	Received da 11/21/19 08:3	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:57	TH	Mt. Juliet, TN

Released to Imaging: 01/07/2023 3:54:27 PM Timberwolf Environmental, LLC

PROJECT: 180061

SDG: L1163631

DATE/TIME: 11/27/19 09:31 PAGE: 3 of 14

#### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1163631

DATE/TIME: 11/27/19 09:31 PAGE: 4 of 14

#### Received by OCD: 1/5/2023 9:52:13 AM

### SAMPLE RESULTS - 01

Collected date/time: 11/19/19 11:35

ITT by ICEG Me									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442	[ <sup>2</sup> T
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442	
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442	<sup>3</sup> S
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442	
(S) o-Terphenyl	93.0				70.0-130		11/25/2019 05:48	WG1386442	4

Collected date/time: 11/19/19 11:20 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442	Tc	
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442		
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442	<sup>3</sup> Ss	
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442	55	
(S) o-Terphenyl	94.5				70.0-130		11/25/2019 06:02	WG1386442	4	

55
4
⁴Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

Collected date/time: 11/19/19 10:40 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442	Tc	
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442		
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442	<sup>3</sup> S c	
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442	55	
(S) o-Terphenyl	95.3				70.0-130		11/25/2019 06:16	WG1386442	4	

<sup>3</sup> Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

Collected date/time: 11/19/19 12:30 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442	Tc	
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442		
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442	<sup>3</sup> Ss	
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442	53	
(S) o-Terphenyl	94.4				70.0-130		11/25/2019 06:29	WG1386442	4	

Collected date/time: 11/19/19 13:45 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442	Tc	
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442		
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442	<sup>3</sup> Ss	
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442	53	
(S) o-Terphenyl	95.3				70.0-130		11/25/2019 06:43	WG1386442	4	

#### SAMPLE RESULTS - 06 L1163631

Collected date/time: 11/19/19 14:00 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442	Tc	
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442		
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442	<sup>3</sup> Ss	
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442	55	
(S) o-Terphenyl	86.6				70.0-130		11/25/2019 06:57	WG1386442	4	

PAGE: 10 of 14
TPH by TCEQ Method 1005

## QUALITY CONTROL SUMMARY

### Method Blank (MB)

(MB) R3476219-1 11/24/19 22:01

(1010) K3470213-1 11/2	4/13 22.01				
	MB Result	MB Qualifier	MB MDL	MB RDL	Γ
Analyte	mg/l		mg/l	mg/l	
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	
TPH C28 - C35	U		0.600	0.900	
TPH C6 - C35	U		0.600	0.900	ſ
(S) o-Terphenyl	102			70.0-130	

### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3476219-2 11/24/19 22:15 • (LCSD) R3476219-3 11/24/19 22:29										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	45.1	44.0	108	106	75.0-125			2.47	20
TPH C12 - C28	41.7	44.5	41.7	107	100	75.0-125			6.50	20
TPH C6 - C35	83.4	89.6	85.7	107	103	75.0-125			4.45	20
(S) o-Terphenyl				97.7	90.2	70.0-130				

DATE/TIME: 11/27/19 09:31

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### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1163631

### Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky 16	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana 1	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

### **Our Locations**

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



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SDG: L1163631 DATE/TIME: 11/27/19 09:31 PAGE: 13 of 14

eived by OCD: 1/5/2023 9:5	eived by OCD: 1/5/2023 9:52:13 AM		Billing Information:				Analysis / Container / Preservative				ive	Chain of Custody Page 76 b		
	Timberwolf Environmental, LLC 1920 W Villa Maria, Ste 205					Pres Chk							Pace	Analytical <sup>®</sup> enter for Testing & Innovati
Bryan, TX 77807			Di yan, i	n, 1X // 60/			2							
Report to: Jim Fuster		Email To: Jim	Email To: Jim@teamtimberwolf. Lam			1001						12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858		
Project Description: HEC- 1800	61			City/State Collected:	NM		X					-	Phone: 800-767-58 Fax: 615-758-5859	<b>05.</b> 43
Phone: 361-772-8706	Client Project	#	(R)	Lab Project #	/****		the			100		1000	L# LIN	03631
Fax:	1800	61		1			Method					-	F1	54
Collected by (print): <u>Michael</u> Moise Collected by (signature):	Site/Facility ID	D #	-	P.O. #			Ø						Acctnum: TIN	IENVBTX
Collected by (signature):		Lab MUST Be		Quote #			CE						Template: Prelogin:	
Immediately	Next Da	y 10 D	Day y (Rad Only) ay (Rad Only)	Date R	esults Needed	No.	T						TSR: 823 - Olivia Studebak	
Packed on Ice N Y Y	Three D	1	1	45	1	of Cntrs	HL		- 14				Shipped Via:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		1F				1 and		Remarks	Sample # (lab on)
MW1		GW	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11-19-19	1135	4	$\checkmark$							-01
MWZ		GW		11-19-19	1120	4	~							02
MW 3		GW		11-19-19	1040	4	V,				. All		an China an	03
MW 4		GW		11-19-19	1230	4	V,	da la			2			04
MW 5	an a	GW		11-19-19	1345	4	1				-			05
MW 6		GW		11-19-10	1400	Ý	~		A		1999		1.000	04
	1			1							1 2		Survey -	
	1		10409								1	2		
	100		-								1		· Carrier dans	1. 2.6.6
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:	Remarks:							pH	Temp Other		COC Seal COC Signe Bottles a	mple Receipt C Present/Intac ed/Accurate: arrive intact: bottles used:	hecklist NP Y
DW - Drinking Water OT - Other	Samples retur	rned via: edEx Co	urier		Tracking # 7	78	1 -	787	302	980		Sufficier	nt volume sent If Applica	ble
Relinquished by : (Signature)		Date:			Received by: (Sign	nature)			Trip Blank Received: Yes No HCL MeoH			VOA Zero Headspace: Preservation Correct/Checked: Y = RAD SCREEN: <0.5 mR/L:		
		Date:		9 1130 Time: Received by: (Signate			i i i		Temp: °C Bottles Received:			If preservation required by Login: Date/Time		
Relinquished by : (Signature)		Date:	pigo All	Time:	Received for lab	y: (Signa	iture)	-	Date:	119 D=	30	Hold:		Condition NCF / OK

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January 24, 2020

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 2001688

Dear Jim Foster:

RE: Kaufman NO 1

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/17/2020 for the

analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Received by	OCD: 1/5/2023	9:52:13 AM
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**Analytical Report** 

Hall Environ	all Environmental Analysis Laboratory, Inc.						Lab Order: 2001688 Date Reported: 1/24/2020					
	Fimberwolf Environmental Kaufman NO 1				L	.ab C	<b>Order:</b> 20016	588				
Lab ID:	2001688-001		C	ollecti	ion Date	: 1/1	16/2020 12:15:00 I	PM				
Client Sample ID:	MW1				Matrix	: GI	ROUNDWATER					
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	B	atch ID			
EPA METHOD 802	21B: VOLATILES						Ana	alyst	: NSB			
Benzene		ND	1.0		µg/L	1	1/23/2020 2:18:32	PM	B66017			
Toluene		ND	1.0		µg/L	1	1/23/2020 2:18:32	PM	B66017			
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 2:18:32	ΡM	B66017			
Xylenes, Total		ND	2.0		µg/L	1	1/23/2020 2:18:32	ΡM	B66017			
Surr: 4-Bromoflu	lorobenzene	99.4	80-120		%Rec	1	1/23/2020 2:18:32	ΡM	B66017			
Lab ID:	2001688-002		С	ollecti	ion Date	: 1/1	16/2020 9:19:00 A	М				
Client Sample ID:	MW2				Matrix	: GI	ROUNDWATER					
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	B	atch ID			
EPA METHOD 802	21B: VOLATILES						Ana	alyst	: NSB			
Benzene		ND	1.0		µg/L	1	1/23/2020 3:05:19	PM	B66017			
Toluene		ND	1.0		μg/L	1	1/23/2020 3:05:19		B66017			
Ethylbenzene		ND	1.0		μg/L	1	1/23/2020 3:05:19	PM	B66017			
Xylenes, Total		ND	2.0		μg/L	1	1/23/2020 3:05:19	PM	B66017			
Surr: 4-Bromoflu	iorobenzene	99.8	80-120		%Rec	1	1/23/2020 3:05:19	PM	B66017			
Lab ID:	2001688-003		C	ollecti	ion Date	: 1/1	16/2020 9:52:00 A	М				
Client Sample ID:	MW3				Matrix	: GI	ROUNDWATER					
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	B	atch ID			
EPA METHOD 802	21B: VOLATILES						Ana	alyst	: NSB			
Benzene		ND	1.0		µg/L	1	1/23/2020 3:28:36	-	B66017			
Toluene		ND	1.0		µg/L	1	1/23/2020 3:28:36		B66017			
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 3:28:36		B66017			
Xylenes, Total		ND	2.0		μg/L	1	1/23/2020 3:28:36	PM	B66017			
Surr: 4-Bromoflu	lorobenzene	105	80-120		%Rec	1	1/23/2020 3:28:36	PM	B66017			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank Е Value above quantitation range
- Analyte detected below quantitation limits J
- Sample pH Not In Range Р
- RL Reporting Limit

в

Page 1 of 4

Received by	OCD:	1/5/2023	9:52:13 AM	
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**Analytical Report** 

Hall Environ	all Environmental Analysis Laboratory, Inc.						Lab Order: <b>2001688</b> Date Reported: <b>1/24/2020</b>						
	Timberwolf Environmental Kaufman NO 1				I	.ab C	<b>)rder:</b> 2001	688					
Lab ID:	2001688-004		С	ollecti	on Date	<b>:</b> 1/1	16/2020 10:21:00	AM					
<b>Client Sample ID:</b>	MW4				Matrix	: GI	ROUNDWATER						
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	B	atch ID				
EPA METHOD 80	21B: VOLATILES						An	alyst	: NSB				
Benzene		ND	1.0		µg/L	1	1/23/2020 3:52:02	PM	B66017				
Toluene		ND	1.0		μg/L	1	1/23/2020 3:52:02	PM	B66017				
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 3:52:02	PM	B66017				
Xylenes, Total		ND	2.0		µg/L	1	1/23/2020 3:52:02	PM	B66017				
Surr: 4-Bromofle	uorobenzene	99.8	80-120		%Rec	1	1/23/2020 3:52:02	PM	B66017				
Lab ID:	2001688-005		С	ollecti	on Date	<b>:</b> 1/1	16/2020 11:37:00	AM					
Client Sample ID:	MW5				Matrix	: GI	ROUNDWATER						
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	B	atch ID				
EPA METHOD 80	21B: VOLATILES						An	alyst	: NSB				
Benzene		1.2	1.0		µg/L	1	1/23/2020 4:15:32	PM	B66017				
Toluene		ND	1.0		μg/L	1	1/23/2020 4:15:32	PM	B66017				
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 4:15:32	PM	B66017				
Xylenes, Total		ND	2.0		µg/L	1	1/23/2020 4:15:32	PM	B66017				
Surr: 4-Bromofle	uorobenzene	101	80-120		%Rec	1	1/23/2020 4:15:32	PM	B66017				
Lab ID:	2001688-006		С	ollecti	on Date	<b>:</b> 1/1	16/2020 10:58:00	AM					
Client Sample ID:	MW6				Matrix	: GI	ROUNDWATER						
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	B	atch ID				
EPA METHOD 80	21B: VOLATILES						An	alyst	: NSB				
Benzene		ND	1.0		µg/L	1	1/23/2020 4:39:01	PM	B66017				
Toluene		ND	1.0		µg/L	1	1/23/2020 4:39:01		B66017				
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 4:39:01		B66017				
Xylenes, Total		ND	2.0		μg/L	1	1/23/2020 4:39:01		B66017				
Surr: 4-Bromofl	uorobenzene	99.6	80-120		%Rec	1	1/23/2020 4:39:01	PM	B66017				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.

 Number of the second stream of the second stream

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Analyte detected in the associated Method Blank Е Value above quantitation range

Analyte detected below quantitation limits J

Sample pH Not In Range

P Sample pH Not RL Reporting Limit

в

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Received by	<b>OCD:</b>	1/5/2023	9:52:13	AM
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**Analytical Report** 

Hall Enviro	all Environmental Analysis Laboratory, Inc.						Lab Order: <b>2001688</b> Date Reported: <b>1/24/2020</b>				
CLIENT: Project:	Timberwolf Environmental Kaufman NO 1				I	.ab C	<b>)rder:</b> 20016	88			
Lab ID:	2001688-007		С	ollecti	on Date	<b>:</b> 1/1	6/2020 11:39:00 A	М			
Client Sample I	D: DUP				Matrix	: GF	ROUNDWATER				
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID			
EPA METHOD	8021B: VOLATILES						Ana	lyst: <b>NSB</b>			
Benzene		1.6	1.0		µg/L	1	1/23/2020 5:02:32 I	PM B6601			
Toluene		ND	1.0		µg/L	1	1/23/2020 5:02:32 I	PM B6601			
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 5:02:32	PM B6601			
Xylenes, Total		ND	2.0		µg/L	1	1/23/2020 5:02:32 I	PM B6601			
Surr: 4-Bromo	ofluorobenzene	99.6	80-120		%Rec	1	1/23/2020 5:02:32	PM B6601			
Lab ID:	2001688-008		С	ollecti	on Date	:					
Client Sample I	<b>D:</b> Trip Blank				Matrix	: TR	RIP BLANK				
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID			
EPA METHOD	8021B: VOLATILES						Ana	lyst: <b>NSB</b>			
Methyl tert-butyl	l ether (MTBE)	ND	2.5		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
Benzene		ND	1.0		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
Toluene		ND	1.0		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
Ethylbenzene		ND	1.0		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
Xylenes, Total		ND	2.0		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
1,2,4-Trimethylb	penzene	ND	1.0		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
1,3,5-Trimethylb		ND	1.0		µg/L	1	1/23/2020 5:25:56 I	PM B6601			
Surr: 4-Bromo	ofluorobenzene	96.5	80-120		%Rec	1	1/23/2020 5:25:56 I	PM B6601			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

\*

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Е Value above quantitation range

Analyte detected in the associated Method Blank

Analyte detected below quantitation limits J

Sample pH Not In Range Р

P Sample pH Not RL Reporting Limit

в

Page 3 of 4

### QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Timbery Project: Kaufma	wolf Enviro n NO 1	nmental								
Sample ID: mb-1	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBW	Batcl	h ID: <b>B6</b>	6017	F	RunNo: 6	6017				
Prep Date:	Analysis E	Date: 1/	23/2020	S	SeqNo: 2	267714	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	23		20.00		116	80	120			
Sample ID: 100ng btex lcs	SampT	Гуре: <b>LC</b>	S	Tes	tCode: El					
Client ID: LCSW	Batcl	h ID: <b>B6</b>	6017	F	RunNo: 6	6017				
Prep Date:	Analysis E	Date: 1/	23/2020	S	SeqNo: 2	267715	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	95.6	80	119			
Benzene	20	1.0	20.00	0	101	80	120			
Toluene	20	1.0	20.00	0	100	80	120			
Ethylbenzene	20	1.0	20.00	0	99.7	80	120			
Xylenes, Total	60	2.0	60.00	0	101	80	119			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	99.1	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.0	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		104	80	120			
Sample ID: 100ng btex lcsd	SampT	Гуре: <b>LC</b>	SD	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS02	Batcl	h ID: <b>B6</b>	6017	F	RunNo: 6	6017				
Prep Date:	Analysis E	Date: 1/	23/2020	S	SeqNo: 2	267716	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.0	80	119	7.11	20	
Benzene	20	1.0	20.00	0	100	80	120	0.608	20	
Toluene	20	1.0	20.00	0	98.9	80	120	1.08	20	
Ethylbenzene	20	1.0	20.00	0	98.4	80	120	1.25	20	
Xylenes, Total	60	2.0	60.00	0	99.2	80	119	1.59	20	
1,2,4-Trimethylbenzene	19	1.0	20.00	0	95.7	80	120	3.51	20	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	94.7	80	120	3.38	20	
Surr: 4-Bromofluorobenzene	19		20.00		94.3	80	120	0		

#### **Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2001688

24-Jan-20

WO#:

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3	ntal Analysis Laborat 4901 Hawkins Albuquerque, NM 87 975 FAX: 505-345-4 v.hallenvironmental.c	NE 109 San 107	Sample Log-In Check List				
Client Name: TIMBERWOLF ENVIRON	Work Order Num	ber: 2001688		RcptNo: 1				
Completed By: Isaiah Ortiz	1/17/2020 9:30:00 1/17/2020 11:05:08 1/17 / 20		Dr I.C	24				
Chain of Custody								
1. Is Chain of Custody sufficiently complete?		Yes 🗹	No 🗌	Not Present				
2. How was the sample delivered?		Courier						
Log In 3. Was an attempt made to cool the samples?		Yes 🗸	No 🗌					
4. Were all samples received at a temperature of	>0° C to 6.0°C	Yes 🗹	No 🗌					
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌					
6. Sufficient sample volume for indicated test(s)?		Yes 🔽	No 🗌					
7. Are samples (except VOA and ONG) properly p	preserved?	Yes 🔽	No 🗌					
8. Was preservative added to bottles?		Yes 🗌	No 🗹					
9. Received at least 1 vial with headspace <1/4" f	or AQ VOA?	Yes 🖌	No 🗌					
10. Were any sample containers received broken?		Yes 🗆	No 🔽	# of preserved bottles checked				
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	for pH: (<2 or >12 unless noted)				
12. Are matrices correctly identified on Chain of Cu	istody?	Yes 🗹	No 🗌	Adjusted?				
13. Is it clear what analyses were requested?		Yes 🗹	No 🗌	10 1-1				
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗌	Checked by: JR 1172				
Special Handling (if applicable)								
15. Was client notified of all discrepancies with thi	s order?	Yes 🗌	No 🗌	NA 🔽				
Person Notified: By Whom: Regarding: Client Instructions:	Date Via:		none 🗌 Fax	In Person				
17. Cooler Information	Samples I Intact   Seal No	distribution of	Brok. Signed By	en, 372 1/17/20				

Page 1 of 1

HALL ENVIRONMENTAL	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis	<sup>₽</sup> 0	S '*( SW 8,8		10 <sup>2</sup> ; 827 827	05 8/8% 01 3, 10 3, 1 1 3, 1 1 3, 1 1 2 2 3, 1 1 2 2 2 3, 1 2 2 3, 1 2 2 3, 1 2 3, 1 2 3, 1 3, 1 3, 1 3, 1 3, 1 3, 1 3, 1 3, 1	(GF side side stal: () () () ()	1450 1450 1450 1450 1450 1450 1450 1450	BTEX TPH:80 8081 P RCRA CI, F, I 8260 (/ 8260 (/ 8270 (5 704al C 704al C										Remarks:		f necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
me: <b>Rush</b>	Kaufman No. 1			00 le l	Ľ	Foster	Jim @ teon timber wolf. Con	cel Worse / Jim Foster	1017	and the second se	uding CF): 3, 1 - 0, 1 = 3, 0 (°C)	Type 2001688	HCI -001	Hel -002	Hci -003	HCI -004	HCI -005	HCI -006	Hel -007	Hcl 008		Via: Date Time	Via: Date Time (Anucion 1/14/20 9:30	dited laboratories. This serves as notice of this
Turn-Around Time:	Project Name:	1	Project #:	HFC-1800 Cel	Project Manage	JIM Foster	Jinete	Sampler: Mich	On Ice: 🕅	# of Coolers:	Cooler Temp(including CF):3	Container Pr Type and # Ty		2 YOU	VOA C	V0.4 C	VOA Z	V04 Z	2 YON	VOA Z		 Received by: NNM L	Received by:	contracted to other accre
Chain-of-Custody Record		(091 CR233, Suite BY	0 8130 1	324-2139	Jime ten timber wolf. Com		Level 4 (Full Validation)	Az Compliance	Other			Matrix Sample Name	Gew Neul	ZMM 1	NW 3	Nivy	MW 5	New Ce	V Dup.	Trip Blank		Relinquished by: Mind Marse	Relinquished by:	nples submitted to Hall Environmental may be sub
Client: TIM becwelt	Ima	Mailing Address:	Duange, CO	Phone #: 979-	email or Fax#: ゴル	QA/QC Package:	Standard		-	EDD (Type)		Date Time Mai	6 5121 02-91-1	616 02-91-1	1-16-20 952	120 02.71-1	1-10-20 11 31	1-16-20 1058	1-16-201139	1-16-20		Date: Time: Reli 1-16-70 13:30 1	Date: Time: Reli	If necessary, same

Received by OCD: 1/5/2023 9:52:13 AM



# ANALYTICAL REPORT

### **Timberwolf Environmental, LLC**

Sample Delivery Group: Samples Received: Project Number: Description: L1180702 01/17/2020 HEC-180061 Kaufman No. 1

Report To:

Jim Foster 1920 W Villa Maria, Ste 205 Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

PROJECT: HEC-180061 SDG: L1180702 DATE/TIME: 01/24/20 15:36

PAGE: 1 of 15



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Released to Imaging: 12/2023 3:54:27 PM Timberwolf Environmental, LLC PROJECT: HEC-180061 SDG: L1180702

D/ 01/2

DATE/TIME: 01/24/20 15:36 PAGE: 2 of 15 Received by OCD: 1/5/2023 9:52:13 AM

### SAMPLE SUMMARY

ONE LAB. NAT Rage 86 of 252

Ср

Тс

Ss

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Sr

Qc

GI

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MW 1 L1180702-01 GW			Collected by MM/JF	Collected date/time 01/16/20 12:15	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:02	FM	Mt. Juliet, TN
MW 2 L1180702-02 GW			Collected by MM/JF	Collected date/time 01/16/20 09:19	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:16	FM	Mt. Juliet, TN
MW 3 L1180702-03 GW			Collected by MM/JF	Collected date/time 01/16/20 09:52	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:30	FM	Mt. Juliet, TN
WW 4 L1180702-04 GW			Collected by MM/JF	Collected date/time 01/16/20 10:21	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
IPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:43	FM	Mt. Juliet, TN
WW 5 L1180702-05 GW			Collected by MM/JF	Collected date/time 01/16/20 11:37	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
IPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:57	FM	Mt. Juliet, TN
WW 6 L1180702-06 GW			Collected by MM/JF	Collected date/time 01/16/20 10:58	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
IPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 20:11	FM	Mt. Juliet, TN
TRIP BLANK L1180702-07 GW			Collected by MM/JF	Collected date/time 01/16/20 11:39	Received da 01/17/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
			-	-		

PROJECT: HEC-180061 SDG: L1180702 DATE/TIME: 01/24/20 15:36

IME: 15:36 PAGE: 3 of 15

### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1180702

DATE/TIME: 01/24/20 15:36 PAGE: 4 of 15

### Received by OCD: 1/5/2023 9:52:13 AM

## SAMPLE RESULTS - 01

Collected date/time: 01/16/20 12:15

TPH by TCEQ Met	hod 1005								
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146	
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146	
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146	
(S) o-Terphenyl	101				70.0-130		01/22/2020 19:02	WG1415146	

SDG: L1180702 DATE/TIME: 01/24/20 15:36 PAGE: 5 of 15

Collected date/time: 01/16/20 09:19 TPH by TCEQ Method 1005

ITT Dy TOLO MICT									$^{1}$
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146	Ť
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146	<sup>3</sup> S
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146	
(S) o-Terphenyl	105				70.0-130		01/22/2020 19:16	WG1415146	4

<sup>3</sup> Ss
4
<sup>4</sup> Cn
5
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

DATE/TIME: 01/24/20 15:36

Collected date/time: 01/16/20 09:52 TPH by TCEQ Method 1005

IT I by ICEG Me									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146	Ť
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146	<sup>3</sup> C
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146	3
(S) o-Terphenyl	101				70.0-130		01/22/2020 19:30	WG1415146	4

Collected date/time: 01/16/20 10:21 TPH by TCEQ Method 1005

									1 Cm
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146	55
(S) o-Terphenyl	92.6				70.0-130		01/22/2020 19:43	WG1415146	4

ັSs
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

DATE/TIME: 01/24/20 15:36

Collected date/time: 01/16/20 11:37 TPH by TCEQ Method 1005

ITTEL & MEL									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146	Ť
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146	<sup>3</sup> C
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146	3
(S) o-Terphenyl	92.1				70.0-130		01/22/2020 19:57	WG1415146	4

55
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

DATE/TIME: 01/24/20 15:36

Collected date/time: 01/16/20 10:58 TPH by TCEQ Method 1005

ITTOY I CE CIME									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146	55
(S) o-Terphenyl	93.6				70.0-130		01/22/2020 20:11	WG1415146	4

DATE/TIME: 01/24/20 15:36 PAGE: 10 of 15

### TPH by TCEQ Method 1005

- /									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146	53
(S) o-Terphenyl	90.9				70.0-130		01/22/2020 20:25	WG1415146	4

Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

DATE/TIME: 01/24/20 15:36 TPH by TCEQ Method 1005

### QUALITY CONTROL SUMMARY

Sr

Qc

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Sc

### Method Blank (MB)

(MB) R3493111-1 01/22/20 14:49

ID) K349311-1 U1/22	2/20 14.43				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/l	
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	
TPH C28 - C35	U		0.600	0.900	
TPH C6 - C35	U		0.600	0.900	
(S) o-Terphenyl	86.5			70.0-130	

### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3493111-2 01/22/2	0 15:02 • (LCSD	) R3493111-3 C	01/22/20 15:16							
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	36.5	36.5	87.5	87.5	75.0-125			0.000	20
TPH C12 - C28	41.7	42.4	42.2	102	101	75.0-125			0.473	20
TPH C6 - C35	83.4	78.9	78.7	94.6	94.4	75.0-125			0.254	20
(S) o-Terphenyl				89.9	93.1	70.0-130				

DATE/TIME: 01/24/20 15:36

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### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1180702

### Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina 1	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky 16	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

### **Our Locations**

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Released to Imaging: 17872023 3:54:27 PM Timbervolf Environmental, LLC PROJECT: HEC-180061 SDG: L1180702 DATE/TIME: 01/24/20 15:36 Received by OCD: 1/5/2023 9:52:13 AM

			Billing Info			1			Analysis	/ Conta	iner / Prese	rvative		Chain of Custody	in of Custody Page of		
			Timba	Foster Welf Env W. Villa										Pace A	nalytical*		
			Brya	A,TX.	77807				-						CH I		
Report to: Jim Foster	-			Jinete		olf. Con			-					12065 Lebanon Rd Mount Juliet, TN 371			
Project Description: Kaufmon	No. 1			City/State Collected:	UM								And Anna	Phone: 615-758-5856 Phone: 800-767-5855 Fax: 615-758-5859			
Phone: Fax:	Client Project	80061		Lab Project #	Recent		2							L# A128	-1180702		
Collected by (print): Michael Morse/Jim Fos	Site/Facility II	D#	1.110	P.O. #			00							Acctnum: 71	MENBTX		
Collected by (signature):	<b>Rush?</b> (I Same D		Day	Quote # Date Res	sults Needed	No.	EQ							Template: Prelogin: TSR: 23-0 PB:	olivia Studebater		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	TC				1. 16	1.15		Shipped Via:			
	1.32.0	1011	1.11	1 11 21	1010	17	- ,		-				1	Remarks	Sample # (lab only)		
MWI MWZ		GW	NA			2	1								- 02		
MW3		GW	1.00	1-16-20	and the second se	2	1							20. Q. Q.			
MWY		GW		1-16-20		2	1			1.63	-				-03 -04		
MW 5		GW		1-16-20		2	1				-				( 5		
MWG		GW			1058	2	V,								- elo		
TEIP BLANK	-			H6-20		2	1		The second					Sales - A	۵,		
	「お茶」で	1.2-		in the second		112									武王		
1 14	a sub a								All second								
						1	a la				12.1			12.5			
Matrix: S - Soil AIR - Air F - Filter W - Groundwater B - Bioassay W - WasteWater	Remarks:	1. 16			1						Temp Other		COC Sea COC Sig Bottles	Sample Receipt Ch of Present/Intact: med/Accurate: arrive intact:	NP Y N		
W - Drinking Water T - Other	Samples retur UPS Fe	ned via: dEx Cou	rier	T	racking #	27	- 0	107	Flor		Other		Suffici	bottles used: ent volume sent: If Applicab			
Relinquished by: (Signature)		Date: 1-16			leceived by: (Signi	Z /S ature)	5 0	661	439 (	ank Rece		) / No CL / MeoH	VOA Zer Preserv RA	D SCREEN, <0.	Y N		
Refinquished by : (Signature)	. 54	Date:		and the lot of the lot	leceived by: (Signa	ature)	Į.	1	Temp:		°C Bottle		If preserv	vation required by Log	in: Date/Time		
Relinquished by : (Signature)		Date:		Time: R	leceived for lab by	y: (Signat	ture)	5	Date:	-0.0	Time:		Hold:		Condition: NCF / OR		
alaasad to Imaging: 1/6/20	22 2.54.27 I			1.00				~~	Int	7-2	0 0	845					



April 20, 2020

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 2004514

RE: Kaufman No 1

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/10/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Envir	onmental Analysis L	aboratory,	Inc.			L	Analytical Report Lab Order: 2004514 Date Reported: 4/20	/202(	)
CLIENT: Project:	Timberwolf Environmental Kaufman No 1				L	.ab C	<b>Order:</b> 20045	514	
Lab ID:	2004514-001		C	ollecti	on Date	<b>e:</b> 4/9	9/2020 2:19:00 PM	[	
Client Sample	ID: MW1				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD	8260: VOLATILES SHORT L	IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	4/18/2020 12:48:00	) AM	B6820
Toluene		ND	1.0		µg/L	1	4/18/2020 12:48:00		
Ethylbenzene		ND	1.0		µg/L	1	4/18/2020 12:48:00		
Xylenes, Total		ND	1.5		µg/L	1	4/18/2020 12:48:00		
	chloroethane-d4	96.9	70-130		⊮∍,= %Rec	1	4/18/2020 12:48:00		
1	nofluoromethane	96.8	70-130		%Rec	1	4/18/2020 12:48:00		
Surr: Toluer	ne-d8	105	70-130		%Rec	1	4/18/2020 12:48:00	) AM	B6820
Lab ID:	2004514-002		C	ollecti	on Date	<b>e:</b> 4/9	0/2020 10:53:00 A	М	
Client Sample	ID: MW2				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
	8260: VOLATILES SHORT L	IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	4/18/2020 1:13:00	AM	B6820
Toluene		ND	1.0		μg/L	1	4/18/2020 1:13:00	AM	B6820
Ethylbenzene		ND	1.0		μg/L	1	4/18/2020 1:13:00	AM	B6820
Xylenes, Total		ND	1.5		μg/L	1	4/18/2020 1:13:00	AM	B6820
Surr: 1,2-Di	chloroethane-d4	99.4	70-130		%Rec	1	4/18/2020 1:13:00	AM	B6820
Surr: Dibror	nofluoromethane	98.9	70-130		%Rec	1	4/18/2020 1:13:00	AM	B6820
Surr: Toluer	ne-d8	105	70-130		%Rec	1	4/18/2020 1:13:00	AM	B6820
Lab ID:	2004514-003		С	ollecti	on Date	<b>e:</b> 4/9	0/2020 11:32:00 A	М	
Client Sample	ID: MW3				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
	8260: VOLATILES SHORT L	IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	4/18/2020 1:36:00	AM	B6820
-		ND	1.0		µg/L	1	4/18/2020 1:36:00	AM	B6820
Toluene		ND	1.0		µg/L	1	4/18/2020 1:36:00	AM	B6820
l oluene Ethylbenzene									
		ND	1.5		µg/L	1	4/18/2020 1:36:00	AM	B6820
Ethylbenzene Xylenes, Total	chloroethane-d4	ND 99.9	1.5 70-130		µg/L %Rec	1 1	4/18/2020 1:36:00 4/18/2020 1:36:00		B6820 B6820
Ethylbenzene Xylenes, Total Surr: 1,2-Di								AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Analyte detected in the associated Method Blank в Е

Value above quantitation range

Analyte detected below quantitation limits J

Sample pH Not In Range Р RL Reporting Limit

Page 1 of 5

Hall Envi	ronmental Analysis I	Laboratory,	Inc.			L	Analytical Report ab Order: 2004514 Date Reported: 4/20	/202	0
CLIENT: Project:	Timberwolf Environmenta Kaufman No 1	 l			I	ab C	<b>)rder:</b> 2004	514	
Lab ID:	2004514-004		C	ollecti	on Date	: 4/9	0/2020 11:59:00 A	М	
<b>Client Sample</b>	<b>ID:</b> MW4				Matrix	: AQ	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHO	D 8260: VOLATILES SHORT L	IST					An	alyst	ссм
Benzene		ND	1.0		µg/L	1	4/18/2020 2:01:00	AM	B6820
Toluene		ND	1.0		µg/L	1	4/18/2020 2:01:00		B6820 <sup>-</sup>
Ethylbenzene		ND	1.0		µg/L	1	4/18/2020 2:01:00		B6820 <sup>-</sup>
Xylenes, Tota		ND	1.5		µg/L	1	4/18/2020 2:01:00	АМ	B6820
-	ichloroethane-d4	100	70-130		%Rec	1	4/18/2020 2:01:00	AM	B6820
-	mofluoromethane	99.2	70-130		%Rec	1	4/18/2020 2:01:00	AM	B6820
Surr: Tolue	ne-d8	104	70-130		%Rec	1	4/18/2020 2:01:00	AM	B6820
Lab ID:	2004514-005		C	ollecti	on Date	: 4/9	0/2020 12:50:00 P	М	
Client Sample	<b>ID:</b> MW5				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHO	D 8260: VOLATILES SHORT L	.IST					An	alyst	CCM
Benzene		ND	1.0		µg/L	1	4/18/2020 2:24:00	AM	B6820
Toluene		ND	1.0		µg/L	1	4/18/2020 2:24:00	AM	B6820
Ethylbenzene		ND	1.0		μg/L	1	4/18/2020 2:24:00	AM	B6820
Xylenes, Tota	l	ND	1.5		µg/L	1	4/18/2020 2:24:00	AM	B6820
Surr: 1,2-D	ichloroethane-d4	98.4	70-130		%Rec	1	4/18/2020 2:24:00	AM	B6820
Surr: Dibro	mofluoromethane	98.8	70-130		%Rec	1	4/18/2020 2:24:00	AM	B6820
Surr: Tolue	ne-d8	105	70-130		%Rec	1	4/18/2020 2:24:00	AM	B6820
Lab ID:	2004514-006		C	ollecti	on Date	: 4/9	0/2020 1:38:00 PM	[	
	ID: MW6				Matrix	: A(	QUEOUS		
Client Sample					<b>TT 1</b>			P.	atch ID
Client Sample Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Da	
Analyses	D 8260: VOLATILES SHORT L		RL	Qual	Units	DF			CCM
Analyses			<b>RL</b>	Qual	Units µg/L	<b>DF</b>		alyst	
Analyses EPA METHO		.IST		Qual			An	alyst AM	B6820
Analyses EPA METHOI Benzene	D 8260: VOLATILES SHORT L	<b>.IST</b> ND	1.0	Qual	µg/L	1	An: 4/18/2020 2:48:00	alyst AM AM	B6820 B6820
Analyses EPA METHOI Benzene Toluene	D 8260: VOLATILES SHORT L	<b>.IST</b> ND ND	1.0 1.0	Qual	μg/L μg/L	1	An: 4/18/2020 2:48:00 4/18/2020 2:48:00	alyst AM AM AM	B6820 B6820 B6820
Analyses EPA METHOI Benzene Toluene Ethylbenzene Xylenes, Tota	D 8260: VOLATILES SHORT L	IST ND ND ND	1.0 1.0 1.0	Qual	μg/L μg/L μg/L	1 1 1	An: 4/18/2020 2:48:00 4/18/2020 2:48:00 4/18/2020 2:48:00	alyst AM AM AM AM	B6820 B6820 B6820 B6820
Analyses EPA METHOI Benzene Toluene Ethylbenzene Xylenes, Tota Surr: 1,2-D	D 8260: VOLATILES SHORT L	IST ND ND ND ND	1.0 1.0 1.0 1.5	Qual	μg/L μg/L μg/L μg/L	1 1 1	An: 4/18/2020 2:48:00 4/18/2020 2:48:00 4/18/2020 2:48:00 4/18/2020 2:48:00	alyst AM AM AM AM AM	: CCM B6820 B6820 B6820 B6820 B6820 B6820 B6820

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Analyte detected in the associated Method Blank в Е

Value above quantitation range

Analyte detected below quantitation limits J

Sample pH Not In Range Р RL Reporting Limit

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Hall Envi	ronmental Analysis La	Inc.	Analytical Report Lab Order: 2004514 Date Reported: 4/20/2020					
CLIENT: Project:	Timberwolf Environmental Kaufman No 1			L	ab C	<b>Order:</b> 2004:	514	
Lab ID:	2004514-007		Coll	ection Date	: 4/9	9/2020 12:51:00 P	М	
<b>Client Sample</b>	e <b>ID:</b> Dup			Matrix	: A(	QUEOUS		
Analyses		Result	RL Q	ual Units	DF	Date Analyzed	Ba	atch ID
EPA METHO	D 8260: VOLATILES SHORT LIS	БТ				An	alyst	ССМ
Benzene		ND	1.0	µg/L	1	4/18/2020 3:12:00	AM	B68201
Toluene		ND	1.0	µg/L	1	4/18/2020 3:12:00	AM	B68201
Ethylbenzene	9	ND	1.0	µg/L	1	4/18/2020 3:12:00	AM	B68201
Xylenes, Tota	al	ND	1.5	µg/L	1	4/18/2020 3:12:00	AM	B68201
Surr: 1,2-D	Dichloroethane-d4	97.8	70-130	%Rec	1	4/18/2020 3:12:00	AM	B68201
Surr: Dibro	omofluoromethane	97.0	70-130	%Rec	1	4/18/2020 3:12:00	AM	B68201
Surr: Tolue	ene-d8	107	70-130	%Rec	1	4/18/2020 3:12:00	AM	B68201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- P Sample pH Not In RL Reporting Limit

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### QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Timberwo Project: Kaufman	olf Enviroi No 1	nmental	l								
Sample ID: 100ng lcs2		ype: LC	s	Tes	tCode: <b>F</b> I	PA Method	8260: Volatile	es Short I	ist		
Client ID: LCSW		h ID: <b>B6</b>		RunNo: 68201							
Prep Date:	Analysis D				358926	Units: µg/L	nits: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	19	1.0	20.00	0	95.6	70	130				
Toluene	22	1.0	20.00	0	108	70	130				
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.5	70	130				
Surr: 4-Bromofluorobenzene	9.6		10.00		95.8	70	130				
Surr: Dibromofluoromethane	10		10.00		99.8	70	130				
Surr: Toluene-d8	10		10.00		105	70	130				
Sample ID: mb2	SampT	уре: МЕ	BLK	Tes	TestCode: EPA Method 8260: Volatiles Short List						
Client ID: PBW	Batch	n ID: <b>B6</b>	8201	F	RunNo: 6	8201					
Prep Date:	Analysis D	Date: 4/	17/2020	Ş	SeqNo: 2	358942	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.0	70	130				
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130				
Surr: Dibromofluoromethane	10		10.00		99.6	70	130				
Surr: Toluene-d8	10		10.00		104	70	130				
Sample ID: 2004514-001ams	SampT	уре: М	6	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist		
Client ID: MW1	Batch	h ID: <b>B6</b>	8201	F	RunNo: 6	8201					
Prep Date:	Analysis D	Date: 4/	18/2020	5	SeqNo: 2	358960	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	18	1.0	20.00	0	92.3	70	130				
Toluene	20	1.0	20.00	0	98.2	70	130				
Surr: 1,2-Dichloroethane-d4	10		10.00		99.9	70	130				
Surr: 4-Bromofluorobenzene	9.7		10.00		96.5	70	130				
Surr: Dibromofluoromethane	10		10.00		100	70	130				
Surr: Toluene-d8	10		10.00		105	70	130				
Sample ID: 2004514-001amsd	SampT	уре: М	SD	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist		
Client ID: MW1	Batch	h ID: <b>B6</b>	8201	F	RunNo: 6	8201					
Prep Date:	Analysis D	Date: 4/	18/2020	S	SeqNo: 2	358961	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	18	1.0	20.00	0	88.5	70	130	4.29	20		

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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2004514

20-Apr-20

### QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Timberwo Kaufman		nmental	l							
Sample ID: 200451	4-001amsd	SampT	уре: М	SD	Tes	tCode: EF	PA Method	8260: Volatile	es Short L	.ist	
Client ID: MW1		Batcl	n ID: <b>B6</b>	8201	F	RunNo: 68	8201				
Prep Date:		Analysis D	)ate: 4/	18/2020	S	SeqNo: 2	358961	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroetha	ne-d4	9.9		10.00		99.3	70	130	0	0	
Surr: 4-Bromofluorobe	nzene	9.7		10.00		96.9	70	130	0	0	
Surr: Dibromofluorome	ethane	10		10.00		99.8	70	130	0	0	
Surr: Toluene-d8		10		10.00		104	70	130	0	0	

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### WO#: 2004514 20-Apr-20

ANALY	CONMENTAL YSIS Ratory	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	490 uquera FAX:	01 Hawkin pue, NM 8 505-345-	ns NE 37109 -4107	Sample Log-In Check List				
Client Name:	TIMBERWOLF ENVIRON	Work Order Number:	200	4514			RcptNo:	1		
Received By:	Desiree Dominguez	4/10/2020 8:10:00 AM			Ð	N				
Completed By:	Leah Baca	4/10/2020 9:42:02 AM			Int	Baca				
Reviewed By:	JO	4/10/20			1 and	de.				
Chain of Cus	<u>tody</u>									
1. Is Chain of Cu	ustody sufficiently complete?		Yes		No		Not Present			
2. How was the	sample delivered?		Cou	rier						
Log In										
3. Was an attem	pt made to cool the samples	?	Yes	~	No		NA 🗌			
4. Were all samp	oles received at a temperatur	e of >0° C to 6.0°C	Yes		No					
5. Sample(s) in p	proper container(s)?		Yes	~	No					
6. Sufficient sam	ple volume for indicated test	(s)?	Yes	~	No					
7. Are samples (e	except VOA and ONG) prope	erly preserved?	Yes		No					
8. Was preservat	tive added to bottles?		Yes		No	$\checkmark$	NA 🗌			
9. Received at le	ast 1 vial with headspace <1	4" for AQ VOA?	Yes	~	No					
0. Were any san	nple containers received brok	en?	Yes		No		# of preserved			
	rk match bottle labels? Incies on chain of custody)		Yes		No		bottles checked for pH: (<2 or	>12 unless noted)		
2. Are matrices c	orrectly identified on Chain o	f Custody?	Yes		No		Adjusted?	0		
3. Is it clear what	analyses were requested?		Yes	~	No		/			
	ng times able to be met? Istomer for authorization.)		Yes		No		Checked by:	DAD 4/10/20		
pecial Handli	ing (if applicable)									
5. Was client not	tified of all discrepancies with	this order?	Yes		No		NA 🗹			
Person	Notified:	Date:				-				
By Who	m: j	Via:	eM	ail 🗌 F	hone	] Fax	In Person			
Regardi	ng:		-							
Client In	structions:									
16. Additional rer	marks:									
7. <u>Cooler Inform</u> Cooler No	I for the second s	Seal Intact Seal No S	eal D	ate	Signed	Ву				

Page 1 of 1

22	2 HCI 2 HCI 2 HCI	NN	Voa 7 HCI -002 V Voa 7 HCI -003 V	Voa 2 HCI -our V	08:H9T ∍9 1808	15D(GF	North	: РСВ's 30 / МR 3's (802	(0)	- 1800Gl	Hawkins NE -		C Rush	, HALL	HALL       HALL       HALL         HALL       Mail       Mail       Mail         Www.hallenvironmental.com       PRHs by 8310 or 827005IMS       Mail       Mail         Www.hallenvironmental.com       RCRA 8 Metals       Mail       Mail       Mail         Mail       RCRA 8 Metals       Rode       Mail       Mail       Mail       Mail         Mail       RCRA 8 Metals       Rode       Mail       Mail       Mail       Mail       Mail         Mail       RCRA 8 Metals       Rode       Mail       Mail       Mail       Mail       Mail         Mail       Rcra       Scol       Mail       Scol       Mail       Mail       Mail       Mail         Mail       Rcra       Scol       Mail       Scol       Mail       Mail       Mail       Mail         Mail       Scol       Mail       Scol       Mail       Mail       Mail       Mail       Mail       Mail         Mail       Scol       Mail       Mail </th
	- 005 -	> 400- > 200-	-003 V	-002		HEAL No. 70.0 4 S 14 100.1 - 00.1 - 00.1	EDB (Method 5 20,0 4 HEAL No. 8081 Pesticide 8081 Pesticide	COL     EDB (Method 504.1)       COL     EDB (Method 504.1)       EDB (Method 504.1)	COLUE     COLUE	<sup>2</sup>	1     1 <td>H     H     H       1     1     1       1     1       1<td>Heat     Heat     Heat       1     1     1   &lt;</td><td>HEAL No.     HEAL No.       1     1       2     1       2     1       1     1    <tr< td=""><td></td></tr<></td></td>	H     H     H       1     1     1       1     1       1 <td>Heat     Heat     Heat       1     1     1   &lt;</td> <td>HEAL No.     HEAL No.       1     1       2     1       2     1       1     1    <tr< td=""><td></td></tr<></td>	Heat     Heat     Heat       1     1     1   <	HEAL No.     HEAL No.       1     1       2     1       2     1       1     1 <tr< td=""><td></td></tr<>	

Received by OCD: 1/5/2023 9:52:13 AM



### ANALYTICAL REPORT April 17, 2020

### **Timberwolf Environmental, LLC**

Sample Delivery Group: Samples Received: Project Number: Description:

L1208080 04/11/2020 HEL-180061 Kaufman No. 1

Report To:

Jim Foster 1920 W Villa Maria, Ste 205 Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

PROJECT: HEL-180061

SDG: L1208080

DATE/TIME: 04/17/20 16:33 PAGE:

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Ср

Тс

Ss

Cn

Sr

*Q*c

Gl

AI

Sc

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SDG: L1208080

D4 04/ PAGE: 2 of 14
Received by OCD: 1/5/2023 9:52:13 AM

### SAMPLE SUMMARY

ONE LAB. NAPagev109 of 252

Ср

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MW1 L1208080-01 GW			Collected by Michael Morse	Collected date/time 04/09/20 14:19	Received da 04/11/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/14/20 23:35	AEG	Mt. Juliet, TN
MW2 L1208080-02 GW			Collected by Michael Morse	Collected date/time 04/09/20 10:53	Received da 04/11/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/14/20 23:51	AEG	Mt. Juliet, TN
MW3 L1208080-03 GW			Collected by Michael Morse	Collected date/time 04/09/20 11:32	Received da 04/11/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:07	AEG	Mt. Juliet, TN
MW4 L1208080-04 GW			Collected by Michael Morse	Collected date/time 04/09/20 11:59	Received da 04/11/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:23	AEG	Mt. Juliet, TN
MW5 L1208080-05 GW			Collected by Michael Morse	Collected date/time 04/09/20 12:50	Received da 04/11/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:40	AEG	Mt. Juliet, TN
MW6 L1208080-06 GW			Collected by Michael Morse	Collected date/time 04/09/20 13:38	Received da 04/11/20 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:56	AEG	Mt. Juliet, TN

PROJECT: HEL-180061 SDG: L1208080 DATE/TIME: 04/17/20 16:33

IME: 16:33 PAGE: 3 of 14

### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1208080

DATE/TIME: 04/17/20 16:33

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Collected date/time: 04/09/20 14:19 TPH by TCEQ Method 1005

									l' Cra
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456	
TPH C28 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456	<sup>3</sup> <b>S</b> c
TPH C6 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456	55
(S) o-Terphenyl	107				70.0-130		04/14/2020 23:35	WG1460456	4

<sup>3</sup> Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
⁰Sc

Collected date/time: 04/09/20 10:53 TPH by TCEQ Method 1005

									l' Cr
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456	
TPH C28 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456	55
(S) o-Terphenyl	107				70.0-130		04/14/2020 23:51	WG1460456	4

Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
⁰Sc

### Collected date/time: 04/09/20 11:32 TPH by TCEQ Method 1005

,									<u>ا م '</u>
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	——   Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456	
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456	03
(S) o-Terphenyl	104				70.0-130		04/15/2020 00:07	WG1460456	4

ິSs
4
<sup>⁴</sup> Cn
⁵Sr
<sup>6</sup> Qc
QC
7
<sup>′</sup> Gl
8
<sup>8</sup> Al
°Sc

#### Released to Imaging: 12/2023 3:54:27 PM Timberwolf Environmental, LLC

SDG: L1208080

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DATE/TIME: 04/17/20 16:33

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Collected date/time: 04/09/20 11:59 TPH by TCEQ Method 1005

									l' Cn
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456	
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456	<sup>3</sup> S c
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456	35
(S) o-Terphenyl	108				70.0-130		04/15/2020 00:23	WG1460456	4

<sup>3</sup> Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
⁰Sc

Collected date/time: 04/09/20 12:50 TPH by TCEQ Method 1005

									l'a
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456	T
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456	
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456	5
(S) o-Terphenyl	106				70.0-130		04/15/2020 00:40	WG1460456	4
									C

DATE/TIME: 04/17/20 16:33

Collected date/time: 04/09/20 13:38 TPH by TCEQ Method 1005

									l'Cr
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456	
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456	55
(S) o-Terphenyl	108				70.0-130		04/15/2020 00:56	WG1460456	4

TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R3518990-1 04/14/20 22:14

(IMD) K5516550-1 04/1	14/20 22.14						
	MB Result	MB Qualifier	MB MDL	MB RDL			
Analyte	mg/l		mg/l	mg/l			
TPH C6 - C12	U		0.600	0.900			
TPH C12 - C28	U		0.600	0.900			
TPH C28 - C35	U		0.600	0.900			
TPH C6 - C35	U		0.600	0.900			
(S) o-Terphenyl	109			70.0-130			

### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3518990-2 04/14/	20 22:30 • (LCS	SD) R3518990	-3 04/14/20 22	:46						
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	38.1	37.7	91.4	90.4	75.0-125			1.06	20
TPH C12 - C28	41.7	40.6	40.6	97.4	97.4	75.0-125			0.000	20
TPH C6 - C35	83.4	78.7	78.3	94.4	93.9	75.0-125			0.510	20
(S) o-Terphenyl				102	102	70.0-130				

DATE/TIME: 04/17/20 16:33

Τс

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Cn

Sr

Qc

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#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

### Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

#### State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky <sup>16</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico <sup>1</sup>	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Dregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>14</sup>	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
/ermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

#### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup>Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

#### **Our Locations**

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Released to Imaging: 1/6/2023 3:54:27 PM Timberwolf Environmental, LLC

PROJECT: HEL-180061

SDG: L1208080

DATE/TIME: 04/17/20 16:33 PAGE: 13 of 14

# Received by OCD: 1/5/2023 9:52:13 AM

Timberwolf Environn	mental		Timb.	erworf E	Environmenta Maria Ste		Ar	nalysis / Conta	ner / Preserv	rative		Chain of Custody	Page of			
				ITX.												
Report to: Jim Fost Project Description: Kaufman	rer		Email To:	City/State	iberwolf (	oM							12065 Lebanon Rd Mount Juliet, TN 371 Phone: 615-758-585 Phone: 800-767-585 Fax: 615-758-5859			
Description: Kaufman	No. 1 Client Project	+		Collected:	NM	10						1# 112	68080			
Phone: 171-30171 Fax:	HEC-	18006	1	Lab Project #	ab Project #			The second s					L# L1268080 E219			
Collected by (print):	Site/Facility ID	#		P.O. #		0						Acctnum: TIME BTX Template: Prelogin: TSR: 823 - Oliva PB:				
Collected by (signature):		ab MUST Be ay Five I		Quote #		Ø										
mmediately Packed on Ice N Y	Next Day	y 5 Day y 10 Da	(Rad Only)		Date Results Needed		E									
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	F				225		Shipped Via: Remarks	Sample # (lab only)		
MWI		GW	N/A	4-9-20	1419	2	1		2.0					-01		
MWZ		GW	1	4-9-20		1	1	-			in the second			02		
MW 3	and a second	GW		4-9-2		1	V.						Set areas	03		
MWY		GW		4-9-20	1159	1	V							64		
MW5		GW.		4-9-2	0 250	Z	1				1			05		
MWG		GW		4-9-2	0 1338	2	$\checkmark$							06		
Matrix: IS - Soil AIR - Air F - Filter W- Groundwater W - WasteWater	Remarks:								pH	Temp Other	piat and a second	COC Sea COC Sig Bottles	Sample Receipt Cr 1 Present/Intact ned/Accurate: arrive intact: bottles used:	· MP Y N		
OW - Drinking Water DT - Other	Samples retur UPSFe	rned via: edEx Cou	rier		Tracking #	27	5860	7	4582			Suffici VOA Zer	ent volume sent: <u>If Applicab</u> o Headspace:	le Y N		
Relinquished by : (Signature)	1	Date: 4-10-		Time: Received by: (Signature)		1	1	Trip Blank Rec	elved: Yes/	/ MeoH	Preserv	D SCREEN1				
Relinquished by: (Signature)		Date:	Time: Received by: (Signature)				- 24	THMP:A3	°C Bottles	Recented:	If preserv	vation required by Lo	gin: Date/Time			
Relinquished by : (Signature) eleased to Imaging: 1/6/202	2 2.54 25 5	Date:		Time:	Received for lab by	r: (Signa	turen		Date:	Time:	30	Hold:		Condition: NCF / OK		



July 14, 2020

Jim Foster **Timberwolf Environmental** 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX:

OrderNo.: 2007230

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

RE: Kaufman No. 1

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/7/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Envir	onmental Analysis I	Laboratory,	Inc.			I	Analytical Report ab Order: 2007230 Date Reported: 7/14	/2020	1
CLIENT: Project:	Timberwolf Environmenta Kaufman No. 1	1			L	ab C	<b>Order:</b> 20072	:30	
Lab ID:	2007230-001		C	ollectio	on Date	: 7/2	2/2020 11:50:00 A	М	
Client Sample 1	ID: MW1				Matrix	: GF	ROUNDWATER		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD	8260: VOLATILES SHORT L	.IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	7/12/2020 3:09:00	-	SL702
Toluene		ND	1.0		µg/L	1	7/12/2020 3:09:00		SL702
Ethylbenzene		ND	1.0		µg/L	1	7/12/2020 3:09:00		SL702
Xylenes, Total		ND	1.5		µg/L	1	7/12/2020 3:09:00		SL702
-	chloroethane-d4	103	70-130		%Rec	1	7/12/2020 3:09:00		SL702
,	nofluoromethane	100	70-130		%Rec	1	7/12/2020 3:09:00		SL702
Surr: Toluen	ne-d8	101	70-130		%Rec	1	7/12/2020 3:09:00		SL702
Lab ID:	2007230-002		C	ollectio	on Date	: 7/2	2/2020 9:00:00 AM	ſ	
Client Sample 1	ID: MW2				Matrix	: GF	ROUNDWATER		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD	8260: VOLATILES SHORT L	.IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	7/12/2020 3:34:00	-	SL702
Toluene		ND	1.0		µg/L	1	7/12/2020 3:34:00		SL702
Ethylbenzene		ND	1.0		µg/L	1	7/12/2020 3:34:00		SL702
Xylenes, Total		ND	1.5		µg/L	1	7/12/2020 3:34:00		SL702
-	chloroethane-d4	106	70-130		%Rec	1	7/12/2020 3:34:00		SL702
-	nofluoromethane	103	70-130		%Rec	1	7/12/2020 3:34:00	РМ	SL702
Surr: Toluen	ne-d8	99.3	70-130		%Rec	1	7/12/2020 3:34:00		SL702
Lab ID:	2007230-003		C	ollectio	on Date	: 7/2	2/2020 9:50:00 AN	1	
Client Sample I	<b>ID:</b> MW3				Matrix	: GF	ROUNDWATER		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD	8260: VOLATILES SHORT L	.IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	7/12/2020 3:59:00	PM	SL702
Toluene		ND	1.0		µg/L	1	7/12/2020 3:59:00		SL702
Ethylbenzene		ND	1.0		µg/L	1	7/12/2020 3:59:00		SL702
Xylenes, Total		ND	1.5		µg/L	1	7/12/2020 3:59:00		SL702
-	chloroethane-d4	105	70-130		%Rec	1	7/12/2020 3:59:00		SL702
Surr: 1,2-Did									
-	nofluoromethane	101	70-130		%Rec	1	7/12/2020 3:59:00	PM	SL702

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\*

Released to Imaging: 1/6/2023 3:54:27 PM

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix s

Value exceeds Maximum Contaminant Level.

Analyte detected in the associated Method Blank в Е Value above quantitation range

Analyte detected below quantitation limits J

Sample pH Not In Range

Р RL Reporting Limit

Page 1 of 4

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Hall Envir	onmental Analysis I	Laboratory,	Inc.			L	Analytical Report Lab Order: 2007230 Date Reported: 7/14		)
CLIENT: Project:	Timberwolf Environmental Kaufman No. 1	l			L	ab C	<b>Order:</b> 20072	230	
Lab ID:	2007230-004		C	ollectio	on Date	: 7/2	2/2020 11:05:00 A	М	
Client Sample I	<b>D:</b> MW4				Matrix	: GF	ROUNDWATER		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD	8260: VOLATILES SHORT L	.IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	7/12/2020 4:23:00	-	SL702
Toluene		ND	1.0		µg/L	1	7/12/2020 4:23:00		SL702
Ethylbenzene		ND	1.0		µg/L	1	7/12/2020 4:23:00		SL7026
Xylenes, Total		ND	1.5		µg/L	1	7/12/2020 4:23:00		SL702
	hloroethane-d4	105	70-130		%Rec	1	7/12/2020 4:23:00	PM	SL702
	ofluoromethane	102	70-130		%Rec	1	7/12/2020 4:23:00	PM	SL702
Surr: Toluen	e-d8	98.7	70-130		%Rec	1	7/12/2020 4:23:00	PM	SL702
Lab ID:	2007230-005		C	ollectio	on Date	: 7/2	2/2020 1:44:00 PM	[	
Client Sample I	<b>D:</b> MW5				Matrix	: GF	ROUNDWATER		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD	8260: VOLATILES SHORT L	IST					An	alvst:	ССМ
Benzene		ND	1.0		µg/L	1	7/12/2020 4:48:00	-	SL702
Toluene		ND	1.0		µg/L	1	7/12/2020 4:48:00		SL702
Ethylbenzene		ND	1.0		µg/L	1	7/12/2020 4:48:00		SL702
Xylenes, Total		ND	1.5		µg/L	1	7/12/2020 4:48:00		SL702
-	hloroethane-d4	106	70-130		%Rec	1	7/12/2020 4:48:00	РМ	SL702
-	ofluoromethane	101	70-130		%Rec	1	7/12/2020 4:48:00	PM	SL702
Surr: Toluen	e-d8	99.8	70-130		%Rec	1	7/12/2020 4:48:00	PM	SL702
Lab ID:	2007230-006		C	ollectio	on Date	: 7/2	2/2020 12:53:00 Pl	М	
Client Sample I	<b>D:</b> MW6				Matrix	: GF	ROUNDWATER		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD	8260: VOLATILES SHORT L	.IST					Ana	alyst:	ССМ
Benzene		ND	1.0		µg/L	1	7/12/2020 5:13:00	•	SL702
Toluene		ND	1.0		µg/L	1	7/12/2020 5:13:00		SL702
Ethylbenzene		ND	1.0		µg/L	1	7/12/2020 5:13:00		SL702
Xylenes, Total		ND	1.5		µg/L	1	7/12/2020 5:13:00		SL702
Ayleries, Totai									SL702
	hloroethane-d4	103	70-130		%Rec	1	7/12/2020 5:13:00	PIVI	31/02
Surr: 1,2-Dic	hloroethane-d4 Iofluoromethane	103	70-130 70-130		%Rec %Rec	1	7/12/2020 5:13:00 7/12/2020 5:13:00		SL702

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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\* Qualifiers: D

Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Value exceeds Maximum Contaminant Level.

Analyte detected in the associated Method Blank Е Value above quantitation range

Analyte detected below quantitation limits J

Sample pH Not In Range Р RL

Reporting Limit

Page 2 of 4

Hall Envi	ironmental Analysis	Laboratory,	Inc.		Ι	Lab Order: 2007230 Date Reported: 7/14/2	2020
CLIENT: Project:	Timberwolf Environmenta Kaufman No. 1	ıl		L	ab (	<b>)rder:</b> 200723	30
Lab ID:	2007230-007		Co	ollection Date	: 7/2	2/2020 1:44:00 PM	
Client Sampl	e ID: DUP			Matrix	: GI	ROUNDWATER	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8260: VOLATILES SHORT	LIST				Anal	yst: CCM
Benzene		ND	1.0	µg/L	1	7/12/2020 5:37:00 P	M SL7026
Toluene		ND	1.0	µg/L	1	7/12/2020 5:37:00 F	M SL7026
Ethylbenzen	e	ND	1.0	µg/L	1	7/12/2020 5:37:00 F	M SL7026
Xylenes, Tot	al	ND	1.5	µg/L	1	7/12/2020 5:37:00 F	M SL7026
Surr: 1,2-[	Dichloroethane-d4	107	70-130	%Rec	1	7/12/2020 5:37:00 F	PM SL7026
Surr: Dibro	omofluoromethane	102	70-130	%Rec	1	7/12/2020 5:37:00 F	PM SL7026
Surr: Tolu	ene-d8	99.0	70-130	%Rec	1	7/12/2020 5:37:00 P	M SL7026
Lab ID:	2007230-008		Co	ollection Date	:		
Client Sampl	e ID: Trip Blank			Matrix	: Gl	ROUNDWATER	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8260: VOLATILES SHORT	LIST				Anal	yst: CCM
Benzene		ND	1.0	µg/L	1	7/12/2020 6:02:00 F	M SL7026
Toluene		ND	1.0	µg/L	1	7/12/2020 6:02:00 F	M SL7026
Ethylbenzen	e	ND	1.0	µg/L	1	7/12/2020 6:02:00 F	M SL7026
Xylenes, Tot	al	ND	1.5	µg/L	1	7/12/2020 6:02:00 F	M SL7026
Surr: 1,2-I	Dichloroethane-d4	104	70-130	%Rec	1	7/12/2020 6:02:00 F	M SL7026
Surr: Dibro	omofluoromethane	100	70-130	%Rec	1	7/12/2020 6:02:00 P	PM SL7026
Surr: Tolu	ene-d8	99.1	70-130	%Rec	1	7/12/2020 6:02:00 F	PM SL7026

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

D Sample Diluted Due to Matrix

\*

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix s

Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

Analyte detected in the associated Method Blank

- Analyte detected below quantitation limits J
- Sample pH Not In Range Р
- RL Reporting Limit

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Page 3 of 4

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**Analytical Report** 

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Client:	Timberwolf Envir	ronmental	l							
Project:	Kaufman No. 1									
Sample ID: 100ng	lcs Sam	pType: LC	s	Tes	tCode: El	PA Method	8260: Volatile	es Short L	ist	
Client ID: LCSW	Ва	Batch ID: SL70266 RunNo: 70266								
Prep Date:	Analysis	Analysis Date: 7/12/2020 SeqNo: 2442593 Units: μg/					Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.6	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroetha	ne-d4 10		10.00		100	70	130			
Surr: 4-Bromofluorobe	enzene 10		10.00		102	70	130			
Surr: Dibromofluorome	ethane 9.9		10.00		99.3	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			
Sample ID: mb	Sam	рТуре: М	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Sample ID: <b>mb</b> Client ID: <b>PBW</b>		pType: MB			tCode: El		8260: Volatile	es Short L	.ist	
	Ва		.70266	F		0266	8260: Volatile Units: μg/L	es Short L	ist	
Client ID: PBW	Ва	tch ID: SL s Date: 7/	.70266 12/2020	F	RunNo: 7	0266		es Short L %RPD	<b>.ist</b> RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte	Ba Analysis	tch ID: SL s Date: 7/ PQL	.70266 12/2020	F	RunNo: 70 SeqNo: 24	0266 442594	Units: µg/L			Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene	Ba Analysis Result	tch ID: SL s Date: 7/ PQL 1.0	.70266 12/2020	F	RunNo: 70 SeqNo: 24	0266 442594	Units: µg/L			Qual
Client ID: <b>PBW</b> Prep Date:	Ba Analysis Result ND	tch ID: <b>SL</b> s Date: <b>7/</b> <u>PQL</u> 1.0 1.0	.70266 12/2020	F	RunNo: 70 SeqNo: 24	0266 442594	Units: µg/L			Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene	Ba Analysis Result ND ND	tch ID: <b>SL</b> s Date: <b>7/</b> <u>PQL</u> 1.0 1.0 1.0	.70266 12/2020	F	RunNo: 70 SeqNo: 24	0266 442594	Units: µg/L			Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene	Ba Analysis Result ND ND ND	tch ID: <b>SL</b> s Date: <b>7/</b> <u>PQL</u> 1.0 1.0 1.0 1.5	.70266 12/2020	F	RunNo: 70 SeqNo: 24	0266 442594	Units: µg/L			Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Ba Analysis Result ND ND ND ne-d4 10	tch ID: <b>SL</b> s Date: <b>7</b> / <u>PQL</u> 1.0 1.0 1.0 1.5	.70266 12/2020 SPK value	F	RunNo: 7 SeqNo: 2 %REC	0266 442594 LowLimit	Units: <b>µg/L</b> HighLimit			Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethal	Ba Analysis Result ND ND ND ne-d4 10 enzene 9.9	tch ID: <b>SL</b> s Date: <b>7</b> / <u>PQL</u> 1.0 1.0 1.0 1.5	.70266 (12/2020 SPK value 10.00	F	RunNo: 7 SeqNo: 2 %REC 100	0266 442594 LowLimit	Units: µg/L HighLimit 130			Qual

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. \*
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 4 of 4

WO#: 2007230 14-Jul-20

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmenta All TEL: 505-345-397 Website: clients.h	49( buquerq 5 FAX:	01 Hawkins que, NM 871 505-345-41	NE 109 107	San	nple Log-In Check List
Client Name: Timberwolf Environmental	Work Order Numbe	r: 200	7230			RcptNo: 1
Received By: Scott Anderson	7/7/2020 8:25:00 AM					
Completed By: Emily Mocho	7/7/2020 8:48:20 AM					
Reviewed By: JR 717 120						
Chain of Custody						
1. Is Chain of Custody complete?		Yes	$\checkmark$	No		Not Present
2. How was the sample delivered?		Cou	rier			
Log In 3. Was an attempt made to cool the samples?		Yes		No		
••••••••••••••••••••••••••••••••••••••		res		NO		
4. Were all samples received at a temperature	of >0° C to 6.0°C	Yes		No		
5. Sample(s) in proper container(s)?		Yes	~	No		
6. Sufficient sample volume for indicated test(s	)?	Yes	~	No		
7. Are samples (except VOA and ONG) proper	y preserved?	Yes	~	No		
8. Was preservative added to bottles?		Yes		No		NA 🗌
9. Received at least 1 vial with headspace <1/4	" for AQ VOA?	Yes		No		
10. Were any sample containers received broke	n?	Yes		No		/
11. Does paperwork match bottle labels?		Yes		No		# of preserved bottles checked for pH:
(Note discrepancies on chain of custody) 12. Are matrices correctly identified on Chain of	Custody2	Yes		No		(<2 or ×12 unless noted) Adjusted?
13. Is it clear what analyses were requested?	Custody?	Yes		No	ň.	
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No		checked by: SPA 7.7.
Special Handling (if applicable)						
15. Was client notified of all discrepancies with	this order?	Yes		No		NA 🗹
Person Notified:	Date:	_			-	
By Whom:	Via:	eM	ail 🗌 Ph	one 🗌	Fax	In Person
Regarding		-				
Client Instructions:						
16. Additional remarks:						
and the second	eal Intact Seal No	Seal D	ate S	Signed	Ву	

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Page 1 of 1

Received by OCD: 1/2 LABORATORY intal.com tue, NM 87109																_	Page 127	
	Fax 505-345-4107	Analysis Request	(tnəedA\tr	(A	ΟΛ·	(AO)	S) 0728 V) 0328									_		a clearly notated on the an
<b>HALL ENV</b> <b>ANAL YSIS</b> www.hallenvironme 4901 Hawkins NE - Albuquer	Tel. 505-345-3975	Ana	PO4, SO4	)7 <u>5</u> 8 10	o o f Slist	3 Me	EDB (N RCRA 8 CI, F, E									_		
4901 Há	Tel. 50		ьсв,² со \ мво) <del>,² (8051) -</del>	9 N D R	ษอ	12D(	2-4, 5-4 f.L.	>				) )	1		>	Remarks:		e maccihility Anv sut
No. 1	1.0	1 col	L.	Norse		().) 9.25-0-1	LOU7230	-001	-002	-003	-00d	500-	-006	100-	-008	Date Time	Date Time	This serves as notice of thi
nd Time: ard □ Rush ime: とのしたMCA		MEC- 10006	iger: Foste	Chael		(including CF): 5.6	Preservative Type	HCI	HCI	HCI	HCI	HCI	HCI	HCI	HCI	Via:	The Wall	Carpiero En
	Project #:	111	Project	Sampler: Mi	olers:	Cooler Temp(including CF):	Container Type and #	Vor 3	Ved 3	VOA 3	VoA 3	VoA 3	VoA 3	V0 4 3	V0A Z.	Received by:	Received by:	Stated to other a
Edvited Edvited	A.TX	4- 2154	子でいた HMPSCNott・Con □ Level 4 (Full Validation)	npliance			Sample Name	NW 1	2 MM	MW 3	NW Y	NW 5	Mw le	Dup	Trip Black		dby:	1 10 / WILL WE LE 2/2 Aurilia I and a constrained in other according the cause of this manifully. Another activity and and will be dead activity and a first cause of the manifully and activity and activity and activity and activity and activity and activity activi
n-of-Cu erwolf		11	Jim @.	□ Az Compliance			Matrix	GW	-	9	10	11	0	17		Relinquished by:	Relinquished by:	NND 1
Client: Timberwolf	10-	Phone #: 7	email or Fax#: QA/QC Package: Standard	Accreditation:	□ EDD (Type)		Date Time	9-2-20 1150	096 202-6	05002-2-6	5011 02-2-6	445122-2-6	7-2-20 1253	1-2-20 1344	02-2-6	Date: Time:	F1-2-20 1500 Date: Time: 711 1000	29

**Released to Imaging: 1/6/2023 3:54:2**7 РМ Received by OCD: 1/5/2023 9:52:13 AM



# ANALYTICAL REPORT

### Timberwolf Environmental, LLC

Sample Delivery Group: Samples Received: Project Number: Description: L1236413 07/03/2020 HEL-180061 Kaufman No. 1

Report To:

Jim Foster 1920 W Villa Maria, Ste 205 Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

PROJECT: HEL-180061 SDG: L1236413 DATE/TIME: 07/13/20 16:55 PAGE: 1 of 14 Ср

Тс

Ss

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PAGE: 2 of 14 Received by OCD: 1/5/2023 9:52:13 AM

### SAMPLE SUMMARY

ONE LAB. NAPagev130 of 252

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			Collected by	Collected date/time	Received da	te/time	
MW 1 L1236413-01 GW			Michael Morse	07/02/20 00:00	07/03/20 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 16:56	FM	Mt. Juliet, TN	
MW 2 L1236413-02 GW			Collected by Michael Morse	Collected date/time 07/02/20 00:00	Received da 07/03/20 08		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 16:56	FM	Mt. Juliet, TN	
MW 3 L1236413-03 GW			Collected by Michael Morse	Collected date/time 07/02/20 00:00	Received date/time 07/03/20 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 17:13	FM	Mt. Juliet, TN	
MW 4 L1236413-04 GW			Collected by Michael Morse	Collected date/time 07/02/20 00:00	Received date/time 07/03/20 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 17:13	FM	Mt. Juliet, TN	
MW 5 L1236413-05 GW			Collected by Michael Morse	Collected date/time 07/02/20 00:00	Received da 07/03/20 08		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 17:29	FM	Mt. Juliet, TN	
MW 6 L1236413-06 GW			Collected by Michael Morse	Collected date/time 07/02/20 00:00	Received da 07/03/20 08		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1505807	1.05	07/09/20 06:00	07/09/20 17:29	FM	Mt. Juliet, TN	

PROJECT: HEL-180061 SDG: L1236413 DATE/TIME: 07/13/20 16:55

=: 55 PAGE: 3 of 14

### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1236413

DATE/TIME: 07/13/20 16:55 PAGE: 4 of 14

### Received by OCD: 1/5/2023 9:52:13 AM

# SAMPLE RESULTS - 01

Collected date/time: 07/02/20 00:00 TPH by TCEQ Method 1005

ITTOY I CE CIME									1 I I
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	(
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	L
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	3
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	`
(S) o-Terphenyl	118				70.0-130		07/09/2020 16:56	WG1505807	4

22
<sup>4</sup> Cn
CII
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

Collected date/time: 07/02/20 00:00 TPH by TCEQ Method 1005

									l' ca
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	<sup>3</sup> S c
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807	55
(S) o-Terphenyl	108				70.0-130		07/09/2020 16:56	WG1505807	4

Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

DATE/TIME: 07/13/20 16:55 PAGE: 6 of 14

Collected date/time: 07/02/20 00:00 TPH by TCEQ Method 1005

						1 Cm			
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	<sup>3</sup> S c
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	35
(S) o-Terphenyl	115				70.0-130		07/09/2020 17:13	WG1505807	4

<sup>³</sup> Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

Collected date/time: 07/02/20 00:00 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	<sup>3</sup> Sc
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807	35
(S) o-Terphenyl	106				70.0-130		07/09/2020 17:13	WG1505807	4

<sup>³</sup> Ss
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<sup>4</sup> Cn
⁵Sr
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<sup>6</sup> Qc
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<sup>7</sup> Gl
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<sup>8</sup> Al
°Sc

Collected date/time: 07/02/20 00:00 TPH by TCEQ Method 1005

						l'on			
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807	
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807	<sup>3</sup> S c
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807	55
(S) o-Terphenyl	120				70.0-130		07/09/2020 17:29	WG1505807	4

<sup>3</sup> Ss
4
⁴Cn
-
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

DATE/TIME: 07/13/20 16:55

Collected date/time: 07/02/20 00:00 TPH by TCEQ Method 1005

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	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807	Tc
TPH C12 - C28	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807	
TPH C28 - C35	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807	<sup>3</sup> Ss
TPH C6 - C35	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807	53
(S) o-Terphenyl	105				70.0-130		07/09/2020 17:29	WG1505807	4

DATE/TIME: 07/13/20 16:55 TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

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#### Method Blank (MB)

### (MB) R3548367-1 07/09/20 16:05

(IVID) R3546507-1 077	03/20 10.03				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/l		mg/l	mg/l	Tc
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	<sup>3</sup> Ss
TPH C28 - C35	U		0.600	0.900	00
TPH C6 - C35	U		0.600	0.900	4
(S) o-Terphenyl	116			70.0-130	Cn

### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3548367-2 07/09	9/20 16:22 • (LC	SD) R3548367	7-3 07/09/2010	6:39						
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	37.0	37.3	88.7	89.4	75.0-125			0.808	20
TPH C12 - C28	41.7	40.4	40.3	96.9	96.6	75.0-125			0.248	20
TPH C6 - C35	83.4	77.4	77.6	92.8	93.0	75.0-125			0.258	20
(S) o-Terphenyl				112	114	70.0-130				

SDG: L1236413 DATE/TIME: 07/13/20 16:55 PAGE: 11 of 14

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#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

### Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS



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Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

#### State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky 16	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

New Hampshire         2975           New Hampshire         2975           New Jersey–NELAP         TN002           New York         1742           Worth Carolina         Env375           North Carolina <sup>1</sup> DW21704           North Carolina <sup>3</sup> 41           North Carolina <sup>3</sup> 41           North Dakota         R-140           Dhio–VAP         CL0069           Dklahoma         9915           Dregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Dakota         n/a           Fennessee <sup>1 4</sup> 2006           Fexas         T104704245-18-15           Fexas <sup>5</sup> LAB0152           Jtah         TN00003           /ermont         VT2006           /irginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Vebraska	NE-OS-15-05
New Jersey–NELAPTN002New Mexico 1n/aNew York11742North CarolinaEnv375North Carolina 1DW21704North Carolina 341North Carolina 3K140North DakotaR-140Dhio–VAPCL0069Dklahoma9915OregonTN200002Pennsylvania68-02979Rhode IslandLA000356South Carolina84004South Dakotan/aFennessee 1.42006TexasT104704245-18-15Texas 5LAB0152JtahTN00003VermontVT2006Virginia460132WashingtonC847West Virginia233Wisconsin9980339910	Nevada	TN-03-2002-34
New Mexico 1         n/a           New York         11742           North Carolina         Env375           North Carolina 1         DW21704           North Carolina 3         41           North Carolina 3         41           North Carolina 3         41           North Carolina 3         41           North Dakota         R-140           Dhio–VAP         CL0069           Dklahoma         9915           Dregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Carolina         84004           South Dakota         n/a           Fennessee 1 4         2006           Texas         T104704245-18-15           Texas 5         LAB0152           Utah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980339910	New Hampshire	2975
New York         11742           North Carolina         Env375           North Carolina <sup>1</sup> DW21704           North Carolina <sup>3</sup> 41           North Carolina <sup>3</sup> 41           North Dakota         R-140           Dhio–VAP         CL0069           Dklahoma         9915           Dregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Carolina         84004           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980339910	New Jersey–NELAP	TN002
North Carolina         Env375           North Carolina <sup>1</sup> DW21704           North Carolina <sup>3</sup> 41           North Carolina <sup>3</sup> 41           North Dakota         R-140           Dhio–VAP         CL0069           Dklahoma         9915           Dregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980339910	New Mexico <sup>1</sup>	n/a
North Carolina 1DW21704North Carolina 341North DakotaR-140Dhio-VAPCL0069Dklahoma9915DregonTN200002Pennsylvania68-02979Rhode IslandLA000356South Carolina84004South Carolina2006TexasT104704245-18-15Texas 5LAB0152JtahTN00003VermontVT2006Virginia460132WashingtonC847West Virginia233Wisconsin9980339910	New York	11742
North Carolina $^3$ 41North DakotaR-140Dhio-VAPCL0069Dklahoma9915DregonTN200002Pennsylvania68-02979Rhode IslandLA000356South Carolina84004South Carolina2006Tennessee $^{1.4}$ 2006TexasT104704245-18-15Texas $^5$ LAB0152JtahTN00003VermontVT2006Virginia460132WashingtonC847West Virginia233Wisconsin9980339910	North Carolina	Env375
North Dakota         R-140           Dhio–VAP         CL0069           Dklahoma         9915           Dregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	North Carolina <sup>1</sup>	DW21704
Nino-VAP         CL0069           Oblio-VAP         CL0069           Oblio-VAP         CL0069           Oklahoma         9915           Oregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	North Carolina <sup>3</sup>	41
Dollahoma         9915           Oregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1.4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	North Dakota	R-140
Oregon         TN200002           Pennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1.4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Ohio-VAP	CL0069
Dennsylvania         68-02979           Rhode Island         LA000356           South Carolina         84004           South Dakota         n/a           Tennessee <sup>1.4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Oklahoma	9915
Construction         Construction           Rhode Island         LA000356           South Carolina         84004           South Carolina         r/a           South Dakota         n/a           Fennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Utah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Oregon	TN200002
South Carolina         84004           South Carolina         84004           South Dakota         n/a           Fennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Utah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Pennsylvania	68-02979
South Dakota         n/a           Fennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Utah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Rhode Island	LAO00356
Tennessee <sup>1 4</sup> 2006           Texas         T104704245-18-15           Texas <sup>5</sup> LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	South Carolina	84004
Texas         T104704245-18-15           Texas 5         LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	South Dakota	n/a
Texas 5         LAB0152           Jtah         TN00003           Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Tennessee <sup>14</sup>	2006
Jtah         TN00003           Vermont         VT2006           virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Texas	T104704245-18-15
Vermont         VT2006           Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Texas ⁵	LAB0152
Virginia         460132           Washington         C847           West Virginia         233           Wisconsin         9980939910	Utah	TN00003
Washington         C847           West Virginia         233           Wisconsin         9980939910	Vermont	VT2006
West Virginia         233           Wisconsin         9980939910	Virginia	460132
Wisconsin 9980939910	Washington	C847
	West Virginia	233
Wyoming A2LA	Wisconsin	9980939910
	Wyoming	A2LA

#### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup>Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

#### **Our Locations**

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Released to Imaging: 1/6/2023 3:54:27 PM Timberwolf Environmental, LLC

PROJECT: HEL-180061

SDG: L1236413

DATE/TIME: 07/13/20 16:55 Received by OCD: 1/5/2023 9:52:13 AM

			Billing Info	rmation:				4	Analysis / C	ontaine	r / Preserva	itive			Chain of Custody	Page _ of _
			Timbe	Foster rwolf E	nvironmenta	Pres			Test.				1		Pace	Analytical*
			1920 1	N. Villa	Maria #	205									Nutional C	enter for Tasting & Innovation
Report to: Jim Foste	er		Imail To:	Etecntik	uberwolf.	(cm									12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58	7122 158
Project Description: Kaufmon	No. 1		2. S. S.	City/State	NM										Phone: 800-767-58 Fax: 615-758-5859	
Phone:	Client Project #			Lab Project #											L# LI	E179
Fax:	HEC-	1800	61	14.7			N							13	Table #	LIIJ
Collected by (print): Michael Morse	Site/Facility ID			P.O. #			00								Acctnum: T	IMENBER
Collected by (signature):	Rush? (La	b MUST Be	Notified)	Quote #									2.53		Template:	
Immediately Packed on Ice N Y	Same Day	Five 0	Day (Rad Only)	Date Re Standa	esults Needed	No. of	EQ							ų.	Contractory of the local division of the loc	olivia Studebake
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	F								Shipped Via: Remarks	Sample # (lab only)
Mwl	1150	GW	NIA	17-202	0	3	V,									- 61
MWZ	900	1	1	7-2-2		2	V,					1			-	02
MW 3	950			7-2-2	0	S	V,						1	23.		03
MWY	1105			7-2-2	0	2	$\checkmark$			-					and setting	04
MW 5	1344			7-2-2	0	2	$\vee$							1.12		05
MWG	1253	1	1	7-2-2		2	$\checkmark$									06
													Ball.			64
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:								pH Flow		_ Temp _ Other	<u>- 76.</u>	Bott	Signed, les ar:	ole Receipt ( resent/Intac /Accurate: rive intact: ttles used:	
DW - Drinking Water OT - Other	Samples return UPSFe		urler		Tracking #	51)	00	102	- 56	89	124.92	~	Suff	icient	volume sent <u>If Applica</u> eadspace:	
Relinquished by : (Signature)	/	Date: 7-2-	-20	Time: 1630	Received by: (Sig	nature)			Trip Blan		HCL TBR	.7 Меон	Pres	RAD	on Correct/C	co.5 mR/hr
Relinquished by : (Signature)		Date:		Time:	Received by: (Sig	nature)			Talino.At	=6		leceived:	If pre	eservatio	on required by L	ogin: Date/Time
Relinquished by : (Signature) Released to Imaging: 1/6/20	)23 3:54:27 P	Date:		Time:	Received for lab	by: (Signa BAAA			Date:	-20	Time:	545	Hold	•		Condition: NCF / OK



November 16, 2020

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2011429

RE: Kaufman

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/6/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Surr: Toluene-d8

**Analytical Report** Lab Order 2011429

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 3:26:00 AM SL73360

CLIENT:	Timberwolf Environmental		Clie	nt Sample II	<b>):</b> M	W1	
Project:	Kaufman		Co	ollection Date	e: 11	/5/2020 2:40:00 PM	
Lab ID:	2011429-001	Matrix: GROUN	DWA F	Received Date	e: 11	/6/2020 7:58:00 AM	
Analyses		Result	RL (	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8260: VOLATILES SHORT	LIST				Analyst	CCM
						Analysi	
Benzene		ND	1.0	µg/L	1	11/15/2020 3:26:00 AM	
Benzene Toluene			1.0 1.0	μg/L μg/L	1 1	, ,	SL73360
		ND	-		1 1 1	11/15/2020 3:26:00 AM	SL73360 SL73360
Toluene	zene	ND ND	1.0	µg/L	-	11/15/2020 3:26:00 AM 11/15/2020 3:26:00 AM	SL73360 SL73360 SL73360
Toluene Ethylben Xylenes,	zene	ND ND ND	1.0 1.0	μg/L μg/L	1	11/15/2020 3:26:00 AM 11/15/2020 3:26:00 AM 11/15/2020 3:26:00 AM	SL73360 SL73360 SL73360 SL73360

97.3

70-130

%Rec

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 1 of 10

Surr: Toluene-d8

**Analytical Report** Lab Order 2011429

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 3:50:00 AM SL73360

<b>CLIENT:</b> Timberwolf Environmental <b>Project:</b> Kaufman			t Sample II lection Dat		W2 /5/2020 10:48:00 AM				
Lab ID: 2011429-002	Matrix: GROUN	Matrix: GROUNDWA Received Date: 11/6/2020 7:58:00 AM							
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES SH	ORT LIST				Analys	t: CCM			
EPA METHOD 8260: VOLATILES SHO Benzene	ORT LIST ND	1.0	µg/L	1	Analys 11/15/2020 3:50:00 AM				
		1.0 1.0	μg/L μg/L	1 1	5	1 SL73360			
Benzene	ND	-	10	1 1 1	11/15/2020 3:50:00 AN	1 SL73360 1 SL73360			
Benzene Toluene	ND ND	1.0	μg/L	-	11/15/2020 3:50:00 AN 11/15/2020 3:50:00 AN	1 SL73360 1 SL73360 1 SL73360			
Benzene Toluene Ethylbenzene	ND ND ND	1.0 1.0	μg/L μg/L	1	11/15/2020 3:50:00 AN 11/15/2020 3:50:00 AN 11/15/2020 3:50:00 AN	1 SL73360 1 SL73360 1 SL73360 1 SL73360 1 SL73360			

96.8

70-130

%Rec

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 2 of 10
**Analytical Report** Lab Order 2011429

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 4:13:00 AM SL73360

CLIENT: Timberwolf Environmental Project: Kaufman			t Sample II lection Dat		W3 /5/2020 11:40:00 AM	
Lab ID: 2011429-003	Matrix: GROUN	NDWA Re	ceived Dat	<b>e:</b> 11	/6/2020 7:58:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SH	IORT LIST				Analys	t: CCM
EPA METHOD 8260: VOLATILES SF Benzene	IORT LIST ND	1.0	µg/L	1	Analys 11/15/2020 4:13:00 AN	
		1.0 1.0	μg/L μg/L	1 1		1 SL73360
Benzene	ND	-		1 1 1	11/15/2020 4:13:00 AN	1 SL73360 1 SL73360
Benzene Toluene	ND ND	1.0	μg/L	-	11/15/2020 4:13:00 AN 11/15/2020 4:13:00 AN	1 SL73360 1 SL73360 1 SL73360
Benzene Toluene Ethylbenzene	ND ND ND	1.0 1.0	μg/L μg/L	1	11/15/2020 4:13:00 AN 11/15/2020 4:13:00 AN 11/15/2020 4:13:00 AN	1 SL73360 1 SL73360 1 SL73360 1 SL73360 1 SL73360

97.8

70-130

%Rec

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 3 of 10

**Analytical Report** Lab Order 2011429

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 4:36:00 AM SL73360

CLIENT:	Timberwolf Environmental		Clie	nt Sample II	<b>):</b> M	W4	
Project:	Kaufman		Со	llection Dat	e: 11	/5/2020 12:15:00 PM	
Lab ID:	2011429-004	Matrix: GROUN	DWA R	eceived Dat	e: 11	/6/2020 7:58:00 AM	
Analyses		Result	RL Q	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8260: VOLATILES SHOR					Analys	ССМ
EPA MET Benzene		R <b>T LIST</b> ND	1.0	µg/L	1	Analysi 11/15/2020 4:36:00 AM	
		-	1.0 1.0	μg/L μg/L	1 1	,	SL7336
Benzene		ND	-	10	1 1 1	11/15/2020 4:36:00 AM	SL7336 SL7336
Benzene Toluene	zene	ND ND	1.0	µg/L		11/15/2020 4:36:00 AN 11/15/2020 4:36:00 AN	SL7336 SL7336 SL7336
Benzene Toluene Ethylben Xylenes,	zene	ND ND ND	1.0 1.0	μg/L μg/L	1	11/15/2020 4:36:00 AM 11/15/2020 4:36:00 AM 11/15/2020 4:36:00 AM	SL73360 SL73360 SL73360 SL73360

97.6

70-130

%Rec

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 4 of 10

**Analytical Report** Lab Order 2011429

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 4:59:00 AM SL73360

CLIENT:	W5								
Project:	Kaufman	Collection Date: 11/5/2020 1:36:00 PM							
Lab ID:	2011429-005	Matrix: GROUNDWA Received Date: 11/6/2020 7:58:00 AM							
Analyses		Result	RL (	Qual Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8260: VOLATILES SHORT	LIST				Analyst	CCM		
Benzene		ND	1.0	µg/L	1	11/15/2020 4:59:00 AN	SL73360		
Toluene		ND	1.0	µg/L	1	11/15/2020 4:59:00 AN	SL73360		
Ethylbenz	zene	ND	1.0	µg/L	1	11/15/2020 4:59:00 AN			
							SL73360		
Xylenes,	Total	ND	1.5	µg/L	1	11/15/2020 4:59:00 AN			
<b>,</b> ,	Total ,2-Dichloroethane-d4	ND 101	1.5 70-130	μg/L %Rec	1 1	11/15/2020 4:59:00 AN 11/15/2020 4:59:00 AN	SL73360		

96.9

70-130

%Rec

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 5 of 10

**Analytical Report** Lab Order 2011429

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 5:23:00 AM SL73360

CLIENT: Timberwolf Environmental		Clien	t Sample II	<b>D:</b> M	W6				
Project: Kaufman	Collection Date: 11/5/2020 12:48:00 PM								
Lab ID: 2011429-006	Matrix: GROUNDWA Received Date: 11/6/2020 7:58:00 AM								
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES SHOR	T LIST				Analys	CCM			
Benzene	ND	1.0	µg/L	1	11/15/2020 5:23:00 AM	SL73360			
Toluene	ND	1.0	µg/L	1	11/15/2020 5:23:00 AM	SL73360			
Ethylbenzene	ND	1.0	µg/L	1	11/15/2020 5:23:00 AM	SL73360			
					11/15/2020 5:23:00 AM				
Xylenes, Total	ND	1.5	µg/L	1	11/15/2020 5:23:00 Alv	SL73360			
Xylenes, Total Surr: 1,2-Dichloroethane-d4	ND 103	1.5 70-130	µg/L %Rec	1 1	11/15/2020 5:23:00 AM				

94.8

70-130

%Rec

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 6 of 10

Surr: 1,2-Dichloroethane-d4

Surr: Dibromofluoromethane

Surr: Toluene-d8

Analytical Report Lab Order 2011429

Hall Environmental	Analysis	Laboratory, Inc.

Date Reported: 11/16/2020

11/15/2020 5:46:00 AM SL73360

11/15/2020 5:46:00 AM SL73360

11/15/2020 5:46:00 AM SL73360

<b>CLIENT:</b> Timberwolf Environmental	Client Sample ID: DUP								
Project: Kaufman	Kaufman Collection I								
Lab ID: 2011429-007	Matrix: GROUN	Matrix: GROUNDWA Received Date: 11/6/2020 7:58:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES SHOR					Analys	t: CCM			
EPA METHOD 8260: VOLATILES SHOR Benzene	R <b>T LIST</b> ND	1.0	μg/L	1	Analys 11/15/2020 5:46:00 AM				
		1.0 1.0	μg/L μg/L	1 1	,	1 SL7336			
Benzene	ND	-		1 1 1	11/15/2020 5:46:00 AM	1 SL7336 1 SL7336			

103

99.6

97.1

70-130

70-130

70-130

%Rec

%Rec

%Rec

1

1

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Surr: Dibromofluoromethane

Surr: Toluene-d8

Analytical Report
Lab Order 2011429

### Hall Environmental Analysis Laboratory, Inc.

Lab Order 2011429

Date Reported: 11	/16/2020
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11/15/2020 7:42:00 AM S73360

11/15/2020 7:42:00 AM S73360

CLIENT: Project: Lab ID:	Timberwolf Environmental Kaufman 2011429-008	Client Sample ID: Trip Blank Collection Date: Matrix: GROUNDWA Received Date: 11/6/2020 7:58:00 AM							
Analyses		R	esult	RI		Qual Units	DF	Date Analyzed	Batch
EPA MET	THOD 8260: VOLATILES SHOR							Analys	CCM
Benzene	)		ND	1.(	0	μg/L	1	11/15/2020 7:42:00 AM	I S73360
Toluene			ND	1.(	0	μg/L	1	11/15/2020 7:42:00 AM	S73360
Ethylben	izene		ND	1.(	0	μg/L	1	11/15/2020 7:42:00 AM	S73360
Xylenes,	Total		ND	1.5	5	µg/L	1	11/15/2020 7:42:00 AM	I S73360
Surr: 2	1,2-Dichloroethane-d4		99.0	70-130	0	%Rec	1	11/15/2020 7:42:00 AM	I S73360

70-130

70-130

%Rec

%Rec

1

1

99.3

97.2

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Timberw	olf Enviro	nmenta	1								
Kaufman											
e ID: 100ng Ics SampType: LCS TestCode: EPA Method 8260: Volatiles Short List											
	Batc	h ID: SL	73360	F	3360						
	Analysis I	Date: 1	1/14/2020	:	SeqNo: 2	582625	Units: µg/L				
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
	20	1.0	20.00	0	97.8	70	130				
	19	1.0	20.00	0	96.1	70	130				
ne-d4	10		10.00		104	70	130				
nzene	10		10.00		103	70	130				
thane	10		10.00		99.5	70	130				
	9.6		10.00		96.3	70	130				
	Samp	Type: MI	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist		
	Batc	h ID: <b>SL</b>	73360	F	RunNo: 7	3360					
	Analysis I	Date: 1	1/14/2020	:	SeqNo: 2	582626	Units: µg/L				
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
	ND	1.0									
	ND	1.0									
	ND	1.0									
	ND	1.5									
ne-d4	10		10.00		105	70	130				
nzene	10		10.00		102	70	130				
thane	10		10.00		100	70	130				
	9.7		10.00		97.4	70	130				
cs2	Samp	Type: LC	S	Tes	tCode: El	PA Method	8260: Volatile	es Short L	ist		
	Batc	h ID: <b>S7</b>	73360	F	RunNo: <b>7</b>	3360					
	Analysis I	Date: 1	1/15/2020	:	SeqNo: 2	582673	Units: µg/L				
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
	20	1.0	20.00	0	99.5	70	130				
	19	1.0	20.00	0	97.2	70	130				
ne-d4	10		10.00		102	70	130				
nzene	10		10.00		102	70	130				
thane	10		10.00		102	70	130				
	9.8		10.00		98.1	70	130				
	Samp	Туре: МІ	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	ist		
	Batc	h ID: <b>S7</b>	73360	F	RunNo: <b>7</b>	3360					
	Analysis I	Date: 1	1/15/2020	\$	SeqNo: 2	582674	Units: µg/L				
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
	ND ND	1.0									
	Kaufman cs ne-d4 hzene thane me-d4 hzene thane cs2	Kaufman           cs         Samp           Bata         Analysis I           Result         20           19         10           nzene         10           thane         10           9.6         Samp           Result         0           nzene         10           9.6         Samp           Bata         Analysis I           Result         ND           ND         ND      <	Kaufman           cs         SampType:         LC           Batch ID:         SI           Analysis Date:         1           Result         PQL           20         1.0           19         1.0           nzene         10           nzene         10           9.6         SampType:           MI         Batch ID:         SI           Analysis Date:         1           Result         PQL           ND         1.0           ND         1.	SampType: LCS Batch ID: SL73360           Analysis Date:         11/14/2020           Result         PQL         SPK value           20         1.0         20.00           19         1.0         20.00           19         1.0         20.00           nzene         10         10.00           10         10.00         9.6         10.00           thane         10         10.00           9.6         10.00         9.6         10.00           SampType: MBLK           Batch ID: SL73360           Analysis Date:         11/14/2020           Result PQL SPK value           ND         1.0           SampType: LCS         Batch ID: S73360           Analysis Date:         11/15/2020           Result         PQL         SPK value           20	SampType: LCS         Test           Batch ID:         SL73360         F           Analysis Date:         11/14/2020         SPK Ref Val           Result         PQL         SPK value         SPK Ref Val           20         1.0         20.00         0           19         1.0         20.00         0           need4         10         10.00         0           nzene         10         10.00         0           thane         10         10.00         0           SampType:         MBLK         Test         5           Batch ID:         SL73360         F           Analysis Date:         11/14/2020         S           Result         PQL         SPK value         SPK Ref Val           ND         1.0         ND         1.0           ND         1.0         ND         1.0           ND         1.0         ND         1.0           ND         1.0         ND         10.00           nzene         10         10.00         10           f         Analysis Date:         11/15/2020         S           Result         PQL         SPK value	Kaufman           cs         SampType: LCS         TestCode: El           Batch ID:         SIT3360         RunNo: 7           Analysis Date:         11/14/2020         SeqNo: 2           Result         PQL         SPK Ref Val         %REC           Result         PQL         SPK Ref Val         %REC           19         1.0         20.00         0         97.8           19         1.0         20.00         0         96.1           te-d4         10         10.00         103           thane         10         10.00         99.5         9.6         10.00         99.5           9.6         10.00         SeqNo:         2         RunNo: 7         Analysis Date:         11/14/2020         SeqNo:         2           Result         PQL         SPK value         SPK Ref Val         %REC         ND         1.0           ND         1.0         ND         1.0         ND         1.02         ND         102           thane         10         10.00         1002         102         thane         10 <t< td=""><td>Kaufman           TestCode: EPA Method Batch ID: SL73360         Result POL SPK value SPK Ref Val %REC LowLimit 20         11/14/2020           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit           20         1.0         20.00         0         97.8         70           19         1.0         20.00         0         96.1         70           19         1.0         20.00         0         96.1         70           19         1.0         20.00         0         96.3         70           19         1.0         20.00         96.3         70           10         10.00         99.5         70           9.6         11/14/2020         SeqNo: 2582626         2582626           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit           ND         1.0         ND         1.0         SeqNo: 2582626         2582626           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit           ND         1.0         ND         1.0         20         70           ND         1.0</td><td>Kaufman           cs         SampType: LCS         TestCode: EPA Method 8260: Volatili Batch ID: SL73360           RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582625         Units: µg/L           Result         PQL         SPK value         SPK Value         SPK Value         SPK Value         SeqNo: 2582625         Units: µg/L           Result         PQL         SPK Value         SPK Value         SPK Value           PC         SPK Value         SPK Value         SPK Value           Adata         TestCode: EPA Method 8260: Volatilit           Batch ID: SL73360         RunNo: 73360           RunN: 73360         RunN: 73360           TestCode: EPA Method 8260: Volatilit           ND         1.0           ND         SeqNo: 2582626         Units: µg/L           Result         PQL         SPK value         SPK value           ND         1.0         <th col<="" td=""><td>Kaufinan           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short L           Batch ID: SL73360         RunNo: 73360           Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD           20         1.0         20.00         0         97.8         70         130           19         1.0         20.00         0         96.1         70         130           19         1.0         20.00         98.3         70         130           19         1.0         20.00         99.5         70         130           10         10.00         99.5         70         130         100           10         10.00         99.5         70         130         100           SampType:         MBLK         TestCode: EPA Method 8260: Volatiles Short L         Batch ID:         SampType         RunNo: 73360           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD           ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0</td><td>Kaufman           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short List           Batch ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 258262         Units: µg/L           Colspan="2"&gt;SeqNo: 258262         Volatiles Short List           MBLK         TestCode: EPA Method 8260: Volatiles Short List           Match ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582626         Units: µg/L           ND         1.0           ND         1.0           ND         1.0           ND         1.0           ND         1.0         SeqNo: 258267         Units: µg/L           ND         1.0         1.0            N</td></th></td></t<>	Kaufman           TestCode: EPA Method Batch ID: SL73360         Result POL SPK value SPK Ref Val %REC LowLimit 20         11/14/2020           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit           20         1.0         20.00         0         97.8         70           19         1.0         20.00         0         96.1         70           19         1.0         20.00         0         96.1         70           19         1.0         20.00         0         96.3         70           19         1.0         20.00         96.3         70           10         10.00         99.5         70           9.6         11/14/2020         SeqNo: 2582626         2582626           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit           ND         1.0         ND         1.0         SeqNo: 2582626         2582626           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit           ND         1.0         ND         1.0         20         70           ND         1.0	Kaufman           cs         SampType: LCS         TestCode: EPA Method 8260: Volatili Batch ID: SL73360           RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582625         Units: µg/L           Result         PQL         SPK value         SPK Value         SPK Value         SPK Value         SeqNo: 2582625         Units: µg/L           Result         PQL         SPK Value         SPK Value         SPK Value           PC         SPK Value         SPK Value         SPK Value           Adata         TestCode: EPA Method 8260: Volatilit           Batch ID: SL73360         RunNo: 73360           RunN: 73360         RunN: 73360           TestCode: EPA Method 8260: Volatilit           ND         1.0           ND         SeqNo: 2582626         Units: µg/L           Result         PQL         SPK value         SPK value           ND         1.0 <th col<="" td=""><td>Kaufinan           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short L           Batch ID: SL73360         RunNo: 73360           Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD           20         1.0         20.00         0         97.8         70         130           19         1.0         20.00         0         96.1         70         130           19         1.0         20.00         98.3         70         130           19         1.0         20.00         99.5         70         130           10         10.00         99.5         70         130         100           10         10.00         99.5         70         130         100           SampType:         MBLK         TestCode: EPA Method 8260: Volatiles Short L         Batch ID:         SampType         RunNo: 73360           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD           ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0</td><td>Kaufman           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short List           Batch ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 258262         Units: µg/L           Colspan="2"&gt;SeqNo: 258262         Volatiles Short List           MBLK         TestCode: EPA Method 8260: Volatiles Short List           Match ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582626         Units: µg/L           ND         1.0           ND         1.0           ND         1.0           ND         1.0           ND         1.0         SeqNo: 258267         Units: µg/L           ND         1.0         1.0            N</td></th>	<td>Kaufinan           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short L           Batch ID: SL73360         RunNo: 73360           Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD           20         1.0         20.00         0         97.8         70         130           19         1.0         20.00         0         96.1         70         130           19         1.0         20.00         98.3         70         130           19         1.0         20.00         99.5         70         130           10         10.00         99.5         70         130         100           10         10.00         99.5         70         130         100           SampType:         MBLK         TestCode: EPA Method 8260: Volatiles Short L         Batch ID:         SampType         RunNo: 73360           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD           ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0</td> <td>Kaufman           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short List           Batch ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 258262         Units: µg/L           Colspan="2"&gt;SeqNo: 258262         Volatiles Short List           MBLK         TestCode: EPA Method 8260: Volatiles Short List           Match ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582626         Units: µg/L           ND         1.0           ND         1.0           ND         1.0           ND         1.0           ND         1.0         SeqNo: 258267         Units: µg/L           ND         1.0         1.0            N</td>	Kaufinan           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short L           Batch ID: SL73360         RunNo: 73360           Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD           20         1.0         20.00         0         97.8         70         130           19         1.0         20.00         0         96.1         70         130           19         1.0         20.00         98.3         70         130           19         1.0         20.00         99.5         70         130           10         10.00         99.5         70         130         100           10         10.00         99.5         70         130         100           SampType:         MBLK         TestCode: EPA Method 8260: Volatiles Short L         Batch ID:         SampType         RunNo: 73360           Result         POL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD           ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0         ND         1.0	Kaufman           cs         SampType: LCS         TestCode: EPA Method 8260: Volatiles Short List           Batch ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 2582625         Units: µg/L           Result         PCL         SeqNo: 258262         Units: µg/L           Colspan="2">SeqNo: 258262         Volatiles Short List           MBLK         TestCode: EPA Method 8260: Volatiles Short List           Match ID: SL73360         RunNo: 73360           Analysis Date: 11/14/2020         SeqNo: 2582626         Units: µg/L           ND         1.0           ND         1.0           ND         1.0           ND         1.0           ND         1.0         SeqNo: 258267         Units: µg/L           ND         1.0         1.0            N

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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WO#:	2011429

16-Nov-20

## QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Timberw Kaufman	olf Enviro	nmental								
Sample ID: mb2     SampType: MBLK     TestCode: EPA Method 8260: Volatiles Short List											
Client ID: PBW		Batch	h ID: <b>S7</b>	3360	F	RunNo: 7	3360				
Prep Date:		Analysis D	Date: 11	/15/2020	S	SeqNo: 2	582674	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	1.5								
Surr: 1,2-Dichloroethar	ne-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorober	nzene	10		10.00		103	70	130			
Surr: Dibromofluorome	thane	9.9		10.00		99.2	70	130			
Surr: Toluene-d8		9.7		10.00		97.1	70	130			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2011429

## 16-Nov-20

WO#:

Page	153	of	252
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HALL ENVIRONMENTAL ANALYSIS LABORATORY	M Hall Environn TEL: 505-345 Website: clie	490 Albuquerq -3975 FAX:	l Hawkins ue. NM 871 505-345-41	NE 109 <b>Sa</b> 107	Page
Client Name: Timberwolf Enviro	nmental Work Order Nu	mber: 201	429		RcptNo: 1
Received By: Cheyenne Casor	11/6/2020 7:58:00	D AM			
Completed By: Emily Mocho	11/6/2020 12:02:	22 PM			
Reviewed By: 2Mn/6(	10				
Chain of Custody					
1. Is Chain of Custody complete?		Yes		No	Not Present
2. How was the sample delivered?		Cou	ier		
Log In 3. Was an attempt made to cool the	samples?	Yes		No 🗌	
4. Were all samples received at a ter	mperature of >0° C to 6.0°C	Yes		No 🗌	
5. Sample(s) in proper container(s)?		Yes		No 🗌	Ŭ.
6. Sufficient sample volume for indic	ated test(s)?	Yes		No 🗌	
7. Are samples (except VOA and ON	G) properly preserved?	Yes		No 🗌	
8. Was preservative added to bottles	?	Yes		No 🗹	NA 🗌
9. Received at least 1 vial with heads	pace <1/4" for AQ VOA?	Yes	~	No 🗌	
10. Were any sample containers rece	ived broken?	Yes		No 🔽	
11. Does paperwork match bottle labe		Yes		No 🗌	# of preserved bottles checked for pH:
(Note discrepancies on chain of cu 12. Are matrices correctly identified or		Yes	~	No 🗌	<pre>(&lt;2 or &gt;12 unless noted Adjusted?</pre>
13. Is it clear what analyses were requ	The second se		V		
14. Were all holding times able to be r (If no, notify customer for authoriza	net?			No 🗌	Checked by: JR 116/20
Special Handling (if applicab	( <u>e)</u>				£
15. Was client notified of all discrepan	ncies with this order?	Yes		No 🗌	NA 🔽
Person Notified:	Da	te:			-
By Whom:	Via	: 🗌 eM	ail 🗌 Ph	one 🗌 Fa	ax 🔲 In Person
Regarding:					
Client Instructions:					
16. Additional remarks:					
17. <u>Cooler Information</u> Cooler No Temp <sup>o</sup> C Con- 1 4.9 Good	dition Seal Intact Seal No Yes	Seal D	ate S	Signed By	

Page 1 of 1

Received ENVIRONMENTAL	LABORATORY		37109					Jəsi				S) 0728 Total Co										Environmental, 120
HALL ENVI	ANALYSIS	www.hallenvironmental.com	4901 Hawkins NE - Albuquerc		Conception of the local division of the loca	(0	SMISC PCB's O / MR	282 (1) 282	<pre>/ O/ s/8(s or 8 or 8 </pre>	10 <sup>3</sup> fals itals itals (GR	15D( etho 8 Me 8 Me 8 Me	<ul> <li>ATEX /-</li> <li>BTEX /-</li> <li>TPH:803</li> <li>BOB (M</li> <li>PAHs b</li> <li>PAHs b</li> <li>PAHs b</li> <li>CI, F, B</li> <li>CI, F, B</li> <li>CI, F, B</li> <li>CI, F, B</li> </ul>										Remarks: Trip Blowk not PrePare by Hell Environmenta Je 416/20.
Turn-Around Time:	Kandard 🗆 Rush	-	Kaufman Emilero	Project #:	18006/	Project Manager:	ter communitation	Sampler:	🖄 Yes 🗆 No	# of Coolers: /	Cooler Temp(including cF): 4. 9 ±0 = 4.9	Container Preservative HEAL No. Type and # Type 2011429	1tcl	002			000	006	L00	× 008		Time: Relinquished by: 1735 Trip Blank not PrePared Time: Relinquished by: 1735 Trip Blank not PrePared Received by: Via: Date Time Remarks: 1643 MML Jule One current I/6/w 075 by Heull Environmental may be ut le 20. If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical revort
stody Record	Compensal Environment		· Mailing Address:		Phone #: 979-324-2139	email or Fax#:	QA/QC Package:	Accreditation:   Accreditation:  Accompliance		□ EDD (Type) #		Date Time Matrix Sample Name T		1048GW MWZ	1140 GW MW3	1215 GW MWY	1336 GW MWS	1248 6 W MW 6	V Ger Dus	W Trip Dank		Date:     Time:     Relinquished by:       S/22     173     Reinquished by:       Date:     Time:     Relinquished by:       S/22     1843     MML       Isu     1843     MML       If necessary, kamples submitted to Hall Environmental may be subcont

Received by OCD: 1/5/2023 9:52:13 AM



# ANALYTICAL REPORT

### Timberwolf Environmental, LLC

Sample Delivery Group: Samples Received: Project Number: Description: L1282855 11/06/2020 180061 Kaufman No. 1

Report To:

Jim Foster 1920 W Villa Maria, Ste 205 Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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Cp <sup>2</sup>Tc <sup>3</sup>Ss <sup>4</sup>Cn <sup>5</sup>Sr <sup>6</sup>Qc <sup>7</sup>Gl <sup>8</sup>Al <sup>9</sup>Sc

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### SAMPLE SUMMARY

ONE LAB. NAPagev157 of 252

Ср

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Sc

MW1 L1282855-01 GW			Collected by J. Foster	Collected date/time 11/05/20 14:40	Received da 11/06/20 09:		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
IPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 14:54	CAG	Mt. Juliet, TN	
MW2 L1282855-02 GW			Collected by J. Foster	Collected date/time 11/05/20 10:48	Received da 11/06/20 09:		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
IPH by TCEQ Method 1005	WG1575440	1	11/12/20 12:30	11/14/20 15:09	CAG	Mt. Juliet, TN	
MW3 L1282855-03 GW			Collected by J. Foster	Collected date/time 11/05/20 11:40	Received da 11/06/20 09:		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
IPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 15:24	CAG	Mt. Juliet, TN	
MW4 L1282855-04 GW			Collected by J. Foster	Collected date/time 11/05/20 12:15		Received date/time 11/06/20 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
IPH by TCEQ Method 1005	WG1575440	1	11/12/20 12:30	11/14/20 15:39	CAG	Mt. Juliet, TN	
WW5 L1282855-05 GW			Collected by J. Foster	Collected date/time 11/05/20 13:36	Received da 11/06/20 09:		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 15:54	CAG	Mt. Juliet, TN	
MW6 L1282855-06 GW			Collected by J. Foster	Collected date/time 11/05/20 12:48	Received da 11/06/20 09:		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
TPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 16:09	CAG	Mt. Juliet, TN	

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### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1282855 DATE/TIME:

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#### Received by OCD: 1/5/2023 9:52:13 AM

# SAMPLE RESULTS - 01

Collected date/time: 11/05/20 14:40

#### TPH by TCEQ Method 1005 Unadj. MQL Result Qualifier SDL MQL Dilution Analysis Batch Analyte mg/l mg/l mg/l mg/l date / time Тс TPH C6 - C12 U 0.606 0.900 0.909 1.01 11/14/2020 14:54 WG1575440 TPH C12 - C28 U 0.606 0.900 0.909 1.01 11/14/2020 14:54 WG1575440 WG1575440 TPH C28 - C35 U 0.606 0.900 0.909 1.01 11/14/2020 14:54 Ss U WG1575440 TPH C6 - C35 0.606 0.900 0.909 1.01 11/14/2020 14:54 WG1575440 (S) o-Terphenyl 98.6 70.0-130 11/14/2020 14:54

Collected date/time: 11/05/20 10:48 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch			
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2		
TPH C6 - C12	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440	Tc		
TPH C12 - C28	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440			
TPH C28 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440	<sup>3</sup> Ss		
TPH C6 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440	53		
(S) o-Terphenyl	98.1				70.0-130		11/14/2020 15:09	WG1575440	4		

<sup>³</sup> Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

Collected date/time: 11/05/20 11:40 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch			
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2		
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440	Tc		
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440			
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440	<sup>3</sup> Sc		
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440	35		
(S) o-Terphenyl	98.0				70.0-130		11/14/2020 15:24	WG1575440	4		

<sup>3</sup> Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
<sup>9</sup> Sc

SDG: L1282855 DATE/TIME: 11/16/20 09:23

Collected date/time: 11/05/20 12:15 TPH by TCEQ Method 1005

									l' Cra
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440	
TPH C28 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440	53
(S) o-Terphenyl	98.7				70.0-130		11/14/2020 15:39	WG1575440	4

Collected date/time: 11/05/20 13:36 TPH by TCEQ Method 1005

									l' Cr
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440	Tc
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440	
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440	<sup>3</sup> Ss
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440	55
(S) o-Terphenyl	97.6				70.0-130		11/14/2020 15:54	WG1575440	4

<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

SDG: L1282855 DATE/TIME: 11/16/20 09:23

Collected date/time: 11/05/20 12:48 TPH by TCEQ Method 1005

									l' Cra
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440	Tc
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440	
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440	<sup>3</sup> S c
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440	53
(S) o-Terphenyl	98.9				70.0-130		11/14/2020 16:09	WG1575440	4

Ss
<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
⁰Sc

TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

Sr

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#### Method Blank (MB)

(MB) R3592816-1 11/13/20 00:27

(IVID) R3592610-1 11/13/	/20 00.27				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/l		mg/l	mg/l	Tc
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	<sup>3</sup> Ss
TPH C28 - C35	U		0.600	0.900	
TPH C6 - C35	U		0.600	0.900	4
(S) o-Terphenyl	95.2			70.0-130	Cr

#### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3592816-2 11/13/20	0 00:42 • (LCSE	) R3592816-3	11/13/20 00:58	3						
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	40.9	38.3	98.1	91.8	75.0-125			6.57	20
TPH C12 - C28	41.7	41.6	38.6	99.8	92.6	75.0-125			7.48	20
TPH C6 - C35	83.4	82.5	76.9	98.9	92.2	75.0-125			7.03	20
(S) o-Terphenyl				101	95.2	70.0-130				

DATE/TIME: 11/16/20 09:23

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#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1282855

### Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS



Τс

Ss

Cn

Sr

Qc

Gl

AI

Sc

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

#### State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky <sup>16</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	Al30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico 1	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 1 4	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A21 A

#### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup>Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

#### **Our Locations**

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



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Description:       Collected:       APPA         Phone:       I ab Project #       Iab Project #       Iab Project #         Pac:       I ab Droject #       Iab Project #       Iab Project #         Sample ID       Comp/Grab       Marin*       Point       Point         Sample ID       Comp/Grab       Marin*       Data Results Needed       No.         MW2       Immediately       Immediately       Immediately       Immediately       Immediately         MW2       Immediately       Immediately       Immediately       Immediately       Immediately       Immediately       Immediately         MW2       Immediately       <			-	Billing Infor	rmation:					Analysis	/ Containe	er / Preservative		Chain of Custody	Page of
Project Description: Protect D	TimberusiF	Env		4										2	
Project Description: Protect D	0 1													National Ci	Analytical <sup>*</sup>
Project Description: Protect D	Bayan At	17807		Email To:				E.			A CAN				E12 1 E1
Project       City/State       City/State       All Project #         Description:       Lab Project #       Lab Project #       Lab Project #         State Control of the Number of the N	Report to.			Email TO.								1		Mount Juliet, TN 37	
Difference     J BOXGO I     P.O. #       Collected by (grante):     State/Facility ID #     P.O. #       Collected by (grante):     State/Facility ID #     P.O. #       Sample ID     CompGrab     Matrix*       Sample ID     CompGrab     Matrix*       MW22     J     J       MW32     J     J       MW34     J     J       MW44     J     J       MM	Project Description:				City/State Collected: Sa	NOM	6							Phone: 800-767-58 Fax: 615-758-5859	
Collected by (print):		in the			Lab Project #										and the second se
Josh     Actour:     Actour:     Tended       Collected by (signature):     Bush? (Lab MUST Be Northed)     Date Results Needed     No.       Immediately     Sample D     Comp/Grab     Matrix*     Deph     Date Results Needed     No.       Sample D     Comp/Grab     Matrix*     Deph     Date Results Needed     No.     Probate       MWQ1     Sample D     Comp/Grab     Matrix*     Deph     Date Results Needed     No.       MW21     Imme Bar     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW23     Imme Bar     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW23     Imme Catter     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW34     Imme Catter     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW44     Imme Catter     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW45     Imme Catter     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW45     Imme Catter     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW45     Imme Catter     Imme Catter     Imme Catter     Imme Catter     Imme Catter       MW5     Imm					P.O. #									100	•
Collected by (signature):       Resh7 (sab MuST & Rostind)       Curde #       Signature):       Resh7 (sab MuST & Rostind)         Immediately       Immediately       Somples (black dws)       The Day       Date Results Needed       No.       Packed on Ice N       Y       Y       Packed on Ice N       Y       Packed on Ice N       Y		Site/Facility iD			P.U. #			5				The second	and	Acctnum:	
Immediately Packed on Ice N_v       Two toy Two boy Packed on Ice N_v       Date Results Needed No. of strice Date       No. of strice Date       Two Packed on Ice N_v       Two Packed on Ice N_	Collected by (signature):				Quote #			001							
Sample ID         Comp/Grab         Matrix *         Depth         Date         Time         No. 1         Ammata         Sample P(block)           MWU         G         GW         11/57/20         //440         Z         Image: Sample P(block)         Image: Sample P(block)           MW2         Image: Sample P(block)         Image: Sa	Immediately Packed on Ice N Y	Next Day Two Day	5 Day 10 Day	(Rad Only)	Date Result	ts Needed		H						TSR:	
Implementation       Imple	Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	L							Sample # (lab only)
MW3       II42	MWI	6	GW		11/5/20	1440	2	1							-31
MW 4       IDIS	MWZ	1			1	1048	1	1							- 02
MW 5       1336       1336       0         MW 6       1248       0       0         MW 6       1248       0       0         MW 7       1440       0       0         * Matrix:       PH       1440       0       0         * Matrix:       Sample Reactor Checklies       0       0         * Matrix:       PH       Temp       0       0         * Solid AlR - Air F - Filter       Remarks:       PH       Temp       0         GV - Groundwater       B - Bioassay       Samples returned via:       0       0       0         WW - WasteWater       Samples returned via:       Tracking #       0       0       0       0         DW - Orinking Water       Date:       Time:       Received by: (Signature)       Trip Blank Received: Yes (0b       HCL / Mecht         Relinquished by: (Signature)       Date:       Time:       Received by: (Signature)       Trip Blank Received:       If preservation required by Login: Date/Time         Relinquished by: (Signature)       Date:       Time:       Received by: (Signature)       If preservation required by Login: Date/Time         Relinquished by: (Signature)       Date:       Time:       Received for lab by: (Signature)       Date:						1140		1							03
MWS       1336       1336       0       04         MW6       1248       1248       0       04         MW6       1248       1248       0       04         MW6       1248       1248       0       04         MW7       1248       1248       0       04         MW6       1248       1248       0       04         MW7       1248       1248       0       0       04         MW7       1248       1248       0       0       0       0         Statistic scale       1248       1440       0       0       0       0         W0 vasteward       1258       1268       1288       1288       1388       0	MWY					1215							12.12		04
MW (b)       1248 + 1       0       0         MW (b)       1248 + 1       0       0       0         MW (b)       1440       0       0       0       0         * Matrix:       Sample Receipt Checklist       0       0       0       0       0         * Matrix:       Ssample Receipt Checklist       0       0       0       0       0       0       0       0         * Matrix:       Ssample Receipt Checklist       0		14 Contraction						V	192				196		05
Matrix:       Remarks:       pH								1	1						06
SS - Soil AlR - Air F - Filter       pH       pH       Temp       COC Seal Present/Intact:NPYN         GW - Groundwater B - Bioassay       WW - WasteWater       Flow       Other       Correct biotiles used:			-1-		-					14					1
SS - Soil AIR - Air F - Filter       pH       pH       Temp       COC Seal Present/Intact:NPYN         GW - Groundwater B - Bioassay       WW - WasteWater       Flow       Other       Correct biotiles used:						đ							10201		
SS - Soil AIR - Air F - Filter       pH       pH       Temp       COC Seal Present/Intact:NPYN         GW - Groundwater B - Bioassay       WW - WasteWater       Flow       Other       Correct biotiles used:					12				-						
DW - Drinking Water       Samples returned via:       Tracking #       MML UGIS       Ogis       Sufficient volume sent:       If Applicable         OT - Other       UPS _ FedEx _ Courier       Tracking #       MML UGIS       Ogis       VA Zero Headspace:       Y       N         Relinquished by : (Signature)       Date:       Time:       Received by: (Signature)       Trip Blank Received:       Yes / No       Preservation Correct/Checked:       Yes / No         Relinquished by : (Signature)       Date:       Time:       Received by: (Signature)       Femp:       °C       Bottles Received:       If preservation required by Login: Date/Time         Relinquished by : (Signature)       Date:       Time:       Received for lab by: (Signature)       Date:       Time:       Hold:       Condition:	SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay	Remarks:									199		Bottle	eal Present/Intact igned/Accurate: es arrive intact:	neckligt :NPYN N
Relinquished by : (Signature)       Date:       Time:       Received by: (Signature)       Trip Blank Received:       Yes / Vo       Preservation Correct/Checked:       Preservation Correct/Checked	DW - Drinking Water OT - Other			rier	Tra	cking # 1	92	2	0410	-	low Other Correct Suffici			cient volume sent: If Applicat	
Relinquished by : (Signature)     Date:     Time:     Received by: (Signature)     C     Bottles Received:     If preservation required by Login: Date/Time       Relinquished by : (Signature)     Date:     Time:     Received for lab by: (Signature)     Date:     Time:     Hold:     Condition:	Relinquished by : (Signature)	- 1 <sup>97</sup>	11/-	/		eived by: (Signa	ture)		, ,		V14	HCL / Meo	Prese	rvation Correct/Ch	ecked: M
Relinquished by : (Signature) Date: Time: Received for lab by: (Signature) Date: Time: Hold: Condition:	Relinquished by : (Signature)	di se			( *	eived by: (Signa	ture)			Temp: 1.5+	91 °C	Bottles Received	: If prese	ervation required by Lo	gin: Date/Time
Released to Imaging: 1/6/2023 3:54:27 PM	Relinquished by : (Signature)			T	lime: Rec	eived for lab by	: (Signat	ture)		Date:	-120		Hold:		

Received by OCD: 1/5/2023 9:52:13 AM



# ANALYTICAL REPORT

### Timberwolf Environmental, LLC

Sample Delivery Group: Samples Received: Project Number: Description: L1305406 01/12/2021 180061 Kaufman No. 1

Report To:

Jim Foster 1920 W Villa Maria, Ste 205 Bryan, TX 77807

### Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

### Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Cp <sup>2</sup>Tc <sup>3</sup>Ss <sup>4</sup>Cn <sup>5</sup>Sr <sup>6</sup>Qc <sup>7</sup>Gl <sup>8</sup>Al <sup>9</sup>Sc

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### SAMPLE SUMMARY

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			Collected by Jim Foster	Collected date/time 01/11/21 14:20	Received da 01/12/21 08:4	
MW1 L1305406-01 GW				01/11/21 14.20	01/12/21 06.4	Ct
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
PH by TCEQ Method 1005	WG1605410	1	01/14/21 08:38	01/14/21 14:43	TMM	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	
MW2 L1305406-02 GW			Jim Foster	01/11/21 10:20	01/12/21 08:4	15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
IPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 14:56	TMM	Mt. Juliet, TN
MW3 L1305406-03 GW			Collected by Jim Foster	Collected date/time 01/11/21 10:55	Received da 01/12/21 08:4	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 15:10	TMM	Mt. Juliet, TN
MW4 L1305406-04 GW			Collected by Jim Foster	Collected date/time 01/11/21 11:42	Received da 01/12/21 08:4	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 15:23	TMM	Mt. Juliet, TN
MW5 L1305406-05 GW			Collected by Jim Foster	Collected date/time 01/11/21 12:24	Received da 01/12/21 08:4	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 15:37	TMM	Mt. Juliet, TN
MW6 L1305406-06 GW			Collected by Jim Foster	Collected date/time 01/11/21 13:25	Received da 01/12/21 08:4	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.07	01/14/21 08:38	01/14/21 15:51	TMM	Mt. Juliet, TN

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### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1305406

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Collected date/time: 01/11/21 14:20 TPH by TCEQ Method 1005

									l' Cr
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410	⁻Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410	
TPH C28 - C35	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410	55
(S) o-Terphenyl	116				70.0-130		01/14/2021 14:43	WG1605410	4

#### SAMPLE RESULTS - 02 L1305406

Collected date/time: 01/11/21 10:20 TPH by TCEQ Method 1005

									l' Cr
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410	Tc
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410	
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410	<sup>3</sup> Ss
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410	55
(S) o-Terphenyl	116				70.0-130		01/14/2021 14:56	WG1605410	4

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Collected date/time: 01/11/21 10:55 TPH by TCEQ Method 1005

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	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410	Tc
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410	
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410	<sup>3</sup> Cc
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410	55
(S) o-Terphenyl	118				70.0-130		01/14/2021 15:10	WG1605410	4

<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

Collected date/time: 01/11/21 11:42 TPH by TCEQ Method 1005

Through the and the second s									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
ГРН C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410	
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410	
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410	
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410	
(S) o-Terphenyl	119				70.0-130		01/14/2021 15:23	WG1605410	

Collected date/time: 01/11/21 12:24 TPH by TCEQ Method 1005

							!'		
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410	2
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410	L
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410	3
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410	
(S) o-Terphenyl	117				70.0-130		01/14/2021 15:37	WG1605410	4
									· · · · · · · · · · · · · · · · · · ·

SDG: L1305406 DATE/TIME: 01/15/21 16:47

Collected date/time: 01/11/21 13:25 TPH by TCEQ Method 1005

						l' Cr			
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410	Tc
TPH C12 - C28	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410	
TPH C28 - C35	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410	<sup>3</sup> Ss
TPH C6 - C35	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410	53
(S) o-Terphenyl	123				70.0-130		01/14/2021 15:51	WG1605410	4

TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

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#### Method Blank (MB)

(MB) R3612566-1 01/14/21 10:45

(IND) K3012300-1 01/1					
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/l	
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	
TPH C28 - C35	U		0.600	0.900	
TPH C6 - C35	U		0.600	0.900	
(S) o-Terphenyl	119			70.0-130	

#### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3612566-2 01/14/21 10:59 • (LCSD) R3612566-3 01/14/21 11:13										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	44.5	44.7	107	107	75.0-125			0.448	20
TPH C12 - C28	41.7	40.3	40.1	96.6	96.2	75.0-125			0.498	20
TPH C6 - C35	83.4	84.8	84.8	102	102	75.0-125			0.000	20
(S) o-Terphenyl				119	119	70.0-130				

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#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1305406
# Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS



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Ss

Cn

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Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

#### State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky <sup>16</sup>	KY90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN00003
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN000032021-1
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico <sup>1</sup>	TN00003
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Dregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>14</sup>	2006
Texas	T104704245-20-18
Texas ⁵	LAB0152
Utah	TN00003
/ermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	998093910
Wyoming	A2LA

#### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP.LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup>Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

### **Our Locations**

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



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PROJECT: 180061

SDG: L1305406

DATE/TIME: 01/15/21 16:47 PAGE: 13 of 15 Received by OCD: 1/5/2023 9:52:13 AM

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		. 0	Billing Infor	rmation:				Analysis /	Container /	Preservative			Chain of Custody	Page of
Timberwolf Env Bry & A M 7	1ronman	hl	「二田町町」			Pres Chk							Prace	Analytical* Inter for Testing & Introvesion
Project Description:	200-72 201- 201- 201- 201- 201- 201- 201- 201		Email To:	City/State Collected:	Ambra	OF.c.							12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58 Phone: 800-767-58 Fax: 615-758-5859	58
A. Fridel	Client Project	#		Lab Project #			Hd						L# 130	5406
Phone: Fax:	1800	161					F	1					Table E	084
collected by (print):	Site/Facility ID #		P.O. #				Y						Acctnum:	
Collected by (signature):	Rush? (L	ab MUST Be	Notified)	Quote #			03						Template:	
Immediately Packed on Ice N Y				Date Resu	ults Needed	No. of	8 10						Prelogin: TSR: PB:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	F	1.1.1		1			Shipped Via: Remarks	Sample # (lab only)
MWI	G	Gw		11/101	1420						TL.			-01
MWZ	G	SU	1	1/11/21	1020			-4						-02
MW3	6	GW		1. 1	1055				1167 10					~7
MW4	6	Gw	1		1142									-04
MWS	6	Gw	1		1224					-	-			-05
MWG	6	GW	nessen en e	V	1325							and the second s		-26
					1.11 1.11								1. Al	/
Matrix: S - Soil AIR - Air F - Filter SW - Groundwater B - Bioassay WW - WasteWater	Remarks:							pH Flow		emp	- COC Bot	Seal P Signed tles ar	ole Receipt C resent/Intact /Accurate: rive intact: ttles used:	hecklist
DW - Drinking Water OT - Other	Samples retur UPSFe	rned via: edEx Cou	rier	Tr	racking #	422	0012	ALL PROPERTY	90		Suf	ficient	volume sent: If Applical eadspace:	ole Y N
Relinguished by : (Signature)		Date:	21	rime: Ri 1630	eceived by: (Signi		681.	1 4 J	nk Received:	Yes / No HCL / Me TBR	Pre		on Correct/Cl	necked: Y _N
Relinquished by : (Signature)		Date:	1	Time: R	eceived by: (Sign	ature)		Temp: 9	Ky3℃	Bottles Receiv		reservatio	on required by Lo	gin: Date/Time
Relinquished by : (Signature) Released to Imaging: 1/6/20	023 3:54:27	Date: PM	1	Time: Re	eceived for lab by	: (Signature	pent	Pate:	2-21	Time: Gil	(5 Hol	d:		Condition: NCF / OK

		https://kanbanflow.com/board/	111K94XZ/
95406 TIMENVBTX NCF		R	5
Time estimate: oh	Time spent: oh	Grouping date: 12 January	20
Members			*******
Cole Medley (responsible)	Olivia Studebaker		
Login Clarification needed			
Chain of custody is incomplete	e		
Please specify Metals requested	ed		
Please specify TCLP requested	1		
Received additional samples r	not listed on COC		
Sample IDs on containers do			
Client did not "X" analysis			
Chain of Custody is missing			
If no COC: Received by:		all a start and a start	
If no COC: Date/Time:	775 7		
If no COC: Temp./Cont.Rec./			
If no COC: Carrier:			
If no COC: Tracking #:	10 A A A A A A A A A A A A A A A A A A A		
Client informed by call			
Client informed by Email			
Client informed by Voicemail			
Date/Time:1/12/21			S.P.G. S.
PM initials: OS			
Client Contact:			
Comments			1
Cole Medley		12 January 2021 3:45 PM	Aller
Client didn't "X" analysis			
Logged per analysis listed on C	oc		
Olivia Studebaker		12 January 2021 3:52 PM	
Please keep logged for TPHTX	per the COC.		
Cole Medley		12 January 2021 4:01 PM	T
Done.			

maging: 1/6/2023 3:54:27 PM

irefox

1 of 1



January 14, 2021

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2101390

RE: Kaufman 1

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/12/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Envi	ronmental Analysis La	aboratory,	Inc.			Ι	Analytical Report Lab Order: 2101390 Date Reported: 1/14/2	2021
CLIENT: Project:	Timberwolf Environmental Kaufman 1				Ι	.ab C	<b>Order:</b> 210139	90
Lab ID:	2101390-001		C	ollecti	on Date	<b>e:</b> 1/1	1/2021 2:20:00 PM	[
Client Sample	e <b>ID:</b> MW1				Matrix	: A(	QUEOUS	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8260: VOLATILES SHORT LIS	ЭТ					Anal	yst: <b>JMR</b>
Benzene		ND	1.0		µg/L	1	1/13/2021 5:43:31 A	M B74592
Toluene		ND	1.0		μg/L	1	1/13/2021 5:43:31 A	M B74592
Ethylbenzene	9	ND	1.0		μg/L	1	1/13/2021 5:43:31 A	M B74592
Xylenes, Tota	al	ND	1.5		μg/L	1	1/13/2021 5:43:31 A	M B74592
-	Dichloroethane-d4	105	70-130		%Rec	1	1/13/2021 5:43:31 A	M B74592
Surr: 4-Bro	omofluorobenzene	98.5	70-130		%Rec	1	1/13/2021 5:43:31 A	M B74592
Surr: Dibro	omofluoromethane	104	70-130		%Rec	1	1/13/2021 5:43:31 A	M B74592
Surr: Tolue	ene-d8	100	70-130		%Rec	1	1/13/2021 5:43:31 A	M B74592
Lab ID:	2101390-002		C	ollecti	on Date	<b>e:</b> 1/1	1/2021 10:20:00 A	М
Client Sample	e ID: MW2				Matrix	K: A(	QUEOUS	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8260: VOLATILES SHORT LIS	бт					Anal	yst: <b>JMR</b>
Benzene		ND	1.0		µg/L	1	1/13/2021 6:11:59 A	M B74592
Toluene		ND	1.0		μg/L	1	1/13/2021 6:11:59 A	M B74592
Ethylbenzene	9	ND	1.0		µg/L	1	1/13/2021 6:11:59 A	M B74592
Xylenes, Tota	al	ND	1.5		µg/L	1	1/13/2021 6:11:59 A	M B74592
Surr: 1,2-D	Dichloroethane-d4	105	70-130		%Rec	1	1/13/2021 6:11:59 A	M B74592
Surr: 4-Bro	omofluorobenzene	99.7	70-130		%Rec	1	1/13/2021 6:11:59 A	M B74592
Surr: Dibro	omofluoromethane	103	70-130		%Rec	1	1/13/2021 6:11:59 A	M B74592
Surr: Tolue	ene-d8	99.3	70-130		%Rec	1	1/13/2021 6:11:59 A	M B74592

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

\*

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix s

Е Value above quantitation range

Analyte detected in the associated Method Blank

Analyte detected below quantitation limits J

Sample pH Not In Range Р

RL Reporting Limit

в

Page 1 of 5

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Released to Imaging: 1/6/2023 3:54:27 PM

Hall Envir	onmental Analysis La	aboratory,	Inc.			Ι	Analytical Report ab Order: 2101390 Date Reported: 1/14/	/2021
CLIENT: Project:	Timberwolf Environmental Kaufman 1				L	ab C	<b>Order:</b> 21013	90
Lab ID:	2101390-003		C	collection	on Date	: 1/1	1/2021 10:55:00 A	AM
Client Sample 1	ID: MW3				Matrix	: A(	QUEOUS	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch I
EPA METHOD	8260: VOLATILES SHORT LI	ST					Ana	alyst: <b>JMR</b>
Benzene		ND	1.0		µg/L	1	1/13/2021 6:40:37	AM B745
Toluene		ND	1.0		μg/L	1	1/13/2021 6:40:37	AM B745
Ethylbenzene		ND	1.0		μg/L	1	1/13/2021 6:40:37	AM B745
Xylenes, Total		ND	1.5		μg/L	1	1/13/2021 6:40:37	AM B745
Surr: 1,2-Dic	chloroethane-d4	107	70-130		%Rec	1	1/13/2021 6:40:37	AM B745
Surr: 4-Bron	nofluorobenzene	103	70-130		%Rec	1	1/13/2021 6:40:37	AM B745
Surr: Dibrom	nofluoromethane	106	70-130		%Rec	1	1/13/2021 6:40:37	AM B745
Surr: Toluen	e-d8	98.8	70-130		%Rec	1	1/13/2021 6:40:37	AM B745
Lab ID:	2101390-004		C	ollectio	on Date	: 1/1	1/2021 11:42:00 A	M
Client Sample 1	<b>D:</b> MW4				Matrix	: A(	QUEOUS	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch I
EPA METHOD	8260: VOLATILES SHORT LI	ST					Ana	alyst: <b>JMR</b>
Benzene		ND	1.0		µg/L	1	1/13/2021 7:09:15	AM B745
Toluene		ND	1.0		μg/L	1	1/13/2021 7:09:15	AM B745
Ethylbenzene		ND	1.0		µg/L	1	1/13/2021 7:09:15	AM B745
Xylenes, Total		ND	1.5		µg/L	1	1/13/2021 7:09:15	AM B745
Surr: 1,2-Dic	chloroethane-d4	103	70-130		%Rec	1	1/13/2021 7:09:15	AM B745
Surr: 4-Bron	nofluorobenzene	102	70-130		%Rec	1	1/13/2021 7:09:15	AM B745
Surr: Dibrom	nofluoromethane	102	70-130		%Rec	1	1/13/2021 7:09:15	AM B745
Surr: Toluen	ie-d8	97.3	70-130		%Rec	1	1/13/2021 7:09:15	AM B745

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

\*

Released to Imaging: 1/6/2023 3:54:27 PM

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix s

Е Value above quantitation range

Analyte detected in the associated Method Blank

Analyte detected below quantitation limits J

Sample pH Not In Range Р

RL Reporting Limit

в

Page 2 of 5

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Hall Envi	ronmental Analysis La	aboratory,	Inc.			Ι	Analytical Report ab Order: 2101390 Date Reported: 1/14	/2021
CLIENT: Project:	Timberwolf Environmental Kaufman 1				L	.ab C	<b>Order:</b> 21013	90
Lab ID:	2101390-005		C	ollecti	on Date	: 1/1	1/2021 12:24:00 F	м
Client Sample	e ID: MW5				Matrix	: A(	QUEOUS	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch II
EPA METHO	D 8260: VOLATILES SHORT LIS	ST					Ana	alyst: <b>JMR</b>
Benzene		ND	1.0		µg/L	1	1/13/2021 7:37:46	AM B7459
Toluene		ND	1.0		µg/L	1	1/13/2021 7:37:46	AM B7459
Ethylbenzene		ND	1.0		µg/L	1	1/13/2021 7:37:46	AM B7459
Xylenes, Tota	al	ND	1.5		µg/L	1	1/13/2021 7:37:46	AM B7459
Surr: 1,2-D	Vichloroethane-d4	104	70-130		%Rec	1	1/13/2021 7:37:46	AM B7459
Surr: 4-Bro	omofluorobenzene	101	70-130		%Rec	1	1/13/2021 7:37:46	AM B7459
Surr: Dibro	mofluoromethane	104	70-130		%Rec	1	1/13/2021 7:37:46	AM B7459
Surr: Tolue	ene-d8	98.2	70-130		%Rec	1	1/13/2021 7:37:46	AM B7459
Lab ID:	2101390-006		C	ollecti	on Date	: 1/1	1/2021 1:25:00 PM	M
Client Sample	eID: MW6				Matrix	: A(	QUEOUS	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch II
EPA METHO	D 8260: VOLATILES SHORT LIS	ST					Ana	alyst: <b>JMR</b>
Benzene		ND	1.0		µg/L	1	1/13/2021 8:06:16	AM B7459
Toluene		ND	1.0		µg/L	1	1/13/2021 8:06:16	AM B7459
Ethylbenzene	)	ND	1.0		µg/L	1	1/13/2021 8:06:16	AM B7459
Xylenes, Tota	al	ND	1.5		µg/L	1	1/13/2021 8:06:16	AM B7459
Surr: 1,2-D	vichloroethane-d4	110	70-130		%Rec	1	1/13/2021 8:06:16	AM B7459
Surr: 4-Bro	omofluorobenzene	101	70-130		%Rec	1	1/13/2021 8:06:16	AM B7459
Surr: Dibro	mofluoromethane	106	70-130		%Rec	1	1/13/2021 8:06:16	AM B7459
Surr: Tolue	ene-d8	101	70-130		%Rec	1	1/13/2021 8:06:16	AM B7459

Qualifiers:

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

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Received by OCD: 1/5/2023 9:52:13 AM

Hall Env	ironmental Analysis	Laboratory,	Inc.		Ι	Analytical Report Lab Order: 2101390 Date Reported: 1/14/2	2021
CLIENT: Project:	Timberwolf Environment Kaufman 1	al		I	ab C	<b>)rder:</b> 210139	0
Lab ID:	2101390-007		Co	ollection Date	: 1/1	11/2021 12:28:00 PM	Ν
Client Sampl	e ID: Dup			Matrix	: A0	QUEOUS	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	DD 8260: VOLATILES SHORT	LIST				Anal	yst: <b>JMR</b>
Benzene		ND	1.0	µg/L	1	1/13/2021 8:34:47 A	M B74592
Toluene		ND	1.0	μg/L	1	1/13/2021 8:34:47 A	M B74592
Ethylbenzen	e	ND	1.0	µg/L	1	1/13/2021 8:34:47 A	M B74592
Xylenes, Tot	al	ND	1.5	μg/L	1	1/13/2021 8:34:47 A	M B74592
Surr: 1,2-	Dichloroethane-d4	106	70-130	%Rec	1	1/13/2021 8:34:47 A	M B74592
Surr: 4-Br	omofluorobenzene	101	70-130	%Rec	1	1/13/2021 8:34:47 A	M B74592
Surr: Dibr	omofluoromethane	107	70-130	%Rec	1	1/13/2021 8:34:47 A	M B74592
Surr: Tolu	ene-d8	96.9	70-130	%Rec	1	1/13/2021 8:34:47 A	M B74592
Lab ID:	2101390-008		Co	ollection Date	:		
Client Sampl	e ID: Trip Blank			Matrix	: TF	RIP BLANK	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	DD 8260: VOLATILES SHORT	LIST				Anal	yst: <b>JMR</b>
Benzene		ND	1.0	μg/L	1	1/13/2021 9:03:19 A	M B74592
Toluene		ND	1.0	μg/L	1	1/13/2021 9:03:19 A	M B74592
Ethylbenzen	e	ND	1.0	µg/L	1	1/13/2021 9:03:19 A	M B74592
Xylenes, Tot	al	ND	1.5	µg/L	1	1/13/2021 9:03:19 A	M B74592
Surr: 1,2-	Dichloroethane-d4	101	70-130	%Rec	1	1/13/2021 9:03:19 A	M B74592
Surr: 4-Br	omofluorobenzene	105	70-130	%Rec	1	1/13/2021 9:03:19 A	M B74592
	omofluoromethane	107	70-130	%Rec	1	1/13/2021 9:03:19 A	M B74592
Surr: Tolu	ene-d8	99.7	70-130	%Rec	1	1/13/2021 9:03:19 A	M B74592

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Timberwolf E	Enviror	mental								
Project:	Kaufman 1										
Sample ID: 100ng lo	cs	SampT	ype: LC	S	TestCode: EPA Method 8260: Volatiles Short List						
Client ID: LCSW		Batch	ID: <b>B7</b>	4592	R	unNo: 74	1592				
Prep Date:	Ana	alysis D	ate: 1/	12/2021	SeqNo: 2633057			Units: µg/L			
Analyte	Re	esult	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		22	1.0	20.00	0	109	70	130			
Toluene		21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethan	e-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorober	izene	10		10.00		100	70	130			
Surr: Dibromofluoromet	thane	9.4		10.00		94.0	70	130			
Surr: Toluene-d8		9.7		10.00		96.7	70	130			
Sample ID: VSB Fri	dao	SampType: MBLK TestCode: EPA Method 8260: Volatiles Short List									
Campie ID. VSB FII	uye	oumpi	ype. IIIL		: <b>B74592</b> RunNo: <b>74592</b>						
Client ID: PBW	uge	•			R	unNo: 74					
•	0	Batch	ID: <b>B7</b>			unNo: 74 SeqNo: 20	1592	Units: µg/L			
Client ID: PBW	Ana	Batch	ID: <b>B7</b>	4592 12/2021			1592		%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte	Ana	Batch alysis D	ID: <b>B7</b> ate: <b>1/</b>	4592 12/2021	S	eqNo: 20	4592 633058	Units: µg/L	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene	Ana	Batch alysis D esult	ID: <b>B7</b> ate: <b>1/</b> PQL	4592 12/2021	S	eqNo: 20	4592 633058	Units: µg/L	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene	Ana	Batch alysis D esult ND	D: <b>B7</b> ate: <b>1</b> / PQL 1.0	4592 12/2021	S	eqNo: 20	4592 633058	Units: µg/L	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene	Ana	Batch alysis D esult ND ND	ate: <b>1</b> / PQL 1.0	4592 12/2021	S	eqNo: 20	4592 633058	Units: µg/L	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene	Ana R(	Batch alysis D esult ND ND ND	ate: <b>1</b> / PQL 1.0 1.0 1.0	4592 12/2021	S	eqNo: 20	4592 633058	Units: µg/L	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Ana Re	Batch alysis D esult ND ND ND ND	ate: <b>1</b> / PQL 1.0 1.0 1.0	<b>4592</b> 12/2021 SPK value	S	eqNo: 20	4592 533058 LowLimit	Units: <b>µg/L</b> HighLimit	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethan	Ana Re le-d4 izene	Batch alysis D esult ND ND ND ND 10	ate: <b>1</b> / PQL 1.0 1.0 1.0	4592 12/2021 SPK value 10.00	S	ieqNo: <b>26</b> <u>%REC</u> 101	4592 533058 LowLimit 70	Units: µg/L HighLimit 130	%RPD	RPDLimit	Qual

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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14-Jan-21

2101390

WO#:

Page	190	of	°252

ived by OCD: 1/5/2023 9:52 HALL ENVIRONMENTA ANALYSIS LABORATORY	Hall Er L TEL: 5		1 Hawkins 1 ue, NM 871 505-345-41	NE 09 <b>San</b> 07	Sample Log-In Check Li		
Client Name: Timberwolf I	Environmental Work Ord	der Number: 210	1390		RcptNo: 1	2	
Received By: Isaiah Ortiz	1/12/2021	7:50:00 AM		ILC	4		
Completed By: Isaiah Ortiz	1/12/2021	8:39:11 AM		I_C I_C	4		
Reviewed By: Je 1/1	2/21						
Chain of Custody							
1. Is Chain of Custody comple	te?	Yes	~	No 🗌	Not Present		
2. How was the sample delive	red?	Cou	ier				
Log In			-				
3. Was an attempt made to co	ol the samples?	Yes	$\checkmark$	No 🗌	NA 🗌		
4. Were all samples received a	at a temperature of >0° C to 6	.0°C Yes		No 🗌			
5. Sample(s) in proper contain	er(s)?	Yes		No 🗌			
6. Sufficient sample volume for	rindicated test(s)?	Yes	~	No 🗌			
7. Are samples (except VOA a	nd ONG) properly preserved?	Yes	$\checkmark$	No 🗌			
8. Was preservative added to I	pottles?	Yes		No 🗹	NA 🗔		
9. Received at least 1 vial with	headspace <1/4" for AQ VOA	? Yes		No 🗌		,	
10. Were any sample container	s received broken?	Yes		No 🗹	# of preserved	/	
11. Does paperwork match bottl (Note discrepancies on chai		Yes	$\checkmark$	No 🗌	bottles checked for pH:	2 unless note	
12. Are matrices correctly identi		Yes	~	No 🗌	Adjusted?		
13. Is it clear what analyses wer	e requested?	Yes	V	No 🗌	/		
14. Were all holding times able (If no, notify customer for au		Yes		No 🗌	Checked by: 50	L 1/12/2	
Special Handling (if appl	icable)						
15. Was client notified of all dis	crepancies with this order?	Yes		No 🗌	NA 🗹		
Person Notified:		Date:					
By Whom:		Via: 🗌 eM	ail 🗌 Pho	one 🗌 Fax	In Person		
Regarding:							
Client Instructions:							
16. Additional remarks:							
17. <u>Cooler Information</u> Cooler No Temp <sup>o</sup> C 1 0.8	Condition Seal Intact Se Good Yes	eal No Seal D	ate S	igned By			

Page 1 of 1

Cha	ain-of	-Cu	stody Record	Turn-Around	d Time:															
Client: 7	Ember	urs (	F Environment	Standar	d 🗆 Rush				E.									IEN RAT		
				Project Nam	e: / _	the 1										tal.co			0	
Mailing Add	dress:				KauFm	in Pl	10	40	01 11									00		
				Project #:					el. 50								M 871	09		
Phone #:	97	19	324-2139	1	80061			1	ei. 50	5-34	5-38		_		_	-345- uest				
email or Fa			o team timber wild	Project Man	ager:		~	â				and the second s	SO4						1	T
QA/QC Pack	kage:		Level 4 (Full Validation)	Jim	Foster		(8021)	/ MRC	PCB's		8270SIMS		PO4, SO			/Absen				
Accreditatio		1.1.1	npliance	Complor			TMB's	DRC		~	520		2, F			sent				
		Other	npilalice	Sampler: On Ice:	S Yes	□ No	F	1/0	\$/80	04.1	or 8,		NO <sub>2</sub> ,		(A	Pres				
🗆 EDD (Ty				# of Coolers			H	GR	ides	9 p	10	tals	03,		5	E E				
				Cooler Tem	O(including CF): 09	(°°)	MTBE	15D	estic	letho	y 83	8 Metals	Br, NO <sub>3</sub> ,	(A)	emi	olifor				
Date Tim	ne Mat	rix	Sample Name	Container Type and #	Preservative Type	HEAL NO.	BTEX /	TPH:8015D(GR0 / DR0 / MR0)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or	RCRA	CI, F, E	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)				
1/11/201/4	120 Hz	đ	MWI			001	1													Γ
1/1/21 10	720		Mw2			00 Z	V													
1/11/2/10	55		MW3			003	V											- <b>1</b>	1	
1/11/21/14	12		MW4			004	V			1										
1/1/21/2	24		MWS			005	1	/												
11/21/13	25		MWG			006	/													
111/21/2	28		Dup			007	V											100	1	
	- 1	1	Trip Blank			008	V													
			1																	
	_							-									-			L
								_		_	-	-	-	-	_	_	_	-	_	
Date: Time	Relin	quished	d by:	Received by:	Via:	Date Time	Ren	nark	<u>s</u> .		_	_	_		_					L
Date: Time	30	1	h Eff	Alm. t.	1. Josla	1/11/21 1530	*T	rip	pl	an	61	pro	Vic	100	76	DY	Clie	ent 1/21	no	t
Date: Time	: Relin	quished	d by:	Received by:	Via:	Date Time	Fil	le	d (	14	H	CIII	*	-6	N	M	1112	121		
1/1/20 19	14/	10	Mity Wallow	4na	min	1/12/21 0750														
If nece	essary, sampl	es subm	nitted to Hall Environmental may be subc	contracted to other a	Sec.		possi	bility.	Any sub	-contra	icted	data wi	ll be c	learly	notat	ted on t	he anal	vtical rer	ort.	_



June 14, 2021

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2105B57

Dear Jim Foster:

RE: Kaufman

Hall Environmental Analysis Laboratory received 8 sample(s) on 5/27/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Received by	OCD:	1/5/2023	9:52:13 AM
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Hall Envi	ronmental Analysis La	boratory, Iı	nc.			Ι	Analytical Report Lab Order: 2105B57 Date Reported: 6/14/2	2021
CLIENT: Project:	Timberwolf Environmental Kaufman				Ι	Lab C	<b>)rder:</b> 2105B:	57
Lab ID:	2105B57-001		Co	ollecti	on Date	e: 5/2	26/2021 4:25:00 PM	[
Client Sample	e ID: MW 1				Matrix	: GI	ROUNDWATER	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES						Anal	yst: CCM
Methyl tert-b	utyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 1:24:00 PN	1 R7881C
Benzene		ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	1 R78810
Toluene		ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	1 R78810
Ethylbenzene	e	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	1 R78810
Xylenes, Tota	al	ND	2.0		µg/L	1	6/2/2021 1:24:00 PM	1 R78810
1,2,4-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	1 R78810
1,3,5-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	1 R78810
Surr: 4-Bro	omofluorobenzene	86.0	70-130		%Rec	1	6/2/2021 1:24:00 PN	1 R78810
Lab ID:	2105B57-002		Co	ollecti	on Date	e: 5/2	26/2021 12:53:00 PM	N
Client Sample	<b>e ID:</b> MW 2				Matrix	: GI	ROUNDWATER	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES						Anal	yst: CCM
Methyl tert-b	utyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 2:24:00 PM	1 R78810
Benzene	· · ·	ND	1.0		μg/L	1	6/2/2021 2:24:00 PN	1 R7881C
Toluene		ND	1.0		μg/L	1	6/2/2021 2:24:00 PM	1 R78810
Ethylbenzene	e	ND	1.0		μg/L	1	6/2/2021 2:24:00 PM	1 R78810
Xylenes, Tota	al	ND	2.0		µg/L	1	6/2/2021 2:24:00 PM	1 R78810
1,2,4-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PN	1 R78810
1,3,5-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PM	1 R78810
Curry 4 Dr		00.5	70 400		0/ 🗖 = =		C/0/0004 0:04:00 DN	

88.5

70-130

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

%Rec 1

6/2/2021 2:24:00 PM

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

Page 1 of 6

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R78810

Received by	OCD:	1/5/2023	9:52:13 AM
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Hall Envi	ronmental Analysis La	aboratory, Ir	10.		Ι	Analytical Report Lab Order: 2105B57 Date Reported: 6/14/2	2021
CLIENT: Project:	Timberwolf Environmental Kaufman				Lab (	<b>)rder:</b> 2105B:	57
Lab ID:	2105B57-003		С	ollection Da	te: 5/2	26/2021 1:45:00 PM	[
Client Sample	e ID: MW 3			Matr	ix: GI	ROUNDWATER	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES					Anal	yst: CCM
Methyl tert-b	utyl ether (MTBE)	ND	2.5	µg/L	1	6/2/2021 2:43:00 PM	A R78810
Benzene		ND	1.0	µg/L	1	6/2/2021 2:43:00 PM	A R78810
Toluene		ND	1.0	µg/L	1	6/2/2021 2:43:00 PM	A R7881C
Ethylbenzene	e	ND	1.0	µg/L	1	6/2/2021 2:43:00 PN	A R7881C
Xylenes, Tota	al	ND	2.0	µg/L	1	6/2/2021 2:43:00 PM	A R7881C
1,2,4-Trimeth	nylbenzene	ND	1.0	µg/L	1	6/2/2021 2:43:00 PM	A R78810
1,3,5-Trimeth	nylbenzene	ND	1.0	µg/L	1	6/2/2021 2:43:00 PM	A R78810
Surr: 4-Bro	omofluorobenzene	83.8	70-130	%Rec	: 1	6/2/2021 2:43:00 PN	A R78810
Lab ID:	2105B57-004		С	ollection Da	te: 5/2	26/2021 2:20:00 PM	[
Client Sample	e ID: MW 4			Matr	ix: GI	ROUNDWATER	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES					Anal	yst: CCM
Methyl tert-b	utyl ether (MTBE)	ND	2.5	μg/L	1	6/2/2021 3:03:00 PM	A R78810
Benzene		ND	1.0	μg/L	1	6/2/2021 3:03:00 PM	A R78810
Toluene		ND	1.0	µg/L	1	6/2/2021 3:03:00 PM	A R7881C
Ethylbenzene	e	ND	1.0	µg/L	1	6/2/2021 3:03:00 PM	A R78810
Xylenes, Tota	al	ND	2.0	µg/L	1	6/2/2021 3:03:00 PM	A R7881C
1,2,4-Trimeth	hylbenzene	ND	1.0	µg/L	1	6/2/2021 3:03:00 PM	A R7881C
1,3,5-Trimeth	ylbenzene	ND	1.0	µg/L	1	6/2/2021 3:03:00 PM	A R7881C
Surr: 4-Bro	omofluorobenzene	83.4	70-130	%Rec	; 1	6/2/2021 3:03:00 PM	A R7881C

Qualifiers:

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

Page 2 of 6

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Received by	OCD:	1/5/2023	9:52:13 AM
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Hall Envi	ronmental Analysis La	boratory, Ir	nc.			I	Analytical Report ab Order: 2105B57 Date Reported: 6/14/2	2021
CLIENT: Project:	Timberwolf Environmental Kaufman				Ι	.ab C	<b>)rder:</b> 2105B:	57
Lab ID:	2105B57-005		C	ollecti	on Date	e: 5/2	26/2021 3:00:00 PM	[
Client Sample	e ID: MW 5				Matrix	: GF	ROUNDWATER	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES						Anal	yst: CCM
Methyl tert-b	utyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 3:23:00 PM	/ R7881C
Benzene		ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	/ R78810
Toluene		ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	/ R78810
Ethylbenzene	e	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	/ R78810
Xylenes, Tota	al	ND	2.0		µg/L	1	6/2/2021 3:23:00 PM	/ R78810
1,2,4-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	/ R78810
1,3,5-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	/ R78810
Surr: 4-Bro	omofluorobenzene	84.5	70-130		%Rec	1	6/2/2021 3:23:00 PM	A R78810
Lab ID:	2105B57-006		C	ollecti	on Date	e: 5/2	26/2021 3:44:00 PM	I
Client Sample	e ID: MW 6				Matrix	: GF	ROUNDWATER	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES						Anal	yst: CCM
Methyl tert-b	utyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
Benzene		ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
Toluene		ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
Ethylbenzene	e	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
Xylenes, Tota	al	3.8	2.0		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
1,2,4-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
1,3,5-Trimeth	nylbenzene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	/ R78810
Curry 4 Dr		04.0	70 400		0/ 🗖 = =		C/0/0004 0.40.00 DA	

84.3

70-130

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

%Rec 1

6/2/2021 3:43:00 PM

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

Page 3 of 6

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R78810

Analytical Report
Lab Order: 2105B57

Hall Enviro	nmental Analysis La	boratory,	Inc.			Ι	Date Reported: 6/14/2	2021
CLIENT: Project:	Timberwolf Environmental Kaufman				L	ab C	<b>Order:</b> 2105B5	57
_ab ID:	2105B57-007		C	ollectio	on Date	: 5/2	26/2021 3:00:00 PM	[
Client Sample ID	: DUP				Matrix	: GF	ROUNDWATER	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 80	021B: VOLATILES						Anal	yst: CCM
Methyl tert-butyl e	ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
Benzene		ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
Toluene		ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
Ethylbenzene		ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
Xylenes, Total		ND	2.0		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
1,2,4-Trimethylbe	nzene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
1,3,5-Trimethylbe	nzene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	1 R7881
Surr: 4-Bromof	luorobenzene	85.1	70-130		%Rec	1	6/2/2021 4:03:00 PM	1 R7881
.ab ID:	2105B57-008		C	ollectio	on Date	:		
Client Sample ID	: Trip Blank				Matrix	: TF	RIP BLANK	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 80	021B: VOLATILES						Anal	yst: CCM
Methyl tert-butyl e	ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 4:23:00 PM	1 R7881
Benzene	. ,	ND	1.0		μg/L	1	6/2/2021 4:23:00 PM	1 R7881
Toluene		ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	1 R7881
Ethylbenzene		ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	1 R7881
Xylenes, Total		ND	2.0		µg/L	1	6/2/2021 4:23:00 PM	1 R7881
1,2,4-Trimethylbe	nzene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	1 R7881
1,3,5-Trimethylbe	nzene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	1 R7881
Surr: 4-Bromof	luorobenzene	83.7	70-130		%Rec	1	6/2/2021 4:23:00 PM	1 R7881

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

Page 4 of 6

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Timberw Project: Kaufman	olf Enviro	nmental								
Sample ID: 100ng BTEX Ics	SampT	Гуре: <b>LC</b>	S	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID: LCSW	Batch	h ID: <b>R7</b>	8810	F	unNo: <b>78</b>	8810				
Prep Date:	Analysis E	Date: 6/	2/2021	S	eqNo: 27	763901	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17	2.5	20.00	0	85.7	59.5	133			
Benzene	18	1.0	20.00	0	89.4	80	120			
Toluene	18	1.0	20.00	0	90.6	80	120			
Ethylbenzene	19	1.0	20.00	0	93.8	80	120			
Kylenes, Total	55	2.0	60.00	0	92.1	80	120			
I,2,4-Trimethylbenzene	19	1.0	20.00	0	94.2	80	120			
I,3,5-Trimethylbenzene	19	1.0	20.00	0	94.5	80	120			
Surr: 4-Bromofluorobenzene	17	-	20.00	-	85.0	70	130			
Sample ID: MB	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID: PBW	Batcl	h ID: <b>R7</b>	8810	F	unNo: <b>78</b>	8810				
Prep Date:	Analysis D	Date: 6/	2/2021	S	eqNo: 27	763902	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Kylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.1	70	130			
Sample ID: 2105B57-001ams	SampT	Гуре: МS	;	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID: MW 1	Batcl	h ID: <b>R7</b>	8810	F	unNo: <b>78</b>	8810				
Prep Date:	Analysis E	Date: 6/	2/2021	S	eqNo: 27	763904	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	91.5	60.4	152			
Benzene	19	1.0	20.00	0	95.7	80	120			
Toluene	19	1.0	20.00	0	97.2	80	120			
Ethylbenzene	20	1.0	20.00	0	99.1	80	120			
Kylenes, Total	58	2.0	60.00	0	97.0	80	120			
I,2,4-Trimethylbenzene	19	1.0	20.00	0	97.4	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.5	80	120			

#### **Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

WO#: 2105B57

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Timberwolf Environmental
Project:	Kaufman

Sample ID: 2105B57-001amso	<b>d</b> SampT	уре: <b>МS</b>	D	Tes	tCode: El	PA Method	8021B: Volati	iles		
Client ID: MW 1	Batcl	n ID: <b>R7</b>	8810	F	RunNo: 7	8810				
Prep Date:	Analysis D	Date: 6/	2/2021	5	SeqNo: 2	763905	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.4	60.4	152	2.29	20	
Benzene	17	1.0	20.00	0	85.9	80	120	10.7	20	
Toluene	17	1.0	20.00	0	87.1	80	120	11.0	20	
Ethylbenzene	18	1.0	20.00	0	90.1	80	120	9.55	20	
Xylenes, Total	53	2.0	60.00	0	88.9	80	120	8.68	20	
1,2,4-Trimethylbenzene	19	1.0	20.00	0	92.8	80	120	4.77	20	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	93.7	80	120	5.02	20	
Surr: 4-Bromofluorobenzene	17		20.00		84.1	70	130	0	0	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 6

WO#: 2105B57

14-Jun-21

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environment A TEL: 505-345-39 Website: clients.	49) Ibuquer 75 FAX:	01 Hawkins que, NM 87 505-345-4	s NE 7109 107	Sample Log-In Check Lis				
Client Name: Timberwolf Environmental	Work Order Numbe	er: 210	5B57			RcptNo: 1			
Received By: Juan Rojas	5/27/2021 7:10:00 A	м		Hean	ag)				
Completed By: Desiree Dominguez	5/27/2021 9:23:13 A	м		TH	-				
Reviewed By: SPA 5.27.3	21			14	N				
Chain of Custody									
1. Is Chain of Custody complete?		Yes		No		Not Present			
2. How was the sample delivered?		Cou	rier						
Log In 3. Was an attempt made to cool the samples?		Yes		No					
		165		NO					
<ol> <li>Were all samples received at a temperature of</li> </ol>	>0° C to 6.0°C	Yes		No		NA 🗌			
5. Sample(s) in proper container(s)?		Yes	~	No					
5. Sufficient sample volume for indicated test(s)?		Yes		No					
7 Are samples (except VOA and ONG) properly p	preserved?	Yes	$\checkmark$	No					
3. Was preservative added to bottles?		Yes		No	•	NA 🗌			
). Received at least 1 vial with headspace <1/4" f	or AQ VOA?	Yes		No					
0. Were any sample containers received broken?		Yes		No	V	# of preserved bottles checked			
1. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No		for pH: (#2 or >12 unless noted)			
2. Are matrices correctly identified on Chain of Cu	stody?	Yes		No		Adjusted?			
3. Is it clear what analyses were requested?		Yes	$\checkmark$	No					
<ol> <li>Were all holding times able to be met? (If no, notify customer for authorization.)</li> </ol>		Yes		No		Checked by: Cu-Sizila			
pecial Handling (if applicable)									
5. Was client notified of all discrepancies with this	order?	Yes		No		NA 🗹			
Person Notified:	Date:								
By Whom:	Via:	🗌 eMa	ail 🗌 Ph	one 🗌	Fax	In Person			
Regarding:									
Client Instructions:									
6. Additional remarks:									
7. <u>Cooler Information</u> Cooler No Temp ºC Condition Seal	Intact Seal No	Seal Da	ate S	Signed E	Зу				

Page 1 of 1

Client:	Timb	rwol	F Environment	Project Na	Floject Name.					A	N	AL	YS.	519	S L		OR	ENT	
Mailing	Address	:		K	aufman			49	01 H								87109	Э	
				Project #:				Т	el. 50	5-34	15-3	975	I	ax	505	-345-4	107		
		5-321	4-2139	1	80061			_		_		A	-	/sis	Req	uest			
email o		-		Project Ma	nager:		(8021)	00					SO4			ent)			
QA/QC	Package: Idard		□ Level 4 (Full Validation)	J:m Foster				O / MF	PCB's		8270SIMS		PO4,			t/Abse			
Accred	itation:	□ Az Co	ompliance	Sampler:	J. Fast		TMB'	DR	082	÷.	8270		$NO_2$ ,			esen			
		□ Other		On Ice:	, 🛛 Yes	□ No	-	SO	s/8	504	or	s			(YC	(Pre			
	(Type)			# of Cooler	Charles and the second	- (80)	MTBE	D(GI	icide	por	310	letal	NO	1	ni-V(	Drm			
			1	Cooler Ter	NP(including CF): 6,	5-0.7=0.7 (°C)	1-	015L	esti	Meth	by 8	8 M	Ъ,	VOP	Ser	Colife			
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	2105857	BTEX	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)			
5/26/	162	GW	MWI	(3) VOA	HCI	-001	~							(-)					
1	1253	60	MWZ	1	1	-002	1			-									
	1345	SW	MW3			-003	1			n a d							1.		
	1420	GN	MW4			-004	1												
	1300	GW	MWS			-005	1												
	1544	60	MWG			- 006	V	1									1.1		
V	1500	Gw	DUP	J	ł	-007	1												
	121	[]	Trive Blank			-008	1												
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					1					_		_							
Date:	Time:	Relinquish	ed hv:	Received by:	Via: j	Date Time							-						
1/2/21	174.		M	AAA.	+ 1 his	Date Time	Ren	narks	5.										
Date:	Time:	Relinquish	ed by:	Received by:	Via:	Date Time													
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ANALY II	CAL REPOF 9 04, 2021	2	<sup>1</sup> Cp
			<sup>2</sup> Tc
			<sup>3</sup> Ss
Timberwolf Environn	iental, LLC		4
Sample Delivery Group:	L1359425		Cn
Samples Received:	05/28/2021		⁵Sr
Project Number:	180061		
Description:	Kaufman No. 1		<sup>6</sup> Qc
			<sup>7</sup> Gl
Report To:	Jim Foster		GI
	1920 W Villa Maria, Ste 205		<sup>8</sup> Al
	Bryan, TX 77807		
			<sup>9</sup> Sc

Entire Report Reviewed By:

1 Λ

× 7

1

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

# Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Released to Imaging: 01/5/2023 3:54:27 PM Timberwolf Environmental, LLC

PROJECT: 180061

SDG: L1359425

DATE/TIME: 06/04/21 11:05 PAGE: 1 of 14

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<sup>2</sup>Tc <sup>3</sup>Ss <sup>4</sup>Cn <sup>5</sup>Sr <sup>6</sup>Qc <sup>7</sup>Gl <sup>8</sup>Al <sup>9</sup>Sc

Released to Imaging: 12023 3:54:27 PM Timberwolf Environmental, LLC PROJECT: 180061

SDG: L1359425 ا 0

DATE/TIME: 06/04/21 11:05 PAGE: 2 of 14 Received by OCD: 1/5/2023 9:52:13 AM

## SAMPLE SUMMARY

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Ср

<sup>2</sup>Tc

Ss

Cn

Sr

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GI

ΆI

Sc

MW1 L1359425-01 GW			Collected by J. Foster	Collected date/time 05/26/2116:25	Received dat 05/28/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 16:42	TJD	Mt. Juliet, TN
MW2 L1359425-02 GW			Collected by J. Foster	Collected date/time 05/26/21 12:53	Received da: 05/28/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 16:58	TJD	Mt. Juliet, TN
MW3 L1359425-03 GW			Collected by J. Foster	Collected date/time 05/26/21 13:45	Received da: 05/28/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 17:15	TJD	Mt. Juliet, TN
MW4 L1359425-04 GW			Collected by J. Foster	Collected date/time 05/26/21 14:20	Received da: 05/28/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 17:31	TJD	Mt. Juliet, TN
MW5 L1359425-05 GW			Collected by J. Foster	Collected date/time 05/26/2115:00	Received dat 05/28/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 18:04	TJD	Mt. Juliet, TN
MW6 L1359425-06 GW			Collected by J. Foster	Collected date/time 05/26/2115:44	Received dat 05/28/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 18:20	TJD	Mt. Juliet, TN

SDG: L1359425 DATE/TIME: 06/04/21 11:05

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### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager

### Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID L1359425-03 Project Sample ID

Method TCEQ Method 1005 4 of 252 <sup>1</sup> Cp <sup>2</sup> Tc <sup>3</sup> Ss <sup>4</sup> Cn <sup>5</sup> Sr <sup>6</sup> Qc <sup>7</sup> Gl <sup>8</sup> Al <sup>9</sup> Sc

Released to Imaging: 17572023 3:54:27 PM Timberwolf Environmental, LLC PROJECT: 180061

SDG: L1359425 DATE/TIME: 06/04/21 11:05

ME: 11:05 PAGE: 4 of 14

### Received by OCD: 1/5/2023 9:52:13 AM

# SAMPLE RESULTS - 01

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Collected date/time: 05/26/21 16:25 TPH by TCEQ Method 1005

ITT by ICEC MC									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485	
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485	<sup>³</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485	0.5
(S) o-Terphenyl	73.9				70.0-130		06/03/2021 16:42	WG1680485	4
									Cn

Qc

Gl

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Sc

### SAMPLE RESULTS - 02 L1359425

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Qc

Gl

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Sc

## Collected date/time: 05/26/21 12:53 TPH by TCEQ Method 1005

· · · · · · · · · · · · · · · · · · ·										'Cn
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time			2
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485		Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485	L	
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485	1	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485		5
(S) o-Terphenyl	76.4				70.0-130		06/03/2021 16:58	WG1680485	[	<sup>4</sup> Cn

SDG: L1359425

DATE/TIME: 06/04/21 11:05

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# SAMPLE RESULTS - 03

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### Collected date/time: 05/26/21 13:45 TPH by TCEQ Method 1005

									1 Cm
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485	
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485	<sup>3</sup> C c
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485	55
(S) o-Terphenyl	76.1				70.0-130		06/03/2021 17:15	WG1680485	4

<sup>4</sup> Cn
⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
⁰Sc

SDG: L1359425 DATE/TIME: 06/04/21 11:05

**ME:** 11:05 PAGE: 7 of 14

# SAMPLE RESULTS - 04

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### Collected date/time: 05/26/21 14:20 TPH by TCEQ Method 1005

Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
mg/l		mg/l	mg/l	mg/l		date / time		
U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485	
U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485	
U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485	
U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485	
78.2				70.0-130		06/03/2021 17:31	WG1680485	
	Result mg/l U U U U U	Result     Qualifier       mg/l     U       U     U       U     U       U     U       U     U       U     U	Result         Qualifier         SDL           mg/l         mg/l           U         0.600           U         0.600           U         0.600           U         0.600           U         0.600           U         0.600           U         0.600	Result         Qualifier         SDL         Unadj. MQL           mg/l         mg/l         mg/l         mg/l           U         0.600         0.900           U         0.600         0.900	Result         Qualifier         SDL         Unadj. MQL         MQL           mg/l         mg/l         mg/l         mg/l         mg/l           U         0.600         0.900         0.900           U         0.600         0.900         0.900           U         0.600         0.900         0.900           U         0.600         0.900         0.900           U         0.600         0.900         0.900	Result         Qualifier         SDL         Unadj. MQL         MQL         Dilution           mg/l         mg/l         mg/l         mg/l         mg/l         mg/l         mg/l         1           U         0.600         0.900         0.900         1	Result         Qualifier         SDL         Unadj. MQL         MQL         Dilution         Analysis           mg/l         mg/l         mg/l         mg/l         mg/l         date / time           U         0.600         0.900         0.900         1         06/03/202117:31           U         0.600         0.900         0.900         1         06/03/202117:31	Result         Qualifier         SDL         Unadj. MQL         MQL         Dilution         Analysis         Batch           mg/l         mg/l         mg/l         mg/l         mg/l         date / time         date / time           U         0.600         0.900         0.900         1         06/03/202117:31         WG1680485           U         0.600         0.900         0.900         1         06/03/202117:31         WG1680485

Cn
⁵Sr
<sup>ື</sup> Qc
GI
<sup>8</sup> Al
Sc

SDG: L1359425 DATE/TIME: 06/04/21 11:05

5

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### SAMPLE RESULTS - 05 L1359425

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Qc

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## Collected date/time: 05/26/21 15:00 TPH by TCEQ Method 1005

· · · · · · · · · · · · · · · · · · ·									· · · / /	$\sim$
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485		Τс
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485		
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485	з	Sc
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485	`	55
(S) o-Terphenyl	74.9				70.0-130		06/03/2021 18:04	WG1680485	4	Cn

SDG: L1359425

DATE/TIME: 06/04/21 11:05

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### SAMPLE RESULTS - 06 L1359425

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Qc

Gl

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Sc

Collected date/time: 05/26/21 15:44 TPH by TCEQ Method 1005

									l' c.
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	0.644	J	0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485	
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485	<sup>3</sup> Ss
TPH C6 - C35	0.644	J	0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485	33
(S) o-Terphenyl	76.1				70.0-130		06/03/2021 18:20	WG1680485	<sup>4</sup> Cr

L1359425

TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

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Ср

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### Method Blank (MB)

(MB) R3662807-1 06/03/21 11:28

(1110) 1(3002007-1 00/	00/2111.20				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/l		mg/l	mg/l	⁻Tc
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	<sup>3</sup> Ss
TPH C28 - C35	U		0.600	0.900	00
TPH C6 - C35	U		0.600	0.900	4
(S) o-Terphenyl	75.8			70.0-130	Cn

### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3662807-2 06/03/2111:44 • (LCSD) R3662807-3 06/03/2112:01										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH C6 - C12	41.7	38.9	39.4	93.3	94.5	75.0-125			1.28	20
TPH C12 - C28	41.7	38.2	37.3	91.6	89.4	75.0-125			2.38	20
TPH C6 - C35	83.4	77.1	76.7	92.4	92.0	75.0-125			0.520	20
(S) o-Terphenyl				77.5	75.2	70.0-130				

### L1358840-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1358840-02 06/03/21 12:17 • (MS) R3662807-4 06/03/21 12:33 • (MSD) R3662807-5 06/03/21 12:50												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
TPH C6 - C12	37.3	U	34.5	35.2	92.5	94.1	1	75.0-125			2.01	20
TPH C12 - C28	37.3	U	33.1	33.8	88.7	90.4	1	75.0-125			2.09	20
TPH C6 - C35	74.6	0.951	67.6	69.0	89.3	90.9	1	75.0-125			2.05	20
(S) o-Terphenyl					75.4	75.3		70.0-130				

SDG: L1359425 DATE/TIME: 06/04/21 11:05

# GLOSSARY OF TERMS

Τс

Ss

Cn

Sr

Qc

GI

AI

Sc

### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
Qualifier	Description

J

The identification of the analyte is acceptable; the reported value is an estimate.

SDG: L1359425

# Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS

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Τс

Ss

Cn

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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
irkansas	88-0469	New Jersey–NELAP	TN002
alifornia	2932	New Mexico <sup>1</sup>	TN00003
colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
lorida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
daho	TN00003	Ohio-VAP	CL0069
linois	200008	Oklahoma	9915
ndiana	C-TN-01	Oregon	TN200002
owa	364	Pennsylvania	68-02979
lansas	E-10277	Rhode Island	LAO00356
entucky <sup>16</sup>	KY90010	South Carolina	84004002
entucky <sup>2</sup>	16	South Dakota	n/a
ouisiana	AI30792	Tennessee <sup>14</sup>	2006
ouisiana	LA018	Texas	T104704245-20-18
laine	TN00003	Texas ⁵	LAB0152
faryland	324	Utah	TN000032021-11
lassachusetts	M-TN003	Vermont	VT2006
lichigan	9958	Virginia	110033
linnesota	047-999-395	Washington	C847
lississippi	TN00003	West Virginia	233
fissouri	340	Wisconsin	998093910
fontana	CERT0086	Wyoming	A2LA
2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
PA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SDG: L1359425 DATE/TIME: 06/04/21 11:05

Received by OCD: 1/5/2023 9:52:13 AM

1			Billing Info	rmation:		TT		Analysis /	Container / Pro	eservative		Chain of Custody	Page of	
Timberwolf Env Byan Do	iranments					Pres Chk						Pace Pace	Analytical * nier for Testing & Innovation	
Report t <i>g</i> :			Email To:									i 12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-585	8	
Project Description:				City/State Collected:			E	Participation of the second				Phone: 800-767-585 Fax: 615-758-5859		
Phone: Fax:	Client Project			Lab Project #			de					L# D1	35 9425	
Collected by (print):	Site/Facility ID	)#	34. E. S	P.O. #			6					Acctnum:		
Collected by (signature):	Rush?       (Lab MUST Be Notified)        Same Day      Five Day        Next Day      S Day (Rad Only)        Two Day      10 Day (Rad Only)        Three Day		nly) Date Results Needed		No. of	Tix 100					Template: Prelogin: TSR: PB:			
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Matrix: 55 - Soil AIR - Air F - Filter 5W - Groundwater B - Bioassay WW - WasteWater					рН Flow	Ter	all and a second	COC Sea COC Sig Bottles	Sample Receipt Checklist					
DW - Drinking Water DT - Other	Samples return UPS Fe	ned via: dExCour	rier	T	racking #	988	53 00	188	419-	10	Suffici	ent volume sent	LY N	
Relinquished by : (Signature) Date: 3/27/21		21	Time: Received by: (Signa			0.00	Trip Blar	nk Received:	Yes / No HCL / MeoH TBR		VOA Zero Headspace:N Preservation Correct/Checked:YN			
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Relinquished by : (Signature)	023 3:54:27 1	Date:	T		eceived for lab by	r: (Signatur	re)	Ster 2	8/21 "	"geor	/ Hold:		Condition: NCF / OK	



September 21, 2021

Jim Foster Timberwolf Environmental 1920 W Villa Maria Ste 205 Bryan, TX 77807 TEL: (979) 324-2139 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2109590

RE: 180061

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/11/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Received by	OCD:	1/5/2023	9:52:13 AM	
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Analytical Report Lab Order: 2109590

EPA METHOD 8021B: VOLATILES       Analy         Benzene       ND       1.0       µg/L       1       9/14/2021 6:02:01 PA         Toluene       ND       1.0       µg/L       1       9/14/2021 6:02:01 PA         Ethylbenzene       ND       1.0       µg/L       1       9/14/2021 6:02:01 PA         Xylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:02:01 PA         Surr: 4-Bromofluorobenzene       91.7       70-130       %Rec       1       9/14/2021 6:02:01 PA         Lab ID:       2109590-002       Collection Date:       9/9/2021 12:55:00 PM         Client Sample ID:       MW 2       Matrix: AQUEOUS         Analyses       Result       RL Qual Units       DF Date Analyzed         EPA METHOD 8021B: VOLATILES       Analy         Benzene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PA         Toluene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PA         Ethylbenzene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PA         Surr: 4-Bromofluorobenzene       91.3       70-130       %Rec       1       9/14/2021 6:25:48 PA         Surr: 4-Bromofluorobenzene       91.3 <th>Hall Envir</th> <th>onmental Analysis La</th> <th></th> <th></th> <th>Lab Order: <b>2109590</b> Date Reported: <b>9/21</b></th> <th>./202</th> <th>1</th>	Hall Envir	onmental Analysis La			Lab Order: <b>2109590</b> Date Reported: <b>9/21</b>	./202	1			
Client Sample ID:         MW 1         Matrix:         AQUEOUS           Analyses         Result         RL         Qual         Units         DF         Date Analyzed         I           EPA METHOD 8021B: VOLATILES         Analy         Analy         Analy         Benzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Toluene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA         1         9/14/2021 6:02:01 PA           Kinsteine         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA         1         9/14/2021 6:02:01 PA           Kinsteine         ND         2.0         µg/L         1         9/14/2021 6:02:01 PA           Surr: 4-Bromofluorobenzene         91.7         70-130         %Rec         1         9/14/2021 6:02:01 PA           Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM         I         I         9/14/2021 6:02:01 PA           Analyses         Result         RL         Qual         Units         DF         Date Analyzed         I           EPA METHOD 8021B: VOLATILES         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA         ND         1						I	Lab C	<b>)rder:</b> 21095	590	
Analyses         Result         RL         Qual         Units         DF         Date Analyzed           EPA METHOD 8021B: VOLATILES         Analy           Benzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Toluene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Ethylbenzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Xylenes, Total         ND         2.0         µg/L         1         9/14/2021 6:02:01 PA           Surr: 4-Bromofiluorobenzene         91.7         70-130         %Rec         1         9/14/2021 6:02:01 PA           Lab ID:         2109590-002         Collection Date:         9/9/2021 1:2:55:00 PM         PM           Client Sample ID:         MW 2         Matrix:         AQUEOUS         Analyzed         I           Analyses         Result         RL         Qual         Units         DF         Date Analyzed         I           EPA METHOD 8021B: VOLATILES         Matrix:         AQUEOUS         Analyzed         I         9/14/2021 6:25:48 PA           Surr: 4-Bromofiluorobenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA	Lab ID:	2109590-001		C	Collecti	on Date	e: 9/9	9/2021 2:30:00 PM	1	
EPA METHOD 8021B: VOLATILES         Analy           Benzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Toluene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Ethylbenzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Xylenes, Total         ND         2.0         µg/L         1         9/14/2021 6:02:01 PA           Surr: 4-Bromofluorobenzene         91.7         70-130         %Rec         1         9/14/2021 6:02:01 PA           Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM            Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM            Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM            Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:48 PA            Toluene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         ND         2.0	<b>Client Sample</b>	<b>ID:</b> MW 1				Matrix	<b>:</b> A0	QUEOUS		
Benzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Toluene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Ethylbenzene         ND         1.0         µg/L         1         9/14/2021 6:02:01 PA           Xylenes, Total         ND         2.0         µg/L         1         9/14/2021 6:02:01 PA           Surr: 4-Bromofluorobenzene         91.7         70-130         %Rec         1         9/14/2021 6:02:01 PA           Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM         Client Sample ID:         MW 2         Matrix: AQUEOUS           Analyses         Result         RL         Qual         Units         DF         Date Analyzed	Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
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Xylenes, Total Surr: 4-Bromofluorobenzene         ND         2.0         µg/L         1         9/14/2021 6:02:01 PA           Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM           Client Sample ID:         MW 2         Matrix:         AQUEOUS           Analyses         Result         RL Qual         Units         DF Date Analyzed         I           EPA METHOD 8021B: VOLATILES         Analy         Analyzed         I         9/14/2021 6:25:48 PA           Toluene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA           Ethylbenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         91.3         70-130         %Rec         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         91.3         70-130         %Rec         1         9/14/2021 6:25:48 PA           Surr: 4-Bromofluorobenzene         91.3         70-130         %Rec         1         9/14/202	Toluene		ND	1.0		µg/L	1	9/14/2021 6:02:01	ΡM	B81272
Surr: 4-Bromofluorobenzene         91.7         70-130         %Rec         1         9/14/2021 6:02:01 PM           Lab ID:         2109590-002         Collection Date:         9/9/2021 12:55:00 PM           Client Sample ID:         MW 2         Matrix:         AQUEOUS           Analyses         Result         RL         Qual         Units         DF         Date Analyzed         D           EPA METHOD 8021B:         VOLATILES         Analy         Analy           Benzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PM           Toluene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PM           Ethylbenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PM           Surr: 4-Bromofluorobenzene         ND         1.0         µg/L         1         9/14/2021 6:25:48 PM           Surr: 4-Bromofluorobenzene         91.3         70-130         %Rec         1         9/14/2021 6:25:48 PM           Surr: 4-Bromofluorobenzene         91.3         70-130         %Rec         1         9/14/2021 6:25:48 PM           Lab ID:         2109590-003         Collection Date:         9/9/2021 1:45:00 PM           Client Sample ID: <t< td=""><td>Ethylbenzene</td><td></td><td>ND</td><td>1.0</td><td></td><td></td><td>1</td><td>9/14/2021 6:02:01</td><td>ΡM</td><td>B81272</td></t<>	Ethylbenzene		ND	1.0			1	9/14/2021 6:02:01	ΡM	B81272
Lab ID:       2109590-002       Collection Date:       9/9/2021       12:55:00 PM         Client Sample ID:       MW 2       Matrix:       AQUEOUS         Analyses       Result       RL       Qual       Units       DF       Date       Analyzed       I         EPA METHOD 8021B:       VOLATILES       Analy       Analy       Benzene       ND       1.0       µg/L       1       9/14/2021       6:25:48 PM         Benzene       ND       1.0       µg/L       1       9/14/2021       6:25:48 PM       PM         Toluene       ND       1.0       µg/L       1       9/14/2021       6:25:48 PM       Surr:       4.90       1.0       µg/L       1       9/14/2021       6:25:48 PM         Surr:       4.Bromofluorobenzene       91.3       70-130       %Rec       1       9/14/2021       6:25:48 PM         Lab ID:       2109590-003       Collection Date:       9/9/2021       1:45:00 PM         Client Sample ID:       MW 3       Matrix:       AQUEOUS         Analyses       Result       RL       Qual       Units       DF       Date       Analyzed       D         EPA METHOD 8021B:       VOLATILES       Analy       Matrix:	Xylenes, Total		ND	2.0		µg/L	1	9/14/2021 6:02:01	PM	B81272
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Benzene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PM         Ethylbenzene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PM         Xylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:25:48 PM         Surr: 4-Bromofluorobenzene       91.3       70-130       %Rec       1       9/14/2021 6:25:48 PM         Lab ID:       2109590-003       Collection Date:       9/9/2021 1:45:00 PM         Client Sample ID:       MW 3       Matrix:       AQUEOUS         Analyses       Result       RL Qual       Units       DF       Date Analyzed       1         Benzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM       Analy         Benzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Kylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:49:33 PM	Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
Toluene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PM         Ethylbenzene       ND       1.0       µg/L       1       9/14/2021 6:25:48 PM         Xylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:25:48 PM         Surr: 4-Bromofluorobenzene       91.3       70-130       %Rec       1       9/14/2021 6:25:48 PM         Lab ID:       2109590-003       Collection Date:       9/9/2021 1:45:00 PM         Client Sample ID:       MW 3       Matrix:       AQUEOUS         Analyses       Result       RL       Qual       Units       DF       Date Analyzed       D         Benzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM       Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM       Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Ethylbenzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM       Xylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:49:33 PM	EPA METHOD	0 8021B: VOLATILES						Ana	alyst	: NSB
Ethylbenzene       ND       1.0       μg/L       1       9/14/2021 6:25:48 PM         Xylenes, Total       ND       2.0       μg/L       1       9/14/2021 6:25:48 PM         Surr: 4-Bromofluorobenzene       91.3       70-130       %Rec       1       9/14/2021 6:25:48 PM         Lab ID:       2109590-003       Collection Date:       9/9/2021 1:45:00 PM         Client Sample ID:       MW 3       Matrix:       AQUEOUS         Analyses       Result       RL Qual       Units       DF       Date Analyzed       D         EPA METHOD 8021B: VOLATILES       Analy       Analyzed       D       Analy         Benzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Kylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:49:33 PM	Benzene		ND	1.0		µg/L	1	9/14/2021 6:25:48	PM	B81272
Xylenes, Total       ND       2.0       μg/L       1       9/14/2021 6:25:48 PM         Surr: 4-Bromofluorobenzene       91.3       70-130       %Rec       1       9/14/2021 6:25:48 PM         Lab ID:       2109590-003       Collection Date:       9/9/2021 1:45:00 PM         Client Sample ID:       MW 3       Matrix:       AQUEOUS         Analyses       Result       RL       Qual       Units       DF       Date       Analyzed       D         EPA METHOD 8021B:       VOLATILES       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Benzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Kylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:49:33 PM	Toluene		ND	1.0		µg/L	1	9/14/2021 6:25:48	PM	B81272
Surr: 4-Bromofluorobenzene         91.3         70-130         %Rec         1         9/14/2021 6:25:48 PM           Lab ID:         2109590-003         Collection Date:         9/9/2021 1:45:00 PM           Client Sample ID:         MW 3         Matrix:         AQUEOUS           Analyses         Result         RL         Qual         Units         DF         Date         Analyzed         D           EPA METHOD 8021B:         VOLATILES         Analyzed         D         1.0         µg/L         1         9/14/2021 6:49:33 PM           Benzene         ND         1.0         µg/L         1         9/14/2021 6:49:33 PM           Toluene         ND         1.0         µg/L         1         9/14/2021 6:49:33 PM           Kylenes, Total         ND         2.0         µg/L         1         9/14/2021 6:49:33 PM	Ethylbenzene		ND	1.0		µg/L	1	9/14/2021 6:25:48	PM	B81272
Lab ID:       2109590-003       Collection Date:       9/9/2021 1:45:00 PM         Client Sample ID:       MW 3       Matrix:       AQUEOUS         Analyses       Result       RL       Qual       Units       DF       Date       Analyzed       D         EPA METHOD 8021B:       VOLATILES       Analy       Analy       Benzene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Toluene       ND       1.0       µg/L       1       9/14/2021 6:49:33 PM         Kylenes, Total       ND       2.0       µg/L       1       9/14/2021 6:49:33 PM	Xylenes, Total		ND	2.0		µg/L	1	9/14/2021 6:25:48	PM	B81272
Client Sample ID:MW 3Matrix:AQUEOUSAnalysesResultRLQualUnitsDFDate AnalyzedEPA METHOD 8021B:VOLATILESAnalyBenzeneND1.0µg/L19/14/2021 6:49:33 PMTolueneND1.0µg/L19/14/2021 6:49:33 PMEthylbenzeneND1.0µg/L19/14/2021 6:49:33 PMXylenes, TotalND2.0µg/L19/14/2021 6:49:33 PM	Surr: 4-Bror	nofluorobenzene	91.3	70-130		%Rec	1	9/14/2021 6:25:48	PM	B81272
Analyses         Result         RL         Qual         Units         DF         Date Analyzed         Date Analyzed	Lab ID:	2109590-003		C	Collecti	on Date	e: 9/9	9/2021 1:45:00 PM	1	
EPA METHOD 8021B: VOLATILES         Analy           Benzene         ND         1.0         µg/L         1         9/14/2021 6:49:33 PM           Toluene         ND         1.0         µg/L         1         9/14/2021 6:49:33 PM           Ethylbenzene         ND         1.0         µg/L         1         9/14/2021 6:49:33 PM           Xylenes, Total         ND         2.0         µg/L         1         9/14/2021 6:49:33 PM	Client Sample	<b>ID:</b> MW 3				Matrix	к: А(	QUEOUS		
BenzeneND1.0μg/L19/14/2021 6:49:33 PMTolueneND1.0μg/L19/14/2021 6:49:33 PMEthylbenzeneND1.0μg/L19/14/2021 6:49:33 PMXylenes, TotalND2.0μg/L19/14/2021 6:49:33 PM	Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
TolueneND1.0μg/L19/14/2021 6:49:33 PMEthylbenzeneND1.0μg/L19/14/2021 6:49:33 PMXylenes, TotalND2.0μg/L19/14/2021 6:49:33 PM	EPA METHOD	0 8021B: VOLATILES						Ana	alyst	: NSB
Ethylbenzene         ND         1.0         μg/L         1         9/14/2021 6:49:33 PM           Xylenes, Total         ND         2.0         μg/L         1         9/14/2021 6:49:33 PM	Benzene		ND	1.0		µg/L	1	9/14/2021 6:49:33	PM	B81272
EthylbenzeneND1.0μg/L19/14/2021 6:49:33 PMXylenes, TotalND2.0μg/L19/14/2021 6:49:33 PM	Toluene		ND	1.0			1	9/14/2021 6:49:33	PM	B8127
Xylenes, Total         ND         2.0         μg/L         1         9/14/2021 6:49:33 PM	Ethylbenzene		ND	1.0			1	9/14/2021 6:49:33	PM	B8127
Surr: 4-Bromofluorobenzene 88.5 70-130 %Rec 1 9/14/2021 6:49:33 PM	Xylenes, Total		ND	2.0			1	9/14/2021 6:49:33	PM	B8127
	Surr: 4-Bror	nofluorobenzene	88.5	70-130		%Rec	1	9/14/2021 6:49:33	РМ	B81272

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

в

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Received by O	CD: 1	1/5/2023	9:52:13 AM
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Analytical Report

Lab Order: 2109590

CLIENT: Project:	Timberwolf Environmental 180061				I	.ab C	<b>Order:</b> 21095	<i>9</i> 0	
Lab ID:	2109590-004		C	ollecti	on Date	e: 9/9	9/2021 3:40:00 PM	[	
Client Sample ID	•: MW 4				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8	021B: VOLATILES						Ana	alyst	NSB
Benzene		ND	1.0		µg/L	1	9/14/2021 7:13:21	PM	B81272
Toluene		ND	1.0		μg/L	1	9/14/2021 7:13:21	PM	B81272
Ethylbenzene		ND	1.0		µg/L	1	9/14/2021 7:13:21	PM	B81272
Xylenes, Total		ND	2.0		µg/L	1	9/14/2021 7:13:21	PM	B81272
Surr: 4-Bromo	fluorobenzene	88.8	70-130		%Rec	1	9/14/2021 7:13:21	PM	B81272
Lab ID:	2109590-005	Collection Date: 9/9/2021 4:22:00 PM							
Client Sample ID	<b>:</b> MW 5	Matrix: AQUEOUS							
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8	021B: VOLATILES						Ana	alyst	NSB
Benzene		ND	1.0		µg/L	1	9/14/2021 7:37:06	PM	B81272
Toluene		ND	1.0		µg/L	1	9/14/2021 7:37:06	PM	B81272
Ethylbenzene		ND	1.0		µg/L	1	9/14/2021 7:37:06	PM	B81272
Xylenes, Total		ND	2.0		µg/L	1	9/14/2021 7:37:06	PM	B81272
Surr: 4-Bromo	fluorobenzene	88.6	70-130		%Rec	1	9/14/2021 7:37:06	PM	B81272
Lab ID:	2109590-006		C	ollecti	on Date	e: 9/9	9/2021 5:30:00 PM	[	
Client Sample ID	ample ID: MW 6				Matrix	<b>::</b> A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
	021B: VOLATILES						Ana	alyst	NSB
EPA METHOD 8					µg/L	1	9/14/2021 8:00:48	РМ	B81272
EPA METHOD 8 Benzene		ND	1.0		µy/∟		5/14/2021 0.00.40		
		ND ND	1.0 1.0		μg/L	1	9/14/2021 8:00:48		-
Benzene								PM	B81272
Benzene Toluene		ND	1.0		μg/L	1	9/14/2021 8:00:48	PM PM	B81272 B81272
Benzene Toluene Ethylbenzene	fluorobenzene	ND ND	1.0 1.0		μg/L μg/L	1 1	9/14/2021 8:00:48 9/14/2021 8:00:48	PM PM PM	B81272 B81272 B81272 B81272

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Received by	OCD:	1/5/2023	9:52:13 A	M
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**TT 11 T** 

**Analytical Report** Lab Order: 2109590

Hall Environ	mental Analysis La		Ι	Date Reported: 9/21	/2021		
	Timberwolf Environmental 180061				Lab (	<b>)rder:</b> 21095	590
Lab ID:	2109590-007		C	ollection D	ate: 9/	9/2021 4:22:00 PM	1
Client Sample ID:	DUP			Mat	rix: A	QUEOUS	
Analyses		Result	RL	Qual Unit	s DF	Date Analyzed	Batch ID
EPA METHOD 802	21B: VOLATILES					An	alyst: <b>NSB</b>
Benzene		ND	1.0	µg/L	1	9/14/2021 9:58:55	PM B8127
Toluene		ND	1.0	µg/L	1	9/14/2021 9:58:55	PM B8127
Ethylbenzene		ND	1.0	µg/L	1	9/14/2021 9:58:55	PM B8127
Xylenes, Total		ND	2.0	µg/L	1	9/14/2021 9:58:55	PM B8127
Surr: 4-Bromoflu	Jorobenzene	87.2	70-130	%Re	ec 1	9/14/2021 9:58:55	PM B8127
Lab ID:	2109590-008		C	ollection D	ate:		
Client Sample ID:	Trip Blank			Mat	rix: Tł	RIP BLANK	
Analyses		Result	RL	Qual Unit	s DF	Date Analyzed	Batch ID
EPA METHOD 802	21B: VOLATILES					An	alyst: <b>NSB</b>
Benzene		ND	1.0	µg/L	1	9/14/2021 10:22:2	4 PM B8127
Toluene		ND	1.0	µg/L	1	9/14/2021 10:22:2	4 PM B8127
Ethylbenzene		ND	1.0	µg/L	1	9/14/2021 10:22:2	4 PM B8127
Xylenes, Total		ND	2.0	µg/L	1	9/14/2021 10:22:2	4 PM B8127
Surr: 4-Bromoflu	Jorobenzene	87.1	70-130	%Re	ec 1	9/14/2021 10:22:2	4 PM B8127

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

\*

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Е Value above quantitation range

Analyte detected in the associated Method Blank

- Analyte detected below quantitation limits J
- Sample pH Not In Range Р

RL Reporting Limit

в

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Client: Project:	Timberw 180061	olf Enviro	nmental	l							
-	100001										
Sample ID: mb		SampT	ype: MI	BLK	Tes	tCode: El	PA Method	8021B: Volati	iles		
Client ID: PBW		Batch	n ID: <b>B8</b>	1272	F	RunNo: <b>8</b>	1272				
Prep Date:		Analysis D	0ate: 9/	14/2021	5	SeqNo: 2	870097	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Foluene		ND	1.0								
Ethylbenzene		ND	1.0								
Kylenes, Total		ND	2.0								
Surr: 4-Bromofluorob	enzene	18		20.00		90.3	70	130			
Sample ID: 100ng	btex lcs	SampT	ype: LC	S	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSW		Batch ID: B81272 RunNo: 81272									
Prep Date:		Analysis D	)ate: 9/	14/2021	5	SeqNo: 2	870098	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		18	1.0	20.00	0	91.8	80	120			
Foluene					_			120			
loluelle		19	1.0	20.00	0	94.4	80	120			
Ethylbenzene		19 19	1.0 1.0	20.00 20.00	0 0	94.4 94.6	80 80	120 120			
		-	-		-	-		-			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Released to Imaging: 1/6/2023 3:54:27 PM

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2109590

21-Sep-21

WO#:

ANAL	RONMENTAL YSIS Ratory	TEL: 505-345-39	tal Analysis Labo 4901 Hawki Albuquerque, NM 075 FAX: 505-345 hallenvironmenta	ns NE 87109 Sar -4107	nple Log-In C	heck List
Client Name:	Timberwolf Environmental	Work Order Numb	er: 2109590		RcptNo:	1
Received By:	Desiree Dominguez	9/11/2021 8:50:00 A	M	TPZ		
Completed By:	Desiree Dominguez	9/11/2021 12:11:11	РМ	TPS		
Reviewed By:	Jn9/13/21			5		
Chain of Cus	tody					
1. Is Chain of C	ustody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the	sample delivered?		Courier			
Log In 3. Was an attem	npt made to cool the samples?		Yes 🔽	No 🗌		
4. Were all samp	ples received at a temperature	of >0° C to 6.0°C	Yes 🔽	No 🗌		
5. Sample(s) in	proper container(s)?		Yes 🗹	No 🗌		
6. Sufficient sam	ple volume for indicated test(s	)?	Yes 🔽	No 🗌		
7. Are samples (	except VOA and ONG) properl	y preserved?	Yes 🗹	No 🗌		
8. Was preserva	tive added to bottles?		Yes 🗌	No 🔽	NA 🗌	
9. Received at le	ast 1 vial with headspace <1/4	" for AQ VOA?	Yes 🗹	No 🗌		
0. Were any san	nple containers received broke	n?	Yes 🗌	No 🗹	# of preserved bottles checked	/
	ork match bottle labels? ancies on chain of custody)		Yes 🗹	No 🗌	for pH:	12 unless noted)
	correctly identified on Chain of	Custody?	Yes 🔽	No 🗌	Adjusted?	
	t analyses were requested?		Yes 🗹	No 🗌		121 al
	ng times able to be met? ustomer for authorization.)		Yes 🗹	No 🗌	Checked by:	nru 9/1
pecial Handl	ing (if applicable)					/
15. Was client no	tified of all discrepancies with t	his order?	Yes 🗌	No 🗌	NA 🗹	
Person	Notified:	Date:	1			
By Who	im:	Via:	🗌 eMail 🔲 I	Phone 🗌 Fax	In Person	
Regardi	ng:					
	nstructions:					
16. Additional rer	marks:					
7. <u>Cooler Inform</u> Cooler No	the second se	eal Intact Seal No	Seal Date	Signed By		

Client: Tim burus (F. Environment) Phone #: Phone #: email or Fax#: Tim (D. Man I in benus (F. Los) avoc Package: avoc Pa
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Received by OCD: 1/5/2023 9:52:13 AM



Timberwolf Environmental, LLC

Sample Delivery Group: Samples Received: Project Number: Description:

L1402334 09/11/2021 HEC - 180061 Kaufman No. 1

September 22, 2021

Report To:

Jim Foster 1920 W Villa Maria, Ste 205 Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

## **Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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PROJECT: HEC - 180061

SDG: L1402334

DATE/TIME: 09/22/21 14:16

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Ср
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<sup>4</sup> Cn
<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>°</sup> Al
<sup>9</sup> Sc

SDG: L1402334

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### SAMPLE SUMMARY

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Ср

<sup>2</sup>Tc

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			Collected by	Collected date/time		
MW1 L1402334-01 GW				09/09/2114:30	09/11/21 10:0	0
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1741449	1	09/20/21 17:28	09/21/21 14:21	JN	Mt. Juliet, TN
MW2 L1402334-02 GW			Collected by	Collected date/time 09/09/21 12:55	Received da 09/11/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742225	1	09/21/21 14:30	09/21/21 21:25	JN	Mt. Juliet, TN
MW3 L1402334-03 GW			Collected by	Collected date/time 09/09/21 13:45	Received da 09/11/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742225	1	09/21/21 14:30	09/21/21 21:39	JN	Mt. Juliet, TN
MW4 L1402334-04 GW			Collected by	Collected date/time 09/09/21 15:40	Received da 09/11/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742227	1	09/19/21 14:20	09/20/21 04:14	JN	Mt. Juliet, TN
MW5 L1402334-05 GW			Collected by	Collected date/time 09/09/2116:22	Received da 09/11/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742227	1	09/19/21 14:20	09/20/21 04:28	JN	Mt. Juliet, TN
MW6 L1402334-06 GW			Collected by	Collected date/time 09/09/21 17:30	Received da 09/11/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742227	1	09/19/21 14:20	09/20/21 04:42	JN	Mt. Juliet, TN

SDG: L1402334 DATE/TIME: 09/22/21 14:16

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### CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker Project Manager



SDG: L1402334

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### Received by OCD: 1/5/2023 9:52:13 AM

# SAMPLE RESULTS - 01

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Collected date/time: 09/09/21 14:30 TPH by TCEQ Method 1005

									1 Cm
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449	
TPH C28 - C35	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449	55
(S) o-Terphenyl	94.7				70.0-130		09/21/2021 14:21	WG1741449	4

DATE/TIME: 09/22/21 14:16

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### Collected date/time: 09/09/21 12:55 TPH by TCEQ Method 1005

										L'a
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time			2
TPH C6 - C12	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225		ŤΤα
TPH C12 - C28	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225		
TPH C28 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225		<sup>3</sup> Ca
TPH C6 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225		5
(S) o-Terphenyl	104				70.0-130		09/21/2021 21:25	WG1742225	ſ	4
										Cr

SDG: L1402334 DATE/TIME: 09/22/21 14:16

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Qc

Gl

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Sc

Collected date/time: 09/09/21 13:45 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch				
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2			
TPH C6 - C12	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225	Ťι			
TPH C12 - C28	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225				
TPH C28 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225	<sup>3</sup> C			
TPH C6 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225	5:			
(S) o-Terphenyl	108				70.0-130		09/21/2021 21:39	WG1742225	4			
									C			

DATE/TIME: 09/22/21 14:16

PAGE: 7 of 16

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Qc

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Sc

Collected date/time: 09/09/21 15:40 TPH by TCEQ Method 1005

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	C			
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2			
TPH C6 - C12	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227	Ť			
TPH C12 - C28	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227				
TPH C28 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227	<sup>3</sup> S			
TPH C6 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227	5			
(S) o-Terphenyl	95.2				70.0-130		09/20/2021 04:14	WG1742227	4			
									C			

**PROJECT:** HEC - 180061 SDG: L1402334

DA1 09/2

DATE/TIME: 09/22/21 14:16 PAGE: 8 of 16

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### Collected date/time: 09/09/21 16:22 TPH by TCEQ Method 1005

· · · · · · · · · · · · · · · · · · ·									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227	Tc
TPH C12 - C28	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227	
TPH C28 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227	<sup>3</sup> Ss
TPH C6 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227	55
(S) o-Terphenyl	91.4				70.0-130		09/20/2021 04:28	WG1742227	4
									Cn

⁵Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
°Sc

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### Collected date/time: 09/09/21 17:30 TPH by TCEQ Method 1005

· · · · · · · · · · · · · · · · · · ·									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
TPH C6 - C12	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227	Ťτ
TPH C12 - C28	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227	
TPH C28 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227	<sup>3</sup> C c
TPH C6 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227	03
(S) o-Terphenyl	96.7				70.0-130		09/20/2021 04:42	WG1742227	4

4	Cn
5	Sr
6	Qc
	GI
8	AI
9	Sc

SDG: L1402334

PAGE: 10 of 16 TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

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#### Method Blank (MB)

### (MB) R3706598-1 09/21/21 06:50

MB Result	MB Qualifier	MB MDL	MB RDL	
mg/l		mg/l	mg/l	
U		0.600	0.900	
U		0.600	0.900	
U		0.600	0.900	
U		0.600	0.900	
112			70.0-130	
	mg/l U U U U	mg/l U U U U U	mg/l         mg/l           U         0.600           U         0.600           U         0.600           U         0.600           U         0.600	mg/l         mg/l         mg/l           U         0.600         0.900           U         0.600         0.900

#### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3706598-2 09/21/21 07:03 • (LCSD) R3706598-3 09/21/21 07:17													
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits			
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%			
TPH C6 - C12	41.7	41.0	45.8	98.3	110	75.0-125			11.1	20			
TPH C12 - C28	41.7	40.0	43.5	95.9	104	75.0-125			8.38	20			
TPH C6 - C35	83.4	81.0	89.3	97.1	107	75.0-125			9.75	20			
(S) o-Terphenyl				110	116	70.0-130							

SDG: L1402334 DATE/TIME: 09/22/21 14:16 PAGE: 11 of 16 TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

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#### Method Blank (MB)

#### (MB) R3707084-1 09/21/21 19:19

2113.13					
MB Result	MB Qualifier	MB MDL	MB RDL		2
mg/l		mg/l	mg/l		Тс
U		0.600	0.900		
U		0.600	0.900		<sup>3</sup> SS
U		0.600	0.900		55
U		0.600	0.900		4
109			70.0-130		Cn
	MB Result mg/l U U U U U	MB Result     MB Qualifier       mg/l     U       U     U       U     U       U     U       U     U       U     U       U     U	MB Result         MB Qualifier         MB MDL           mg/l         mg/l         mg/l           U         0.600         0.600           U         0.600         0.600           U         0.600         0.600           U         0.600         0.600	MB Result         MB Qualifier         MB MDL         MB RDL           mg/l         mg/l         mg/l         mg/l           U         0.600         0.900           U         0.600         0.900           U         0.600         0.900           U         0.600         0.900           U         0.600         0.900	MB ResultMB QualifierMB MDLMB RDLmg/lmg/lmg/lU0.6000.900U0.6000.900U0.6000.900U0.6000.900

#### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3707084-2 09/21/21 19:33 • (LCSD) R3707084-3 09/21/21 19:46													
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits			
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%			
TPH C6 - C12	41.7	40.0	40.9	95.9	98.1	75.0-125			2.22	20			
TPH C12 - C28	41.7	39.0	39.7	93.5	95.2	75.0-125			1.78	20			
TPH C6 - C35	83.4	79.0	80.6	94.7	96.6	75.0-125			2.01	20			
(S) o-Terphenyl				101	104	70.0-130							

SDG: L1402334 DATE/TIME: 09/22/21 14:16

PAGE: 12 of 16 TPH by TCEQ Method 1005

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

#### (MB) R3706109-1 09/20/21 03:13

(1010) 1(3) 00103 1 03	/20/21 00.10				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/l		mg/l	mg/l	ŤTc
TPH C6 - C12	U		0.600	0.900	
TPH C12 - C28	U		0.600	0.900	<sup>3</sup> Ss
TPH C28 - C35	U		0.600	0.900	
TPH C6 - C35	U		0.600	0.900	4
(S) o-Terphenyl	98.2			70.0-130	Cr

#### Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3706109-2 09/20/21 03:46 • (LCSD) R3706109-3 09/20/21 04:00													
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits			
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%			
TPH C6 - C12	40.1	36.8	37.9	91.8	95.7	75.0-125			2.95	20			
TPH C12 - C28	40.1	37.9	35.7	94.5	90.2	75.0-125			5.98	20			
TPH C6 - C35	80.2	74.7	73.6	93.1	93.0	75.0-125			1.48	20			
(S) o-Terphenyl				101	96.5	70.0-130							

DATE/TIME: 09/22/21 14:16

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#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1402334 DATE/TIME: 09/22/21 14:16

# Received by OCD: 1/5/2023 9:52:13 AMACCREDITATIONS & LOCATIONS

Page 2	236	o of	252
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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
lorida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
daho	TN00003	Ohio-VAP	CL0069
llinois	200008	Oklahoma	9915
ndiana	C-TN-01	Oregon	TN200002
owa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>16</sup>	KY90010	South Carolina	84004002
Centucky <sup>2</sup>	16	South Dakota	n/a
ouisiana	AI30792	Tennessee <sup>14</sup>	2006
ouisiana	LA018	Texas	T104704245-20-18
laine	TN00003	Texas <sup>5</sup>	LAB0152
laryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
lichigan	9958	Virginia	110033
linnesota	047-999-395	Washington	C847
lississippi	TN00003	West Virginia	233
lissouri	340	Wisconsin	998093910
lontana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
PA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SDG: L1402334 DATE/TIME: 09/22/21 14:16

Received by OCD: 1/5/2023 9:52:13 AM

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	-		Billing Infor	rmation:				F	nalysis / (	Containe	er / Preservative		Chain of Custody	Page of
Tim Derwolf Environmente						Pres Chk							Pace/ National Ce	Analytical* Inter for Testing & Innovatio
Project Description: 1806			Email To:	City/State Collected:	tinkow	s (F.c	2			The states			12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-585 Phone: 800-767-585 Fax: 615-758-5859	8
Description: 180060							1			-			1# 14/	27339
Phone: Fax:	Client Project	4		Lab Project #			2002						H07	4
Collected by (print):	Site/Facility ID	#		P.O. #			14						Acctnum:	
Collected by (signature):	Same Da	ab MUST Be I	ay	Quote #			1			-			Template: Prelogin:	
Immediately Packed on Ice N Y	Next Day Two Day Three Day		(Rad Only) y (Rad Only)	Date Re	esults Needed	No. of	pH				-		TSR: PB:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	t						Shipped Via: Remarks	Sample # (lab only)
MWI	6	W	-	9/9/21	1430	2	1							-01
MW2				/	1255	2								-01
MW3					13:45	2	-							-03
MWY					1540	2	1			12 13 1		-		-04
MW5					1622	12	1					- F		-09
MWG	¥	*		V	1730	2								-06
								1						
								155						/
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:								pH Flow		_ Temp	COC Sea COC Sig Bottles	Sample Receipt C al Present/Intact gned/Accurate: s arrive intact: bottles used:	NP Y
DW - Drinking Water Samples		rned via: edExCou	rier		Tracking # 51	62	7717	79	17			Suffic: VOA Ze:	ient volume sent: <u>If Applica</u> co Headspace:	ole
Relinquished by : (Signature)		Date: 9/p	121	Time: 1050	Received by: (Sign	ature)			Trip Bla	nk Recei	Ved: Yes/No HCL/Meol	Preser	vation Correct/Cl	E. E
Relinquished by : (Signature)		Date:		Time:	Received by: (Sign	ature)			Temp	110	Bottles Received	If preser	vation required by Lo	ogin: Date/Time
Relinquished by : (Signature)		Date:		Time:	Received for lab b	y: (Sign:	ature)	ALL A	Date:	121	Time:	Hold:		Condition: NCF / OK

## State of New Mexico Energy, Minerals and Natural Resources Department

Michele Lujan Grisham Governor

Sarah Cottrell Propst Cabinet Secretary

Todd E. Leahy, JD, PhD Deputy Cabinet Secretary Adrienne Sandoval Director, Oil Conservation Division



Mitch Killough Hilcorp Energy Company 1111 Travis Street Houston, TX 77002

#### RE: Abatement Completion Report Approval Kaufman 001 (Incident #: NCS1833331001) AP-138

Mr. Killough,

Oil Conservation Division (OCD) has reviewed the file for the release referenced above. The available information indicates Hilcorp has met the requirements of 19.15.30 NMAC and no further corrective action is required. You are notified the referenced abatement/remediation is closed.

This finding by the OCD does not relieve Hilcorp of responsibility if future information shows a threat to ground water, surface water, human health, or the environment. Further, it does not relieve Hilcorp of responsibility for compliance with any federal, state, or local law.

Please properly plug remaining monitoring wells per requirements of the New Mexico Office of the State Engineer. Forward copies of plugging reports to OCD.Enviro@emnrd.nm.gov and to the groundwater abatement portal.

Respectfully,



Adrienne Sandoval Division Director AES/njv Date: 10/20/2022



#### STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER AZTEC

John Romero, P.E. Acting State Engineer 100 Gossett Drive, Suite A Aztec, New Mexico 87410

December 31, 2018

Hilcorp Energy Company Via Timberwolf Environmental, LLC, as Agent 382 Road 3100 Aztec, NM 87410

#### RE: Permit Approval for Monitoring Wells, SJ-4327 POD1-POD6; Hilcorp Energy Company; Kaufman No. 1 Release Investigation; Rural San Juan County, New Mexico

Dear Ms. Deal:

On December 28, 2018, the New Mexico Office of the State Engineer received an application for a permit for the drilling and use of six proposed new monitoring wells at the above referenced location. Enclosed is a copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page and in the attached Conditions of Approval. A receipt for the fees paid is also attached.

Please be aware that there are deadlines to submit well records for the newly installed monitoring wells. These deadlines can be found in the attached Conditions of Approval. A standardized plugging method has also been included in the Conditions of Approval for the future abandonment of the wells covered by this permit. This eliminates the need to submit a separate Well Plugging Plan of Operations for approval by the NMOSE prior to plugging, unless an alternate plugging method is proposed, required by a separate oversight agency, necessary due to incompatibility with actual conditions, or artesian conditions are encountered. The well and plugging records should be sent to the NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410.

If you have any questions regarding this permitting action, please feel free to contact me at (505) 334-4751.

Sincerely,

Blue Diton

Blaine Watson, P.G. District Manager Water Rights Division – District V

Enclosures

cc: Aztec Reading (w/o enclosures)
 SJ-4327 File
 WATERS
 Jim Foster, Timberwolf Environmental, LLC, via e-mail: jim@teamtimberwolf.com
 Brandon Powell, NMOCD District 3, via email: <u>brandon.powell@state.nm.us</u>

# **OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE**

OFFICIAL RECEIPT NUMBER: 5 - 6284 DATE: 12/78		ILE NO .: 55-4327	
TOTAL: 25.00 RECEIVED: Twenty-Five 4	nc/100	DOLLARS CASH: CHECK	NO: 2256
PAYOR: Timber walf Environ montal	DDRESS: 1920 W	Jilla Maria Rol S.	te 205
		RECEIVED BY: 34	

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. Original to payor; pink copy to Program Support/ASD; yellow copy remains in district office; and goldenrod copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

#### A. Ground Water Filing Fees

		and mater rining rees		
	1.	Change of Ownership of Water Right		2.00
	2.	Application to Appropriate or Supplement	ıt	
		Domestic 72-12-1 Well	\$	125.00
_	3.	Application to Repair or Deepen		
		72-12-1 Well	\$	75.00
_	4.	Application for Replacement	-	
		72-12-1 Well	\$	75.00
	5.	Application to Change Purpose of Use	÷.	
		72-12-1 Well	\$	75.00
	6.	Application for Stock Well/Temp. Use	ŝ	5.00
				_
	7.	Application to Appropriate Irrigation,		
		Municipal, or Commercial Use	e	25.00
	8.	Declaration of Water Right		1.00
_	9.	Application for Supplemental Non	₹.	1.00
	2.	72-12-1 Well		25.00
	10		₽.	25.00
—	10.	Application to Change Place or		35.00
	11	Purpose of Use Non 72-12-1 Well	\$	25.00
—	11.	Application to Change Point of Diversion		
		and Place and/or Purpose of Use from		
	13	Surface Water to Ground Water	ş	50.00
-	12.	Application to Change Point of Diversion		
		and Place and/or Purpose of Use from		1.1
		Ground Water to Ground Water	\$	50.00
	13.	Application to Change Point of		
		Diversion of Non 72-12-1 Well	\$	25.00
	14.	Application to Repair or Deepen		
		Non 72-12-1 Well	\$	5.00

#### **B. Surface Water Filing Fees**

		ace water rinnig reco		
	1.	Change of Ownership of a Water Right	\$	5.00
	2.	Declaration of Water Right	\$	10.00
	3.	Amended Declaration	ŝ	25.00
	4.	Application to Change Point of Diversion		
		and Place and/or Purpose of Use from		
		Surface Water to Surface Water	\$	200.00
	5.	Application to Change Point of Diversion	Т	
—		and Place and/or Purpose of Use from		
		Ground Water to Surface Water	¢	200.00
	6.	Application to Change Point of	T	200100
		Diversion	¢.	100.00
	7.	Application to Change Place and/or	Τ.	200100
		Purpose of Use	÷	100.00
	8.	Application to Appropriate	ŝ	25.00
	9.	Notice of Intent to Appropriate	š	25.00
		Application for Extension of Time	ŝ	
$\equiv$	11.	Supplemental Well to a Surface Right	Τ.	100.00
		Return Flow Credit	,	100.00
		Proof of Completion of Works		25.00
—		Proof of Application of Water to	₽	23.00
	* **		\$	25.00
	15	Water Development Plan	т	100.00
_		Declaration of Livestock Water	₽	100.00
	10.			10.00
	17	Application for Livestock Water	\$	10.00
	47.		*	10.00
		Impoundment	\$	10.00

#### **C. Well Driller Fees**

1. Application for Well Driller's License	\$ 50.00
2. Application for Renewal of Well	
Driller's License	\$ 50.00
D. Depreduction of Descent	
D. Reproduction of Documents	
@ 25¢/сору	\$
Map(s)	4
E. Certification	
F. *Credit Card Convenience Fee	e
G. Other	4
	T

#### **Comments:**



All fees are non-refundable.

# **OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE**

OFFICIAL	RECEIPT NUMBER:	5 - <u>6282</u>	DATE:	12-20-2018	FIL	LE NO .: 55-4327	PODI-6
TOTAL: _	5.00	RECEIVED:		fire			
PAYOR: _	Timbernolf	Environment	bl	ADDRESS:	1920	W. Villa Maria	Rd., ste. Zas
CITY:	Bryan	STATE: _	-tx	ZIP:		RECEIVED BY:	

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. Original to payor; pink copy to Program Support/ASD; yellow copy remains in district office; and goldenrod copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

#### A. Ground Water Filing Fees

M. 1	910	unu mater rinny rees		
_	1.	Change of Ownership of Water Right	\$	2.00
	2.	Application to Appropriate or Suppleme	nt	
		Domestic 72-12-1 Well		125.00
	3.	Application to Repair or Deepen	4	123.00
J.	72-12-1 Well		75.00	
	4.		7	/5.00
_	् <u>न</u> -	Application for Replacement		75.00
	-	72-12-1 Well	ş	75.00
_	5.	Application to Change Purpose of Use		
		72-12-1 Well	\$	75.00
_	6.	Application for Stock Well/Temp. Use	\$	5.00
_	7.	Application to Appropriate Irrigation,		
		Municipal, or Commercial Use	\$	25.00
_	8.	Declaration of Water Right	\$	1.00
	9.	Application for Supplemental Non		
		72-12-1 Well	\$	25.00
_	10.	Application to Change Place or	'	
		Purpose of Use Non 72-12-1 Well	¢	25.00
	11.	Application to Change Point of Diversion		20100
-		and Place and/or Purpose of Use from		
		Surface Water to Ground Water		50.00
	12			50.00
	14.	Application to Change Point of Diversion	1	
		and Place and/or Purpose of Use from		
		Ground Water to Ground Water	Ş	50.00
-	13.	Application to Change Point of		
		Diversion of Non 72-12-1 Well	\$	25.00
	14.	Application to Repair or Deepen		
		Non 72-12-1 Well	\$	5.00
_	-		7	-
- 1	15	Application for Test, Expl. Observ. Well	6	15.00
-		Application for Extension of Time		25.00
		Proof of Application to Beneficial Use	•	25.00
-	10.	TIOU OF Application to penericial USP	3	Z3.UU

- 17. Proof of Application to Beneficial Use \$ 25.00 18. Notice of Intent to Appropriate \$ 25.00

#### **B. Surface Water Filing Fees**

		and trater thing toos			
	1.	Change of Ownership of a Water Right	\$	5.00	
	2.	Declaration of Water Right	\$	10.00	)
_	3.	Amended Declaration	Ś	25.00	
	4.	Application to Change Point of Diversion	÷.		
		and Place and/or Purpose of Use from			
		Surface Water to Surface Water	\$	200.0	0
	5.	Application to Change Point of Diversion			
		and Place and/or Purpose of Use from			
		Ground Water to Surface Water	\$	200.00	5
	6.	Application to Change Point of	Τ.		
		Diversion	\$	100.00	5
	7.	Application to Change Place and/or	Ť		
-12		Purpose of Use	\$	100.00	0
	8.	Application to Appropriate		25.0	
	9.	Notice of Intent to Appropriate	ŝ	25.0	
	10.	Application for Extension of Time	ŝ		-
			T	100.00	
		Return Flow Credit		100.00	-
	13.	Proof of Completion of Works	÷	25.00	
		Proof of Application of Water to	Τ.		
			s	25.00	0
	15.		т	100.00	
		Declaration of Livestock Water	T		
		Impoundment	\$	10.00	0
	17.	Application for Livestock Water	T		-
		-	\$	10.00	0
		and the second se	*		-

All fees are non-refundable.

#### **C. Well Driller Fees**

Application for Well Driller's License     Application for Renewal of Well	\$ 50.00
Driller's License	\$ 50.00
D. Reproduction of Documents	
@ 25¢/copy	\$
Map(s)	\$
E. Certification	\$
F. *Credit Card Convenience Fee	\$
G. Other	\$

**Comments:** lina tor on utman No] 0 6 fic 17 Mere neepd five for ao NPP

#### **NEW MEXICO OFFICE OF THE STATE ENGINEER** WR-07 APPLICATION FOR PERMIT TO DRILL A WELL WITH NO WATER RIGHT (check applicable box): For fees, see State Engineer website: http://www.ose.state.nm.us/ Pollution Control And/Or Recovery Purpose: Ground Source Heat Pump $\sim$ □ Other(Describe): Exploratory Well (Pump test) **Construction Site/Public** Works Dewatering PE Monitoring Well **Mine Dewatering** $\mathbb{N}$ 0 A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive. Requested End Date: Unknown Temporary Request - Requested Start Date: Jan. 7th, 2019 Plugging Plan of Operations Submitted? Yes No No

#### 1. APPLICANT(S)

Name: Hilcorp Energy Company		Name:	
Contact or Agent:	check here if Agent	Contact or Agent:	check here if Agent
Jim Foster		the last of succession in the last	A AND LOCATED INCOME. THE DATE OF THE
Mailing Address: 382 Rd 3100		Mailing Address:	
City: Aztec		City:	
State: NM	Zip Code: 87410	State:	Zip Code:
Phone: 979-324-2139 Phone (Work):	🗌 Home 🔳 Cell	Phone: Phone (Work):	🗌 Home 🗍 Celi
E-mail (optional): jim@teamtimberwolf.com	Carlo La Serve da La Davis	E-mail (optional):	

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.: SJ-4327 POD1-POD6	Tm. No.:		Rec	aipt No.: 5-628	2 and 5-6284
Trans Description (optional):		-			
Sub-Basin:		PCW/LOG Due Da	ate:	12/31/2019	

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2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above. NM State Plane (NAD83) (Feet) UTM (NAD83) (Meters) Lat/Long (WGS84) (to the nearest NM West Zone Zone 12N 1/10<sup>th</sup> of second) NM East Zone Zone 13N **NM Central Zone** Provide if known: -Public Land Survey System (PLSS) X or Easting or Y or Northing (Quarters or Halves, Section, Township, Range) OR Well Number (if known): Longitude: or Latitude: - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name SI-4327 POD1 MW1 -108.20335 36.85989 NE/4, NW/4, Sec. 33, T31N, R13W SI-4327 POD2 MW2 -108 20335 36.86007 NE/4, NW/4, Sec. 33, T31N, R13W SJ-4327 POD3 MW3 -108.2030936.85995 NE/4, NW/4, Sec. 33, T31N, R13W SI-4327 POD4 MW4 -108.20335 36.85980 NE/4, NW/4, Sec. 33, T31N, R13W SI-4327 POD5 MW5 -108.2036136.85977 NE/4, NW/4, Sec. 33, T31N, R13W NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 - POD Descriptions) Additional well descriptions are attached: 🔳 Yes 🗌 No If yes, how many 1 Other description relating well to common landmarks, streets, or other: Located along the eastern bank of the La Plata River and on the Kaufman No. 1 well site Well is on land owned by: Federal Land - Managed by BLM Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? [] Yes No No If yes, how many\_ Approximate depth of well (feet): 18 Outside diameter of well casing (inches): 2.375 Driller License Number: 1762 Driller Name: Geomat, Inc. 3. ADDITIONAL STATEMENTS OR EXPLANATIONS Reason for monitoring well: Suspected groundwater contamination from a condensate/crude oil release. Duration of planned monitoring: Ongoing, potential for multi-year to progress site towards regulatory closure.

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FOR OSE INTERNAL USE

Application for Permit, Form WR-07

Tm No.:

201

File No.: SJ-4327 POD1-POD6

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4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: Include a description of any proposed pump test, if applicable. Monitoring: Include the reason for the monitoring well, and, The	Pollution Control and/or Recovery:           Include a plan for pollution           control/recovery, that includes the           following:           A description of the need for the           pollution control or recovery operation.           The estimated maximum period of           time for completion of the operation.           The annual diversion amount.           The annual consumptive use           amount.           The maximum amount of water to be           diverted and injected for the duration of           the operation.           The method and place of discharge.           The method of measurement of           water produced and discharged.           The method of measurement of           water injected.           The method of measurement of	Construction De-Watering: Include a description of the proposed dewatering operation, The estimated duration of the operation, The maximum amount of water to be diverted, A description of the need for the dewatering operation, and, A description of how the diverted water will be disposed of. Ground Source Heat Pump: Include a description of the geothermal heat exchange project, The number of boreholes for the completed project and	Mine De-Watering:  Include a plan for pollution control/recovery, that includes the following A description of the need for mine dewatering. The estimated maximum period of time for completion of the operation. The source(s) of the water to be diverted The geohydrologic characteristics of the aquifer(s). The maximum amount of water to be diverted per annum. The maximum amount of water to be diverted for the duration of the operation. The maximum amount of water to be diverted for the duration of the operation. The maximum amount of water to be diverted for the duration of the operation. The method of measurement of water diverted. The recharge of water to the aquifer. The method and place of discharge.
well, and, The duration of the planned monitoring.		<ul> <li>The number of boreholes for the completed project and required depths.</li> <li>The time frame for constructing the geothermal heat exchange project, and,</li> <li>The duration of the project.</li> <li>Preliminary surveys, design data, and additional information shall be included to</li> </ul>	
	which the pollution plume control or recovery well is to be located.	provide all essential facts relating to the request.	hydrologic effect.

I, We (name of applicant(s)), Jim Foster Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.		28	NON NON
- Artock			
Applicant Signature	Applicant Signature	N	ST.
ACT	ON OF THE STATE ENGINEER	0L	
·	This application is:		
X approve	ed 🔲 partially approved 🗌 denied		
provided it is not exercised to the detriment of any oth Mexico nor detrimental to the public welfare and furthe	ners having existing rights, and is not contrary to the conservation er subject to the <u>attached</u> conditions of approval.	1 of water	in New
Witness my hand and seal this day of	December 20 18 , for the State Engineer,		

John Römera, P.E.	Acting, State Engineer	
By: Blance Elisten		Blaine Watson
Signature District V. Manager	Print	
Print		
Number of the second states of	FOR OSE INTERNAL USE	Application for Permit, Form WR-07
Municipal	File No.: SJ-4327 POD1-POD6	Tm No.:
		Page 3 of 3

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## NEW MEXICO OFFICE OF THE STATE ENGINEER



### ATTACHMENT 1 POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

a. Is this a:			Number o	ation on Attachment(s): If points of diversion involved in the Iber of pages attached to the applic:	
Surface Point of Diversion	OR	Well			
Name of ditch, acequia	a, or spring:				
Stream or water cours	e:				
Tributary of:					
	on coordinate must	be either New Me	xico State Pl	ane (NAD 83), UTM (NAD 83), <u>or</u> L	at/Long (WGS84)
NM State Plane (NAD83) (feet) NM West Zone NM Central Zone NM East Zone	UTM (NAD83) (meters) Zone 13N Zone 12N	■ Lat (WGS8 1/10 <sup>th</sup> c	/Long– 34) of second	OTHER (allowable only for mov descriptions - see application for PLSS (quarters, section, too Hydrographic Survey, Map Lot, Block & Subdivision Grant	rm for format) vnship, range)
POD Number:	X or Longitude	Y or Lat	litude	Other Location Description:	
MW6 (SJ-4327 POD6)	-108.20366	36.8	5987	NE/4, NW4, Sec. 33, T	31N, R13W
POD Number:	X or Longitude	Y or Lat	litude	Other Location Description:	
POD Number:	X or Longitude	Y or Lai	titude	Other Location Description:	
POD Number:	X or Longitude	Y or Lat	litude	Other Location Description:	
POD Number:	X or Longitude	Y or Lat	litude	Other Location Description:	NGNE D, NEV D 28
POD Number:	X or Longitude	Y or Lat	itude	Other Location Description:	H 2:
POD Number:	X or Longitude	Y or Lat	itude	Other Location Description:	
POD Number:	X or Longitude	Y or Lat	itude	Other Location Description:	
POD Number:	X or Longitude	Y or Lat	itude	Other Location Description:	

FOR OSE INTERNAL USE Form wr-08
POD DESCRIPTIONS - ATTACHMENT 1
File Number: SJ-4327 POD1-POD6 Trn Number:
Trans Description (optional):



#### NMOSE Permit to Drill a Well(s) With No Water Right - Conditions of Approval SJ-4327 POD1-POD6

The New Mexico Office of the State Engineer (NMOSE) has determined that existing water rights will not be impaired by this activity. This application is approved without publication provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state. This application approval (i.e., permit) is further subject to the following conditions of approval.

1. This permit is approved as follows:

Permittee(s):	Hilcorp Energy Company (via Timberwolf Environmental, LLC, as Agent) 382 Road 3100 Aztec, NM 87410
Permit Number:	SJ-4327
Application File Date:	December 28, 2018
Priority:	N/A
Source:	Groundwater
Point(s) of Diversion:	Six points of diversion (PODs), SJ-4327 POD1 through POD6, are proposed. The PODs consist of six proposed monitoring wells (Table 1) that will be used for periodic groundwater sampling. The wells will be located at the Hilcorp Kaufman No. 1 release site located on land owned by The U.S. Department of the Interior Bureau of Land Management in rural San Juan

**Table 1: Proposed New Monitoring Wells** 

POD Number and Owner's Well Name	Diameter	asing: (inches) and th (feet)	Longitude (Decimal Deg.)	Latitude (Decimal Deg.)
SJ-4327 POD1 (MW-1)	2	18	108.203347° W	36.859885° N
SJ-4327 POD2 (MW-2)	2	18	108.203351° W	36.860065° N
SJ-4327 POD3 (MW-3)	2	18	108.203093° W	36.859950° N
SJ-4327 POD4 (MW-4)	2	18	108.203350° W	36.859804° N
SJ-4327 POD5 (MW-5)	2	18	108.203606° W	36.859771° N
SJ-4327 POD6 (MW-6)	2	18	108.203661° W	36.859874° N

County, New Mexico. The PODs will be located within the SE/4 NE/4 of Section 33, Township 31 North, Range 13 West, NMPM, at the following approximate point locations (Long/Lat,

Purpose of Use:

#### Groundwater sampling

Place of Use:	
Amount of Water:	

N/A

N/A

WGS84).

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NMOSE Permit to Drill a Well(s) With No Water Right Conditions of Approval SJ-4327 POD1-POD6 Page 2 of 5 December 31, 2018

- 2. No water shall be appropriated and beneficially used from any wells or borings approved under this permit.
- 3. No water shall be diverted from the well(s) except for initial well development and periodic sampling purposes. Upon completion of monitoring activities the well(s) shall be plugged in accordance with Subsection C of 19.27.4.30 NMAC, unless a permit to use water is acquired from the NMOSE.
- 4. The well(s) may continue to be used indefinitely for groundwater sampling or monitoring required for the current site investigation and any associated remediation, so long as they remain in good repair. A new permit shall be obtained from the NMOSE prior to replacing a well(s) or for any change in use as approved herein.
- 5. Water well drilling and well drilling activities, including well plugging, are regulated under NMOSE Regulations 19.27.4 NMAC. These regulations apply, and provide both general and specific direction regarding the drilling of wells in New Mexico. Note that the construction of any well that allows groundwater to flow uncontrolled to the land surface or to move appreciably between geologic units is prohibited.
- 6. In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging is required by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30 and 19.27.4.31 NMAC. However, pursuant to 72-12-12 NMSA 1978 and 19.27.4.8 NMAC, a driller's license is not required for the construction of a driven well with an outside casing diameter of 2% inches or less and that does not require the use of a drill rig (e.g., auger) for installation. This exemption is not applicable to well plugging.
- 7. The permittee has not stated whether artesian conditions are likely to be encountered at the proposed well/borehole location(s). However, if artesian conditions are encountered during drilling, all rules and regulations pertaining to the drilling and casing and plugging of artesian wells shall be followed.
- 8. A Well Record documenting the as-built well construction and materials used shall be filed for each of the new wells in accordance with Subsection N of 19.27.4.29 NMAC. Well Records shall be filed with the State Engineer (NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410) within 30 days after completion of the well(s). Well installation(s) shall be complete and the well record(s) filed no later than one year from the date of approval of this permit.
- 9. If the required Well Record documentation is not received within one year of the date of permit approval, this permit will automatically expire.
- 10. When the permittee receives approval or direction to permanently abandon the well(s)/borehole(s) covered by this permit, plugging shall be performed by a New Mexico licensed well driller. The well(s)/borehole(s) shall be plugged pursuant to Subsection C of 19.27.4.30 NMAC using the following method, unless an alternate plugging method has been proposed by or on behalf of the well owner and approved by the NMOSE. If a well/borehole has

encountered artesian conditions, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities concerning artesian wells. Additionally, if the following standardized plugging sealant is not appropriate for use due to incompatibility with the water quality or any soil and water contaminates encountered, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities.

- a. Obstructions in a well/borehole shall be identified and removed if possible. If an obstruction cannot be removed, the method used to grout below and around the obstruction shall be described in detail in the plugging record.
  - b. Prior to plugging, calculate the theoretical volume of sealant needed for abandonment of the well/borehole based on the actual measured pluggable depth of the well/borehole and the volume factor for the casing/borehole diameter. Compare the actual volume of sealant placed in the well/borehole with the theoretical volume to verify the actual volume of sealant is equal to or exceeds the theoretical volume.
  - c. Portland Type I/II cement shall be used for the plugging sealant. The water mixed with the cement to create the plugging sealant shall be potable water or of similar quality. Portland cement has a fundamental water demand of 5.2 gallons of water per 94-lb sack of cement. Up to a maximum of 6.0 gallons per 94-lb sack is acceptable to allow for greater pumpability.

Pure bentonite powder ("90 barrel yield") is allowed as a cement additive by NMOSE and American Water Works Association (AWWA) guidelines. If a bentonite additive is used, the following rates and mixing guidelines shall be followed. For a rate or a mixing procedure other than that provided below, the NMOSE District V office must be contacted for pre-approval. Neither granular bentonite nor extended-yield bentonite shall be mixed with cement for the purpose of this plugging activity. When supplementing a cement slurry with bentonite powder, water demand for the mix increases at a rate of approximately 0.65 gallon of water for each 1% increment of bentonite bdwc (by dry weight cement) above the stated base water demand of 5.2 gallons water per 94-lb sack of cement for neat cement. Bentonite powder must be hydrated separately with its required increment of water before being mixed into the wet neat cement. If water is otherwise added to the combination of dry ingredients or the dry bentonite is blended into wet cement, the alkalinity of the cement will restrict the yield of the bentonite powder, resulting in excess free water in the slurry and excessive cement shrinkage upon curing.

- d. Placement of the sealant within the well/borehole shall be by pumping through a tremie pipe extended to near the bottom of the well/borehole and kept below the top of the slurry column (i.e., immersed in the slurry) as the well/borehole is plugged from bottom upwards in a manner that displaces the standing water column.
- e. Prior to, or upon completion of plugging, the well casing may be cut-off below grade as necessary to allow for approved construction onsite, provided a minimum six-inch thickness of reinforced abandonment plugging sealant or concrete completely covers the top of the cut-off casing. Any remaining void to the surface may be filled with native soil, concrete, or asphalt as needed to match the surrounding surface material and blended with the surface topography to prevent ponding.
- f. Within 30 days after completion of well/borehole plugging, a complete Plugging Record shall be filed with the State Engineer in accordance with Paragraph (3) of

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NMOSE Permit to Drill a Well(s) With No Water Right Conditions of Approval SJ-4327 POD1-POD6 Page 4 of 5 December 31, 2018

Subsection C of 19.27.4.30 NMAC for each well/boring plugged. The Well Plugging Record(s) shall be filed with the State Engineer at the NMOSE District V Office, 100 Gossett Drive, Suite A, Aztec, NM 87410. The required well plugging record form is available at <u>http://www.ose.state.nm.us/STST/wdForms.php</u>.

- 11. In accordance with Subsection C of 19.27.4.30 NMAC, a well/borehole that does not encounter groundwater may be immediately plugged by filling with drill cuttings or clean native fill to within 10 feet of land surface and by plugging the remaining 10 feet to the land surface with a sealant approved by the Office of the State Engineer. A Plugging Record shall be filed with the State Engineer as described above.
- 12. Should another regulatory agency sharing jurisdiction of the project authorize, or by regulation require, more stringent requirements than stated herein, the more stringent procedure should be followed. These, among others, may include provisions regarding pre-authorization to proceed, type of methods and materials used, inspection, or prohibition of free discharge of any fluid or other material to or from the well that is related to the drilling and/or monitoring process.
- 13. Pursuant to 72-12-3 NMSA 1978, the applicant may or may not have provided written documentation with the application, which the applicant claims as confirmation that access has been granted for the aforementioned well(s) to be located on property owned by someone other than the well owner/applicant. NMOSE approval of this permit in no way infers the right of access to land not owned by the well owner/applicant.
- 14. The State Engineer retains jurisdiction of this permit.

The application for drilling well(s) <u>SJ-4327 POD1-POD6</u> without a water right, submitted on <u>December</u> <u>28, 2018</u>, is hereby approved with the aforesaid conditions applied, when signed by an authorized designee of the State Engineer:

Witness my hand and seal this <u>31<sup>st</sup></u> day of <u>December</u>, A.D. 2018. John Romero, P.E., Acting State Engineer

By:

and letto Blaine Watson, P.G., District Manager District V Office, Water Rights Division

SJ-4327 POD1-POD6 Page 5 of 5 December 31, 2018



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District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

## **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 172906

CONDITIONS			
Operator:	OGRID:		
HILCORP ENERGY COMPANY	372171		
1111 Travis Street	Action Number:		
Houston, TX 77002	172906		
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)		

CONDITIONS

Created	Condition	Condition
Ву		Date
nvelez	Accepted for the record. Abatement terms completed.	1/6/2023