

Marathon County Solid Waste Department

172900 State Highway 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

March 27, 2020

Ms. Sally Hronek Wisconsin Department of Natural Resources Waste Management Engineer 2984 Shawano Avenue Green Bay, WI 54313-6727

Re: Marathon County Solid Waste - Area B Landfill #3338 FID 737092730

Dear Ms. Hronek:

Please accept this submittal of the 2019 Annual Solid Waste Report for the Area B landfill of Marathon County. This Annual Solid Waste Report is being submitted in accordance with the approved Plan of Operation for Area B.

In accordance with your request, two (2) additional hard copies and emailed PDF copies are being distributed to the WDNR staff as noted below.

Should you have any questions or comments regarding this Annual Solid Waste Report, please do not hesitate to contact me at (715) 445- 3101.

Thank you,

Dain Hayelolar

Dave Hagenbucher Solid Waste Operations Manager Marathon County Solid Waste Dept 172900 State Highway 29 Ringle, Wisconsin 54471 C: 715-551-5864 O: 715-446-3101x102

CC: C. Lee Daigle, PE – Tetra Tech Senior Project Manager Nathan Coller – WDNR Spooner Service Center (1 hard copy and 1 electronic copy) John Morris – WDNR Eau Claire Service Center (1 hard copy and 1 electronic copy)



Marathon County Solid Waste Department <u>Area B Landfill</u> 2019 ANNUAL REPORT

WDNR License No. 3338 FID 737092730

Marathon County Solid Waste Management Department 172900 Highway 29 Ringle, WI 54471

Solid Waste & Recycling Information Line: 877-270-3989

www.marathoncountysolidwaste.org



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Staff, Consultants & Contractors

Marathon County Solid Waste Department Staff:

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Solid Waste Scale Master	Jessica Kubichek
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Waste Specialist	Eric Olson
Waste Specialist	Abby Lichtscheidl
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- Mark Torresani, P.E.
 Cornerstone Environmental Group, a Tetra Tech company 8413 Excelsior Drive, Suite 160 Madison, WI 53717
- Lee Daigle, P.E.

Cornerstone Environmental Group, a Tetra Tech company 8413 Excelsior Drive, Suite 160 Madison, WI 53717

Introduction

This report provides a summary of site conditions, work conducted at and other activities related to the active Area B Landfill (Area B) during 2019. This report is intended to meet the intent and focus of the annual reporting requirements found in all approved documentation for Area B. This document meets the annual reporting requirements of the Wisconsin Department of Natural Resources (WDNR) Plan of Operation Approval dated March 22, 2002, the 2006 plan modification for the expansion of Phase IV and the 2013 Modification to the Monitoring Plan (for Groundwater, Lysimeters and Leachate Collection).

Area B Background

Marathon County Solid Waste Department (MCSWD) owns, operates and manages the Area B Landfill (Area B). The 32 acre facility opened in 1993 and has an amended design capacity of 2,508,000 cubic yards. Approximately 5 acres has final cover. The site is located along the north side of Hwy 29, in the town of Ringle, Wisconsin and north of the closed Area A Landfill.

MCSWD and various contracted firms have and will continue to work collaboratively to ensure operations/post-closure activities are conducted in accordance with all required current and long-term care approvals. This includes, but is not limited to, operation of and maintenance of the following systems: intermediate cover, final cover, storm water, landfill gas and condensate, leachate collection, and groundwater monitoring.



Summary of Landfill Activities in 2019

From 1994 to early 2014, MCSWD retained an independent contractor to conduct operations. MCSWD began internal operations of the landfill with its own staff and equipment in May 2014. Operational duties typically include, but are not limited to full-time administrative management, active fill area management and scale operations (when accepting wastes), site operational oversight and trouble-shooting and other maintenance and conditionally regulated duties such as:

- Monthly visual inspections of the final cover surface
- Inspections of storm water management pathways
- Removal of obstructions or repair to storm water pathways
- Mowing pathways for surface emission monitoring work
- General mowing to control for woody herbaceous growth
- Snow plowing of access roads
- Grading and dust management of access roads using calcium chloride was applied to both interior landfill roads and gravel site roads
- Preventative maintenance on gas system and leachate pumping system
- Cover maintenance including repair of leachate seeps
- Daily operations with waste acceptance, compaction and cover

As needed, MCSWD hired various contractors and/or consultants to perform specific tasks beyond the capabilities of the site staff such as air permit compliance and reporting, and contracted leachate hauling.

Waste Disposal Activities

During 2019, approximately 896.71 tons of waste was accepted in Area B that was disposed in the top of Phase IV area. The tonnage received was categorized as Category 6-All other wastes. There were no issues or problems in handling the wastes delivered.

Special Wastes

Area B is licensed to accept waste that would be considered non-hazardous special wastes. This includes contaminated soils. Special waste tonnages disposed at the site, provided in the tons reported to the state as identified above, included approximately 896.71 tons of contaminated soil (C-Soil). Special wastes were placed in Area B during 2019 primarily to prepare the site for closure which is anticipated to occur in 2021.

MCSWD pre-screens all special wastes via a Special Waste Profile form. Customers desiring to deliver non-standard wastes must complete the form and provide to it MCSWD staff for review and approval. The generator of waste, or their agent, must complete the form and also have a variety of select laboratory tests conducted on the special waste prior to a decision being made on acceptance. The MCSWD Special Waste Analytical Protocol and Acceptance Criteria delineates parameter thresholds the waste material must meet in order to qualify as a non-hazardous special waste. No special wastes are accepted without first completing this process. Records are retained on site. In 2019, the site had no non- approved wastes.

Settlement Monitoring

Very little settlement occurred in Area B during the past few years at the location of the Settlement Points. The below tables summarize the Area B settlement monitoring points for the period of 2018.

Settlement Points 09-27-18				
			eleva	ation
SP	North	East	Ground	Тор
North	8000.7	15699.6	1402.4	1404.91
South	7597.6	15500	1400.91	1403.89
	Settle	ement Points 1	2-6-18	
			eleva	ation
SP	North	East	Ground	Тор
North	8000.93	15699.57	1402.47	1404.9
South	7597.61	15500.4	1400.96	1403.83

Settlement Point data was not retrieved in 2019 due to inactivity on Area B



Area B located top left of photo.

Landfill Maintenance

Marathon County Solid Waste continued maintenance and service on all leachate collection infrastructure. During 2019, numerous panels were repaired after a power outage caused damage. Additionally, the pump on Side Slope Riser 3 was replaced due to pumping issues.

To follow protocol and best management practices in regard to surface emissions, MCSWD staff applied a large quantity of bentonite around all penetration points on Area B. The bentonite acted as a seal to prevent emissions from finding their way above the landfill surface. All surface emission monitoring was completed without compliance issues, thus providing confirmation that the seals worked well.

During the fall of 2019, MCSWD staff worked to correct numerous issues with groundwater monitoring wells around the entire site. During October of 2019, staff followed direction from WDNR to correct any issues with the condition of the groundwater wells around the site. Work included labeling, locking, and grading of the surface. Seals of clay or bentonite were also addressed to ensure that the wells were functioning as designed. Additionally, staff installed signage to effectively communicate that site visitors are welcome on the property, but cannot touch or tamper with any site infrastructure. This work was documented and sent to WDNR in an official notice on November 13th, 2019.

Gas Collection System

Area B, located on the northern portion of the entire 574 acre facility (and north of the closed Area A Landfill), has an active landfill gas extraction system consisting of gas collectors and transfer piping, blower to move the gas collected and end-use equipment (described below). The landfill gas extraction system has been operational since the late 1990s. Landfill gas emissions from the entire MCSWD property, including Area B, are regulated in accordance with Air Pollution Control Operation Permit No. 737092730-P20 dated November 2, 2015.

The gas wells located in Area B consist of vertical and horizontal gas extraction wells, connected via a sub-header system within the footprint of the landfill. The landfill gas extracted from the landfill is transferred to the on-site landfill gas recovery building (located south of the Area A Landfill) via a header pipe to a landfill gas to energy plant or to a flare. Vacuum applied to the wellfield is regulated by the variable frequency drive (VFD) blower station that controls the gas collection and control system (GCCS). A map of the Area B GCCS, following improvements made in 2015, is provided in Attachment A.



Students learning about landfill gas collection on Area B.

Existing sensing devices measure gas flow rates, pressure, vacuum, and methane and oxygen concentrations. These sensors are located on the main header line pipe leading into the gas recovery building and includes gas collected from Area A, Area B and BRRDF landfills. Data is recorded and stored on a computerized data collection system. This data is used for operating and reporting purposes.

The Marathon County GCCS operated 98.31% of the year and approximately 8,611.74 hours of operation. The average aggregated flow rate for the site GCCS was approximately 664.33 standard cubic feet per minute (scfm). Methane and oxygen concentrations of landfill gas averaged, by volume, 48.7% for methane and 1.0% oxygen. Total gas collected from the site in 2019 was 379,820,134.73 standard cubic feet (scf). From the total gas collected at the site, 30,137,124.25 scf was used for production of electricity and 349,683,010.47 scf was sent to the flare. The table below summarizes the aggregated flow, combustion location, and vacuum of the GCCS at the site.

Month	Average CFM	Total CFM	CFM to Electric	CFM to Flare
Jan	469.87	31,074,896.25	10,100,040.05	20,974,856.20
Feb	468.78	27,377,343.11	8,476,124.60	18,901,218.51
Mar	520.44	29,244,410.46	6,012,000.23	23,232,410.22
Apr	581.56	29,051,175.86	3,927,714.23	25,123,461.62
May	665.95	29,759,679.84	31,727.17	29,727,952.67
Jun	694.42	30,015,041.54	15,953.36	29,999,088.18
Jul	672.9	30,038,221.55	91.96	30,038,129.59
Aug	672.94	30,042,858.49	2,781.34	30,040,077.16
Sep	766.38	33,111,328.85	3,497.19	33,107,831.66
Oct	813.48	36,313,769.15	0.26	36,313,768.89
Nov	845.18	36,512,866.46	1,050.27	36,511,816.19
Dec	800.01	37,278,543.17	1,566,143.59	35,712,399.58
TOTAL	664.33	379,820,134.73	30,137,124.25	349,683,010.47

2019 MARATHON COUNTY GCCS DATA (INCLUDES AREA A, AREA B & BRRDF)

Below is a chart listing average monthly methane (CH4), oxygen (O2) and concentrations of the site GCCS (combined Area A, Area B and BRRDF landfill gas).

2019 GCCS Vacuum and Concentrations	Ave Vacuum (negative inches water column)	Ave CH4%	Ave O2%
January	26.64	50.2	0.9
February	24.66	50.5	1.0
March	22.38	53.5	0.8
April	25.09	51.0	1.1
May	24.92	52.2	0.8
June	26.66	52.8	0.7
July	25.45	50.8	0.6
August	25.27	22.3	1.1
September	26.73	52.0	1.1
October	26.98	51.3	1.2
November	26.48	48.3	1.5
December	27.01	49.4	1.5
Average	25.69	48.7	1.0

Gas System Outages

As indicated previously, the gas extraction system operated nearly continuously. Any shutdowns, whether for planned maintenance or unplanned events were reported to the WDNR Air Management staff. The January to June 2019 Semi-annual Report and July to December 2019 Semi-annual Report for the facility include descriptions of the startup, shutdown and malfunction events associated with the GCCS, single control devices and the continuous monitoring system.

Surface Emission Monitoring

Surface emission monitoring (SEM) of Area B was conducted on March 28 2019, May 20 2019, September 25 2019, and December 25 2019. No (0) exceedances were detected during any of these quarterly SEM events.

For all SEM events, a flame ionization detector (FID) is used while MCSWD's environmental technician walked a serpentine pattern across the surface of the landfill. Results of the monitoring are provided in Attachment B.

To follow protocol and best management practices in regard to surface emissions, MCSWD staff applied a large quantity of bentonite around all penetration points on Area B. The bentonite acted as a seal to prevent emissions from finding their way above the landfill surface. All surface emission monitoring was completed without compliance issues, thus providing confirmation that the seals worked well.

Soil Gas Monitoring

During 2019, the soil gas probes were monitored quarterly for relative pressure, methane (CH4), oxygen (02), and soil gas pressure. In 2019, these monitoring results indicated no gas migration.

Gas Probe	Location	Methane	Oxygen	Pressure	Notos
[Depth in feet]		(%CH4 by Vol.)	(%02 by Vol.)	(inch W.C.)	Notes:
Lic. 3338	WDNR Parm #	85547	85550	46389	WDNR ID No.
Area B Probes					
G-5 [26']	S Area B	0	18.9	-0.03	710
G-6 [30']	W Area B	0	18.2	0.02	712
G-7 [20']	N Area B	0	19.9	0.04	714
G-8 [15']	E Area B	0	18.7	0.08	716

First Quarter Probe Data (February 7, 2019):

Second Quarter Probe Data (May 7, 2019):

Gas Probe	Location	Methane	Oxygen	Pressure	Notes:
[Depth in feet]		(%CH4 by Vol.)	(%02 by Vol.)	(inch W.C.)	Notes:
Lic. 3338	WDNR Parm #	85547	85550	46389	WDNR ID No.
Area B Probes					
G-5 [26']	S Area B	0	22.0	-0.03	710
G-6 [30']	W Area B	0	22.1	-0.02	712
G-7 [20']	N Area B	0	22.3	-0.01	714
G-8 [15']	E Area B	0	22.4	-0.03	716

Third Quarter Probe Data (Sept 4, 2019):

Gas Probe	Location	Methane	Oxygen	Pressure	Notos
[Depth in feet]		(%CH4 by Vol.)	(%02 by Vol.)	(inch W.C.)	Notes:
Lic. 3338	WDNR Parm #	85547	85550	46389	WDNR ID No.
Area B Probes					
G-5 [26']	S Area B	0	21.8	-0.5	710
G-6 [30']	W Area B	0	21.7	-0,12	712
G-7 [20']	N Area B	0	21.7	-0.03	714
G-8 [15']	E Area B	0	19.8	0.01	716

Fourth Quarter Probe Data (October 14, 2019):

Gas Probe	Location	Methane	Oxygen	Pressure	Notes:
[Depth in feet]		(%CH4 by Vol.)	(%02 by Vol.)	(inch W.C.)	Notes:
Lic. 3338	WDNR Parm #	85547	85550	46389	WDNR ID No.
Area B Probes					
G-5 [26']	S Area B	0	20.3	-0.02	710
G-6 [30']	W Area B	0	18.8	-0.01	712
G-7 [20']	N Area B	0	20.2	-0.01	714
G-8 [15']	E Area B	0	16.3	0.0	716

Gas Condensate Sampling Data

In accordance with the monitoring plan, gas condensate was sampled and analyzed in April and October 2019. A summary of the tested analytes are provided in the table below and include inorganic constituents and detected volatile organic compounds (VOC's).

2019 Gas Condensate Detection Results				
Parameter	Units	April	October	
Conductivity	umho/cm @25C	576	990	
pH	S.U.	7.87	8.11	
TSS	mg/L	3.0	ND	
COD	mg/L	30	28	
VOCs				
Acetone	ug/L	ND	ND	
Ethylbenzene	ug/L	ND	ND	
Methyl Ethyl Ketone	ug/L	ND	ND	
Naphthalene	ug/L	ND	ND	
Tetrahydrofuran	ug/L	ND	ND	
Toluene	ug/L	ND	ND	
Xylene, o-	ug/L	ND	ND	
Xylene, m- & p-	ug/L	ND	ND	

Gas Condensate Volumes

Gas condensate volumes were monitored and tabulated on a monthly basis. The 2019 gas condensate volumes are summarized below:

2019 Area B	2019 Area B Condensate Volume Pumped (Gallons)				
Month	CKO-1 gallons	CKO-2 gallons	GC-Manhole gallons	GC-1 gallons	CS-1 gallons
Jan	2016	1932	504	0	3192
Feb	2604	2016	672	0	2940
Mar	2520	1932	7224	0	2772
Apr	2352	1596	1512	0	3360
Мау	3108	1260	1176	0	9912
Jun	3444	1596	756	0	3864
Jul	2772	1428	840	0	3780
Aug	3864	1428	2940	0	6804
Sep	1764	1176	756	0	3696
Oct	1764	1176	504	0	3864
Nov	2940	1176	588	0	4032
Dec	1848	1512	1008	0	3864
TOTALS	30996	18228	18480	0	52080

Gas Sampling Data

On October 9, 2019 MCSWD's environmental technician with the assistance from Tetra Tech, used a summa canister to collect a sample of landfill gas for VOC analysis. The full canister was shipped via express mail services to Air Technology Labs, Inc. (ATL) in City of Industry, California for analyses of volatile organic compounds. The test method used was United States Environmental Protection Agency (EPA) test method TO-15, Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS). Results of the testing performed by ATL is provided as Attachment C to this report.



Leachate System Information

Leachate is collected throughout the Area B landfill with a leachate collection system at the base of the landfill. This includes an aggregate leachate drainage layer and a series of leachate collection trenches and pipes that drain to leachate collection sumps. Leachate gathers in the sumps and is pumped out of the landfill through a side slope riser forcemain to storage tanks. There are five (5) sumps, 5 riser pipes and 3 storage tanks associated with Area B. Pumping from the side slope risers stops when a sensor system inside the storage tank indicates the liquid has reached a certain level. The contracted leachate hauler pumps the stored leachate into a 6,600 gallon tanker truck and delivers the material to one of three waste water treatment facilities (WWTF) for disposal.

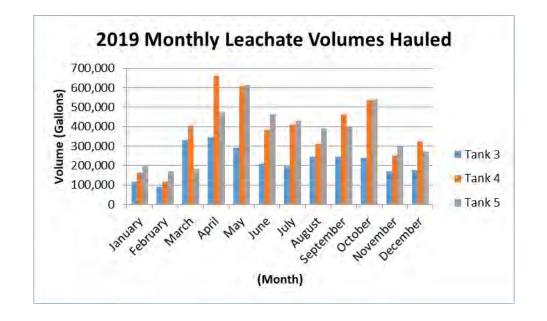
Leachate collected in 2019 was transported to either the Domtar, Inc. WWTF in Rothschild, Wisconsin, Wausau Wastewater Treatment, or the Stevens Point Wastewater Utility in Stevens

11 MCSWD Area B Annual Report March 2019 Point, Wisconsin. Leachate is pumped into the WWTF and treated to ensure all effluent meets Wisconsin Pollutant Discharge Elimination System (WPDES) standards.

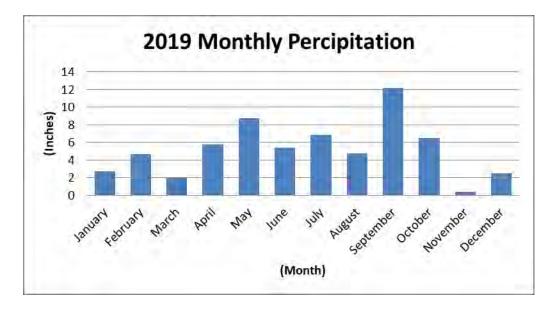
Preventative maintenance of the leachate storage and pumping system was conducted, as needed, by on-site operations or other tank and pump specialists when required.

2019	Tank 3	Tank 4	Tank 5
January	118,800	165,000	198,000
February	92,400	118,800	171,600
March	330,000	402,600	184,800
April	343,200	660,000	475,200
May	290,400	607,200	613,800
June	211,200	382,800	462,000
July	198,000	409,200	429,000
August	244,200	310,200	389,400
September	244,200	462,000	396,000
October	237,600	534,600	541,200
November	171,600	250,800	297,000
December	178,200	323,400	270,600
Total	2,659,800	4,626,600	4,428,600

Total volume (gallons) of leachate collected/transported/treated in 2019 is as follows:



2019 Precipit	tation (inches)
January	2.7
February	4.7
March	2
April	5.8
Мау	8.75
June	5.4
July	6.9
August	4.75
September	12.2
October	6.5
November	0.4
December	2.47
Total	62.57



Leachate Line Jetting

On June 10 and June 11, 2019 Northern Pipe, Inc. of Green Bay, Wisconsin, water jetted the leachate lines of Area B. Jetting was accomplished by accessing each pipe at one end and jetting the full length of pipe. Each line was then televised in 2018. No issues were reported with this jetting event. The jetting required the use of 5,500 gallons of water. The report for Area B jetting is provided as Attachment D.

Leachate Sampling

Leachate sampling and analytical analysis Area B Tanks 3, 4 and 5 was conducted in April and October 2019 by Northern Lakes Services (NLS). VOCs and metals were sampled semi-annually and semi-volatile organics were sampled and tested in October only. Sampling results show a variety of compounds present that are consistent with previous sampling results. Full results are available on the WDNR Groundwater and Environmental Monitoring System (GEMS) database and are maintained in site files. Conductivity and pH values reported in 2019 are summarized below.

		Conductivity	рН
Leachate	2019	umho/cm	S.U.
Tank 3	April	4630	6.9
	October	8,300	7.12
Tank 4	April	6380	6.84
	October	7,250	6.97
Tank 5	April	9530	7.48
	October	9940	7.44

Leachate Level Monitoring

Leachate level monitors were evaluated on a monthly basis by the MCSWD's environmental technician. Data from those monitoring events is as follows: Please note that data before September was not included. The previous MCSWD Environmental Technician left employment with Marathon County mid-year. The data before September 2019 was misplaced during the transition period.

Marathon County Solid Waste								
Area B Leachate Head Well Monitoring								
	Area B	LLM 2	LLM 3	LLM 4	LLM 5	LLM 6	LLM 7	LLM 8
Pipe Le	ength to Elbow (ft)	100	102	95	100	119	115.9	116.8
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Jan-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Feb-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Mar-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Apr-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
May-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Jun-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Jul-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	NA	NA	NA	NA	NA	NA	NA
Aug-19	Leachate Head	NA	NA	NA	NA	NA	NA	NA
	Depth to Liquid	Dry	Dry	Dry	99	Dry	Dry	Dry
Sep-19	Leachate Head	0	0	0	1	0	0	0
	Depth to Liquid	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Oct-19	Leachate Head	0	0	0	0	0	0	0
	Depth to Liquid	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Nov-19	Leachate Head	0	0	0	0	0	0	0
	Depth to Liquid	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Dec-19	Leachate Head	0	0	0	0	0	0	0
LLM - Leacha	te Level Monitor - If dry at	landfill base, i	reported as di	ry with 0 feet	t of head.			

<u>Lysimeters</u>

Northern Lakes Services, Inc. monitored Lysimeter 7 in April and October 2019 with additional monitoring for VOCs in October. There were no VOC detections; therefore, no VOCs results are shown. Sampling results were submitted electronically to the WDNR GEMS database and are consistent with previous sampling results. A summary table of inorganic constituents from the lysimeter sampling event is provided below:

2019 Lysimeter Detection Results					
		Lysimeter 7 April October			
Parameter	Units				
Conductivity	umho/cm @25C	257	616		
рН	S.U.	7.15	7.03		
Alkalinity	mg/L	30	290		
Boron	mg/L	ND	93		
COD	mg/L	9.7	13		
Chloride (as Cl)	mg/L	34	7.1		
Hardness	mg/L	71	330		
Nitrite + Nitrate	mg/L	0.56	1.0		
Sodium (as Na)	mg/L	23	23		
Sulfate (as SO4)	mg/L	43	34		

Final Cover

There are approximately 5 acres of final cover constructed at the Area B Landfill. The existing final cover areas remain in excellent condition. As required by the site's plan of operation, and to ensure the investment in final cover is not compromised, the following activities are conducted throughout the year:

- Monthly visual inspections of the final cap surface
- Inspections of storm water management pathways
- Removal of obstructions or repair to storm water pathways
- Mowing pathways for surface emission monitoring work
- General mowing to control for woody herbaceous growth
- Snow plowing of access roads
- Grading and dust management of access roads
- Preventative maintenance of gas system and leachate pumping system

Storm Water Management

There are four storm water management diversion and collection areas associated with Area B. Storm water is channeled away from the closed and intermediate cover areas of the landfill and away from exterior roads and flows to one of the sedimentation and retention ponds identified as SR-1 through SR-4. Storm water and retention pond SR-3 is used as a source of water for operational dust control; a tanker truck is filled with water and then applied to the various roadways. An annual storm water inspection was performed on June 12, 2019. This included the general inspection of ditches associated with Area B. This inspection is provided as Attachment E.

The basins are observed as a general course of site inspections by MCSWD. Water height, clarity, and turbidity are noted. There has been no need to conduct maintenance on the basins. Storm water grates are also observed with this routine and cleared of materials that may impede the proper flow of storm water.

Groundwater Monitoring & Analysis

Please refer to the 2016 – 2019 three year groundwater assessment for more detailed information about site groundwater conditions and status. At the beginning of 2019, MCSWD had a total of 91 groundwater monitoring wells, with 25 designated for Area B. The groundwater monitoring regimen was conducted according to the February 7, 2013 approved modification to the groundwater and leachate monitoring plan.

Per the approved monitoring plan, the groundwater wells within the plan were sampled semiannually in April and October. Sampling and laboratory analysis was conducted by qualified personnel from Northern Lake Service (NLS) of Crandon, Wisconsin. The groundwater samples were analyzed to very low chemical concentrations with many found to be below the laboratory's limit of quantification (LOQ). The groundwater quality measurements were compared to NR 140 Groundwater Preventive Action Limits (PALs) and Enforcement Standards (ESs) and site specific indicator PALs and Alternate Concentration Limits (ACLs) provided in the approved monitoring plan. Results revealed that most of the monitoring wells do not exceed these limits and even meet safe drinking water standards.

Reporting values higher than these limits are reported as exceedances. As in past monitoring events at the Area B site, results at some wells exceeded the PAL and ES standards. The exceedances noted in the tables below include nitrate + nitrite as nitrogen at two downgradient wells which may be attributable to area agricultural practices or runoff from erosion control efforts that include seeding, fertilizing and mulching at and near the Area B landfill. No corrective action is planned or required at this time. Groundwater monitoring results and any exceedances were submitted electronically by NLS to the WDNR's GEMS database. Below is a summary of the exceedances from each semi-annual monitoring period. The exceedance reports submitted to the WDNR for the April and October 2019 monitoring event are provided in Attachment F.

N+N exceedances of NR 140 Groundwater Quality Standards at two Area B Landfill downgradient wells have continued during the three year period from 2017 to 2019. Upgradient wells R20AR and R30 have reported historical N+N concentrations below 1.0 mg/L. The upgradient well R20AR has exhibited an increasing trend in N+N concentrations but the concentrations are still below the downgradient well concentrations and the NR 140 PAL. As a result, the elevated N+N downgradient of the Area B Landfill appears to be attributable to the Area B Landfill. The N+N concentrations downgradient of the Area B Landfill will continue to be monitored to further assess the current trends.

Area B Groundwater Well Exceedance Table April 2019

Marathon County Solid Waste: Area B Groundwater Monitoring Wells									
Area B Facility #3338 Exceedances									
Project #	Date	Well#	Parameter	Units	Result	PAL	ES	ACL	Comments
318722	April 2 & 3 2019	Dup 040319	Nitrate+Nitrite	mg/L	2.20	2,00	10.00		NR140.10
318722	April 2 & 3 2019	R45	Nitrate+Nitrite	mg/L	2.20	2.00	10.00		NR140.10

Area B Groundwater Well Exceedance Table October 2019

Marathon County Solid Waste: Area B Groundwater Monitoring Wells									
	Area B	Facility #3338	Exceedances						T
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments
332917	October 14 & 15	Dup 10151901	Nitrate+Nitrite	mg/L	2.10	2.00	10.00		NR140.10
332917	October 14 & 15	R27	Nitrate+Nitrite	mg/L	4.80	2.00	10.00		NR140.10
332917	October 14 & 16	R45	Nitrate+Nitrite	mg/L	2.10	2.00	10.00		NR140.11

Private Well Water Sampling

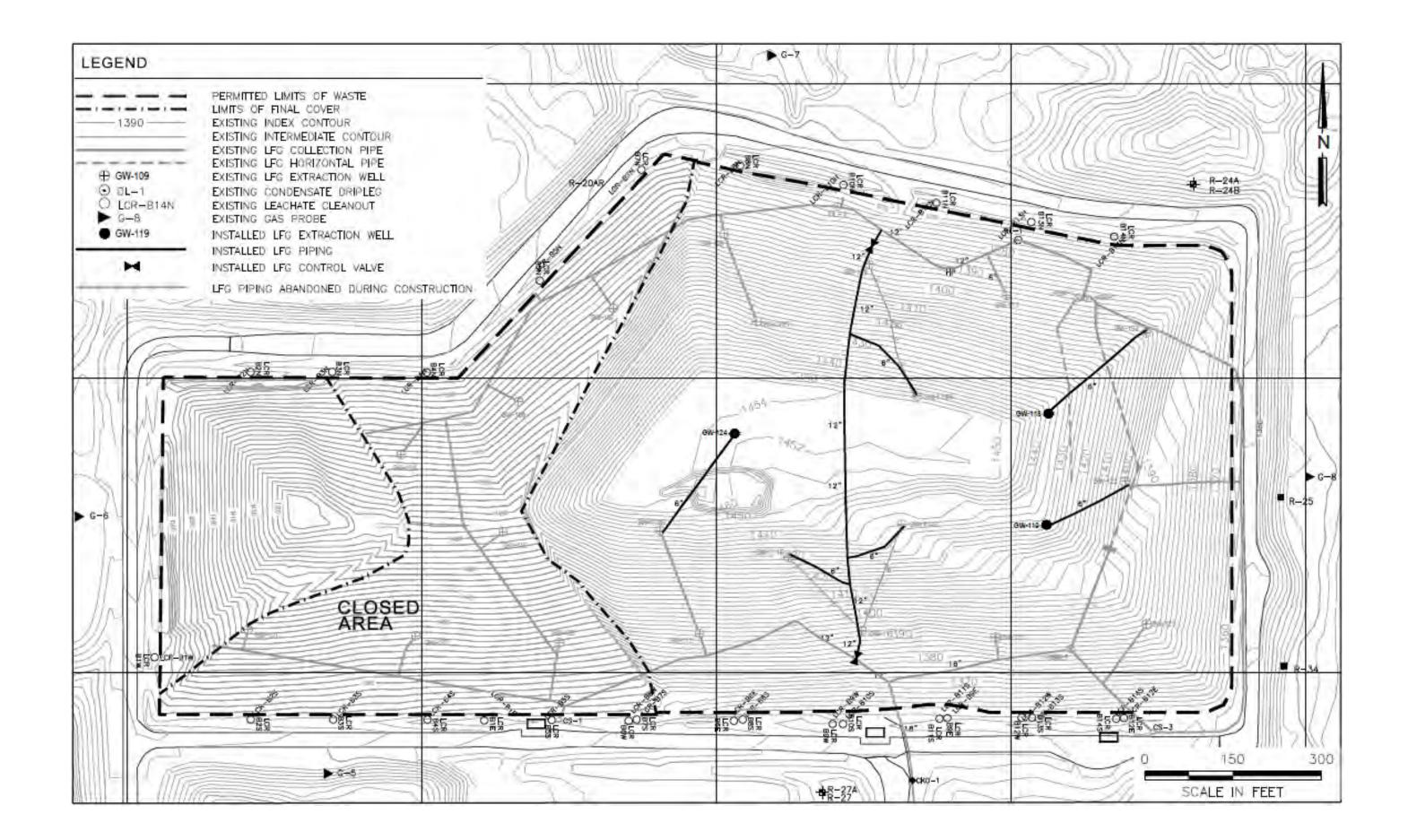
There are no private wells monitored as part of Area B landfill environmental monitoring.

Landfill Gas Monitoring

Landfill Gas monitoring was conducted on a monthly basis in accordance with the sites Air Pollution Control Operation Permit 737092730-P20. The results of each monthly monitoring event are provided to both the solid waste and air departments of the WDNR on a monthly basis.

ATTACHMENT A

AREA B GAS COLLECTION AND CONTROL SYSTEM MAP



ATTACHMENT B

2019 AREA B QUARTERLY SURFACE EMISSION MONITORING REPORTS

1st Qt- 2019

Surface Emissions Monitoring

Calibration Procedure and Background Determination Report

Landfill name: Marathon County Landfill

Instrument make: Thermo Fisher Scientific, Model: TVA1000B,

S/N: 0115248137

Calibration Procedure

- 1. Install filled hydrogen tank, attach probe/readout device; turn on analyzer and hydrogen supply valve.
- 2. Wait 4-5 minutes for proper hydrogen flow, then press; 1 = run. The unit will ignite and display readings. If flame out message appears, clear the message, (press exit) wait another minute and repeat step 2. If unit has not been properly calibrated a bad calibration parameter appears – go to step 3 below.
- 3. Press (exit) until the main menu appears. Calibration can now be performed. For best results, allow unit to warm up for 20 minutes, then press (2=setup).
- 4. Press (1=calibration), choose manual mode.
- 5. Press (2=span concentration) Select the FID detector that the span concentration is for, then press the up or down arrows to select the correct unit of measure for the span gas. Enter the span calibration value; 500%CH, and press the enter key.
- 6. Next Zero the instrument. Press (3=zero) to start this process. Press enter for single detector units. Zero the instrument by using; Air Zero grade. Introduce zero gas into the analyzer through the probe, utilize plastic T bypass pressure valve. Press (enter) to start.
- 7. Wait for minimal change in values (about 15 seconds). Typically, the sample is stable when the first two digits of the reading do not change for 4-5 seconds. Press (enter) to except, press (1) to save.

- 8. Next calibrate with span gas. Press (4=span) Select the detector to be calibrated and press (enter) to start. Follow screen prompts. Wait for readings to stabilize (typically 10-15 seconds). Enter (1) to save.
- 9. Press (5=RF) to verify proper response factor. Confirm that response factor says RFO: default if not set to this value.
- 10. Press (EXIT) twice to return to main menu
- **11. Press (1= Run)**

Areab

 Background Determination Procedure

 1. Upwind Reading (highest in 30 seconds):
 1.8/
 ppm (1)

 2. Downwind Reading (highest in 30 seconds):
 4.68
 ppm (2)

 Calculate Background Value:
 (1)+(2)
 = 3.24

2

Performed By: RON Smith Time: 0800 Date: 3/28/19

- 8. Next calibrate with span gas. Press (4=span) Select the detector to be calibrated and press (enter) to start. Follow screen prompts. Wait for readings to stabilize (typically 10-15 seconds). Enter (1) to save.
- 9. Press (5=RF) to verify proper response factor. Confirm that response factor says RFO: default if not set to this value.

10. Press (EXIT) twice to return to main menu

11. Press (1= Run)

RB **Background Determination Procedure** 1.63 ___ ppm (1) 1. Upwind Reading (highest in 30 seconds): 2. Downwind Reading (highest in 30 seconds): 23.13 ppm (2) Calculate Background Value: (1)+(2) = 12.38^{12}

2

Performed By: RON SMIL _____ Time: 0800 _____ Date: 3/28/14

Daily Surface Monitoring Log

Landfill Name: <u>Marathon County Landfill</u>	
Performed By: Ron S Date: 3/28/19 Time: 0800	
Performed By: <u>Kon ></u> Date: <u>3/38//9</u> Time: <u>08**</u>	
Temperature: <u>38</u> Sky: <u>Sunny</u> Ground: <u>damp</u>	
Barometric Pressure: 29.18 Barometric Pressure end: 30.04	
Barometric Trend: Wind: <i>NNW</i>	
Location of Leak: No Detects	
Garbayc Odor	
Time: Concentration of leak:	
Location of leak:	
Time: Concentration of leak:	_ (ppm)
Location of leak:	
Time: Concentration of leak:	(ppm)

.....

Daily Surface Monitoring Log

Landfill Name: <u>Marathon County Landfill</u> Area D	
Performed By: <u><i>Rop</i></u> S Date: <u>3/38/19</u> Time: <u>0800</u> .	
Temperature: <u>38</u> Sky: <u>Sunny</u> Ground: <u>damp</u>	
Barometric Pressure: 27.98 Barometric Pressure end: 30.04	
Barometric Trend: <u>rising</u> Wind: 7 NNW	
Location of Leak: No Detects	
Time: Concentration of leak:	(ppm)
Location of leak:	
Time: Concentration of leak:	_ (ppm)
Location of leak:	
Time: Concentration of leak:	(ppm)

Marathon County Solid Waste

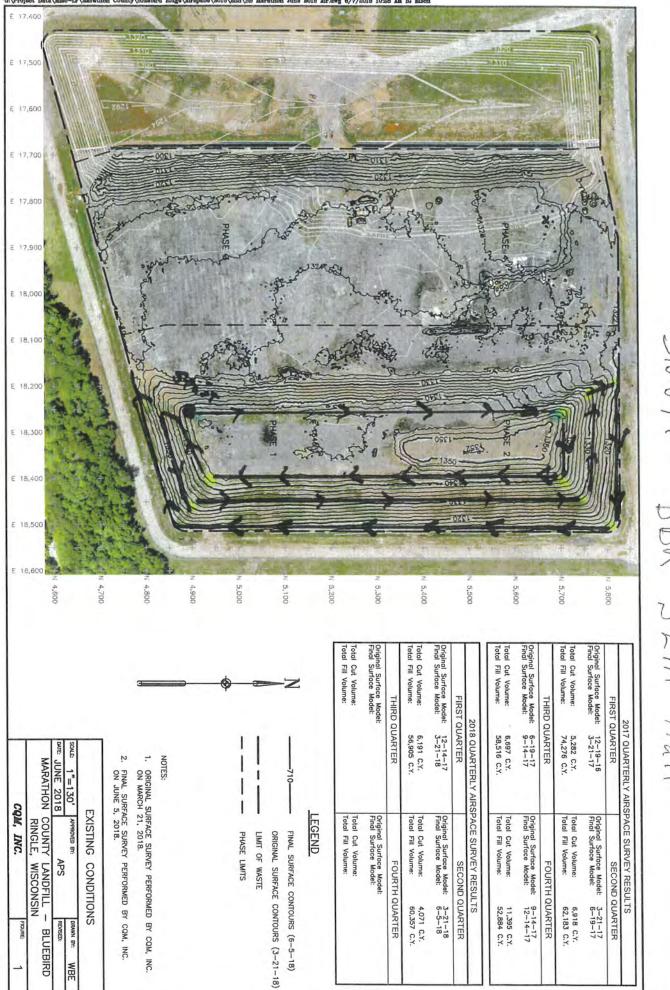
SEM Calibration Precision Test Record

1st 0+1-2019

Landfill Name: Marathon County LF							
Monitoring Date: 3/28/19 Performed By Rin Smith							
Expiration Date: June 2019 Time 0800							
Instrument Make: <u>Thermo Fisher Scientific</u> Model: <u>TVA1000B</u>							
S/N:0115248137							
Measurement #1:							
Meter Reading for Zero Air: $-\frac{\rho_1/\mu}{2}$ ppm(1)							
Meter Reading for Calibration Gas: $\frac{494}{294}$ pmm (2)							
Measurement #2:							
Meter Reading for Zero Air: $\sim \frac{\partial J}{\partial L}$ ppm (3)							
Meter Reading for Calibration Gas: 495 ppm (4)							
Measurement #3:							
Meter Reading for Zero Air: $-\frac{\partial_{,}9}{2}$ ppm (5) Meter Reading for Calibration Gas: $\frac{496}{2}$ ppm (6)							
Meter Reading for Calibration Gas: $\frac{496}{2}$ ppm (6)							
Calculate Precision:							
(.002)							
$\frac{[500-(2)]+[500-(4)]+[500-(6)]}{3} \times \frac{1}{500} \times \frac{1}{1}$							

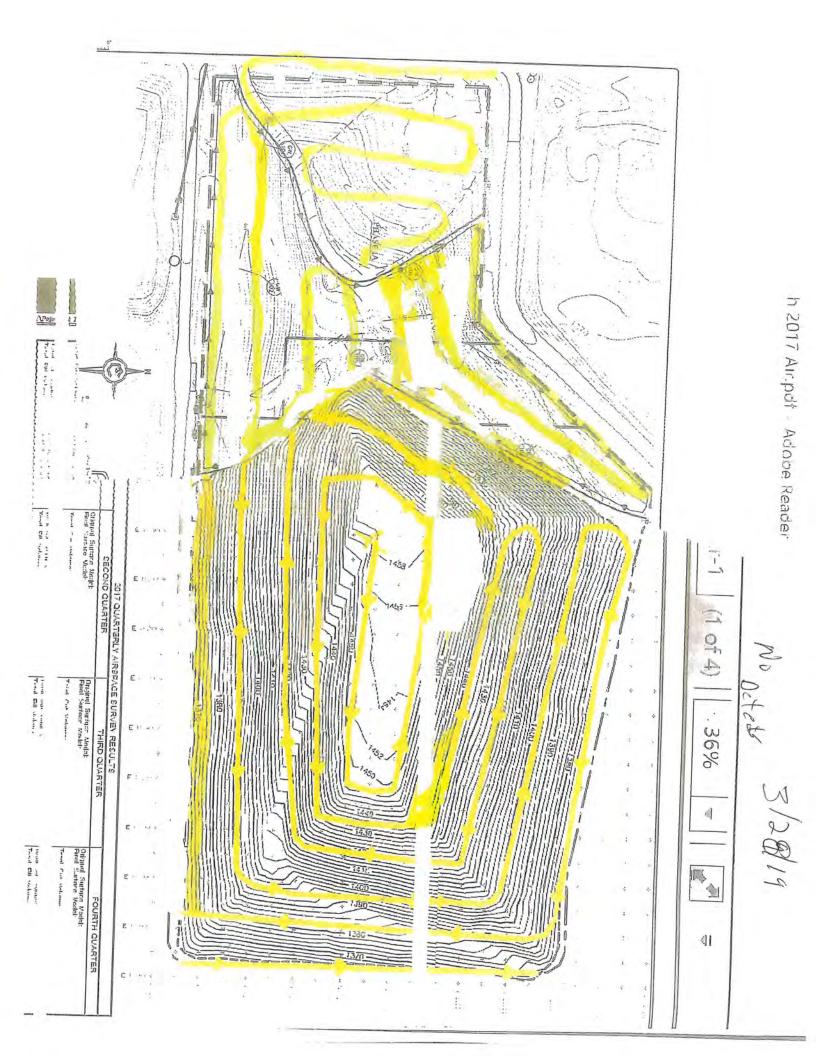
___% (must be less than 10%)

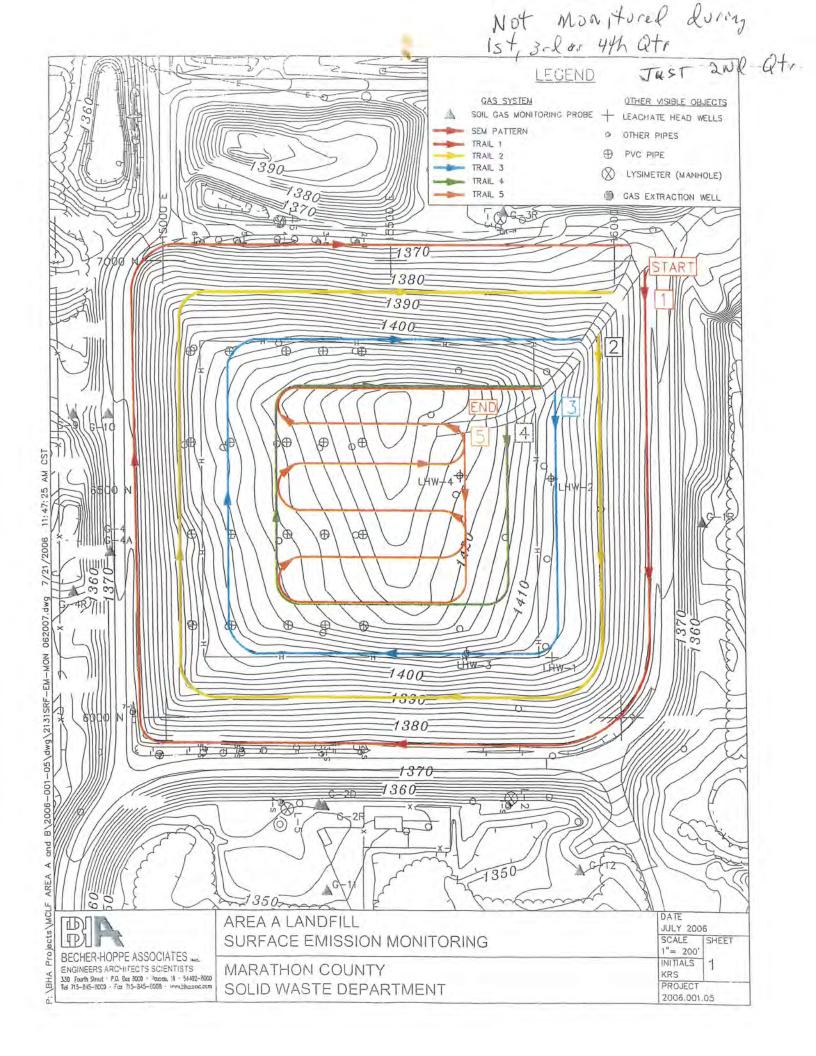
Air.dwg 8/7/2018 10:25 AM BJ E



3/28/11 BBR SEM 1 rai

Garbage odor





Marathon County Solid Waste

15+ Qtr 2019

-
Instrument Response Time Test Record
Landfill Name: <u>Marathon County LF</u> Monitoring Date: <u>3/28/19</u>
Time: 000 Instrument Make: <u>Thermo Fisher Scientific</u>
Model:TVA1000BS/N:0115248137
Measurement #1:
Stabilize Reading Using Calibration Gas: <u>494</u> ppm
90% of the Stabilized Reading = 444.6 ppm
Time to reach 90% of stabilized reading after switching from zero air to calibration gas: $-\frac{\mathcal{U}}{\mathcal{U}}$ seconds (1)
Measurement #2:
Stabilize Reading Using Calibration Gas: <u>795</u> ppm
90% of the Stabilized Reading = 445.5 ppm
Time to reach 90% of stabilized reading after switching from zero air to seconds (2)
Measurement #3:
Stabilize Reading Using Calibration Gas: $\frac{496}{2}$ ppm
90% of the Stabilized Reading = <u>446.4</u> ppm
Time to reach 90% of stabilized reading after switching from zero air to calibration gas: -4 seconds (3)
Calculate Response Time:
(1)+ (2) + (3) = 3.66 seconds (must be less than 30 sec)

3 Performed By: Row Smith

Surface Emissions Monitoring

Calibration Procedure and Background Determination Report

Landfill name: Marathon County Landfill

Instrument make: Thermo Fisher Scientific, Model: TVA1000B,

S/N: 0115248137

Calibration Procedure

- 1. Install filled hydrogen tank, attach probe/readout device; turn on analyzer and hydrogen supply valve.
- 2. Wait 4-5 minutes for proper hydrogen flow, then press; 1 = run. The unit will ignite and display readings. If flame out message appears, clear the message, (press exit) wait another minute and repeat step 2. If unit has not been properly calibrated a bad calibration parameter appears – go to step 3 below.
- 3. Press (exit) until the main menu appears. Calibration can now be performed. For best results, allow unit to warm up for 20 minutes, then press (2=setup).
- 4. Press (1=calibration), choose manual mode.
- 5. Press (2=span concentration) Select the FID detector that the span concentration is for, then press the up or down arrows to select the correct unit of measure for the span gas. Enter the span calibration value; 500%CH, and press the enter key.
- 6. Next Zero the instrument. Press (3=zero) to start this process. Press enter for single detector units. Zero the instrument by using; Air Zero grade. Introduce zero gas into the analyzer through the probe, utilize plastic T bypass pressure valve. Press (enter) to start.
- 7. Wait for minimal change in values (about 15 seconds). Typically, the sample is stable when the first two digits of the reading do not change for 4-5 seconds. Press (enter) to except, press (1) to save.

- 8. Next calibrate with span gas. Press (4=span) Select the detector to be calibrated and press (enter) to start. Follow screen prompts. Wait for readings to stabilize (typically 10-15 seconds). Enter (1) to save.
- 9. Press (5=RF) to verify proper response factor. Confirm that response factor says RFO: default if not set to this value.
- Press (EXIT) twice to return to main menu 10.
- Press (1= Run) 11.
- **Background Determination Procedure** 1, 65 ____ ppm (1) 1. Upwind Reading (highest in 30 seconds): Downwind Reading (highest in 30 seconds): 4.83 ppm (2) 2. (1)+(2) = 3/24 Calculate Background Value:

2

Performed By: $R_{\delta N}S$ Time: 0800 Date: 5/20/19

Up wind Keading 0.94 ppm (1) BBR

Downwind Reading 7.33 ppm(2) Calculate Background 1+2 = 4,24 Value 2

Page 2

Atb

SEM Calibration Precision Test Record

Landfill Name: Marathon County LF
Monitoring Date: 520/19 Performed By RONSMIL
Expiration Date: $9/19$ Time 080°
Instrument Make: <u>Thermo Fisher Scientific</u> Model: <u>TVA1000B</u>
S/N:0115248137

Measurement #1:

Meter Reading for Zero Air:

Meter Reading for Calibration Gas:

Measurement #2:

Meter Reading for Zero Air:

Meter Reading for Calibration Gas:

Measurement #3:

Meter Reading for Zero Air:

Meter Reading for Calibration Gas:

Calculate Precision:

<u>0,63</u> ppm (5)

0.25 ppm(1)

4<u>95</u> pmm (2)

0.55ppm (3)

<u>494</u> ppm (4)

(.002)

./

 $\frac{[500-(2)]+[500-(4)]+[500-(6)]}{3} \times \frac{1}{500} \times \frac{1}{1}$ $= \frac{1}{100}$ $= \frac{1}{100}$ (must be less than 10%)

	Instrument Response Time Test Record						
Landfill	Name: <u>Marath</u>	on County LF	Monitoring D	ate: $\frac{3/20/17}{20}$			
Time: _	<u>0800</u> Instr	ument Make:	Thermo I	isher Scientific			
Model: _	TVA1000B	S/N:	0115248137	na mana na katala yan yan katala k			
Measur	ement #1:						

Stabilize Reading Using Calibration Gas:

90% of the Stabilized Reading =

Time to reach 90% of stabilized reading after switching from zero air to Seconds (1) calibration gas:

Measurement #2:

Stabilize Reading Using Calibration Gas:

90% of the Stabilized Reading =

Time to reach 90% of stabilized reading after switching from zero air to 4 seconds (2) calibration gas:

Measurement #3:

Stabilize Reading Using Calibration Gas:

90% of the Stabilized Reading =

444.6° ppm

495 ppm

494 ppm

444.60 ppm

494 ppm

445.50 ppm

Time to reach 90% of stabilized reading after switching from zero air to β seconds (3) calibration gas:

Calculate Response Time:

(1)+(2)+(3) = 3,33 seconds (must be less than 30 sec) 3 Performed By: Row Smith Performed Bv:

AreaA

Daily Surface Monitoring Log

Landfill Name: Marathon County Landfill Performed By: <u>Rows</u> Date: <u>5/20/19</u> Time: <u>0800</u> Temperature: 46 Sky: Party Clay Ground: damp Barometric Pressure: 30.19 Barometric Pressure end: 30.16Barometric Trend: 4 Wind: E 5mplLocation of Leak: No Defect Time: ______ Concentration of leak: ______ (ppm) **Location of leak:** Time: ______ Concentration of leak: ______ (ppm) Location of leak: Time: ______ Concentration of leak: ______ (ppm)

Marathon County Solid Waste

Daily Surface Monitoring Log

Arcab

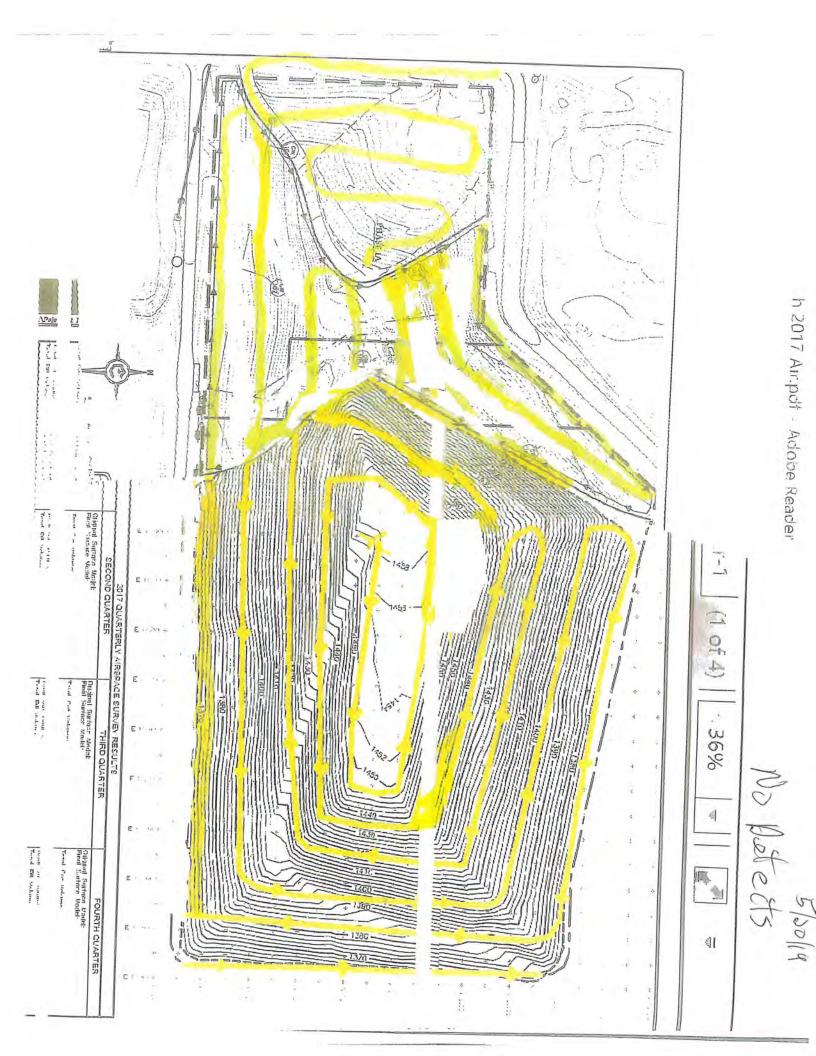
Landfill Name: _	Marathon County Landfill	
Performed By:	<u>Rows</u> Date: $\frac{5/20/19}{1000}$ Time: 0800	
Temperature: _	<u>46</u> Sky: larty clay Ground: <u>Qamp</u>	
	ssure: 30.18 Barometric Pressure end: 30.16	
Barometric Tre	nd: Wind: <u>E</u> 5mph	
Location of Lea	K: No Detects	
Time:	Concentration of leak:	(ppm)
Location of lea	k:	
Time:	Concentration of leak:	_ (ppm)
Location of lea	ik:	
Time:	Concentration of leak:	(ppm)

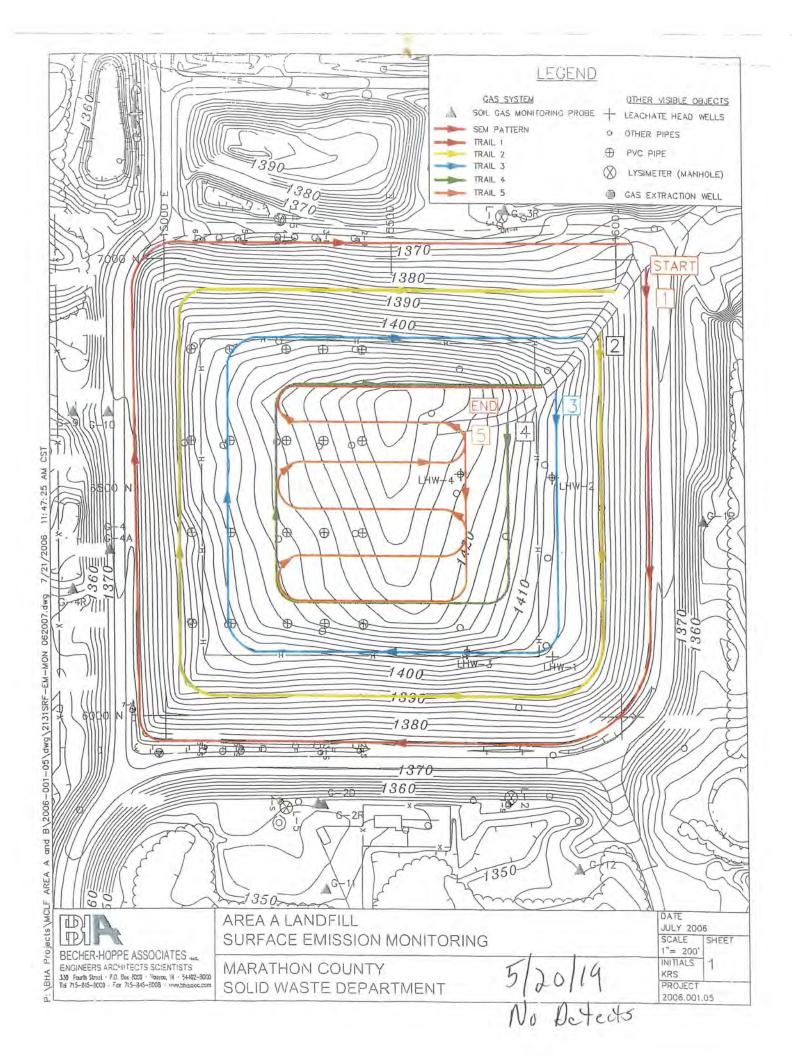
Marathon County Solid Waste



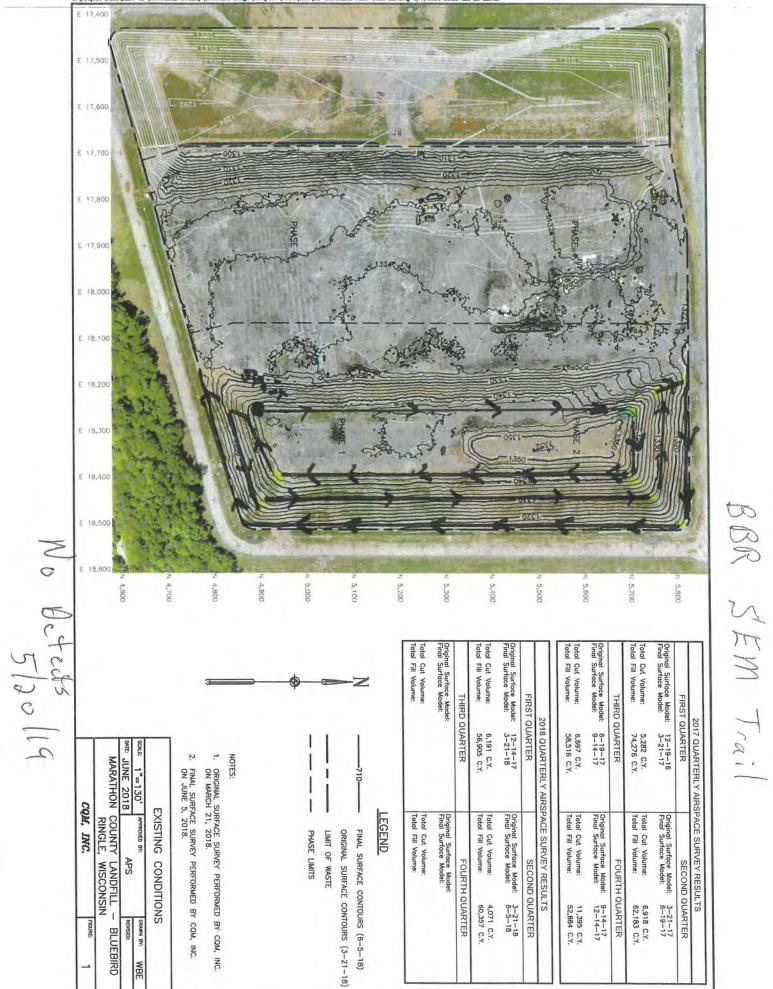
Daily Surface Monitoring Log

	Marathon County Landfill	
Performed By: _/	<u>Rons</u> Date: <u>5/20/19</u> Time: 0800.	
Temperature:	16 sky: Partly Clky Ground: _ Samy	
Barometric Pres	sure: <u>30.18</u> Barometric Pressure end: <u>30.16</u>	
Barometric Tren	id: Wind: $E 5_{mpl}$	
Location of Leal	No Acteuts	~~&,,
Time:	Concentration of leak:	(ppm)
Location of leak	5	
	Concentration of leak:	_ (ppm)
Location of leal	<:	
Time:	Concentration of leak:	(ppm)





3:\Froject Data\Mise-LF\Marathon County\Bluebird Eldge\Airspace\2018\2nd\BB Marathon June 2018 Air.dwg 8/7/2018 10:25 AM BJ Bleeb



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CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

LANDFILL NAME: <u>Marathon County Landfill - Area A</u>

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

Calibration Procedure

- 1. Allow instrument to internally zero itself while introducing zero air.
- 2. Introduce the calibration gas into the probe. Stable reading = <u>500</u> ppm
- 3. Adjust meter to read 500 ppm.

Background Determination Procedure

- 1. Upwind Reading (highest in 30 seconds): 0.0 ppm (1)
- 2. Downwind Reading (highest in 30 seconds): <u>0.0</u> ppm (2)

Calculate Background Value:

$$\frac{(1) + (2)}{2}$$

Background = <u>0.0</u> ppm

PERFORMED BY: Jalen ThomasTIME: 10:00 AMDATE: 9/4/2019

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: Marathon County Landfill - Area A

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

MEASUREMENT #1:

Meter Reading for Zero Air:	ppm (1)
Meter Reading for Calibration Gas:	<u>490</u> ppm (2)
MEASUREMENT #2:	
Meter Reading for Zero Air:	<u>0.0</u> ppm (3)
Meter Reading for Calibration Gas:	<u>488</u> ppm (4)
MEASUREMENT #3:	
Meter Reading for Zero Air:	<u>0.0</u> ppm (5)
Meter Reading for Calibration Gas:	ppm (6)

CALCULATE PRECISION:

 $\frac{[500 - (2)] + [500 - (4)] + [500 - (6)]}{3} \times \frac{1}{500} \times \frac{100}{1}$

= <u>2.2</u> % (must be less than 10%)

PERFORMED BY: Jalen Thomas TIME: 10:00 AM

DATE: <u>9/4/2019</u>

INSTRUMENT RESPONSE TIME TEST RECORD

LANDFILL NAME: _Marathon County Landfill - Area A

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

MEASUREMENT #1:

Stabiliz	zed Reading Using Calibration Gas:	_483 ppm
90% of	the Stabilized Reading:	<u>434.7</u> ppm
After s	o Reach 90% of Stabilized reading witching from Zero Air to ation Gas	<u>3.8</u> seconds (1)
MEASUREM	IENT #2:	
Stabiliz	zed Reading Using Calibration Gas:	<u>484 ppm</u>
90% of	f the Stabilized Reading:	_435.9 ppm
After s	Reach 90% of Stabilized Reading witching from Zero Air to ation Gas	<u>3</u> seconds (2)
MEASUREM	IENT #3:	
Stabiliz	zed Reading Using Calibration Gas:	<u>480</u> ppm
90% of	f the Stabilized Reading:	_432 ppm
After s	o Reach 90% of Stabilized Reading witching from Zero Air to ation Gas	<u>3.5</u> seconds (3)
CALCULAT	E RESPONSE TIME:	
	(1) + (2) +	- (1)

$$\frac{(1)+(2)+(3)}{3}$$

= 3.43 SECONDS (MUST BE LESS THAN 30 SECONDS)

 PERFORMED BY: Jalen Thomas
 TIME:
 10:00 AM
 DATE:
 9/4/2019

DAILY SURFACE MONITORING LOG

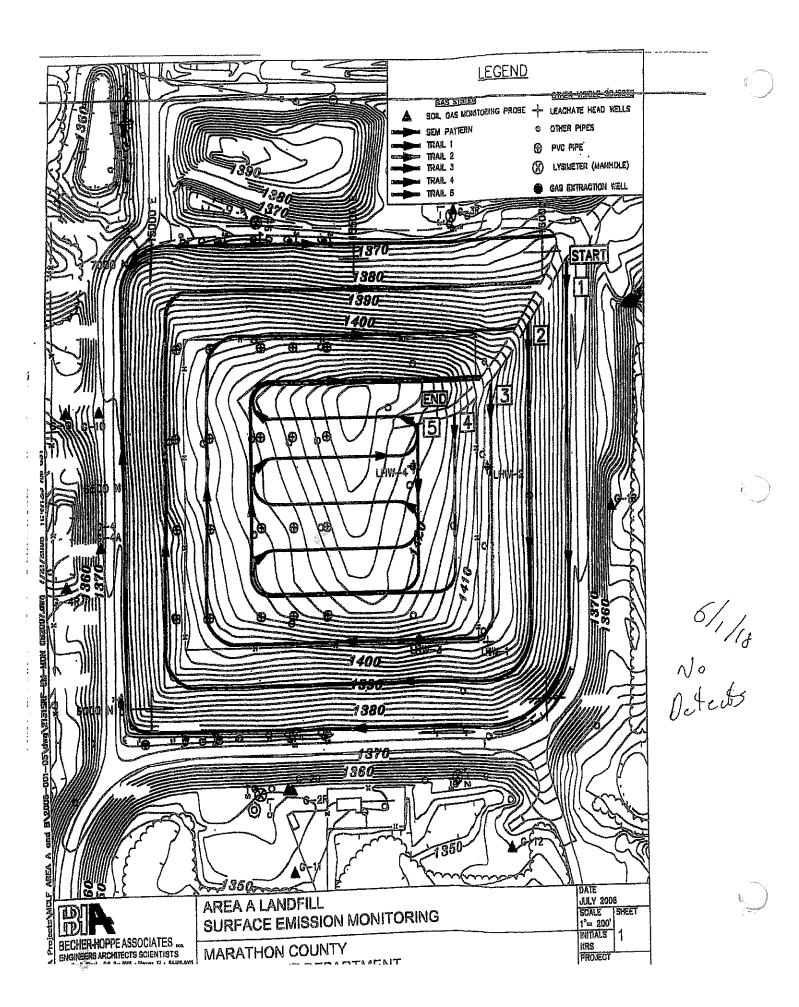
PERFORMED BY: Jalen Thomas

START TIME: 10:00 AM

DATE: <u>9/4/2019</u>_

LANDFILL NAME: <u>Marathon County Landfill - Area A</u>

Location Identifier of Leak	Location and Time	Concentration of Leak (ppm)
No detections on site		



CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u>

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

Calibration Procedure

- 1. Allow instrument to internally zero itself while introducing zero air.
- 2. Introduce the calibration gas into the probe. Stable reading = <u>500</u> ppm
- 3. Adjust meter to read 500 ppm.

Background Determination Procedure

- 1. Upwind Reading (highest in 30 seconds): 0.0 ppm (1)
- 2. Downwind Reading (highest in 30 seconds): <u>2.5</u> ppm (2)

Calculate Background Value:

$$\frac{(1) + (2)}{2}$$

Background = <u>1.25</u> ppm

PERFORMED BY: Jalen ThomasTIME: 11:00 AMDATE: 9/25/2019

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u> INSTRUMENT MAKE:<u>Thermo Fisher</u> MODEL: <u>TVA100B-81020</u> S/N: <u>0115238137</u>

MEASUREMENT #1:

Meter Reading for Zero Air:	ppm (1)
Meter Reading for Calibration Gas:	<u>488</u> ppm (2)
MEASUREMENT #2:	
Meter Reading for Zero Air:	<u>0.0</u> ppm (3)
Meter Reading for Calibration Gas:	<u>490</u> ppm (4)
MEASUREMENT #3:	
Meter Reading for Zero Air:	<u>0.0</u> ppm (5)
Meter Reading for Calibration Gas:	_ <u>490</u> ppm (6)

CALCULATE PRECISION:

 $\frac{[500 - (2)] + [500 - (4)] + [500 - (6)]}{3} \times \frac{1}{500} \times \frac{100}{1}$

= <u>2.1</u> % (must be less than 10%)

PERFORMED BY: Jalen ThomasTIME: 11:00 AMDATE: 9/25/2019

INSTRUMENT RESPONSE TIME TEST RECORD

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u>

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

MEASUREMENT #1:

	Stabilized Reading Using Calibration Gas:	480	_ ppm
	90% of the Stabilized Reading:	432	_ppm
	Time to Reach 90% of Stabilized reading After switching from Zero Air to Calibration Gas	_3.5	_seconds (1)
MEAS	UREMENT #2:		
	Stabilized Reading Using Calibration Gas:	480	ppm
	90% of the Stabilized Reading:	432	ppm
	Time Reach 90% of Stabilized Reading After switching from Zero Air to Calibration Gas	3.5	_seconds (2)
MEAS	UREMENT #3:		
	Stabilized Reading Using Calibration Gas:	482	ppm
	90% of the Stabilized Reading:	433.8	ppm
	Time to Reach 90% of Stabilized Reading After switching from Zero Air to Calibration Gas	_3.5	_seconds (3)
CALC	ULATE RESPONSE TIME:	•	
	(1) + (2) + (2)	5)	

$\frac{(1)+(2)+(3)}{3}$

= 3.5 SECONDS (MUST BE LESS THAN 30 SECONDS)

PERFORMED BY: Jalen Thomas TIME: 11:00 AM DATE: 9/25/2019

_

DAILY SURFACE MONITORING LOG

PERFORMED BY: Jalen Thomas

START TIME: 11:00 AM

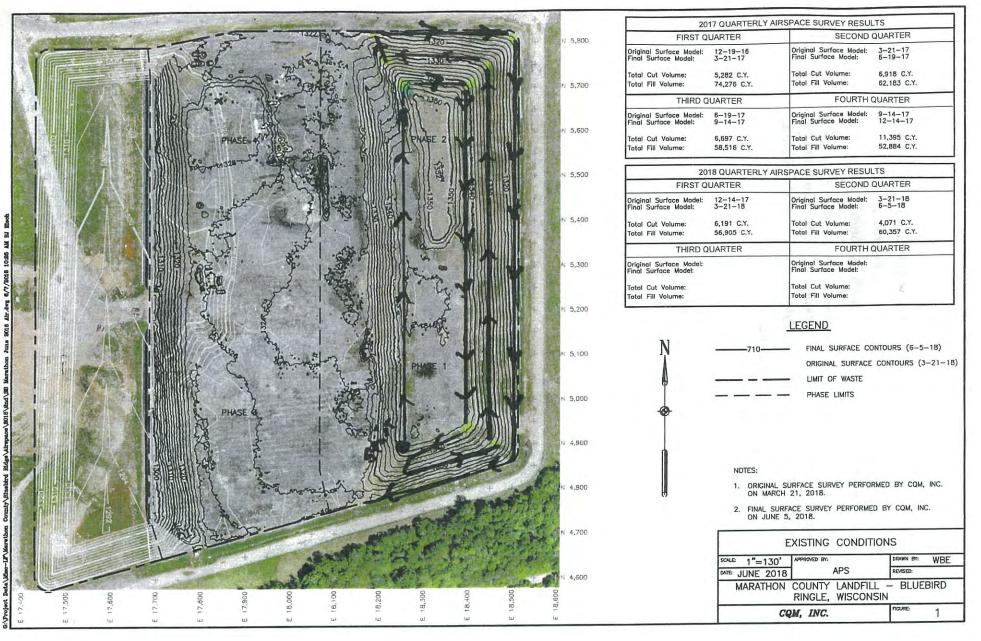
DATE: <u>9/25/2019</u>_

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u>

Location Identifier of Leak	Location and Time	Concentration of Leak (ppm)
No detections on site		



BBR SEM Trail - No 5/8/15 Detects



6

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u>

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

Calibration Procedure

- 1. Allow instrument to internally zero itself while introducing zero air.
- 2. Introduce the calibration gas into the probe. Stable reading = <u>500</u> ppm
- 3. Adjust meter to read 500 ppm.

Background Determination Procedure

- 1. Upwind Reading (highest in 30 seconds): 0.0 ppm (1)
- 2. Downwind Reading (highest in 30 seconds): <u>15</u> ppm (2)

Calculate Background Value:

$$\frac{(1) + (2)}{2}$$

Background = <u>7.5</u> ppm

PERFORMED BY: Jalen ThomasTIME: 8:00 AMDATE: 12/24/2019

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u> INSTRUMENT MAKE:<u>Thermo Fisher</u> MODEL: <u>TVA100B-81020</u> S/N: <u>0115238137</u>

MEASUREMENT #1:

Meter Reading for Zero Air:	ppm (1)
Meter Reading for Calibration Gas:	<u>485</u> ppm (2)
MEASUREMENT #2:	
Meter Reading for Zero Air:	<u>0.0</u> ppm (3)
Meter Reading for Calibration Gas:	<u>487</u> ppm (4)
MEASUREMENT #3:	
Meter Reading for Zero Air:	<u>0.0</u> ppm (5)
Meter Reading for Calibration Gas:	<u>486</u> ppm (6)
CALCIU ATE DECISION.	

CALCULATE PRECISION:

 $\frac{[500 - (2)] + [500 - (4)] + [500 - (6)]}{3} \times \frac{1}{500} \times \frac{100}{1}$

= <u>2.8</u> % (must be less than 10%)

PERFORMED BY: Jalen ThomasTIME: 8:00 AMDATE: 12/24/2019

INSTRUMENT RESPONSE TIME TEST RECORD

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u>

INSTRUMENT MAKE: Thermo Fisher MODEL: TVA100B-81020 S/N: 0115238137

MEASUREMENT #1:

Stabilized Reading Using Calibration Gas:	_484ppm
90% of the Stabilized Reading:	<u>435.6</u> ppm
Time to Reach 90% of Stabilized reading After switching from Zero Air to Calibration Gas	<u>3.5</u> seconds (1)
MEASUREMENT #2:	
Stabilized Reading Using Calibration Gas:	<u>485</u> ppm
90% of the Stabilized Reading:	<u>436.5</u> ppm
Time Reach 90% of Stabilized Reading After switching from Zero Air to Calibration Gas	seconds (2)
MEASUREMENT #3:	
Stabilized Reading Using Calibration Gas:	<u>485 ppm</u>
90% of the Stabilized Reading:	<u>436.5</u> ppm
Time to Reach 90% of Stabilized Reading After switching from Zero Air to Calibration Gas	_4.0 seconds (3)
CALCULATE RESPONSE TIME: $(1) + (2) + (2)$	(3)

$$\frac{(1)+(2)+(3)}{3}$$

= 3.83 SECONDS (MUST BE LESS THAN 30 SECONDS)

PERFORMED BY: Jalen ThomasTIME: 8:00 AMDATE: 12/24/2019

_

DAILY SURFACE MONITORING LOG

PERFORMED BY: Jalen Thomas

START TIME: 8:00 AM

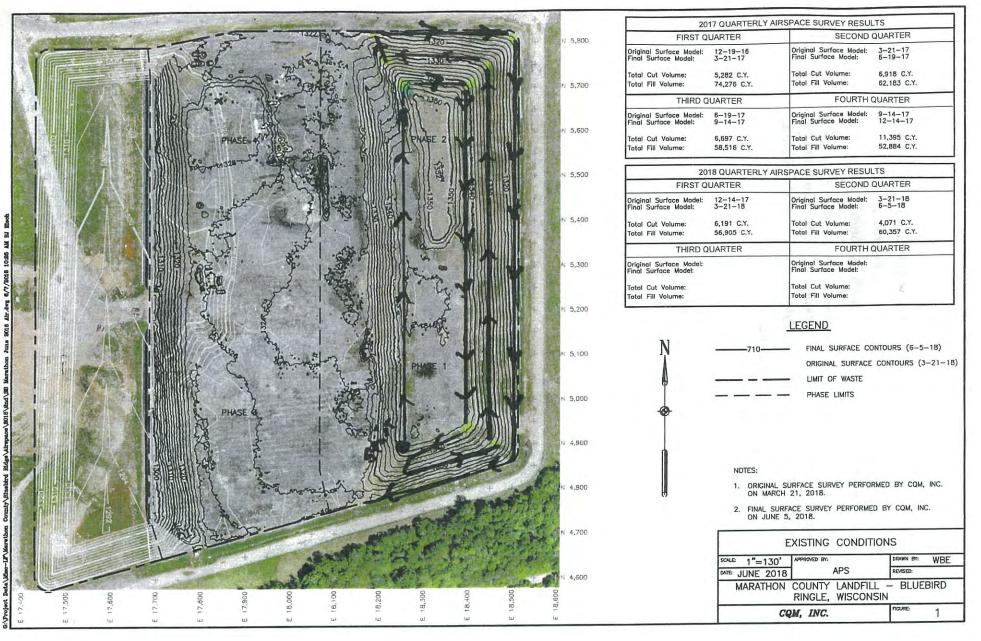
DATE: <u>12/24/2019</u>_

LANDFILL NAME: <u>Marathon County Landfill - Area B & Blue Bird Ridge</u>

Location Identifier of Leak	Location and Time	Concentration of Leak (ppm)
	N/a	



BBR SEM Trail - No 5/8/15 Detects



6

ATTACHMENT C

2019 LANDFILL GAS MAINLINE TO-15 LAB REPORT

1 of 8 K101506



November 4, 2019



LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6 EPA Methods T014A, T015

UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

Tetra Tech ATTN: Lee Daigle 8413 Excelsior Dr., Suite 160 Madison, WI 53717

LABORATORY TEST RESULTS

Project Reference:Marathon County VOCProject Number:MCLF-2019-VOCLab Number:K101506-01/02

Enclosed are results for sample(s) received 10/15/19 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Lee Daigle on 11/01/19.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson Operations Manager MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

					CHAIN OF CUSTODY RECORD	F CUS	FODY RE	CORD	
ATTECHN	TECHNOLOGY	City of Industry, CA 91748	TUF	TURNAROUND TIME	D TIME	DELIVE	DELIVERABLES PAGE:	AGE: OF	
Laborato	Laboratories. Inc.	Ph: 626-964-4032	Standard	4	48 hours	EDD	Na) Co	Condition upon receipt:	
		Fx: 626-964-5832	Same Day	22	72 hours	EDF		Sealed Yes	Q N
Project No .: MCLF - 2019	19 - NOC		24 hours		96 hours	LEVEL 3		Intact Yes	□ °²
Project Name: MARATHEN	CO NOC		Other:			LEVEL 4	4	Chilled	deg C
	9			BILLING			ANA	ANALYSIS REQUEST	
TETRA			P.O. No.: 10201901	020191	Allowing 10	E			
Street: 8413 Excension	DR	S417 160	Bill to: Marathen	alter Co.	. Solid hey	-			
City/State/Zip: MADISeN	53717		172900	Stek His	3				
951-236-	9		Ringle			SI			
	3 TE TRATECH, COM		-			- 9	07		
LAB USE ONLY	SAMPLE ID	SAMPLE IDENTIFICATION	ajamar Stad	SAMPLE TIME	XIATAM ABNIATNOC BAYT EGYT	F 493	+ 72		
KI01506-01 MA	MAINLINE VOC #1	(N4127)	10/2/10	M 52; 11	LEG C	×	x		
1 - 02	#	2 (1378)	H	14:000	1 1	×	×		
					_				
AUTHORIZATION TO PERFORM WORK	COMPANY	a 10/0	DATE/TIME	0	COMMENTS				
SAMPLED BY DALEN THOMAS	COMPANY COMPANY	CH 10/2	DATE/TIME	Τ	22	15 5	U4/L		
RELINQUISHED BY KAY TUIRA FSW	5	ED EX	DATE/TIME				0		K101
	LSTICA 1140	1	ATE/TIME 1/1/9 ATE/TIME	Otil					506
METHOD OF TBANSPORT (circle one): Walk-In	nel: Walk-In FedEx	v LIPS Courtier ATLL Other	or	Т					
DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy	th Conies / Pink - Custo		Preservation · H-HCI		None / Conta	iner: R=Ba	C-Can V-	N=None / Container: R=Bad C=Can V=VOA O-Other Ro	Barr 03 \$17100

2 of 8

Client:	Tetra Tech
Attn:	Lee Daigle
Project Name:	Marathon County VOC
Project No.:	MCLF-2019-VOC
Date Received:	10/15/2019
Matrix:	Air

	Lab No.:	K1015	506-01	K1015	506-02				
Clien	Mainline	VOC #1	Mainline	VOC #2					
Date/T	ime Sampled:	10/9/19	11:25	10/9/19	11:08				_
Date/Ti	10/17/19	9 11:57	10/17/19	9 12:11					
(191017GC8A1		191017GC8A1						
Ar	alyst Initials:	CI	СМ		СМ				
Di	ution Factor:	4.4		4.2					
ANALYTE	(Units)	Result RL		Result RL					
Nitrogen	(% v/v)	12	4.4	12	4.2		1		
Oxygen/Argon	(% v/v)	ND	2.2	ND	2.1		1		
Carbon Dioxide	(% v/v)	37	0.044	37	0.042				1
Methane	(% v/v)	54	0.0044	55	0.0042		125		1
Carbon Monoxide	Carbon Monoxide (% v/v)		0.0044	ND	0.0042			1	

RL = Reporting Limit

Ī

ND = Not detected at or above the RL.

Reviewed/Approved By:

Date 10.31-19

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

18501 E. Gale Avenue, Suite 130 + City of Industry, CA 91748 + Ph: (626) 964-4032 + Fx: (626) 964-5832

Client:	Tetra Tech
Attn:	Lee Daigle
Project Name:	Marathon County VOC
Project No.:	MCLF-2019-VOC
Date Received:	10/15/19
Matrix:	Air
Reporting Units:	ug/L

Lab No.:	K1015	06-01	K10150	06-02	1		
Client Sample I.D.:	Mainline			100.5			
Date/Time Sampled:	10/9/19	11:25	10/9/19	11:08			
Date/Time Analyzed:	10/25/19	14:12	10/25/19	14:47			
QC Batch No.:	191025N	IS2A1	191025N	AS2A1			
Analyst Initials:	AS	5	AS	5			
Dilution Factor:	44		42				
	Result	RL	Result	RL			
ANALYTE	ug/L	ug/L	ug/L	ug/L			
Dichlorodifluoromethane (12)	1.0	0.22	1.1	0.21			
Chloromethane	ND	0.18	ND	0.17		1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
1,2-Cl-1,1,2,2-F ethane (114)	ND	0.31	0.30	0.29	·		
Vinyl Chloride	2.4	0.11	3.2	0.11		100	
Bromomethane	ND	0.17	ND	0.16			
Chloroethane	ND	0.12	0.17	0.11			-
Trichlorofluoromethane (11)	0.70	0.25	0.79	0.24			
1,1-Dichloroethene	ND	0.17	ND	0.17			
Carbon Disulfide	0.92	0.68	1.4	0.66			
1,1,2-Cl 1,2,2-F ethane (113)	ND	0.34	ND	0.32			
Acetone	4.1	0.52	4.9	0.50			
Methylene Chloride	0.26	0.15	ND	0.15			
t-1,2-Dichloroethene	ND	0.17	0.17	0.17		100	
1,1-Dichloroethane	0.23	0.18	0.29	0.17			
Vinyl Acetate	ND	0.77	ND	0.74			
c-1,2-Dichloroethene	0.90	0.17	1.2	0.17		1	
2-Butanone	4.1	0.13	5.3	0.12			
t-Butyl Methyl Ether (MTBE)	ND	0.16	ND	0.15			
Chloroform	ND	0.21	ND	0.21			
1,1,1-Trichloroethane	ND	0.24	ND	0.23			
Carbon Tetrachloride	ND	0.28	ND	0.26			
Benzene	2.0	0.14	2.6	0.13			
1,2-Dichloroethane	0.34	0.18	0.50	0.17			
Trichloroethene	0.43	0.24	0.46	0.23			
1,2-Dichloropropane	ND	0.20	ND	0.19			
Bromodichloromethane	ND	0.29	ND	0.28			
c-1,3-Dichloropropene	ND	0.20	ND	0.19			
4-Methyl-2-Pentanone	1.5	0.18	1.6	0.17			
Toluene	23	0.17	31	0.16			
t 1,3-Dichloropropene	ND	0.20	ND	0.19		E	

18501 E. Gale Avenue, Suite 130 + City of Industry, CA 91748 + Ph: (626) 964-4032 + Fx: (626) 964-5832

Client:	Tetra Tech
Attn:	Lee Daigle
Project Name:	Marathon County VOC
Project No.:	MCLF-2019-VOC
Date Received:	10/15/19
Matrix:	Air
Reporting Units:	ug/L

	1	EPA Me	thod TO15	5		
Lab No.:	K1015	06-01	K1015	06-02		
Client Sample I.D.:	Mainline	VOC #1	Mainline	VOC #2		
Date/Time Sampled:	10/9/19	11:25	10/9/19	11:08		
Date/Time Analyzed:	10/25/19) 14:12	10/25/19	14:47		
QC Batch No.:	191025N	MS2A1	191025N	IS2A1		
Analyst Initials:	A	S	AS	5		
Dilution Factor:	44	1	42			
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L		
1,1,2-Trichloroethane	ND	0.24	ND	0.23		
Tetrachloroethene	0.82	0.30	1.00	0.29	C 1 1 1 1	
2-Hexanone	ND	0.18	ND	0.17		
Dibromochloromethane	ND	0.37	ND	0.36		
1,2-Dibromoethane	ND	0.34	ND	0.32		
Chlorobenzene	ND	0.20	ND	0.19		
Ethylbenzene	5.5	0.19	7.9	0.18		
p,&m-Xylene	9.1	0.19	14	0.18		
o-Xylene	3.1	0.19	4.5	0.18		
Styrene	0.22	0.19	0.33	0.18		
Bromoform	ND	0.45	ND	0.44		
1,1,2,2-Tetrachloroethane	ND	0.60	ND	0.58		
Benzyl Chloride	ND	0.23	ND	0.22		
4-Ethyl Toluene	0.75	0.22	1.1	0.21		
1,3,5-Trimethylbenzene	ND	0.43	0.43	0.41		
1,2,4-Trimethylbenzene	ND	0.43	0.58	0.41		
1,3-Dichlorobenzene	ND	0.26	ND	0.25	/	
1,4-Dichlorobenzene	ND	0.26	ND	0.25		
1,2-Dichlorobenzene	ND	0.26	ND	0.25		
1,2,4-Trichlorobenzene	ND	0.65	ND	0.63		
Hexachlorobutadiene	ND	0.47	ND	0.45		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

Date 10-31-19

5 of 8 K101506

 Air TECHNOLOGY Laboratories, Inc.

 18501 E. Gale Avenue, Suite 130 • City of Industry, CA 91748 • Ph: (626) 964-4032 • Fx: (626) 964-5832

TO15 REPORT 2019 8

Client: Tetra Tech Attn: Lee Daigle **Project Name:** Marathon County VOC Project No.: MCLF-2019-VOC Date Received: 10/15/19 Matrix: Air Reporting Units: ug/L

Lab No.:	METHOD	BLANK		1.0	Th	
Client Sample I.D.:						
Date/Time Sampled:						
Date/Time Analyzed:	10/25/1					
QC Batch No.:	191025					
Analyst Initials:	A					
Dilution Factor:	0.2					
ANALYTE	Result ug/L	RL ug/L				
Dichlorodifluoromethane (12)	ND	0.00099				
Chloromethane	ND	0.00099				
1,2-Cl-1,1,2,2-F ethane (114)	ND	0.0014				
Vinyl Chloride	ND	0.00051				
Bromomethane	ND	0.00078				
Chloroethane	ND	0.00053				-
Trichlorofluoromethane (11)	ND	0.0011				
1,1-Dichloroethene	ND	0.00079				
Carbon Disulfide	ND	0.0031				
1,1,2-Cl 1,2,2-F ethane (113)	ND	0.0015			1000	-
Acetone	ND	0.0024				
Methylene Chloride	ND	0.00069				
t-1,2-Dichloroethene	ND	0.00079	-1	1		
1,1-Dichloroethane	ND	0.00081	-			
Vinyl Acetate	ND	0.0035	- J			
c-1,2-Dichloroethene	ND	0.00079				
2-Butanone	ND	0.00059				
t-Butyl Methyl Ether (MTBE)	ND	0.00072				
Chloroform	ND	0.00098	110 20			
1,1,1-Trichloroethane	ND	0.0011				
Carbon Tetrachloride	ND	0.0013	1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A			
Benzene	ND	0.00064				
1,2-Dichloroethane	ND	0.00081		-		1.1
Trichloroethene	ND	0.0011				
1,2-Dichloropropane	ND	0.00092				
Bromodichloromethane	ND	0.0013				
c-1,3-Dichloropropene	ND	0.00091		1		
4-Methyl-2-Pentanone	ND	0.00082				
Toluene	ND	0.00075				
t-1,3-Dichloropropene	ND	0.00091				

18501 E. Gale Avenue, Suite 130 • City of Industry, CA 91748 • Ph: (626) 964-4032 • Fx: (626) 964-5832

Client:Tetra TechAttn:Lee DaigleProject Name:Marathon County VOCProject No.:MCLF-2019-VOCDate Received:10/15/19Matrix:AirReporting Units:ug/L

	1	EPA Method 7	015		
Lab No.:	METHOD	BLANK			
Client Sample I.D.:					-
Date/Time Sampled:		2			
Date/Time Analyzed:	10/25/1	9 9:31			
QC Batch No.:	191025	MS2A1			1
Analyst Initials:	A	S			
Dilution Factor:	0.2	20			
ANALYTE	Result ug/L	RL ug/L			
1,1,2-Trichloroethane	ND	0.0011			
Tetrachloroethene	ND	0.0014			1 · · · · · · · · · · · · · · · · · · ·
2-Hexanone	ND	0.00082			5
Dibromochloromethane	ND	0.0017			
1,2-Dibromoethane	ND	0.0015			
Chlorobenzene	ND	0.00092			
Ethylbenzene	ND	0.00087	- 1	·	
p,&m-Xylene	ND	0.00087	. N.		
o-Xylene	ND	0.00087			
Styrene	ND	0.00085			
Bromoform	ND	0.0021			
1,1,2,2-Tetrachloroethane	ND	0.0027			
Benzyl Chloride	ND	0.0010			
4-Ethyl Toluene	ND	0.00098			
1,3,5-Trimethylbenzene	ND	0.0020			
1,2,4-Trimethylbenzene	ND	0.0020			
1,3-Dichlorobenzene	ND	0.0012			
1,4-Dichlorobenzene	ND	0.0012			
1,2-Dichlorobenzene	ND	0.0012			1
1,2,4-Trichlorobenzene	ND	0.0030			
Hexachlorobutadiene	ND	0.0021			

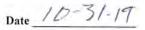
ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report



7 of 8 K101506

18501 E. Gale Avenue, Suite 130 . City of Industry, CA 91748 . Ph: (626) 964-4032 . Fx: (626) 964-5832

AITTECHNOLOGY Laboratories, Inc. -

TO15 REPORT 2019_8

LCS/LCSD Recovery and RPD Summary Report

Date: 10 31-19

QC Batch #: 191025MS2A1

Matrix: Air

		EPA	Method	1 TO-14	4/TO-1	5					
Lab No:	Method Blank	1. 1. 11	L	CS	LC	SD		_			-
Date/Time Analyzed:	10/25/19 9:31	*	10/25/19 8:19		10/25/	19 8:54					
Data File ID:	250CT015.D		250C	250CT013.D 250CT014.D							
Analyst Initials:	VM		VM VM 1.0 1.0								
Dilution Factor:	0.2				1.0		123				
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/ Fail
1,1-Dichloroethene	0.0	10.0	9.5	95	9.6	96	1.1	70	130	30	Pass
Methylene Chloride	0.0	10.0	10.3	103	10.5	105	1.9	70	130	30	Pass
Trichloroethene	0.0	10.0	9.9	99	9.4	94	5.4	70	130	30	Pass
Toluene	0,0	10.0	9.8	98	9.4	94	3.5	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	9.8	98	9.3	93	5.2	70	130	30	Pass

RPD = Relative Percent Difference

Reviewed/Approved By:

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

ATTACHMENT D

2019 AREA B LEACHATE LINE JETTING AND TELEVISING REPORT



1772 S Vandenberg Road Green Bay, Wisconsin 54311 920-468-7074 | info@northernpipeinc.com Leachate Cleaning 6/10/2019 - 6/12/2019 Vactor w/ 1,200' of 3/4'' hose

AREA A

CLEANOUT	Ρ	IPE	TOTAL	FT JETTED	FT JETTED	TOTAL	
ACCESS POINT	CESS POINT SIZE LI		LENGTH (FT)	(S)	(N)	JETTED	COMMENTS
	1	8	1,180	285	540	825	Stops at 285' from South and 540' from North
	2	6	1,040	750	340	1,090	Overlap achieved - line is good
	3	6	1,040	1,040	-	1,040	Jetted from south, line is good
	4	8	1,180	170	1,100	1,270	Stops at 170' from South, overlap achieved from North
	5	6	1,040	825	315	1,140	Overlap achieved - line is good
	6	6	1,040	600	540	1,140	Overlap achieved - line is good
	7	8	460	330	-	330	Stops at 330' from West
Gas Condensate	Line		280	-	-	280	Line is good
			7,260			7,115	

3,000 gallons of water used

					ARE	AB	
CLEANOUT	I	PIPE	TOTAL	FT JETTED	FT JETTED	TOTAL	
ACCESS POINT	:	SIZE	LENGTH (FT)	(E/S)	(W/N)	JETTED	COMMENTS
	1	12	660	660	-	660	From B1E - line is good
	2	12	500	500	-	500	From B2S - line is good
	3	12	505	505	-	505	From B3S - line is good
	4	12	510	510	-	510	From B4S - line is good
	5	12	660	660	-	660	From B5S - line is good
	6	12	280	280	-	280	From B6E - line is good
	7	12	850	850	-	850	From B7S - line is good
	8	12	875	875	-	875	From B8S - line is good
	9	12	305	305	-	305	From B9E - line is good
	10	12	840	840	-	840	From B10S - line is good
	11	12	795	795	-	795	From B11S - line is good
	12	12	270	270	-	270	From B12E - line is good
	13	12	750	750	-	750	From B13S - line is good
	14	12	725	725	-	725	From B14S - line is good
			8,525			8,525	

5,500 gallons of water used

BLUE BIRD RIDGE

				-	-
CLEANOUT	PIPE	TOTAL	FT JETTED	FT JETTED	TOTAL
ACCESS POINT	SIZE	LENGTH (FT)	(N)	(S)	JETTED COMMENTS
LCR 12 TO LCR 11	6	1,180	600	600	1,200 Overlap achieved - line is good
LCR 8 TO LCR 9	6	1,144	600	600	1,200 Overlap achieved - line is good
LCR 10 TO LOOP 7	6	650	404	276	680 Overlap achieved - line is good
LCR 4 TO LCR 6	6	1,070	600	600	1,200 Overlap achieved - line is good
LCR 2 TO LCR 3	6	1,020	600	600	1,200 Overlap achieved - line is good
LCR 5 TO LOOP 1	6	395	395	-	395 Overlap achieved - line is good
		5,459			5,875
		5,455			5,675

2,500 gallons of water used

ATTACHMENT E

2019 AREA B STORM WATER INSPECTION REPORT

Annual Facility Site Compliance Inspection Report (AFSCI) For Storm Water Discharges Associated With Industrial Activity Under Wisconsin Pollutant Discharge Elimination System (WPDES) Permit Form 3400-176 (R 5/14)

Page 1 of 5

Notice: This form is authorized by s. NR 216.29(2), Wis. Adm. Code. Submittal of a completed form to the Department is mandatory for industrial facilities covered under a Tier 1 storm water general permit. Facilities covered under a Tier 1 permit are not required to submit AFSCI reports after submittal of the second AFSCI report, unless so directed by the Department. However, these inspections and quarterly visual inspections shall still be conducted and results shall be kept on site for Department inspection. Facilities covered under a Tier 2 storm water general, industry-specific general or individual permit shall keep the results of their AFSCI and quarterly visual inspections on site for Department inspection. Failure to comply with these regulations may result in fines up to \$25,000 per day pursuant to s. 283.91, Wis. Stats.

Personally identifiable information on this form may be used for other water quality program purposes.

Please type or clearly print your answers to all questions.

Section I: Facility/Site Information					
Facility/Site Name (As Appears on Permit Authorization)			County		
AREA B LANDFILL 3338		Marathon			
Location Address/Description (if different from mailing address below)		State	ZIP Code		
172900 State Highway 29			WI	54471	
◯ City	Facility Identif	ty Identification Number (FID) and/or FIN Number if known:			
of Ringle	FID 337005680 FIN				
Section II: Facility/Site Contact Person					
Local Contact Person	Mailing Addres	Mailing Address (if different than site location address)			
Meleesa Johnson					
Title	Municipality (if	Municipality (if different than above)			
Director					
Telephone (include area code)	State	ZIP	Code (if differer	nt from above)	
(715) 446-3101	WI				
E-mail address or Website (if applicable)		Fax	(include area co	ode)	
Meleesa.Johnson@co.marathon.wi.us			(715) 446-2906		
Section III: Certification & Signature (Person attesting to the accuracy and completeness of An	nnual Facility Site	e Complia	ance Inspectio	on Report.)	

This form must be signed by an official representative of the permitted facility in accordance with s. NR 216.22(7), Wis. Adm. Code. See instructions on page 4. If this form is not signed, or is found to be incomplete, it will be returned,

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Authorized Representative	Telephone Number (include area c	Telephone Number (include area code)			
Dan Itzulu	(715) 44	(715) 446-3101			
Type or Print Name	Company Name	Company Name			
David Hagenbucher	Marathon County Solid Waste	Marathon County Solid Waste			
Position Title	Mailing Address	Mailing Address			
Manager	172900 East Highway 29	172900 East Highway 29			
Date Signed	Municipality	State	ZIP Code		
12/09/19	Ringle	WI	54471		

How to Use this Form:

The first level of storm water monitoring consists of a comprehensive annual facility site compliance inspection (AFSCI) to determine if your facility is operating in compliance with your Storm Water Pollution Prevention Plan (SWPPP). You should use the results of this inspection to determine the extent to which your SWPPP needs to be updated to prevent pollution from new source areas, as well as to correct any inadequacies that the plan may have in handling existing source areas. This first level of monitoring is addressed in Section IV of this Annual Report on page 2.

The second level of storm water monitoring consists of quarterly visual observations of storm water leaving the site during runoff events caused by snow-melt or rainfall. This is a practical, low cost tool for identifying obvious contamination of storm water discharges, and can also help identify which practices are ineffective. The goal of quarterly inspections is to obtain results from a set of four inspections that are distributed as evenly as possible throughout the year and which depict runoff quality during each of the four seasons. This second level of monitoring is addressed in Section V of this Annual Report on page 3.

3 m 2

Section IV: Annual Facility Site Compliance inspect	lion		
The Annual Facility Site Compliance Inspection shall be adeq remains current; potential pollution sources at your facility are that the Best Management Practices prescribed in your SWP	identified; the facility site map and drainage m	ap remain accurate; and	
Name of Person Conducting Inspection	Inspection Date		
David Hagenbucher	06/12/2019		
Employer	Telephone Number	······································	
Marathon County Solid Waste	(715) 446-3101		
Your inspection should start with a review of your written SW these inspections, you find that the provisions in your SWPPI discharged from your facility.			
1. Has your SWPPP been updated to include current Non-	Storm Water Discharge Evaluation results?	OYes ON₀ ●N/A	
2. Has your SWPPP been amended for any new constructi conditions at the facility?	on that would affect the site map or drainage	OYes ⊙No ON/A	
3. Has your SWPPP been amended for any changes in fac new source areas for contamination of storm water?	OYes ●No ON/A		
4. Are there any materials at the facility that are handled, s exposure to storm water that are not currently addressed	⊖Yes		
Are there any maintenance or material handling activities addressed in your SWPPP?	s conducted outdoors that have not been	OYes ●No ON/A	
6. Are outside areas kept in a neat and orderly condition?		●Yes ○No ○N/A	
7. Are regular housekeeping inspections made?	●Yes ○No ○N/A		
8. Do you see spots, pools, puddles, or other traces of oils, grease, or other chemicals on the ground?		⊖Yes ●No ⊖N/A	
9. Are particulates on the ground from industrial operations	or processes being controlled?	●Yes ONo ON/A	
10. Do you see leaking equipment, pipes or containers?		⊖Yes ●No ⊖N/A	
11. Do drips, spills, or leaks occur when materials are being	transferred from one source to another?	OYes ⊙No ON/A	
12. Are drips or leaks from equipment or machinery being co	ontrolled?	●Yes ○No ○N/A	
¹ 13. Are cleanup procedures used for spilled solids?		●Yes ○No ○N/A	
14. Are absorbent materials (floor dry, kitty litter, etc.) regula	arly used in certain areas to absorb spills?	●Yes ○No ○N/A	
15. Can you find discoloration, residue, or corrosion on the r drain work areas?	oof or around vents or pipes that ventilate or	OYes ●No ON/A	
16. Are Best Management Practices implemented to reduce from source areas at the facility?	or eliminate contamination of storm water	●Yes ○No ○N/A	
17. Are Best Management Practices adequately maintained	?	●Yes ○No ○N/A	
 Are there significant changes to your SWPPP needed to control a discharge of contaminated storm water from y 	o correct plan inadequacies to effectively our facility?	⊖Yes	

Comments:

A storm water inspection was conduction on June 12 2019. This particular rain event had 1.25" within a 24 hour period. Area B has four storm water retention/sedimentation basins and multiple culverts and drainage ditches. The storm water infrastructure handled the precipitation without any issues. The culverts were jetted this year as preventative maintenance. The jetting process consisted of a high pressure water forcing a hose through each pipe to clear out any blockages. Ditches, sediment fences, culverts, and sedimentation ponds all functioned as intended. The water flowing into the sediment ponds contained little to no soil since all intermediate slopes have been vegetated. Therefore, water was not contaminated in any way by waste or loose soil. The infiltration ponds allowed quick infiltration into the groundwater, and they did not experience any overflow. Most ponds around Area B had already been full from the significant amount of snow melt that occurred in March and April. Even with the elevated levels, there was no overflow on any of the ponds.

An on site inspection with WDNR was also completed in 2019. WDNR staff provided valuable information on keeping our storm water infrastructure functioning as intended, and also provided information on area where there could be some improvement. All information was beneficial and Marathon County worked to establish Best Management Practices whenever and wherever possible.

Section V: Quarterly Visual Inspection Reports

Quarterly Visual Inspections at each storm water discharge outfall on your site can be a valuable assessment tool and are required by the Tier 1, Tier 2, and Nonmetallic Mining Industrial Storm Water General Permits. These inspections should be performed when sufficient runoff occurs during daylight hours. Try to make observations within the first 30 minutes after runoff begins discharging from the outfall or soon thereafter as practical, but no later than 60 minutes. If you find visible pollution, note the probable source and list any possible Best Management Practices that could be used to reduce or eliminate the problem. Make any necessary changes to your Storm Water Pollution Prevention Plan as needed. If you were unable to evaluate an outfall during a specific quarter, this should be indicated along with a reason as to why this could not be done.

		Date of	Inspection	
Outfall Number	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Area B SR-1	03/13/2019	06/12/2019	09/11/2019	12/09/2019
Area B SR-2	03/13/2019	06/12/2019	09/11/2019	12/09/2019
Area B SR-3	03/13/2019	06/12/2019	09/11/2019	12/09/2019
Area B SR-4	03/13/2019	06/12/2019	09/11/2019	12/09/2019
		1.0		
		· · · · · · · · · · · · · · · · · · ·	1	-
	1			

Briefly summarize what you found when conducting your Quarterly Visual Inspections. (Include any observations of color, odor, turbidity, floating solids, foam, oil sheen, or any other indications of storm water pollution and the probable sources of any observed storm water contamination.)

March - Water was frozen, but a 1" rainfall did not impact the storm water ponds or ditches.

June - A storm water inspection was conduction on June 12 2019. This particular rain event had 1.25" within a 24 hour period. Area B has four storm water retention/sedimentation basins and multiple culverts and drainage ditches. The storm water infrastructure handled the precipitation without any issues. The culverts were jetted this year as preventative maintenance. The jetting process consisted of a high pressure water forcing a hose through each pipe to clear out any blockages. Ditches, sediment fences, culverts, and sedimentation ponds all functioned as intended. The water flowing into the sediment ponds contained little to no soil since all intermediate slopes have been vegetated. Therefore, water was not contaminated in any way by waste or loose soil. The infiltration ponds allowed quick infiltration into the groundwater, and they did not experience any overflow. Most ponds around Area B had already been full from the significant amount of snow melt that occurred in March and April. Even with the elevated levels, there was no overflow on any of the ponds.

September - A storm water inspection was conducted during a significant rain event in which 2.5" of rain fell. All of Area B is vegetated, so there was no significant erosion or sediment runoff with the storm water.

December- Water was frozen, and all precipitation was snow.

Form 3400-176 (R 5/14)

Page 5 of 5

Instructions

Section I: Facility/Site Information

Provide the name of the facility as it appears on the permit application or permit cover letter and location address. If known, provide the Facility Identification (FID) and/or FIN Number assigned by the WDNR.

Section II: Facility/Site Contact Person

Provide the local contact person information for the facility. The mailing address should be given for the facility contact person if it is different from the facility site location address information.

Section III: Certification & Signature

State Statutes provide for severe penalties for submitting false information on this AFSCI form. State regulations require this form be signed as follows:

- 1. For a corporation, by a principal executive officer of at least the level of Vice President, or a duly authorized representative having overall responsibility for the operation covered by this permit.
- 2. For a unit of government, a principal executive officer, a ranking elected official, or other duly authorized representative.
- 3. For a partnership, by a general partner; for a sole proprietorship, by the proprietor.
- 4. For a limited liability company, by member or manager.

Section IV: Annual Facility Site Compliance Inspection

Provide the name of the person conducting the inspection, inspection date, name of employer, and telephone number. Check the appropriate box for each of the listed questions and provide explanations in the comment box as needed.

Section V: Quarterly Visual Inspection Reports

Provide the outfall number in the table and the dates of each quarterly visual inspection. Summarize the findings of your visual inspections below the table. Attach additional sheets if needed.

Mailing Address

Unless otherwise directed, mail this completed form to the Wisconsin Department of Natural Resources (WDNR) office associated with the county of the facility site location as follows:

ntek andre sinder og en segen en segen Segen en segen en seg		NORTHERN RE	GION (NOR)
Ashland Barron Bayfield Burnett Douglas Florence	Forest Iron Langlade Lincoln Oneida Polk	Price Rusk Sawyer Taylor Vilas Washburn	WDNR Baldwin Service Center 890 Spruce Street Baldwin, WI 54002 715-684-2914 ext. 109
		NORTHEAST RE	EGION (NER)
Brown Calumet Door Fond du Lac Green Lake Kewaunee	Manitowoc Marinette Marquette Menominee Oconto Outagamie	Shawano Waupaca Waushara Winnebago	WDNR Northeast Regional Headquarters 2984 Shawano Avenue Green Bay, WI 54313-6727 (920) 662-5100
		WEST CENTRAL F	REGION (WCR)
Adams Buffalo Chippewa Clark Crawford Dunn Eau Claire	Jackson Juneau La Crosse Marathon Monroe Pepin	Pierce Portage St. Croix Trempealeau Vernon Wood	WDNR Baldwin Service Center 890 Spruce Street Baldwin, WI 54002 715-684-2914 ext. 109
		SOUTH CENTRAL	REGION (SCR)
Columbia Dane Dodge Grant	Green Iowa Jefferson LaFayette	Richland Rock Sauk	WDNR South Central Regional Headquarters 3911 Fish Hatchery Road Fitchburg, WI 53711 (608) 275-3266
		SOUTHEAST RE	EGION (SER)
Kenosha Milwaukee Ozaukee	Racine Sheboygan Walworth	Washington Waukesha	WDNR Waukesha Service Center 141 N.W. Barstow Street, Room 180 Waukesha, WI 53188 (262) 574-2100

ATTACHMENT F

EXCEEDANCE REPORTS FOR AREA B GROUNDWATER MONITORING APRIL AND OCTOBER 2019



Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

May 22, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill: License No. 2892 Area A

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of April 2019. An exceedance table has been attached for the Area A landfill and can be found on the following page.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Amanda Dehmlow, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

		Marathon Cour	nty Solid Waste: Area A	A Groundwate	r Monitori	ng Wells			
	Area A	Facility #2892	Exceedances						
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments
318721	April 2 & 3 2019	Dup 040319	Tetrachloroethylene	ug/L	3.90	0.50	5.00		NR140.10
318721	April 2 & 3 2019	Dup 040319	Trichloroethylene	ug/L	3.80	0.50	5.00		NR140.10
318721	April 2 & 3 2019	R12R	Tetrachloroethylene	ug/L	0.71	0.50	5.00		NR140.10
318721	April 2 & 3 2019	R12R	Trichloroethylene	ug/L	0.63	0.50	5.00		NR140.10
318721	April 2 & 3 2019	R13R	Tetrachloroethylene	ug/L	3.50	0.50	5.00		NR140.10
318721	April 2 & 3 2019	R13R	Trichloroethylene	ug/L	3.40	0.50	5.00		NR140.10
318721	April 2 & 3 2019	R38	Tetrachloroethylene	ug/L	1.20	0.50	5.00		NR140.10
318721	April 2 & 3 2019	R38	Trichloroethylene	ug/L	1.20	0.50	5,00		NR140.10
318721	April 2 & 3 2019	R50P	Tetrachloroethylene	ug/L	0.64	0.50	5.00		NR140,10
318721	April 2 & 3 2019	R35	Conductivity	umho@25C	770.00	510.00			Well

Area A Groundwater Well Exceedance Table April 2019

The Area A exceedances that were detected during the April 2019 sampling event are consistent with the exceedances that were detected in previous sampling events.

Groundwater contamination was detected southeast of Area A during the late 1980s. By May of 1993, Marathon County completed a groundwater quality investigation and submitted a report to WDNR titled "Marathon County, Area A Landfill – Environmental Contamination Assessment (ECA) report". The ECA report suggested that contaminants may have been released to the environment from one or more of the leachate collection basins and other source locations. Consequently, several improvements were made and both leachate collection basins were removed in 1995. The identified groundwater contaminants of primary concern at this facility are VOCs, specifically the chlorinated aliphatic hydrocarbons (CAHs) and vinyl chloride. Since the remedial work from 1993 to 1996, significant reductions of CAH concentration have been measured near the suspected source zone.

It is the opinion of Marathon County that the exceedances are related to the leachate basins that were removed in 1995. The overall general concentrations reported at wells within the core of the plume are stable to decreasing. Marathon County will continue to monitor these wells for exceedances as required, and report any anomalies to the WDNR. Marathon County has installed groundwater monitoring wells along State Highway 29, just southeast of the site. If these particular wells begin showing signs of contamination, the County has a contingency plan in place and will respond to protect residents.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin
Department of Natural Resources

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID. *
- Please type or print legibly. *

Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.

- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact WA/5 *

Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information	full and detection of the	1. 人名德斯德	·····································
Name of entity submitting data (laboratory, consultant, Northern Lake Service, Inc.	facility owner):		
Contact for questions about data formatting. Include d	ata preparer's name, telephone n	mber and E-mail add	dress:
Name: Chris Geske	Phone: 715-4		
E-mail: lims@nlslab.com			
Facility Name	License No. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 20
Marathon County Landfill - Area A	02892	737054890	APRIL -02-2019 through APRIL -03-2019
Some Area A wells are linked to BRRDF site (Lic. 04228) but reported here.			
The enclosed results are for sampling required in the n APRIL -2019	nonth(s) of: (e.g., June 2003)		· · · · · · · · · · · · · · · · · · ·
Groundwater monitoring data from monitoring well Groundwater monitoring data from private water su Leachate monitoring data		hitoring data foring data becify)	;
Notification attached? No. No groundwater standards or explosive gas limits were exceed Yes, a notification of values exceeding a groundwater standard is a groundwater standard and preliminary analysis of the cause and Yes, a notification of values exceeding an explosive gas limit is atta explosive gas limits.	significance of any concentration.		
Certification			$\mathbf{n} = \sum_{i=1}^{n} \left\{ \frac{1}{2} \sum_{i=1}^{n} $
To the best of my knowledge, the information repo are true and correct. Furthermore, I have attached groundwater standards or explosive gas levels, an concentrations exceeding groundwater standards.	complete notification of any sa d a preliminary analysis of the o	mpling values meet cause and significan	715-551-5864
Facility Representative Name (Print)	Title		(Area Code) Telephone No.
Duit Amhle	05/22/19	_	
Signature	Date		
Signature FOR DNR USE ONLY. Check action tak	Initials Upload	itials. Describe on	back side if necessary.

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill - Area A 04-01-2019

> Lab ID: 721026460 NLS Project: 318721 Collected: 04-01-2019 License: 02892 FID: 737054890

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Well Desc (Point ID)	Parameter	Units	Result	PAL / ACL	ß	Comments
Dup-040319 (074)	Tetrachloroethylene	ng/L	3.9	'n	5	NR140.10
Dup-040319 (074)	Trichloroethylene	ng/L	3.8	'n	5	NR140.10
R12R (049)	Tetrachloroethylene	ng/L	0.71	5	5	NR140.10
R12R (049)	Trichloroethylene	ng/L	0.63	Ş.	5	NR140.10
R13R (074)	Tetrachloroethylene	ng/L	3.5	5	5	NR140.10
R13R (074)	Trichloroethylene	ng/L	3.4	5	5	NR140.10
R38 (053)	Tetrachloroethylene	ng/L	1.2	5	5	NR140.10
R38 (053)	Trichloroethylene	ng/L	1.2	5	5	NR140.10
R50P (068)	Tetrachloroethylene	ng/L	0.64	5.	5	NR140.10
R35 (050)	Conductivity	umho@25C	270	510	-	well



Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, W1 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

May 22, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill, License No. 3338 Area B.

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of April 2019. An exceedance table has been attached for the Area B landfill and can be found on the following page.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Amanda Dehmlow, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

Area B Groundwater Well Exceedance Table April 2019

		Marathon Cour	nty Solid Waste: Area	a B Groundw	ater Monitori	ng Wells			
	Area B	Facility #3338	Exceedances						
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments
318722	April 2 & 3 2019	Dup 040319	Nitrate+Nitrite	mg/L	2.20	2,00	10.00		NR140,10
318722	April 2 & 3 2019	R45	Nitrate+Nitrite	mg/L	2.20	2.00	10.00		NR140.10

The Area B Nitrate/Nitrite levels at well R45 can be a result of improper farming practices. Throughout the past few years, Area B has had ongoing vegetation management to establish growth on slopes. Seed, fertilizer, and mulch have all been applied in an effort to control erosion. Well R45 has indicated a very slight increase in concentration since the previous sampling event in October. The well will continue to be monitored closely to ensure that levels decrease. In effort to ensure that levels decrease, Marathon County will evaluate their erosion control methods in addition to continued observation of well R45. Current site plans include the installation of a final cap on the Area B landfill within the next few years; this will also control erosion and potential runoff issues at the wells around the landfill.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- *
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value. *
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:
- GEMS Data Submittal Contact WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information			White a state of the
Name of entity submitting data (laboratory, consultan	t, facility owner):		
		umber and E-mail addre	ess:
Northern Lake Service, Inc. Contact for questions about data formatting. Include	Phone: 715-4	78-2777	
Name: Chris Geske	Filone. Thomas	10 2111	
E-mail: lims@nlslab.com	ID ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003
Facility Name Marathon County Landfill - Area B	License No. / Monitoring ID 03338	737092730	APRIL -02-2019 through
			APRIL -03-2019
The enclosed results are for sampling required in the APRIL -2019	e month(s) of: (e.g., June 2003)		
Type of Data Submitted (Check all that apply) Groundwater monitoring data from monitoring w Groundwater monitoring data from private water Leachate monitoring data	Clio	nitoring data itoring data specify)	
Notification attached? No. No groundwater standards or explosive gas limits were exc Yes, a notification of values exceeding a groundwater standard groundwater standard and preliminary analysis of the cause Yes, a notification of values exceeding an explosive gas limit is explosive gas limits.	is interior. It interest encontrolion	nts, dates, sample values, tes, sample values and	na agu a tao agus 10 - Seo
Certification	出现。而我们们的"开始"的问题		d attachoments
Certification To the best of my knowledge, the information re are true and correct. Furthermore, I have attach groundwater standards or explosive gas levels, concentrations exceeding groundwater standar Davrel Hagenbucher	and a preliminary analysis of the	cause and significan	a attachements ing or exceeding t of 7/5-551-5869 (Area Code) Telephone No.
Facility Representative Name (Print)	Title		(Area Code) Telephone No.
Dillik	05/22/19		
Jun Hy ou	Date		
FOR DNR USE ONLY. Check action	initia	initials. Describe on I Is aded data successfully	the second s
Notified contact of problems on EDD format(s): Diskette CD	and the second se		only) Other

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill - Area B 04-01-2019

> Lab ID: 721026460 NLS Project: 318722 Collected: 04-01-2019 License: 03338 FID: 737092730

EXCEEDANCES:

Well Desc (Point ID)	Parameter	Units	Result	PAL / ACL	ß	Comments
Dup-040319 (208)	Nitrate+Nitrite, dis.	mg/L	2.2	7	10	NR140.10
R45 (208)	Nitrate+Nitrite, dis.	mg/L	2.2	2	10	NR140.10

Notes: site = site assigned PALES : well = well assigned PALES : NR140.10 = NR140 Public Health PALES : NR140.12 = NR140 Public Welfare PALES



marathoncountysolidwaste

Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

May 22, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill, License No.4228 BRRDF.

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of April 2019. An exceedance table has been attached for the Bluebird Ridge Landfill and can be found on the following page.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Amanda Dehmlow, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

	Marathon County Solid Waste: Bluebird Ridge Groundwater Monitoring Wells									
	BRRDF	Facility #4228	Exceedances							
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments	
318859	April 3 & 4 2019	R59P	Alkalinity	mg/L	330.00	230.00			well	
318859	April 3 & 4 2019	R59P	Conductivity	umhos@25C	590.00	470.00			well	
318859	April 3 & 4 2019	R59P	Hardness	mg/L	360.00	230.00			well	
318859	April 3 & 4 2019	R59WT	Alkalinity	mg/L	420.00	230.00			well	
318859	April 3 & 4 2019	R59WT	Conductivity	umhos@25C	680.00	470.00			well	
318859	April 3 & 4 2019	R59WT	Hardness	mg/L	420.00	230.00			well	

<u>Bluebird Ridge Recycling and Disposal Facility Groundwater Well Exceedance Table</u> <u>April 2019</u>

Groundwater hardness can exhibit natural fluctuation over time. In addition, a typical indicator of hard water can be increased levels of calcium. Over the past few years, Marathon County has utilized liquid Calcium Chloride solution for dust control on main haul roads. It is a possibility that small amounts of Calcium Chloride may have leached into groundwater due to runoff from haul roads. This solution may be contributing to slight increases in conductivity. In addition to the Calcium Chloride application, this particular well is located within 50 feet of a major soil stockpile. During 2016, this stockpile received over 250,000 cubic yards of soil from the 10 acre cell expansion of the Bluebird Ridge Landfill. R59WT and R59P are directly at the toe of the slope of a 500,000+ cubic yard soil stockpile. The stockpile has been properly vegetated; however, the construction activity may be a contributing factor. The levels have not changed significantly since the last monitoring event, but this well will continue to be monitored to evaluate the source of the exceedances.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- * Please type or print legibly.

* Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.

- * Attach a notification of any gas values that attain or exceed explosive gas levels.
- * Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact WA/5

GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information	(1) 「「「「「「」」」」」」」」」」」」」」」」」」」」」」」」」」」」」」」		
Name of entity submitting data (laboratory, cons Northern Lake Service, Inc.	ultant, facility owner):		
Contact for questions about data formatting. Inc	lude data preparer's name, telephone n	umber and E-mail add	dress:
Name: Chris Geske	Phone: 715-4	78-2777	
E-mail: lims@nlslab.com			The second
Facility Name	License No. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 200
Marathon County - BRRDF	04228	337005680	APRIL -03-2019 through APRIL -04-2019
The enclosed results are for sampling required i APRIL -2019	n the month(s) of: (e.g., June 2003)		
Type of Data Submitted (Check all that apply) Groundwater monitoring data from monitorin Groundwater monitoring data from private w Leachate monitoring data		nitoring data toring data pecify)	
Notification attached?	dard is attached. It includes a list of monitoring point ause and significance of any concentration.		
Certification		ten estate hereix	\boldsymbol{n}_{i}
To the best of my knowledge, the information are true and correct. Furthermore, I have atta groundwater standards or explosive gas leve concentrations exceeding groundwater stand David Hagenbucker	ached complete notification of any sa els, and a preliminary analysis of the o dards	mpling values meeti cause and significan	ing or exceeding t of クリSーSデリーSB6 4
Facility Representative Name (Print)	Solod Waste, Title 05/22/19		(Area Code) Telephone No.
Signature	Date		
Found uploading problems or Notified contact of problems of	on taken, and record date and your in 1 Initials on Upload CD (initial submittal and follow-up)	ed data successfully	on

Marathon County Solid Waste Mgmnt Dept Marathon County - BRRDF 04-01-2019

> Lab ID: 721026460 NLS Project: 318859 Collected: 04-01-2019 License: 04228 FID: 337005680

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Well Desc (Point ID)	Parameter	Units	Result	PAL / ACL	B	Comments
R59P (237)	Alkalinity	mg/L	330	230		Well
R59P (237)	Conductivity	umhos@25C	590	470		well
R59P (237)	Hardness	mg/L	360	230		well
R59WT (234)	Alkalinity	mg/L	420	230		well
R59WT (234)	Conductivity	umhos@25C	680	470		well
R59WT (234)	Hardness	mg/L	420	230		well

Notes: site = site assigned PAL/ES : well = well assigned PAL/ES : NR140.10 = NR140 Public Health PAL/ES : NR140.12 = NR140 Public Welfare PAL/ES



Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, W1 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line

715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

May 22, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill, License No. 2892, 3338 & 4228 (Private Wells)

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of April 2019. There were no exceedances in the private groundwater wells, and therefore an exceedance table has not been provided.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Amanda Dehmlow, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

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Instructions:

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GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

):		
name, telephone nun	nber and E-mail addre	ess:
Phone: 715-478	3-2777	
. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 200
02892		APRIL -04-2019
e.g., June 2003)		
Air monitor	ring data	
y concentration.		
	的基本的意义。	$\mathbf{n}_{i} = \{\mathbf{n}_{i}, \dots, \mathbf{n}_{i}\}$
tification of any sam any analysis of the ca	pling values meetin use and significant	g or exceeding of 7/5-551-5864
Title	(Area Code) Telephone No.
05/22/19 Date		
	e. / Monitoring ID 02892 a.g., June 2003) Gas monit Gas monit Air monitoring other (spe es a list of monitoring points, the monitoring points, dates, the monitoring points, dates, ferments made on this otification of any sam	e.g., June 2003) Gas monitoring data Gas monitoring data Air monitoring data Other (specify) es a list of monitoring points, dates, sample values, ty concentration. the monitoring points, dates, sample values and contents made on this data submittal and otification of any sampling values meetin ary analysis of the cause and significant

Marathon County Solid Waste Mgmnt Dept Marathon County Area A Private Wells 04-01-2019

> Lab ID: 721026460 NLS Project: 318858 Collected: 04-01-2019 License: 02892 FID:

EXCEEDANCES:

	PAL/AGL ES	Comments
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Notes: site = site assigned PAL/ES ; well = well assigned PAL/ES ; NR140.10 = NR140 Public Health PAL/ES ; NR140.12 = NR140 Public Welfare PAL/ES

State of Wisconsin Department of Natural Resources

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

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GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information Name of entity submitting data (laboratory, consultant,	facility owner):		
Northern Lake Service, Inc. Contact for questions about data formatting. Include d Name: Chris Geske E-mail: lims@nlslab.com	ata preparer's name, telephone nu <u>Phone: 715-4</u> 7		ress:
Facility Name	License No. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 200
Marathon County BRRDF Private Wells	04228	337005680	APRIL -04-2019
The enclosed results are for sampling required in the m APRIL -2019	nonth(s) of: (e.g., June 2003)		
Type of Data Submitted (Check all that apply) Groundwater monitoring data from monitoring wells Groundwater monitoring data from private water st Leachate monitoring data		itoring data oring data pecify)	
Notification attached? No. No groundwater standards or explosive gas limits were exceeded Yes, a notification of values exceeding a groundwater standard is a groundwater standard and preliminary analysis of the cause and Yes, a notification of values exceeding an explosive gas limit is atta explosive gas limits.	ttached. It includes a list of monitoring points significance of any concentration.		
Certification			n
To the best of my knowledge, the information report are true and correct. Furthermore, I have attached groundwater standards or explosive gas levels, and concentrations exceeding groundwater standards. Davis of Hagen Sucher	complete notification of any sai d a preliminary analysis of the c Sokal Waste Manu	mpling values meetin ause and significant	ng or exceeding of 715 551 5864
Facility Representative Name (Print)	Title 05/22/19	0	(Area Code) Telephone No.
Signature	Date		
FOR DNR USE ONLY. Check action take	InitialsUploade	d data successfully o	

Marathon County Solid Waste Mgmnt Dept Marathon County BRRDF Private Wells 04-01-2019

> Lab ID: 721026460 NLS Project: 318857 Collected: 04-01-2019 License: 04228 FID: 337005680

EXCEEDANCES:

(er	Units	Result	PAL / ACL	ES	Comments

Notes: site = site assigned PAL/ES : well assigned PAL/ES : NR140.10 = NR140 Public Health PAL/ES : NR140.12 = NR140 Public Welfare PAL/ES

ry ID No. 721026460 ification No. 105-330 atory ID No. W100034 /01/19 Page 1 of 3 roject: 318857 ustomer: 20080 Phone: 715 446 3339		Lab 721026460 721026460 100 are considered	Authorized by: R. T. Krueger President	•			
WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. W100034 Printed: 05/01/19 Page 1 of 3 NLS Project: 318857 NLS Customer: 20080 Fax: 715 446 2906 Phone: 715 446 3339		LOD LOQ/MCL Analyzed Method 04/04/19 NA 04/04/19 NA 1ain Outshiftstion" Results creater than or equal to the	LOQS adjusted to reflect dlution and/or solids content. Reviewed by:			•	
ANALYTICAL REPORT		ResultUnitsDilution4.86ft.15.85ft.1out loss than tha LOO and are within a rection of "I ass. Carl	tith an asterisk(*) are considered Reporting Limits. All LOD/ LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.				
NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Rindle, WI 54471 9754	14/	t results areater than or equal to the LOD F	to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content. ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable Reviewed by: $\mathcal{M}_{\mathcal{M}} \times \mathcal{M}_{\mathcal{M}} \times \mathcal{M}_{\mathcal{M}}$ DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.				
NORTHI Analytics 400 Nort Ph: (715) Client:	Project: PW11 N Matrix: GW Collected: (Parameter Field depth Field depth	Not the second s				

NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill Attn: Dave Hagenbucher R18500 East Highway 29 Ringle, WI 54471 9754 Client:

Marathon County BRRDF Private Wells April 2019 Project:

PW26 NLS ID: 1113403

Matrix: GW

Collected: 04/04/19 09:43 Received: 04/05/19

LOD LOQ/MICL Analyzed Method Lab 04/04/19 NA 721026460	04/04/19 NA 721026460	04/04/19 NA 721026460	04/12/19 SW846 8260C 721026460	
Result Units Dilution LOD LO none detected	none detected	none detected	see attached	
Parameter Field color	Field odor	Field turbidity	VOCs (water) by GC/MS	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. LOD = Limit of Detection ND = Not Detected (< LOD) DWB = Dry Weight Basis

Shaded results indicate >MCL LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

NA = Not Applicable

Reviewed by:

Authorized by: R. T. Krueger President

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 ANALYTICAL REPORT

EPA Laboratory ID No. WI00034

Page 2 of 3 Printed: 05/01/19

318857 NLS Project:

20080 NLS Customer:

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

Marathon County Solid Waste Mgmnt Dept R18500 East Highway 29 Ringle, WI 54471 9754 Marathon County Landfill Attn: Dave Hagenbucher Client:

Marathon County BRRDF Private Wells April 2019 Project:

PW8575 NLS ID: 1113404 Matrix: GW

Collected: 04/04/19 10:00 Received: 04/05/19

Lab 721026460	721026460	721026460	721026460	
Dilution LOD LOQ/MCL Analyzed Method	04/04/19 NA	04/04/19 NA	04/12/19 SW846 8260C	
LOQ/M				
ГОД				•
Dilution				(,
Units				
Result	none detected	none detected	see attached	
		and a second		
Parameter Eield color	Field odor	Field turbidity	/OCs (water) by GC/MS	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

DWB = Dry Weight Basis % DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. LOD = Limit of Detection ND = Not Detected (< LOD) DVVB = Dry Weight Basis

Shaded results indicate >MCL LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

NA = Not Applicable

d Reviewed by:

Authorized by: R. T. Krueger President

1

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. W100034 Printed: 05/01/19

Page 3 of 3

318857 NLS Project:

20080 NLS Customer:

Project Description: Marathon County BKRUF Private Wells Project Title: April 2019 Template: SAT3 Project Title: April 2019 Analytes Sample: 1113403 PW26 Collected: 04/04/19 Analytes ANALYTE NAME AnALYTE NAME AnALYTE NAME Brondichloromethane Brondichloromethane Brondichloromethane Brondofini Brondofini Brondichloromethane Brondofini Chlorobenizene Chlorobenizene Chlorobenizene Brondofini Chlorobenizene Chloromethane Biomonomethane Biomonomethane Chlorobenizene Dibromochloromethane Biomonomethane Biomonomethane 1,2-Dibromochloromethane Dibromochloromethane Biomonomethane Biomonomethane 1,2-Dibromochloromethane 1,2-Dibromochloromethane Biomonomethane Biomonomethane 1,2-Dibromochloromethane 1,2-Dibromochloromethane Biomonomethane Biomonomethane 1,2-Dibromochloromethane 1,2-Dibromochloromethane Biomonomethane Biomonomethane 1,2-Dibromochloromethane 1,2-Dibromochloromethane Biomonomethane Biomonomethane 1,2-Dibromochloromethane 1,2-Dibromoch	APP3 43 ND ND N	Printed: 05/01/2019 04:22 UNITS DIL UNITS DIL UG/L 1 UG/L	019 04:22 DIL	D D D D D D D D D D D D D D	LOQ 0.66 0.79 0.73 0.75 0.66 0.73 0.75 0	MCL 5 80 80 80 80 80 80 80 80 75	R
Sample: 1113403 PW26 Collected: 04/04/19 Analyzed: 04/12/19- ANALYTE NAME Benzene Bromodichloromethane Bromonethane Bromonethane Chlorotha		UNITS UG/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L	┨ <i>╾╾╾╾┥╾╴╴╴╴╴╴╴╴</i> ╴	LOD 0.19 0.16 0.16 0.19 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	LOQ LOQ 0.68 0.56 0.79 0.79 0.79 0.79 0.66 0.66 0.66 0.66 0.66 0.66 0.73 0.73 0.73 0.73	MCL 5 80 80 80 80 80 600 600	Not
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Benzene Bromodichloromethane Bromoform Bromonethane Bromomethane Carbon Tetrachloride Chlorobenzene Chlorobenzene Chlorobenzene Chlorobenzene Chlorobenzene Chlorobenzene Chlorobenzene Dibromoethane 1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,1-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2	<u>9999999999999999999999</u>	1/6 1/6 1/6 1/6 1/6 1/6 1/6 1/6	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.19 0.16 0.16 0.19 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	0.69 0.56 0.79 0.79 0.66 0.60 0.66 0.60 0.66 0.73 0.73 0.73 0.73 0.73	5 80 80 80 80 75 75	
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Bromoform Bromomethane Chlorobenzene Chlorobenzene Chlorobenzene Chlorobenzene Chlorobenzene Chloromethane Chloromethane 1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,3-Dichloropene 1,2-Dichloropene 1,2-Dichloropene 1,2-Dichloropene 1,2-Dichloropene 1,2-Dichloropene	99999999999999999999999999999999999999	1/6 1/6 1/6 1/6 1/6 1/6 1/6 1/6		0.16 0.222 0.19 0.19 0.17 0.17 0.19 0.17 0.14 0.22 0.22 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	0.76 0.79 0.79 0.66 0.66 0.60 0.60 0.60 0.73 0.73 0.73 0.73 0.73	80 80 75 600 80 80 80 80 80 80 80 80 80 80 80 80 8	
Bromomethane Carbon Tetrachloride Chlorobenzene Chlorotethane Chlorotethane Chlorotethane Chlorotethane Chlorotethane Dibromochloromethane 1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichloropenzene 1,1-Dichloropenzene 1,1-Dichloropenzene 1,1-Dichloropenzene 1,1-Dichloropenzene 1,1-Dichloropethene 1,2-Dichloropethene 1,1-Dichloropethene 1,1-Dichloropethene 1,1-Dichloropethene 1,1-Dichloropethene 1,2-Dichloropethene 1,1-Dichloropethene 1,2-Dichloropethene 1,1-Dichloropethene 1,2-Dichloropethene 1,2-Dichloropethene 1,1-Dichloropethene 1,2-Dichloropethene 1,2-Dichloropethene 1,2-Dichloropethene	<u>999999999999999999</u>	1/60 1/60		0.222 0.19 0.19 0.19 0.19 0.19 0.19 0.11 0.11	0.79 0.66 0.66 0.66 0.60 0.60 0.60 0.60 0.73 0.73 0.73 0.73 0.73	5 100 80 600 75	
Carbon I etractionde Chlorobenzene Chloroethane Chloroform Chloroform Chloronethane Chloronethane Dibromoethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,1-Dichloroethane 1,1-Dichloroethane 1,2-Dichloroethene	2999999999999999999	100 100 100 100 100 100 100 100 100 100		0.18 0.15 0.17 0.17 0.17 0.17 0.17 0.17 0.12 0.17 0.12 0.17 0.12 0.17 0.17 0.12 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	0.000 5.4 5.4 0.60 0.60 0.60 0.73 0.73 0.73 0.73 0.73 0.73 0.73	, 100 80 600 75	
Chloroethane Chloroethane Chloroethane Chloroform Chloromethane Dibromochloromethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichloroethane	29999999999999999999	1/60 1/60		0.11 0.13 0.119 0.119 0.119 0.119 0.119 0.121 0.121 0.121 0.121 0.121 0.121 0.121 0.121 0.121 0.121 0.121 0.137 0.	0.76 0.73 0.73 0.73 0.73 0.75 0.73 0.75 0.73 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75	22 00 80 100 600	
Criterioeutrarie Chloroform Chloroform Chloromethane Dibromonethane 1.2-Dibromoethane 1.2-Dichlorobenzene 1.3-Dichlorobenzene 1.4-Dichlorobenzene 1.4-Dichlorobenzene 1.1-Dichlorobenzene Dichlorobenzene 1.1-Dichlorobenzene Cichlorobenzene 1.2-Dichloroethene cichloroethene cichloropene trans-1.2-Dichloroethene cichloropene trans-1.3-Dichloropene cichloropropene trans-1.3-Dichloropene trans-1.3-Dichloropene		1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		0.117 0.119 0.119 0.21 0.220 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.200000000	0.00 0.60 0.60 0.73 0.73 0.73 0.73 0.73 0.73	80 80 600	
Chloromethane Dibromethane 1.2-Dibromoethane 1.2-Dibromoethane 1.2-Dibromoethane 1.2-Dichlorobenzene 1.3-Dichlorobenzene 1.4-Dichlorobenzene 1.1-Dichlorobenzene Dichlorobenzene 1.1-Dichlorobenzene 2.1-1.2-Dichloroethene 1.1-Dichloroethene 2.1.1-Dichloroethene 2.1.1-Dichloroethene 2.1.2-Dichloroethene 2.1.2-Dichloroethene 2.1.2-Dichloropene 2.2-Dichloropene 2.2-Dichloropene 2.2-Dichloropene 2.2-Dichloropene 2.2-Dichloropene	22222222222222222	1/60 1/60 1/60 1/60 1/60 1/60 1/60 1/60		0.17 0.17 0.21 0.22 0.22 0.22 0.22 0.22 0.22 0.22	0.68 0.61 0.73 0.73 0.75 0.75 0.75	80 600 75	
Dibromonterthane 1.2-Dibromoethane 1.2-Dibromoethane Dibromomethane 1.2-Dichlorobenzene 1.3-Dichlorobenzene 1.4-Dichlorobenzene Dichlorobenzene 1.4-Dichlorobenzene Dichlorobenzene 1.1-Dichlorobenzene 1.2-Dichloroethene cis-1.3-Dichloroethene cis-1.3-Dichloropene cis-1.3-Dichloropene Ethylbenzene		1/6n n 0/7 n 0/7 n 0/7 n 0/7 n 0/7 n 0/7 n 0/7		0.17 0.21 0.22 0.22 0.22 0.22 0.14 0.14	0.61 0.73 0.73 0.73 0.75 0.75 0.76	80 600	
1.2-Dibromoethane 1.2-Dibromoethane Dibromoethane 1.2-Dichlorobenzene 1.3-Dichlorobenzene 1.4-Dichlorobenzene 1.4-Dichlorobenzene 1.4-Dichlorobenzene 1.1-Dichlorobenzene 1.1-Dichlorobenzene 1.1-Dichlorobenzene 1.1-Dichlorobenzene 1.2-Dichloroethane 1.2-Dichloroethene 1.2-Dichloropene		1/67 1/67 1/67 1/67 1/67 1/67 1/67	~ ~ ~ ~ ~ ~ ~ ~	0.21 0.12 0.22 0.12 0.14 1.10 0.12 0.14 1.10 0.12 0.12 0.12 0.12 0.12 0.12 0.12	0.73 0.43 0.73 0.76 0.76 0.76	600 75	
1,2-Dibromoethane Dibromoethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethene 1,2-Dichloroptopene		1/6n n 60/F n 60/F n 7/6n n 7/6 n 1/6n		0.12 0.21 0.22 0.21 0.14	0.43 0.73 0.76 0.72 0.76	600 75	
Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethene cis-1,2-Dichloroethene 1,2-Dichloroethene cis-1,2-Dichloroethene 1,2-Dichloroethene cis-1,3-Dichloroptene cis-1,3-Dichloroptene Ethylbenzene		лд/г лд/г лд/г лд/г лд/г лд/г лд/г лд/г	~ ~ ~ ~ ~ ~	0.21 0.22 0.21 0.14 0.18	0.73 0.76 0.72 0.76	600 75	
1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodiffuoromethane 1,1-Dichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethene 1,2-Dichloroethene 1,2-Dichloroethene 1,2-Dichloroethene 1,2-Dichloroethene 1,2-Dichloroethene 1,2-Dichloropthene 1,2-Dichloropthene Ethylbenzene		ng/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L u	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.22 0.20 0.14 0.18	0.76 0.72 0.76	600 75	
1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane	A A A A A A A	ng/L ug/L ug/L ug/L ug/L ug/L		0.20 0.21 0.14	0.76	75	
1,4-Dichlorobenzene Dichlorodiffuoromethane 1,1-Dichloroethane 1,2-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene cis-1,3-Dichloropropene cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene		ng/L ug/L ug/L	~~~~	0.21 0.14 0.18	0.76	75	
Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane cis-1,2-Dichloroethane 1,2-Dichloroptopane cis-1,3-Dichloroptopane trans-1,3-Dichloropropane Ethylbanzene		ng/L ug/L		0.14			
1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene trans-1,3-Dichloroptopene trans-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene		ng/L ug/L	-	2,2	0.40		
1.2-Dichloroethane 1.1-Dichloroethene cis-1.2-Dichloroethene trans-1.2-Dichloroethene is-1.3-Dichloroppane trans-1.3-Dichloropropene trans-1.3-Dichloropropene Ethylbenzene	n n	ng/L			0.64	L	
1,1-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloroptopene cis-1,3-Dichloroptopene trans-1,3-Dichloroptopene Ethylbenzene	ΠN	2		0.19	0.69	٦L	
cis-1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene	<u> </u>	ng/L	-	0.10	/6.0)	
trans-1,z-Uichioroetnene 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene		ng/L	-	0.18	0.02	0/1	
1.z-Ucnioropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene		1/01 1/21		0.0	10.0	200	
cts-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene		ug/L		0.10	0.04		
trans-1,3-bridgeopene Ethylbenzene		10/1		0.13	0.51		
		10/1		030		200	
Mathvlana chlorida	GN	10/l		0.20	0.70	5	
Nanhhalene	QN	na/L		0.29	1.0		
Styrene	QN	ng/L	1	0.16	0.56	100	
ortho-Xvlene	DN	ng/L	1	0.16	0.56		
Tetrachloroethene	QN	ug/L	-	0.17	0.58	5	
Toluene	Q	ug/L	~	0.19	0.68	1000	
1,1,1-Trichloroethane	QN	ng/L		0.17	0.61	200	
1,1,2-Trichloroethane	ON CA	ug/L		0.17	60.0	0 4	
Trichloroethene		ng/L		0.24	0.04	n	
		ug/L /I		0.1/	0.57	6	
		ug/L	- -	0.32	111	10000	
IIIela, para-Aylerie MTDE		10/I	- <-	0.22	0.76	2000	
MI DE Acetone	CIN	ug/L	-	4.2	12		
Carhon Disulfide	QN	na/L		0.16	0.58		
Methyl Ethyl Ketone	QN	ng/L	1	0.50	1.8		
Tetrahvdrofuran	ND	ug/L	1	0.97	3.5		
Dibromofluoromethane (SURR)	112% ·		-				S
Toluene-d8 (SURR)	108%		~-				s
1-Bromo-4-Fluorobenzene (SURR)	104%		~				s

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S = This compound is a surrogate used to evaluate the quality control of a method.

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Clastication Clastication Constraints Number of the constraints <th< th=""><th>ANAL YTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3)</th><th></th><th></th><th></th><th></th><th></th><th>Page 2 of 2</th></th<>	ANAL YTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3)						Page 2 of 2
Alternation Discrete and the state of the s	Customer: Marathon County Solid Waste Mgmnt Dept NLS Pr Project Description: Marathon County BRRDF Private Wells Distort Title: April 2019	oject: 318857 8 Printed: 05/01/5	019 04-23	~			
RESULT UNTS DIL LOD MCL ND ug/L 1 0.19 0.69 5 ND ug/L 1 0.19 0.69 5 ND ug/L 1 0.19 0.69 5 ND ug/L 1 0.19 0.66 5 ND ug/L 1 0.16 0.56 50 ND ug/L 1 0.19 0.66 5 ND ug/L 1 0.19 0.66 5 ND ug/L 1 0.17 0.66 60 ND ug/L 1 0.17 0.66 60 ND ug/L 1 0.27 0.66 60 ND ug/L 1 0.27 0.76 60 ND ug/L 1 0.27 0.76 60 ND ug/L 1 0.27 0.76 75 ND ug/L <th>Sample: 1113404 PW8575 Collected: 04/04/19 Analyzed: 04/12/19: Analytes: 43</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Sample: 1113404 PW8575 Collected: 04/04/19 Analyzed: 04/12/19: Analytes: 43						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			DIL	, LOD	LOQ	MCL	Note
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			1	0.19	0.69	5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			-	0.19	0.68	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			-	0.16	0.56	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				0.22	0.79		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				0.19	0.66	5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	e			0.16	0.56	100	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				1.5	5.4 0.00	00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			-	0.1/	0.60	ВU	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			~ ~	0.19	0.68	00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				0.17	10.0	αn	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				0.42	0./3		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ē			0.1Z	0.73		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	00 0		-	0.22	0.76	600	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				0.20	0.72	222	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				0.21	0.76	75	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ane		-	0.14	0.49		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			1	0.18	0.64		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			٣-	0.19	0.69	5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			÷	0.16	0.57	7	
ND ug/L 1 0.15 0.51 100 ND ug/L 1 0.19 0.84 5 ND ug/L 1 0.19 0.66 5 ND ug/L 1 0.19 0.63 5 ND ug/L 1 0.19 0.66 100 ND ug/L 1 0.20 0.71 5 ND ug/L 1 0.16 0.56 100 ND ug/L 1 0.17 0.56 5 ND			-	0.18	0.62	70	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			~	0.15	0.51	100	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			۲	0.24	0.84	5	
ND ugl 1 0.14 0.51 ND ugl 1 0.30 1.1 700 ND ugl 1 0.20 1.1 700 ND ugl 1 0.20 0.10 5 ND ugl 1 0.16 0.56 100 ND ugl 1 0.16 0.56 100 ND ugl 1 0.17 0.56 100 ND ugl 1 0.17 0.56 100 ND ugl 1 0.17 0.56 5 ND ugl 1 0.17 0.56 100 ND ugl 1 0.16 0.57 2 ND ugl			۲	0.19	0.68		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			~	0.14	0.51		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			-	0.30	1.1	200	
ND ug/L 1 0.29 1.0 ND ug/L 1 0.16 0.56 100 ND ug/L 1 0.17 0.56 100 ND ug/L 1 0.17 0.56 100 ND ug/L 1 0.17 0.56 5 ND ug/L 1 0.17 0.59 5 ND ug/L 1 0.17 0.51 2 ND ug/L			-	0.20	0.70	5	
ND ug/L 1 0.16 0.56 100 ND ug/L 1 0.17 0.56 5 ND ug/L 1 0.17 0.56 5 ND ug/L 1 0.17 0.56 5 ND ug/L 1 0.17 0.53 5 ND ug/L 1 0.16 0.53 5 ND ug/L 1 0.22 0.76 0.76 ND ug/L 1 0.50 1.8 1.1 114%	lene		, -	0.29	1.0	007	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				0.16	0.56	100	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				0.16	0.56	· L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				0.1/	0.58	2	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				0.13	0.00	000	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				0.17	0.50	500	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ulaite			0.24	0.33	о н с	
ND ug/L 1 0.16 0.57 .2 ND ug/L 1 0.32 1.1 10000 ND ug/L 1 0.22 0.76 10000 ND ug/L 1 0.22 0.76 10000 ND ug/L 1 4.2 12 12 ND ug/L 1 0.16 0.58 13 ND ug/L 1 0.050 1.8 14% 114% 1 0.97 3.5 118 106% 1 1 0.97 3.5	ethane			0.17	0.60		
ND ug/L 1 0.32 1.1 10000 ND ug/L 1 0.22 0.76 ND ug/L 1 4.2 12 ND ug/L 1 0.16 0.58 ND ug/L 1 0.6 0.58 ND ug/L 1 0.16 0.58 114% 1 0.97 3.5 106% 1 1 1.8				0.16	0.57	.2	
ND ug/L 1 0.22 0.76 ND ug/L 1 4.2 12 ND ug/L 1 4.2 12 ND ug/L 1 0.16 0.58 ND ug/L 1 0.50 1.8 114% 1 0.97 3.5 106% 1 1				0.32	1.1	10000	
ND ug/L 1 4.2 12 ND ug/L 1 0.16 0.58 ND ug/L 1 0.50 1.8 114% 1 0.97 3.5 111% 1 1 0.97 3.5 106% 1 1 1			-	0.22	0.76		
ND ug/L 1 0.16 0.58 ND ug/L 1 0.50 1.8 ND ug/L 1 0.97 3.5 114% 1 0.97 3.5 111% 1 1 1 106% 1 1			-	4.2	12		
ND ug/L 1 0.50 1.8 ND ug/L 1 0.97 3.5 114% 1 0.97 3.5 111% 1 1 1 106% 1 1 1			1	0.16	0.58		
ND ug/L 1 0.97 3.5 114% 1 1 111% 1 106% 1			Ţ	0.50	1.8		
114% 1 111% 1 106% 1			-	0.97	3.5		
111% 1 106% 1 1		0	-				S
106% 1		0					л v
		.0	-				Š

S = This compound is a surrogate used to evaluate the quality control of a method.

NLS Private Well Sampling Form and Chain Of Custody

SITE: Marathon Co. Solid Waste Management Dept. / BRRDF – Private Wells 1A

NLS Lab #:	Point Name / Homeov	vner: PW11	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (quant, text, color):
1113/102	William I	Kasten	027	\times	\times	X	X
Date Sampled:	R222780 Dunca Time Sampled:	Sample Location:	······································	I,	<u>I</u>	L	Treated (Y/N):
4.4.19	0932	North	t of 1to	HEE WELL			
Comments:							
DEPTH OF WATE		· .		·		• • •	
DEPTH OF BOTTO	м_5,85						
4/13: South house far	ucet						

NLS Lab #:	Point Name / Homeov	vner: PW26	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (q	uant,text,color);
403	James Glo R222470 Dunca	dowski	029	aminis	CLEAR	ND	N¥	
Date Sampled:	Time Sampled:	Sample Location:	HENS S.	init	<u></u>			Treated (Y/N):
Comments:	0943	<u></u> (1121	/ 0					
					• • •			
As of 11/06: K	itchen Sink (hand	d dug well, owne	r may want	us to purge little	or no water l	pefore samplin	ng)	

NLS Lab #:	Point Name / Homeo	wner: PW8575	DNR ID #:	Time Purged:	Color:	Odor:		uant,text,color):
HAZ	Jerry and K	Crista Bates Silk, Ringle	367	5 min	REAR	NP	N.	
Date Sampled:	Time Sampled:	Comple Legations		7 , ~		C ila	~	Treated (Y/N):
4.4.19	1000	OUTSI	DE SI	AUCET	SIPE	of Hou	>f	\sim
Comments:								
			1	7				
								•
Outside faucet side o	f house							

NLS Lab #:	Point Name / Homeo Trip Bl	lank	DNR ID #: 999	Time Purged:	Color:	Odor:	Turbidity (quant,text,color):
Date Sampled:	Time Sampled:	Sample Location:					
Comments:	L						
Rev 10/15	2				- See r	everse side for sample	custody information

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill R18500 East Highway 29 Attn: Dave Hagenbucher Ringle, WI 54471 9754 Client:

Marathon County Area A Private Wells April 2019 Project:

PW25 NLS ID: 1113406 Matrix: GW Collected: 04/04/19 08:35 Received: 04/04/19

LOD LOQ/MCL Analyzed Method Lab		04/04/19 NA 721026460	04/04/19 NA 721026460	04/12/19 SW846 8260C 72102	
Units Dilution LC					
Result	none detected	none detected	none detected	see attached	
Parameter	Field color	Field odor	Field turbidity	VOCs (water) by GC/MS	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. LOD = Limit of Detection ND = Not Detected (< LOD)

Shaded results indicate >MCL LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

NA = Not Applicable

Reviewed by:

Authorized by: R. T. Krueger President

ANALYTICAL REPORT

20080 WDNR Laboratory ID No. 721026460 Page 1 of 10 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 318858 NLS Customer: Printed: 05/01/19 NLS Project:

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754 Attn: Dave Hagenbucher Client:

Marathon County Area A Private Wells April 2019 Project:

PW68 NLS ID: 1113407

Matrix: GW

Collected: 04/04/19 08:08 Received: 04/04/19

	Result	ICL Analyzed Method	Lab
Field color	none detected	04/04/19 NA	721026460
Field odor	none detected	04/04/19 NA	721026460
Field turbidity	none detected	04/04/19 NA	721026460
VOCs (water) by GC/MS	see attached	04/12/19 SW846 8260C	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

DWB = Dry Weight Basis % DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. LOD = Limit of Detection ND = Not Detected (< LOD)

Shaded results indicate >MCL LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

NA = Not Applicable

Reviewed by:

Authorized by: R. T. Krueger President

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WDATCP Laboratory Certification No. 105-330 Page 2 of 10 318858 20080 EPA Laboratory ID No. WI00034 WDNR Laboratory ID No. 721026460 NLS Customer: NLS Project: Printed: 05/01/19

NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754 Attn: Dave Hagenbucher Client:

Marathon County Area A Private Wells April 2019 Project:

PW18 NLS ID: 1113408 Matrix: GW Collected: 04/04/19 08:24 Received: 04/04/19

Lab	721026460	721026460	721026460	721026460	
CL Analyzed Method	04/04/19 NA	04/04/19 NA	04/04/19 NA	04/12/19 SW846 8260C	
Dilution LOD LOQ/MCL					
С С					
Dilution					
Units					
Result	none détected	none detected	none detected	see attached	
	o estas en entre en entre en entre en entre entre Estas estas entre estas en estas entre estas en estas entre estas entre entre entre entre entre entre entre entre		idity	(water) by GC/MS	
Paramet	Field cold	Field odo	Field turb	VOCs (w	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

MCL = Maximum Contaminant Levels for Drinking Water Samples. %DWB = (mg/kg DWB) / 10000 LOD = Limit of Detection ND = Not Detected (< LOD) DWB = Dry Weight Basis

Shaded results indicate >MCL. LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

NA = Not Applicable

4 Reviewed by:

R. T. Krueger President Authorized by:

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Page 3 of 10 318858 NLS Project: Printed: 05/01/19

20080

NLS Customer:

ANALYTICAL REPORT

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill R18500 East Highway 29 Attn: Dave Hagenbucher Client:

ANALYTICAL REPORT

20080 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. WI00034 Page 4 of 10 318858 WDATCP Laboratory Certification No. 105-330 NLS Customer: NLS Project: Printed: 05/01/19

Marathon County Area A Private Wells April 2019 Project:

Ringle, WI 54471 9754

PW19 NLS ID: 1113409 Matrix: GW Collected: 04/04/19 07:52 Received: 04/04/19

Parameter	Result Units Dilution LOD LOQ/MCL	LOD LOO/MCL Analyzed Method	Lab
Field color	none detected	04/04/19 NA	721026460
Field odor	none detected	04/04/19 NA	721026460
Field turbidity	none detected	04/04/19 NA	721026460
VOCs (water) by GC/MS	see attached	04/12/19 SW846 8260C	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dution and/or solids content.

DWB = Dry Weight Basis % DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. LOD = Limit of Detection ND = Not Detected (< LOD) DWB = Dry Weight Basis

Shaded results indicate >MCL LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

NA = Not Applicable

9 Reviewed by:

Authorized by: R. T. Krueger President

NORTHE Analytical 400 North Ph: (715)-4	NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060	ANALYTICAL REPORT	REPORT	WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. W100034	o. 721026460 1 No. 105-330 No. W100034 Pare 5 of 10
Client:	Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, W1 54471 9754			NLS Project: NLS Customer: Fax: 715 446 2906 Phone: 71	roject: 318858 ustomer: 20080 Phone: 715 446 3339
Project:	Project: Marathon County Area A Private Wells April 2019				
PW24 NL Matrix: GW Collected: 0 ²	PW24 NLS ID: 1113410 Matrix: GW Collected: 04/04/19 08:44 Received: 04/04/19				
Parameter Field color Field odor		Result Units none detected none detected	Dilution LOD LOO/MCL		Lab 721026460 721026460
Field turbidity VOCs (water)	Field turbidity VOCs (water) by GC/MS	none detected see attached		04/04/19 NA 04/12/19 SW846 8260C	721026460 721026460
Values in br to be in the r	Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ to tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dution and/or solids content.) but less than the LOQ and are within //ith an asterisk(*) are considered Repor	a region of "Less-Certain Quantitatio orting Limits. All LOD/LOQs adjusted	on". Results greater than or equal to the LC to reflect dlution and/or solids content.	OQ are considered
ND = Not Dé DWB = Dry ' MCL = Maxii	ND = Not Detected (< LOD) LOD = Limit of Detection DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples.	LOQ = Limit of Quantitation NA 1000 ug/L = 1 mg/L Shaded results indicate >MCL.	NA = Not Applicable Reviewed by	Reviewed by: Whale K 2	Authonzed by: R. T. Krueger President

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754 Attn: Dave Hagenbucher Client:

Marathon County Area A Private Wells April 2019 Project:

PW17 NLS ID: 1113411 Matrix: GW

Collected: 04/04/19 09:18 Received: 04/04/19

Lab	721026460	721026460	721026460	721026460	
Q/MCL Analyzed Method	04/04/19 NA	04/04/19 NA	04/04/19 NA	04/12/19 SW846 8260C	
ion LOD LOQ/MCL					
Dilution					
Result Units	none detected	none detected	none detected	see attached	
Rest	a na aguna da na				
Parameter	Field color	Field odor	Field turbidity	VOCs (water) by GC/MS	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

DWB = Dry Weight Basis & MDWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. LOD = Limit of Detection ND = Not Detected (< LOD)

LOQ = Limit of Quantitation

Shaded results indicate >MCL.

1000 ug/L = 1 mg/L

NA = Not Applicable

Ly. Reviewed by:

Authorized by: R. T. Krueger President

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 Page 6 of 10 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 NLS Project: Printed: 05/01/19

318858

20080 NLS Customer:

NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT WDATCP

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. W100034 Printed: 05/01/19 Page 7 of 10 NLS Project: 318858 NLS Customer: 20080

Project: Marathon County Area A Private Wells April 2019

PW64 NLS ID: 1113412 Matrix: GW Collected: 04/04/19 09:05 Received: 04/04/19

	Result Units	Dilution LOD	LOQ/MCL	LOD LOQ/MCL Analyzed Method	Lab
Field color	none detected			04/04/19 NA	721026460
Field odor	none detected			04/04/19 NA	721026460
Field turbidity	none detected			04/04/19 NA	721026460
VOCs (water) by GC/MS	see attached			04/12/19 SW846 8260C	721026460
	المنافعين من المنافع المنافعين منافعات المنافعات المنافعات المنافعات منافعات منافقات من المنافع منافعات المنافع	train aista as II ta a	fuerd "ecitor:	i adt at latta an andtacta at	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples.

LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

NA = Not Applicable

Reviewed by:

Authorized by: R. T. Krueger President

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754 Client:

Marathon County Area A Private Wells April 2019 Project:

PW88 NLS ID: 1113413 Matrix: GW

Collected: 04/04/19 08:52 Received: 04/04/19

Dilution LOD LOQ/MCL Analyzed Method Lab	04/04/19 NA 721026460	04/04/19 NA 721026460	04/04/19 NA 721026460	04/12/19 SW846 8260C 721026460	
LOQ/MCL					
LOD					
Dilution	-				
	none detected	none detected	none detected	see attached	
Parameter	Field color	Field odor	Field turbidity	VOCs (water) by GC/MS	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

LOD = Limit of Detection ND = Not Detected (< LOD) DWB = Dry Weight Basis

LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L

Shaded results indicate >MCL

NA = Not Applicable

4 Reviewed by:

Authorized by: R. T. Krueger President

ANALYTICAL REPORT

Page 8 of 10 WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 318858 20080 NLS Customer: NLS Project: Printed: 05/01/19

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered Authorized by: R. T. Krueger WDATCP Laboratory Certification No. 105-330 Page 9 of 10 721026460 721026460 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. WI00034 318858 20080 Fax: 715 446 2906 Phone: 715 446 3339 721026460 72102646(Lab NLS Customer: NLS Project: Printed: 05/01/19 to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content. 04/04/19 NA 04/04/19 NA 04/12/19 SW846 8260C Analyzed Method 04/04/19 NA 4 LOQ/MCL Reviewed by: LOD NA = Not Applicable Dilution ANALYTICAL REPORT Units LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L none detected none detected none detected see attached Result Marathon County Area A Private Wells April 2019 DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 MCL = Maximum Contaminant Levels for Drinking Water Samples. Marathon County Solid Waste Mgmnt Dept LOD = Limit of Detection Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Collected: 04/04/19 07:10 Received: 04/04/19 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC. Marathon County Landfill R18500 East Highway 29 Attn: Dave Hagenbucher Ringle, WI 54471 9754 PW48 NLS ID: 1113414 ND = Not Detected (< LOD) VOCs (water) by GC/MS Field turbidity Project: Matrix: GW Parameter Field color Client: ield odo

President

Shaded results indicate >MCL.

R18500 East Highway 29 Ringle, WI 54471 9754 Project: Marathon County Area A Private Wells April 2019 Trib Blank NLS ID: 1113415 Matrix: TB Collected: 04/04/19 00:00 Received: 04/04/19
Docult
Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered
ith an asterisk(*) are considered LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L Shaded results indicate >MCL.
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Current: Januarity Anno County Solid Waste Montin, Martinon County Solid Waste Montin, Martinon County Solid Waste Montin, Martinon County Ana Annotace (1900) Januarity Ana Annotace (1900) Project Description: Martinon County Ana Annotace (1900) Template: SAT3APP3 Template: SAT3APP3 Ana Virte Virtigitie Project Description: Martinon Martinon Martinon Ana Virte Virtigitie Project Description: Martinon Martinon Martinon Ana Virte Virtigitie Project Description: Martinon Martinon Martinon Ana Virte Virtigitie Project Description: Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon Martinon M	Customer: Marathon County Solid Waste Mg Project Description: Marathon County Area Project Title: April 2019	ALS Proje	318858 inted: 05/01/20					
P3 Printed: 05/01/2013 03:51 SULT UNTS DIL LOD LOQ MCL SULT UNTS DIL LOD LOQ MCL SULT UNTS DIL LOD LOQ MCL Under 1 0.19 0.06 5 80 UD UgL 1 0.19 0.66 80 UD UgL 1 0.19 0.66 50 100 UD UgL 1 0.19 0.66 60 80 80 UD UgL 1 0.11 0.12 0.66 60 80 80 UD UgL 1 0.12 0.17 0.17 100 100 101	Project Title: April 2019		10110120 . Detai					
SULT UNTS DIL LOD LOO MCL 301 ug/L 1 0.19 0.00 MCL 10 ug/L 1 0.19 0.00 MCL 10 ug/L 1 0.19 0.69 5 10 ug/L 1 0.19 0.69 5 10 ug/L 1 0.19 0.69 5 10 ug/L 1 0.19 0.66 5 10 ug/L 1 0.17 0.61 80 10 ug/L 1 0.17 0.61 70 10 ug/L 1 0.17 0.61 70 10 ug/L 1 0.17 0.71 70 10 </th <th></th> <th>3APP3</th> <th></th> <th>19 03:51</th> <th></th> <th></th> <th></th> <th></th>		3APP3		19 03:51				
RESULT UNTS DIL LOD DO DO MO NO UGL 1 0.0 UGL 1 0.0 MO NO UGL 1 1 0.0 0.0 MO MO NO UGL 1 1 0.19 0.09 MO	Sample: 1113406 PW25 Collected: 04/04/19 Analyzed	1: 04/12/19 - Analytes: 43						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ANALYTE NAME	RESULT	UNITS	DIL	гор	LOQ	MCL	Note
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Benzene	QN	ng/L	-	0.19	0.69	5	-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Bromodichloromethane	Q !	ug/L		0.19	0.68	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Bromoform		ug/L		0.16	0.56	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Bromometnane		ng/L		0.10	0.66	. ת	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Carbon Letrachoride		ug/L 110/l	, 	0.19	0.56	100	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Chlornethane	GN	10/1		15	5.4	222	
ND ug/L 1 0.19 0.68 0 ND ug/L 1 0.21 0.73 0.61 80 ND ug/L 1 0.22 0.76 600 0.43 80 ND ug/L 1 0.22 0.76 500 75 600 76 75 75 75 75 75 75 75 75 75 75 75 75 75 75 75 75 76 <td< td=""><td>Chloroform</td><td>QN</td><td>ng/L</td><td></td><td>0.17</td><td>0.60</td><td>80</td><td></td></td<>	Chloroform	QN	ng/L		0.17	0.60	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Chloromethane	DN	ug/L	1	0.19	0.68		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Dibromochloromethane	QN	ng/L	٦	0.17	0.61	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Dibromo-3-Chloropropane	QN	ng/L	-	0.21	0.73		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Dibromoethane	ON	ug/L	-	0.12	0.43		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Dibromomethane	9	ng/L	-	0.21	0.73		
ND ug/L 1 0.20 0.72 75 ND ug/L 1 0.14 0.49 75 ND ug/L 1 0.14 0.49 5 ND ug/L 1 0.16 0.67 7 ND ug/L 1 0.16 0.65 5 ND ug/L 1 0.16 0.65 5 ND ug/L 1 0.16 0.65 5 ND ug/L 1 0.17 0.66 100 ND	1,2-Dichlorobenzene	QN	ng/L	L .	0.22	0.76	600	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,3-Dichlorobenzene	QN	ng/L		0.20	0.72	ł	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,4-Dichlorobenzene	ON .	ug/L		0.21	0.76	¢/	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Dichlorodifiuoromethane		ng/L	-	0.14	0.49		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1, 1-Dicnioroetnane		ug/L	- -	0.10	0.04	P	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1, 2-Dichloroethane		ug/L	-	0.18	0.03	0 4	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1, I-DIGITIOLOGUTELTE	CIN CIN	10/J	- +-	810	0.67	- 02	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	trans-1,2-Dichloroethene		ug/L		0.15	0.51	100	
ND ug/L 1 0.19 0.68 ND ug/L 1 0.51 70 ND ug/L 1 0.20 0.70 5 ND ug/L 1 0.29 1.0 5 ND ug/L 1 0.29 1.0 5 ND ug/L 1 0.16 0.56 100 ND ug/L 1 0.17 0.56 100 ND ug/L 1 0.17 0.56 100 ND ug/L 1 0.17 0.56 5 ND ug/L 1	1.2-Dichloropropane	QN	uq/L	+	0.24	0.84	5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	cis-1,3-Dichloropropene	QN	ug/L	1	0.19	0.68		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	trans-1, 3-Dichloropropene	DN	ug/L	-	0.14	0.51		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Ethylbenzene	ΟN	ng/L	~	0.30	1.1	700	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Methylene chloride	QN	ug/L		0.20	0.70	5	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Naphthalene	QN	ug/L	-	0.29	1.0		
ND ug/L 1 0.16 0.36 5 ND ug/L 1 0.17 0.68 5 ND ug/L 1 0.17 0.68 5 ND ug/L 1 0.17 0.61 2000 ND ug/L 1 0.17 0.61 2000 ND ug/L 1 0.17 0.61 2000 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.65 5 ND ug/L 1 0.16 0.57 .2 ND ug/L 1 0.16 0.58 5 ND ug/L 1 0.16 0.58 5 ND ug/L 1 0.16 0.58 1 ND ug/L 1 0.50 1.8 1 113% <td>Styrene</td> <td>QN</td> <td>ng/L</td> <td></td> <td>0.16</td> <td>0.56</td> <td>100</td> <td></td>	Styrene	QN	ng/L		0.16	0.56	100	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ortho-Xylene	QN	ug/L		0.16	0.56	. L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Tetrachloroethene	ON .	ng/L		0.17	0.58	۹ ۲000	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Toluene		ug/L		0.13	0.00	000	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,1,1-1 richloroethane		ug/L		0.17	0.60	200	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			ug/L	- -	0.24	0.84	א יג	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Trichlorouterie Trichloroftionomethane		110/l		0.17	0.60	>	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Vinvi chloride	QN	ua/L		0.16	0.57	1	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	meta para-Xvlene	QN	ug/L	1	0.32	1.1	10000	
ND ug/L 1 4.2 12 ND ug/L 1 0.16 0.58 ND ug/L 1 0.050 1.8 ND ug/L 1 0.97 3.5 113% 1 1 0.97 3.5 10% 1 1 1	MTBE	QN	ng/L	-	0.22	0.76		
ND ug/L 1 0.16 0.58 ND ug/L 1 0.05 1.8 ND ug/L 1 0.97 3.5 113% 1 1 0.97 3.5 110% 1 1 0.97 3.5	Acetone	QN	ug/L	1	4.2	12		
ND ug/L 1 0.50 1.8 ND ug/L 1 0.97 3.5 113% 1 0.97 3.5 110% 1	Carbon Disulfide	QN	ng/L	-	0.16	0.58		
ND ug/L 1 0.97 3.5 113% 113% 1 110% 1 2040	Methyl Ethyl Ketone	QN	ug/L	~	0.50	1.8		
113% 1 110% - 1 - 210%	Tetrahydrofuran	QN	ug/L	-	0.97	3.5		
110%	Dibromofluoromethane (SURR)	113%		-,				У C
	Toluene-d8 (SURR)	110%		,				v c
104% 1	1-Bromo-4-Fluorobenzene (SURR)	104%		1				n

S = This compound is a surrogate used to evaluate the quality control of a method.

	10, 0, 10							Γ
ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3)	(VarSat3)						Page 2 of 7	
Customer: Marathon County Solid Waste Mgmnt Dept Project Description Marathon County Area A Private Well	NLS Proj Vells	ect: 318858						
Project Title: April 2019	: SAT3APP3	Printed: 05/01/2019 03:51	/2019 03:4	51				
Sample: 1113407 PW68 Collected: 04/04/19 Analyzed: 04/12/19 - Analy	Analytes: 43							
ANALYTE NAME	RESULT	л	DIL	LOD	LOQ	MCL	Note	
Benzene	DN	ng/L	Ţ	0.19	0.69	5		
Bromodichloromethane	QN	ng/L	-	0.19	0.68	80		
Bromoform	QN	ng/L		0.16	0.56	80		
Bromomethane		ng/L	- 1	0.22	0.79	L		
Carbon letrachloride		ng/L		0.19	0.06	200 7		
Chlorobenzene		1/Bn	-	0.10	90°.0	001		
Chloroethane		ng/L		0.1	5.4			
Chlorotorm		ng/L		0.17	0.00	ØÜ		
Uniorometriane		ng/L 10/L		0.13	0.00	Ca		
		n9/L		0.17	0.01	00		
1, z-Dibromoethane		ug/L 110/L	- -	0.12	0.73			
Dihromomethane		ug/L 110/l		0.21	0.73			
1 2-Dichlorobenzene	Q	na/L		0.22	0.76	600		
1.3-Dichlorobenzene	QN	na/L	- 	0.20	0.72			
1.4-Dichlorobenzene	QN	ng/L	1	0.21	0.76	75		
Dichlorodifluoromethane	DN	ng/L	-	0.14	0.49	-		
1,1-Dichloroethane	QN .	ug/L	1	0.18	0.64			
1,2-Dichloroethane	Q	ng/L	£	0.19	0.69	5		
1,1-Dichloroethene	QN	ng/L	-	0.16	0.57	7		
cis-1,2-Dichloroethene	9	ng/L		0.18	0.62	02		
trans-1,2-Dichloroethene		ng/L		0.15 0.15	10.0	001		
1, z-Dicnioropropane		ug/L 		0.24	0.04	0		
cis-1, 3-Dichlopopene		ng/L ug/l	-	0.10	0.00			
trans-1, 3-Dicnioropropene		ng/L /	- -	0, 14	10.01	002	-	
		ng/L ng/l	-	0000	1.1	100		
		1/01		02.0	0.10	2		
Napilitaterie Styrene		110/L	-	0.16	0.56	160		
ortho-Xvlene	QN	na/L		0.16	0.56			•
Tetrachloroethene	[0.18]	ng/L	L	0.17	0.58	5	J	
Toluene	Q	ng/L	-	0.19	0.68	1000		
1,1,1-Trichloroethane	Q	ng/L	4	0.17	0.61	200		
1,1,2-Trichloroethane		ng/L		0.17	0.59	ى بى		
I richloroethene		ng/L		0.24	0.84	Q		
		ug/L		0.17	0.00	6		
viityi cirioride mata para-Yylane		10/1		0.32	111	10000		
MTRF		10/1	-	0.22	0.76			
Acetone	[4.5]	na/L		4.2	12		ſ	
Carbon Disulfide	QN	ng/L	-	0.16	0.58	• • •		
Methyl Ethyl Ketone	ND	ug/L	-	0.50	1.8			•
Tetrahydrofuran	QN	ng/L	1	0.97	3.5			
Dibromofluoromethane (SURR)	116%		٢					
Toluene-d8 (SURR)	112%		-				w •	
1-Bromo-4-Fluorobenzene (SURR)	106%		-				s	•
NOTES APPLICABLE TO THIS ANALYSIS:	:							
J = Result enclosed in brackets is between LOD and LOQ. a region of less certain guantitation.	ss certain quantita	ation.						

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation. S = This compound is a surrogate used to evaluate the quality control of a method.

Iption:: Marathon County Area A Private Wells. Template: SAT3AP3 Printed: 05/01/2019 03:51 April 2019 Template: SAT3AP3 Printed: 05/01/2019 03:51 Pyrns Collected: 04/04/191 Analyzed: 04/1719. Analyzed: 04/1719. Analyzed: 04/1719. Analyzed: 04/17 Dit LOD E Pyrns Collected: 04/04/191 Analyzed: 04/1719. Analyzed: 04/17 Dit LOD E Pyrns Collected: 04/04/191 Analyzed: 04/1719. Analyzed: 04/17 Dit LOD E Pyrns No Unit Dit LOD ettame NO Up/L T Dit Dit oride NO Up/L T Dit Dit oride NO Up/L T Dit Dit oride NO Up/L T Dit Dit Dit oride NO Up/L T Dit Dit Dit Dit oride NO Up/L T Dit Dit Dit Dit oride NO Up/L NO U	Project Description: Marathon County A Project Title: April 2019		4 FOI BO -1 7	010 N3-51			
s.43 s.43 DIL DIL CO 1 ND ug/L 1 0.19 1 0.19 0.19 ND ug/L 1 0.19 1 0.19 0.19 ND ug/L 1 0.19 0.11 0.19 0.11 ND ug/L 1 0.11 0.117 0.117 0.117 ND ug/L 1 0.12 0.117 0.17 0.17 ND ug/L 1 0.17 0.17 0.17 0.17 ND ug/L 1 0.17 0.17 0.17 0.17 ND ug/L 1 0.12 0.17 0.17 0.17 ND ug/L 1 0.16 0.16 0.16 0.16 ND ug/L 1 0.16 0.16 0.16 0.16 ND ug/L 1 0.16 0.16 0.16		3APP3	rintea: uo/u//	2010 2010			
RESULT UNTS DL LOD H and ND ug/L 1 0.16 0.16 and ND ug/L 1 0.16 0.17 and ND ug/L 1 0.16 0.17 and ND ug/L 1 0.17 0.17 and ND ug/L 1 0.16 0.16 and	Sample: 1113408 PW18 Collected: 04/04/19 Ana	lyzed: 04/12/19 - Analytes: 43					
Bile ND ug/L 1 0.19 e ND ug/L 1 0.19 repropertie ND ug/L 1 0.19 e ND ug/L 1 0.19 e ND ug/L 1 0.16 e ND	ANALYTE NAME	RESULT	UNITS	DIL	гор	LOQ	MCL Note
and ND $ug/L 1 0.19 ug/L 1 0.19 ug/L 1 0.19 ug/L 1 0.11 ug/L 1 0.19 ug/L 1 0.11 0.11 0.11 ug/L 1 0.11 0.12 0.11 ug/L 1 0.11 0.12 0.12 ug/L 1 0.12 0.12 0.12 ug/L 1 0.12 0.12 0.12 ug/L 1 0.12 0.13 0.14 ug/L 1 0.12 0.14 0.14 ug/L 1 0.12 0.14 0.14 ug/L 1 0.12 0.14 $	Benzene	- UN	ng/L	۴-	0.19	0.69	5
ND $ug/L 1 0.16 n ND ug/L 1 0.16 n ND ug/L $	Bromodichloromethane	Q	ng/L	~- ·	0.19	0.68	80 20
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Bromoform		ng/L	-	0.16	0.26	80
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Bromometnane		ug/L		0.10	0.66	ч
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		CN	ug/L		0.16	0.56	100
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Chloroethane	QN	na/L		1.5	5.4	
Min ug/L 1 0.19 ane ND ug/L 1 0.17 poropartie ND ug/L 1 0.13 partie ND ug/L 1 0.14 poropartie ND ug/L 1 0.16 poropartie ND ug/L 1 0.17	Chloroform	QN	ng/L	.	0.17	0.60	80
ane ND ug/L 1 0.17 ropropane ND ug/L 1 0.21 0 Ug/L 1 0.21 0.02 0 Ug/L 1 0.21 0.02 0 Ug/L 1 0.02 0.02 0 Ug/L 1 0.02 0.02 0 Ug/L 1 0.02 0.02 0 Ug/L 1 0.01 0.01 0 Ug/L 1 0.02 0.01 0 Ug/L 1 0.01 0.01 0 <td< td=""><td>Chloromethane</td><td>ND</td><td>ug/L</td><td>-</td><td>0.19</td><td>0.68</td><td></td></td<>	Chloromethane	ND	ug/L	-	0.19	0.68	
	Dibromochloromethane	QN	ng/L	Ł	0.17	0.61	80
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Dibromo-3-Chloropropane	Q	ng/L	~	0.21	0.73	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1, z-Ulbromoethane		ng/L	- -	0.12	0.43	
ND UgL UL 1 0.02 lane ND UgL UL 1 0.01 lane ND UgL UL 1 0.01 lane ND UgL UL 1 0.14 lane ND UgL UL 1 0.14 lane ND UgL UL 1 0.16 lane ND UgL UL 1 0.17 lane ND	Uldromometnane		ng/L		1.21	0.75	ÊN
ND $ug/L 1 0.27 Tane ND ug/L 1 0.13 Tane ND ug/L 1 0.13 Tane ND ug/L 1 0.13 Tane ND ug/L 1 0.16 Tane ND ug/L 1 0.17 Tane $	1,2-Dichloroberizerie		ng/L		0.00	0.70	000
Model Model <t< td=""><td>1,3-Dichlorobenzene</td><td></td><td>10/l</td><td></td><td>0.21</td><td>0.76</td><td>75</td></t<>	1,3-Dichlorobenzene		10/l		0.21	0.76	75
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Dichlorodifluoromethane	DN	na/L		0.14	0.49	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.1-Dichloroethane	QN	ng/L	-	0.18	0.64	
ND ug/L 1 0.16 hene ND ug/L 1 0.16 hene ND ug/L 1 0.18 hene ND ug/L 1 0.16 hene ND ug/L 1 0.16 hene ND ug/L 1 0.16 opene ND ug/L 1 0.16 ND ug/L 1 0.16 0.16 ND ug/L 1 0.16 0.16 ND ug/L 1 0.16 0.17 e ND ug/L 1 0.17 e ND ug/L 1 <t< td=""><td>1,2-Dichloroethane</td><td>DN</td><td>ng/L</td><td>~</td><td>0.19</td><td>0.69</td><td>5 5</td></t<>	1,2-Dichloroethane	DN	ng/L	~	0.19	0.69	5 5
	1,1-Dichloroethene	Ŋ	ng/L	۲	0.16	0.57	7
hene ND ug/L 1 0.15 eree ND ug/L 1 0.15 eree ND ug/L 1 0.16 eree ND ug/L 1 0.16 ND ug/L 1 0.19 0.024 Perce ND ug/L 1 0.19 ND ug/L 1 0.16 0.17 ND ug/L 1 0.16 0.17 ND ug/L 1 0.17 0.17 e ND ug/L 1 0.17 ND ug/L 1 0.17 0.17 ND ug/L 1	cis-1,2-Dichloroethene	Q	ng/L	-	0.18	0.62	70
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	trans-1,2-Dichloroethene	QN	ng/L	-	0.15	0.51	100
ene ND ugL 1 0.13 opene ND ug/L 1 0.14 ND ug/L 1 0.30 ND ug/L 1 0.30 ND ug/L 1 0.30 ND ug/L 1 0.30 ND ug/L 1 0.16 ND ug/L 1 0.17 U U 1 0.17 U U U 1 0.17 U U U 1 0.17 U U U U U 1 0.17 U U U U U U 0.17 <td>1,2-Dichloropropane</td> <td><u>UN</u></td> <td>ng/L</td> <td>-</td> <td>0.24</td> <td>0.84</td> <td>ç</td>	1,2-Dichloropropane	<u>UN</u>	ng/L	-	0.24	0.84	ç
Opene ND ug/L I 0.14 ND ug/L 1 0.30 ND ug/L 1 0.30 ND ug/L 1 0.30 ND ug/L 1 0.16 ND ug/L 1 0.16 ND ug/L 1 0.17 U ug/L	cis-1, 3-Dichloropropene		ng/L		0.19	0.00	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	trans-1,3-Dicnioropropene		ng/L IIn/I		0.30	10.0	002
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Luiyiocuzene Methvlana chlorida		10/I	-	0.20	0.70	22
ND ug/L 1 0.16 ND ug/L 1 0.16 ND ug/L 1 0.17 ND ug/L 1 0.16 ND ug/L 1 0.16 ND ug/L 1 0.24 ND ug/L 1 0.24 ND ug/L 1 0.24 ND ug/L 1 0.24 ND ug/L 1 0.22 ND ug/L 1 0.22 ND ug/L 1 0.22 ND ug/L 1 0.26	Manhhalene	DN	ua/L	~ ~	0.29	1.0	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Styrene	ND	ng/L	1	0.16	0.56	100
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ortho-Xylene	DN	ug/L	٢	0.16	0.56	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Tetrachloroethene	ON .	ng/L	Ţ	0.17	0.58	£
e ND ug/L 1 0.17 e ND ug/L 1 0.17 ne ND ug/L 1 0.17 ne ND ug/L 1 0.17 ne ND ug/L 1 0.17 ND ug/L 1 0.17 ND ug/L 1 0.16 ND ug/L 1 0.22 ND ug/L 1 0.22 ND ug/L 1 0.22 ND ug/L 1 0.16 ND ug/L 1 0.22	Toluene	QN	ng/L		0.19	0.68	1000
e ug/L 1 0.17 ND ug/L 1 0.24 ND ug/L 1 0.17 ND ug/L 1 0.16 ND ug/L 1 0.32 ND ug/L 1 0.22 ND ug/L 1 4.2 ND ug/L 1 0.22 ND ug/L 1 0.22 ND ug/L 1 0.50	1,1,1-Trichloroethane		ng/L		0.17	0.61	200
Ane ND ug/L 1 0.17 ND ug/L 1 0.16 ND ug/L 1 0.32 ND ug/L 1 0.32 ND ug/L 1 0.22 ND ug/L 1 4.2 ND ug/L 1 0.16 ND ug/L 1 0.22 ND ug/L 1 0.16 ND ug/L 1 0.16 ND ug/L 1 0.16	1,1,2-1 richloroethane		ug/L		0.24	0.84	סע
ND ug/L 1 0.16 ND ug/L 1 0.32 ND ug/L 1 0.32 ND ug/L 1 4.2 ND ug/L 1 4.2 ND ug/L 1 0.16	Trichloroftinoromethane	GN	ug/L		0.17	0.60	
ND ug/L 1 0.32 . ND ug/L 1 0.22 ND ug/L 1 4.2 ND ug/L 1 0.16 ND ug/L 1 0.16 ND ug/L 1 0.16	Vinvl chloride	ND	ng/L	1	0.16	0.57	2
	meta, para-Xylene	QN	ng/L	4	0.32	1.1	10000
ND ug/L 1 4.2 ND ug/L 1 0.16 ND ug/L 1 0.50	MTBE .	DN	ng/L	~	0.22	0.76	
ND ug/L 1 0.16 ND ug/L 1 0.50	Acetone	QN	ng/L	٢	4.2	12	
ND ug/L 1 0.50	Carbon Disulfide	QN	ng/L	-	0.16	0.58	
	Methyl Ethyl Ketone	QN	ng/L		0.50	1.8	
100 ng/L · 1 0.97	Tetrahydrofuran	ON	ng/L	. 1	0.97	3.5	
Dibromofucionethane (SURR) 119% 1	Dibromofluoromethane (SURR)	119%		~ ,			0
	I oluene-d8 (SUKK)	%201.		_			0 U
	1-Bromo-4-Fluorobenzene (SUKK)	108%		_			0
	NOTES APPLICABLE TO THIS ANALYSIS: S = This commoning is a surrorate used to evaluate the guality control of a method	e cuelity control of a method					

S = This compound is a surrogate used to evaluate the quality control of a method.

ANLTE MME RESULT UNTS DL DO DQ MO Beneration Bindrame ND U/L 1 0.19 0.00 MO Beneration Beneration ND U/L 1 0.19 0.09 MO Beneration ND U/L 1 0.19 0.09 66 Beneration ND U/L 1 0.19 0.09 66 Beneration ND U/L 1 1.15 5.4 90 Choordentane ND U/L 1 1.15 5.4 90 Choordentane ND U/L 1 1.15 5.4 90 Choordentane ND U/L 1 1.15 1.15 5.4 90 Choordentane ND U/L 1 1 1.15 1.15 1.15 1.15 Choordentane ND U/L 1 1.15 1.15 1.15 1.15 1.15	ANALYTE NAME Benzene Bromodichloromethane Bromonethane Bromomethane Carbon Tetrachloride Chlorobenzene Chlorobenzene Chlorobenzene Chloroform Chloroform Chloromethane Dibromochloromethane			Statistics of the second				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Benzene Bromodichloromethane Bromonethane Bromomethane Carbon Tetrachloride Chlorobenzene Chlorotethane Chlorotethane Chlorotethane Dibromochloromethane	SUL	NNITS	DIL	ГОД	LOQ	MCL	Note
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene Chlorobenane Chloroform Chloromethane Dibromochloromethane	QN	ng/L	-	0.19	0.69	5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Bromororm Bromomethane Carbon Tetrachloride Chlorobenzene Chlorothane Chloroform Chloromethane Dibromochloromethane	Q	ug/L	.	0.19	0.68	80	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Carbon Tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane		ng/L		0.10 0.22	0C'N	QÜ	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Chlorobenzene Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane	<u>UN</u>	- 1/0/1	-	0 19	0.66	ъ	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Chloroethane Chloroform Chloromethane Dibromochloromethane	QN	ua/L		0.16	0.56	100	-
ND ug/L 1 0.17 0.60 ane ND ug/L 1 0.17 0.61 Ane ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.61 0.63 ND ug/L 1 0.12 0.73 0.61 ND ug/L 1 0.22 0.73 0.73 ND ug/L 1 0.21 0.73 0.73 ND ug/L 1 0.20 0.74 0.73 ND ug/L 1 0.14 0.74 0.73 ND ug/L 1 0.16 0.75 0.75 ND ug/L 1 0.16 0.74 0.74 0.74 ND ug/L 1 0.16 0.74 0.74 0.74 ND ug/L 1 0.74 0.74 0.74 0.74 ND ug/L 1 0.74	Chloroform Chloromethane Dibromochloromethane	QN	ng/L	-	1.5	5.4		
All ug/L 1 0.19 0.68 ane ND ug/L 1 0.17 0.63 ND ug/L 1 0.21 0.31 0.31 ND ug/L 1 0.21 0.31 0.31 ND ug/L 1 0.21 0.31 0.31 ND ug/L 1 0.21 0.32 0.32 ND ug/L 1 0.21 0.31 0.31 ND ug/L 1 0.21 0.32 0.35 ND ug/L 1 0.21 0.36 0.35 ND ug/L 1 0.16 0.36 0.35 ND ug/L 1 0.16 0.36 0.31 ND ug/L 1 0.16 0.36 0.31 ND ug/L 1 0.16 0.36 0.31 ND ug/L 1 0.14 0.31 0.31 N	Chloromethane Dibromochloromethane	QN	ng/L	~	0.17	0.60	80	
MD ug/L 1 0.17 0.61 And Ug/L 1 0.17 0.61 ND Ug/L 1 0.12 0.73 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.22 0.76 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.21 0.75 ND Ug/L 1 0.74 0.74 ND Ug/L 1 0.71 0.76 ND Ug/L 1 0.71 0.75 ND Ug/L 1 0.71 0.76 ND Ug/L 1 0.74 0.87 ND Ug/L 1 0.74 0.86 ND Ug/L 1 0.74 0.76 ND Ug/L 1 0.74 0.70 ND Ug/L	Dibromochloromethane	QN	ng/L	~	0.19	0.68		
Anio Ug/L 1 0.21 0.73 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.22 0.73 ND Ug/L 1 0.22 0.73 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.21 0.73 ND Ug/L 1 0.16 0.75 ND Ug/L 1 0.16 0.75 ND Ug/L 1 0.16 0.57 ND Ug/L 1 0.16 0.57 ND Ug/L 1 0.16 0.57 ND Ug/L 1 0.16 0.51 ND Ug/L 1 0.16 0.51 ND Ug/L 1 0.17 0.64 ND Ug/L 1 0.14 0.56 ND Ug/L		QN	ug/L		0.17	0.61	80	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Dibromo-3-Chloropropane	Q	ng/L	~- ,	0.21	0.73		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Ulbromoethane		ng/L		71.0	0.43		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Ulpromorrietriarie 1 3 Dicklorokonzono		ug/F		0.20	0.76	600	
ND ugh 1 0.24 0.44 ND ugh 1 0.14 0.14 0.14 ND ugh 1 0.14 0.14 0.15 ND ugh 1 0.15 0.51 0.51 ND ugh 1 1 0.14 0.15 ND ugh 1 0.14 0.56 0.51 ND ugh 1 0.14 0.56 0.51 ND ugh 1 0.14 0.56 0.71 ND ugh 1 0.14 0.56 0.71 ND ugh 1 0.14 0.56 0.56 ND <	1, Z-DIGIIIOI ODEIIZEITE		ug/L		0.20	0.70	000	
ND ug/L 1 0.14 0.49 ND ug/L 1 0.18 0.64 ND ug/L 1 0.18 0.64 ND ug/L 1 0.16 0.57 ND ug/L 1 0.14 0.51 ND ug/L 1 0.14 0.51 ND ug/L 1 0.14 0.51 ND ug/L 1 0.20 1.1 ND ug/L 1 0.26 1.1 ND ug/L 1 0.16 0.56 ND ug/L 1 0.16 0.56 ND ug/L 1 0.16 0.56 ND ug/L <td< td=""><td>1,3-Dictiloroberizerie 14-Dichlorohenzene</td><td></td><td>10/L</td><td>- </td><td>0.20</td><td>0.76</td><td>75</td><td></td></td<>	1,3-Dictiloroberizerie 14-Dichlorohenzene		10/L	-	0.20	0.76	75	
ND ug/L 1 0.18 0.64 ND ug/L 1 0.19 0.69 ND ug/L 1 0.16 0.57 ND ug/L 1 0.16 0.57 ND ug/L 1 0.16 0.57 ND ug/L 1 0.19 0.63 ND ug/L 1 0.16 0.51 ND ug/L 1 0.19 0.63 ND ug/L 1 0.19 0.68 ND ug/L 1 0.14 0.51 ND ug/L 1 0.70 0.70 ND ug/L 1 0.71 0.61 ND ug/L <	Dichlorodifluoromethane	E ON	ua/L		0.14	0.49		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,1-Dichloroethane	QN	ng/L	1	0.18	0.64		
ND ug/L 1 0.16 0.57 ND ug/L 1 0.18 0.62 ND ug/L 1 0.13 0.62 ND ug/L 1 0.13 0.62 ND ug/L 1 0.19 0.63 ND ug/L 1 0.19 0.63 ND ug/L 1 0.19 0.66 ND ug/L 1 0.14 0.16 0.65 ND ug/L 1 0.16 0.56 1.0 ND ug/L 1 0.16 0.56 1.0 ND ug/L 1 0.16 0.56 1.0 ND ug/L 1 0.17 0.57 0.58 ND ug/L 1 0.17 0.16 0.56 ND ug/L 1 0.17 0.58 0.51 ND ug/L 1 0.17 0.56 0.51	1,2-Dichloroethane	QN	ng/L	-	0.19	0.69	5	
ND ug/L 1 0.18 0.62 ND ug/L 1 0.15 0.51 ND ug/L 1 0.15 0.51 ND ug/L 1 0.19 0.68 ND ug/L 1 0.19 0.68 ND ug/L 1 0.14 0.51 ND ug/L 1 0.14 0.51 ND ug/L 1 0.30 11 ND ug/L 1 0.29 1.0 ND ug/L 1 0.29 1.0 ND ug/L 1 0.16 0.56 ND ug/L 1 0.17 0.56 ND ug/L 1 0.17 0.61 ND ug/L	1,1-Dichloroethene	QN	ug/L	~	0.16	0.57	7	
ND ug/L 1 0.15 0.51 ND ug/L 1 0.15 0.68 ND ug/L 1 0.19 0.68 ND ug/L 1 0.19 0.68 ND ug/L 1 0.19 0.68 ND ug/L 1 0.14 0.51 ND ug/L 1 0.10 0.68 ND ug/L 1 0.20 0.70 ND ug/L 1 0.29 1.0 ND ug/L 1 0.16 0.56 ND ug/L 1 0.17 0.58 ND ug/L 1 0.17 0.61 ND ug/L <	cis-1,2-Dichloroethene	DN	ng/L	~	0.18	0.62	20	
ND ug/L 1 0.24 0.64 ND ug/L 1 0.19 0.68 ND ug/L 1 0.29 1.0 ND ug/L 1 0.29 1.0 ND ug/L 1 0.16 0.56 ND ug/L 1 0.17 0.58 ND ug/L 1 0.17 0.61	rans-1,2-Dichloroethene	QN	ng/L		0.15	0.51	100	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$, 2-Dichloropropane		ng/L	-	0.24	0.84	n	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	iis-1,3-Licrijoroproperie mae 4-3 Dicklommenne		ug/L	- -	0.13	0.51		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	alis-1,3-Diction optoperie -thvilhenzene	GN	ua/L		0.30	1.1	700	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Activities chloride	QN	na/L	1	0.20	0.70	5	
ND ug/L 1 0.16 0.56 ND ug/L 1 0.16 0.56 ND ug/L 1 0.17 0.58 ND ug/L 1 0.17 0.58 ND ug/L 1 0.17 0.68 ND ug/L 1 0.17 0.68 ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.69 ND ug/L 1 0.17 0.60	Vaphthalene	QN	ng/L	1	0.29	1.0		
ND ug/L 1 0.16 0.56 ND ug/L 1 0.17 0.58 ND ug/L 1 0.17 0.68 ND ug/L 1 0.17 0.68 ND ug/L 1 0.17 0.68 ND ug/L 1 0.17 0.69 ND ug/L 1 0.17 0.59 ND ug/L 1 0.17 0.69 ND ug/L 1 0.17 0.69 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60	styrene	QN	ug/L	Ł	0.16	0.56	100	
ND ug/L 1 0.17 0.58 ND ug/L 1 0.19 0.68 ND ug/L 1 0.17 0.68 ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.59 ND ug/L 1 0.17 0.59 ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.69 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60	ortho-Xylene	QN	ug/L	t	0.16	0.56		
ND ug/L 1 0.19 0.68 ND ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.59 ND ug/L 1 0.17 0.59 ND ug/L 1 0.17 0.64 ND ug/L 1 0.17 0.69 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60	l etrachloroethene	QN	ug/L	•	0.17	0.58	5	
NU ug/L 1 0.17 0.61 ND ug/L 1 0.17 0.59 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60 ND ug/L 1 0.17 0.60	Toluene	Q	ng/L	, ,	0.19	0.68	1000	
NU ug/L 1 0.17 0.59 ND ug/L 1 0.24 0.84 ND ug/L 1 0.17 0.60 ND ug/L 1 0.16 0.57	1,1,1-Trichloroethane	Q	ng/L		0.17	0.61	200	
ne ug/L 1 0.24 0.64 Dmethane ND ug/L 1 0.17 0.60 ND ug/L 1 0.16 0.57	1,1,2-Trichloroethane	ON C	ug/L		0.1/	6G.U	ŝ	
Dmetnane NU ug/L 1 0.17 0.00 ND ug/L 1 0.16 0.57	l richloroethene		ug/L	-	0.24	0.84	0	
	Lichlorofluoromethane		ng/L		0.1/	0.60	6	
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ne ND ua/L 1 0.50	Viethvi Ethvi Ketone	QN	na/L	1	0.50	1.8		
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	Foluene-d8 (SURR)	111%		~				S
-10	-Bromo-4-Fluorobenzene (SURR)			-				s

Customer: Marathon County Solid Waste Mgmut Dept NLS Project: 318358 Project Description: Marathon County Area A Private Wells Template: SAT3APP3 Project Title: April 2019 Template: SAT3APP3 Sample: ITIS410 PW24 Collected: 04/04/19 Analyzed: 04/02/19 Sample: Title: April 2019 Template: SAT3APP3 Project Description: Marathon County Area A Private Wells EBSULT Sample: Title40 PW24 Collected: 04/04/19 Analyzed: 04/02/19 Analyzed March Resourt UNITS Denodelonomethane ND Enconcethane ND Chiorothizente ND Disordentizente ND		LOQ MCL LOQ MCL 0.69 5 0.66 80 0.56 80 0.56 80 0.56 80 0.56 80 0.56 80 0.56 80 0.56 80 0.60 80 0.61 80 0.62 70 0.73 0.73 0.73 0.73 0.73 0.73 0.76 75 0.76 75 0.69 5 0.69 5 0.69 5 0.69 5 0.69 5 0.69 5 0.61 7 0.62 70	et et en
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S = This compound is a surrogate used to evaluate the quality control of a method.

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Project Description: Marathon County Area A Private Wells Project Title: April 2019 Template: SAT3APP3 Printed: 05 Sample: 1113411 PW17 Collected: 04/04/19 Analytes: 43 Secure Sample: 1113411 PW17 Collected: 04/04/19 Analytes: 43 Secure ND ug/L AMALYTE NAME RESULT UNTS ND ug/L ug/L Benzene ND ug/L ug/L ug/L ug/L ug/L ug/L Benzene ND ug/L ND ug/L ug/L <t< th=""><th>P3 Printed: 05/01/2019 03:51 SULT UNITS DIL ND ug/L 1 ND</th><th>2019 03:51</th><th>LOD 0.19 0.19 0.17 0.17 0.17 0.19 0.19 0.11 0.12 0.19 0.11 0.12 0.11 0.12 0.12 0.12 0.12 0.12</th><th>LOQ LOQ 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73</th><th>MCL 80 80 80 80 80 80 80 80 80 80 80 80 80</th><th></th></t<>	P3 Printed: 05/01/2019 03:51 SULT UNITS DIL ND ug/L 1 ND	2019 03:51	LOD 0.19 0.19 0.17 0.17 0.17 0.19 0.19 0.11 0.12 0.19 0.11 0.12 0.11 0.12 0.12 0.12 0.12 0.12	LOQ LOQ 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73	MCL 80 80 80 80 80 80 80 80 80 80 80 80 80	
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lene		4	0.16	0.56		
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		F	0.22	0.76		
		-	4.2	12		
Disulfide		~	0.16	0.58		
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			0.97	3.5		
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	10%					0
1-Bromo-4-Fluorobenzene (SURK)	17%	-				0

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S = This compound is a surrogate used to evaluate the quality control of a method.

Project Title: April Teathon County Solid Waste Biglimut Depti UNS Project: 31868 Project Title: April andhon County Asaka Pinneeulis Template: SAT3APP3 Prinnee: SAT3APP3 Project Title: April andhon County Asaka Pinneeulis Template: SAT3APP3 Prinnee: SAT3APP3 Project Title: April andhon County Asaka Pinneeulis Template: SAT3APP3 Prinneeulis April Title: April Title: April 2019 Template: SAT3APP3 Prinneeulis April Title: April 2019 Template: SAT3APP3 Prinneeulis Prinneeulis April Title: Template: SAT3APP3 Template: SAT3APP3 Prinneeulis Prinneeulis	LS Project: 318363 SAP3 Printed: 05/01/2019 03:51 s.4 SAP3 Printed: 05/01/2019 03:51 s.4 RESULT UNTS DIL LOD LOG MCL ND ug/L 1 0.19 066 6 ND ug/L 1 0.17 0.66 80 ND ug/L 1 0.17 0.67 70 ND ug/L 1 0.19 0.66 100 ND ug/L 1 0.10 0.67 70 ND ug/L 1 0.10 0.67 70 ND ug/L 1 0.10 0.66 100 ND ug/L 1 0.10 0.60 100 ND	ANALYTICAL RESULTS: VOC's by P&T/G	CMS - Water - (VarSat3)					Page 7 of 7	7 of 7
Result Units Dit LOD LOD MCL ND ugit 1 0.19 0.68 5 5 ND ugit 1 0.19 0.68 80 0 ND ugit 1 0.17 0.69 80 0 ND ugit 1 0.17 0.69 60 0 ND ugit 1 0.12 0.73 60 0 0 ND ugit 1 0.11 0.12 0.73 60 0 0 0 0 0 0 0 0 0 0 0 0 0	Statut Units Dit LOD LOD MCL ND ugt 1 0.19 0.68 6 ND ugt 1 0.11 0.73 6 ND ugt 1 0.12 0.73 6 ND ugt 1 0.11 0.73 7 ND ugt 1 0.14 0.73 7 ND ugt 1 0.14 0.73 7 ND ugt 1 0.14 0.74 7 ND ugt <th>Customer: Marathon County Solid Waste Project Description: Marathon County Ar Project Title: April 2019</th> <th>Mgmnt Dept NLS Proje ea A Private Wells Temulate: SAT3APP3</th> <th>sct: 318858 Printed: 05/01/</th> <th>2019 03-51</th> <th>·</th> <th></th> <th></th> <th></th>	Customer: Marathon County Solid Waste Project Description: Marathon County Ar Project Title: April 2019	Mgmnt Dept NLS Proje ea A Private Wells Temulate: SAT3APP3	sct: 318858 Printed: 05/01/	2019 03-51	·			
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	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1.2-Dichlorobenzene	ND	ng/L		0.22	0.76	600	-
Indication ND ug/L 1 0.21 0.76 75 Entance ND ug/L 1 0.14 0.43 5 entance ND ug/L 1 0.16 0.57 7 enter ND ug/L 1 0.16 0.57 7 enter ND ug/L 1 0.16 0.57 7 enter ND ug/L 1 0.16 0.57 70 enter ND ug/L 1 0.16 0.56 70 enter ND ug/L 1 0.16 0.56 70 enter ND ug/L 1 0.16 0.56 100 enter ND ug/L 1 0.20 0.70 5 5 Poster ND ug/L 1 0.71 0.56 5 6 Poster ND ug/L 1 0.71 0.76 0.56	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1.3-Dichlorobenzene	DN	na/L	-	0.20	0.72		-
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1.4-Dichlorobenzene	ND	ng/L	1	0.21	0.76	75	
e ND ug/L 1 0.18 0.64 5 e ND ug/L 1 0.19 0.69 5 e ND ug/L 1 0.19 0.67 7 ethene ND ug/L 1 0.19 0.66 5 Dene ND ug/L 1 0.19 0.67 7 Dene ND ug/L 1 0.19 0.67 7 Dene ND ug/L 1 0.19 0.67 7 Dene ND ug/L 1 0.19 0.66 5 Dene ND ug/L 1 0.19 0.66 5 Dene ND ug/L 1 0.10 0.66 5 Dene ND ug/L 1 0.16 0.56 100 Dene ND ug/L 1 0.17 0.66 200 Dene ND ug/L	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Dichlorodifluoromethane	DN	ng/L	1	0.14	0.49		-
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,1-Dichloroethane	- ND	ng/L	٢	0.18	0.64		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Dichloroethane	QN	ng/L	-	0.19	0.69	5	
Inter ND ug/L 1 0.18 0.62 7.0 Inter ND ug/L 1 0.18 0.62 7.0 Denne ND ug/L 1 0.19 0.61 10 Denne ND ug/L 1 0.14 0.53 5 Denne ND ug/L 1 0.14 0.53 10 Denne ND ug/L 1 0.14 0.53 10 Denne ND ug/L 1 0.16 0.56 100 Denne ND ug/L 1 0.16 0.56 100 Denne ND ug/L 1 0.16 0.56 5 Denne ND ug/L 1 0.17 0.56 5 Inter ND ug/L 1 0.17 0.56 5 5 Inter ND ug/L 1 0.17 0.56 5 5	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,1-Dichloroethene	QN	ng/L	-	0.16	0.57	7	
The field ND ug/L 1 0.15 0.51 100 Refere ND ug/L 1 0.14 0.68 5 Pore ND ug/L 1 0.14 0.61 5 Pore ND ug/L 1 0.19 0.66 5 Pore ND ug/L 1 0.16 0.56 100 Pore ND ug/L 1 0.17 0.56 100 Pore ND ug/L 1 0.17 0.56 100 Prove ND ug/L 1 0.17 0.56 5 Prove <td< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>cis-1,2-Dichloroethene</td><td>QN</td><td>ng/L</td><td>~</td><td>0.18</td><td>0.62</td><td>0/2</td><td></td></td<>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	cis-1,2-Dichloroethene	QN	ng/L	~	0.18	0.62	0/2	
ne ND ug/L 1 0.12 0.84 5 Denete ND ug/L 1 0.14 0.51 700 Denete ND ug/L 1 0.14 0.51 700 Denete ND ug/L 1 0.16 0.56 100 Denete ND ug/L 1 0.16 0.56 100 Denete ND ug/L 1 0.16 0.56 100 Denete ND ug/L 1 0.17 0.56 5 Denete ND ug/L 1 0.17 0.56 5 5 Denete ND ug/L 1 0.17 0.56 5 5 </td <td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td> <td>trans-1,2-Dichloroethene</td> <td></td> <td>ng/L</td> <td></td> <td>0.15</td> <td>0.51</td> <td>100</td> <td></td>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	trans-1,2-Dichloroethene		ng/L		0.15	0.51	100	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,2-Dichloropropane	UN	ng/L	~ ,	0.24	0.84	ŝ	
propende NU ug/L 1 U.14 U.51 a ND ug/L 1 0.20 1.0 5 b ND ug/L 1 0.20 0.70 5 ND ug/L 1 0.20 0.70 5 ND ug/L 1 0.16 0.56 100 ne ND ug/L 1 0.17 0.58 5 ne ND ug/L 1 0.17 0.58 5 ne ND ug/L 1 0.17 0.58 5 ne ND ug/L 1 0.17 0.56	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	cis-1, 3-Dichloropropene		ng/L		0.19	0.00		
ND UgL 1 0.20 0.11 0.00 ND UgL 1 0.29 0.10 0.00 0.0 0.00	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	trans-1,3-Dichloropropene		ng/L		0.14	1.C.D	2002	
ND UgL 1 0.20 0.70 0 ND UgL 1 0.16 0.56 100 ND UgL 1 0.17 0.56 100 ne ND UgL 1 0.17 0.56 5 ne ND UgL 1 0.17 0.56 5 ne ND UgL 1 0.17 0.59 5 ne ND UgL 1 0.17 0.51 200 ne ND UgL 1 0.17 0.51 200 hane ND UgL 1 0.17 0.50 5 5 na ND UgL 1 0.17 0.50 5 5 hane ND UgL 1 0.17 0.50 5 5 no ND UgL 1 0.17 0.50 5 5 no ND UgL	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Ethylbenzene		ng/L	-	0.30	1.1	100	
ND Ug/L 1 0.15 100 ND Ug/L 1 0.16 0.56 100 Ane ND Ug/L 1 0.17 0.56 5 Ane ND Ug/L 1 0.17 0.56 5 Ane ND Ug/L 1 0.17 0.59 5 Ane ND Ug/L 1 0.17 0.59 5 hane ND Ug/L 1 0.17 0.59 5 hane ND Ug/L 1 0.17 0.59 5 hane ND Ug/L 1 0.17 0.51 200 ND Ug/L 1 0.17 0.51 2 1 1 Ane ND Ug/L 1 0.17 0.51 2 1 1 Anne ND Ug/L 1 0.17 0.51 2 1 1 1 1 <	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Inernylene chloride		ug/L ug/l			2.0	0	
ND Ug/L 1 0.16 0.56 0.56 ane ND Ug/L 1 0.17 0.58 5 ane ND Ug/L 1 0.17 0.58 5 ane ND Ug/L 1 0.17 0.56 5 ane ND Ug/L 1 0.17 0.61 200 ane ND Ug/L 1 0.17 0.63 5 hane ND Ug/L 1 0.17 0.60 5 hane ND Ug/L 1 0.17 0.60 20 hane ND Ug/L 1 0.16 0.57 2 hane ND Ug/L 1 0.22 1/1 10000 no Ug/L 1 0.22 1/2 0.58 1 no Ug/L 1 0.22 1/2 1 1 no Ug/L 1 0.16 0.58 1 1 no Ug/L 1 0.22 1/2 1 1 no Ug/L 1 0.56 1 1 1 no Ug/L 1 0.50 <td< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Naprillalerie</td><td></td><td>ug/L</td><td>- </td><td>0.16</td><td>0.56</td><td>100</td><td></td></td<>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Naprillalerie		ug/L	-	0.16	0.56	100	
ND Ug/L 1 0.17 0.58 5 Ane ND Ug/L 1 0.17 0.58 5 Ane ND Ug/L 1 0.17 0.58 5 Ane ND Ug/L 1 0.17 0.59 5 Ane ND Ug/L 1 0.17 0.59 5 Ane ND Ug/L 1 0.17 0.59 5 hane ND Ug/L 1 0.17 0.50 5 hane ND Ug/L 1 0.17 0.50 5 hane ND Ug/L 1 0.17 0.50 5 ND Ug/L 1 0.16 0.57 2 0 I ND Ug/L 1 0.16 0.58 1 0 I ND Ug/L 1 0.16 0.58 1 0 I Ug/L 1 0.50 1.8 1 0.50 1.8 1 1 I	ND ug/L 1 0.17 0.58 5 ND ug/L 1 0.17 0.58 5 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.64 5 ND ug/L 1 0.17 0.64 5 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.17 0.61 200 ND ug/L 1 0.22 0.76 210 ND ug/L 1 0.20 1.16 2.53 2.11 10000 ND ug/L 1 0.22 0.76 2.12 2.12 2.12 2.12 2.12 2.12 2.12 2.16 2.16 2.12	Otho-Xvlane		101		0.16	0.56		
ND ug/L 1 0.19 0.68 1000 ane ND ug/L 1 0.17 0.61 200 ane ND ug/L 1 0.17 0.59 5 ane ND ug/L 1 0.17 0.59 5 hane ND ug/L 1 0.17 0.60 200 hane ND ug/L 1 0.17 0.59 5 hane ND ug/L 1 0.17 0.60 200 hane ND ug/L 1 0.17 0.60 2 2 name ND ug/L 1 0.16 0.58 1 1 name (SURR) ND ug/L 1 0.16 0.58 1<	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Tetrachloroethene	DN	ng/L	-	0.17	0.58	5	
ane ND ug/L 1 0.17 0.61 200 ane ND ug/L 1 0.17 0.63 5 ane ND ug/L 1 0.17 0.63 5 hane ND ug/L 1 0.17 0.66 5 hane ND ug/L 1 0.17 0.67 5 hane ND ug/L 1 0.17 0.67 2 hane ND ug/L 1 0.16 0.57 2 hane ND ug/L 1 0.22 0.76 7 hane ND ug/L 1 0.22 0.76 7 7 hane ND ug/L 1 0.76 12 1 10000 hane 0.050 1.8 0.76 0.76 0.76 1 1 hane 0.07 0.16 0.50 1.8 1 1 <t< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Toluene</td><td>ND</td><td>ng/L</td><td>1</td><td>0.19</td><td>0.68</td><td>1000</td><td></td></t<>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Toluene	ND	ng/L	1	0.19	0.68	1000	
Ane ND ug/L 1 0.17 0.59 5 hane ND ug/L 1 0.17 0.69 5 hane ND ug/L 1 0.17 0.60 2 hane ND ug/L 1 0.17 0.60 2 ND ug/L 1 0.16 0.57 .2 ND ug/L 1 0.22 0.76 1 ND ug/L 1 4.2 12 J e ND ug/L 1 0.50 18 hane (SURR) ND ug/L 1 0.50 1.8 hane (SURR) 105% 1 1 0.97 3.5	ND ug/L 1 0.17 0.59 5 ND ug/L 1 0.17 0.69 5 ND ug/L 1 0.17 0.60 5 ND ug/L 1 0.17 0.60 2 ND ug/L 1 0.17 0.60 2 ND ug/L 1 0.16 0.51 2 ND ug/L 1 0.22 0.51 2 ND ug/L 1 0.22 0.76 1 1000 ND ug/L 1 0.20 1.8 1.8 1.8 1.18 1.8 1.18 <	1,1,1-Trichloroethane	DN	ng/L	-	0.17	0.61	200	
hane ND ug/L 1 0.24 0.84 5 hane ND ug/L 1 0.17 0.60 2 2 ND ug/L 1 0.17 0.60 2 2 ND ug/L 1 0.32 1.1 10000 ND ug/L 1 0.22 0.76 3 ND ug/L 1 4.2 12 3 ND ug/L 1 0.50 1.8 3 hane (SURR) ND ug/L 1 0.97 3.5 5 hane (SURR) 105% 1 1 0.97 3.5 5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,1,2-Trichloroethane	QN	ng/L	~	0.17	0.59	വ	
hane ND Ug/L 1 0.17 0.00 ND Ug/L 1 0.16 0.57 2 ND Ug/L 1 0.32 1.1 10000 ND Ug/L 1 0.22 0.76 J ND Ug/L 1 4.2 12 J ND Ug/L 1 0.16 0.58 ND Ug/L 1 0.50 1.8 hane (SURR) 116% 1 0.97 3.5 Anzene (SURR) 106% 1 1 0.97 3.5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Trichloroethene	QN	ng/L	, ,	0.24	0.84	5	
ND Ug/L 1 U.10 U.27 2 ND Ug/L 1 0.32 1.1 10000 ND Ug/L 1 0.22 0.76 0.36 ND Ug/L 1 0.22 0.76 ND Ug/L 1 0.56 1.8 ND Ug/L 1 0.50 1.8 hane (SURR) 116% 1 0.97 3.5 Sonzene (SURR) 105% 1 1 0.97 3.5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	I richlorofluoromethane		ug/L	_	0.17	0.00	ç	
ND UGL UG/L 1 0.32 0.76 0.00 0.76 ND Ug/L 1 0.22 0.76 ND Ug/L 1 4.2 12 ND Ug/L 1 0.50 1.8 hane (SURR) ND Ug/L 1 0.50 1.8 Anne (SURR) 116% 1 0.97 3.5 5 Sonzene (SURR) 106% 1 1 0.97 5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			ug/L a/l		0.10	10.0	10000	
ND ug/L 1 4.22 10 ND ug/L 1 4.2 10 ND ug/L 1 0.16 0.58 ND ug/L 1 0.50 1.8 16% 0.97 3.5 5 116% 1 0.97 3.5 23 105% 1 10	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	meta,para-Ayiene		ug/L		0.02	0.76	10000	
ND ug/L 1 0.16 0.58 ND ug/L 1 0.16 0.58 ND ug/L 1 0.50 1.8 116% 1 1 0.97 3.5 116% 1 1 0.97 3.5 105% 1 1 0.97 3.5	ND ug/L 1 0.16 0.58 ND ug/L 1 0.50 1.8 ND ug/L 1 0.50 1.8 116% 1 0.97 3.5 105% 1 5 106% 1 8	MIDE Acctono		- 1/01		4 2	12		GM
ND ug/L 1 0.50 1.8 ND ug/L 1 0.97 3.5 116% 1 0.97 3.5 105% 1 10.97 3.5 RN 106% 1 10.97 3.5	ND ug/L 1 0.50 1.8 ND ug/L 1 0.97 3.5 116% 1 105% 1 106% 1	Carbon Disulfide	DN	ua/L		0.16	0.58		
ND ug/L 1 0.97 3.5 116% 1 116% 1 105% 1 R) 106% 1	ND ug/L 1 0.97 3.5 116% 1 1 105% 1 106% 1	Methyl Ethyl Ketone	DN	ng/L	1	0.50	1.8		
116% 1 105% 1 3R) 106%	116% 1 105% 1 106% 1	Tetrahydrofuran	QN	ng/L	-	0.97	3.5		
105% 1 RN 106% 1	105% 1 106% 1	Dibromofluoromethane (SURR)	116%		~			S	
106% 1	106% 1	Toluene-d8 (SURR)	105%		~ -			S	
	NOTES APPLICABLE TO THIS ANALYSIS:	1-Bromo-4-Fluorobenzene (SURR)	106%		~			S	

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.
 S = This compound is a surrogate used to evaluate the quality control of a method.
 MD = Matrix spike and matrix spike duplicate relative percent difference exceeded QC limits.

Customer: Waratinon County Solid Waste Wgmit Uept NLS Project: 318835 Project Titl: April 2001/2019 03:53 Project Titl: April 2001/2019 03:53 Sample: Titl: April 2001/2019 03:53 Sample: Titl: April 2001/2019 03:53 ANALYTE NAME RESULT UNITS DIL Berzene ND ug/L 1 Berzene ND ug/L 1 Berzene ND ug/L 1 Berzene ND ug/L 1 Berzene ND ug/L 1 Chlorobethane ND ug/L 1 Chlorobe	Cf:: 318858 rinted: 05/01/2019 03:5 UNITS DIL ug/L 1 ug/L	33 LOD 0.27 0.27 0.23 0.23 0.23 0.22 0.22 0.22 0.22 0.22	LOQ 0.24 0.73 0.75 0	MCL 80 80 80 80 80 80 75 75 75	Note
Ates: 43 RESULT UNTS ND ug/L ND ug/L		LOD LOD 0.27 0.27 0.27 0.27 0.27 0.23 0.16 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.21 0.27 0.	LOQ 100 0.04 0.04 0.04 0.05 0.06 0.73 0.77 0.78 0.77 0.	MCL 80 80 80 80 80 75 75 75 80 80 80 80 80 80 80 80 80 80	Note
RESULT UNTS ND ug/L ND ug/L		LOD 0.27 0.27 0.27 0.26 0.16 0.25 0.25 0.25 0.22 0.22 0.22 0.22 0.22	LOQ 0.84 0.94 0.96 0.73 0.78 0.78 0.78 0.78 0.78 0.73 0.78 0.78 0.73 0.78 0.73 0.78 0.73 0.78 0.73 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	MCL 5 80 80 80 80 80 80 600 75 75	Note
	1 1/6n	0.24 0.27 0.27 0.27 0.26 0.23 0.22 0.23 0.23 0.21 0.22 0.19 0.17 0.22	0.84 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.755 0.73 0.73 0.73 0.73 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.73	5 80 80 80 600 75 75	8
	1 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n 1/6n	0.27 0.27 0.27 0.25 0.22 0.23 0.16 0.23 0.27 0.27 0.19 0.17	0.94 0.73 0.73 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	80 80 80 75 60 80 80 80 80 80 80 80 80 80 80 80 80 80	8
	1 1/6n 1 1 1/6n 1 1 1 1/6n 1 1 1/6n 1 1 1/6n 1 1/6n 1 1/6n 1 1/6n 1 1/6n 1 1/6n 1 1/6n 1 1/6n 1 1/6n 1 1/6n	0.21 0.27 0.25 0.25 0.22 0.23 0.23 0.22 0.27 0.27 0.19 0.19	0.73 0.73 0.55 0.55 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	80 80 600 80 75	8
	лови 1 Лови	0.27 0.16 0.23 0.22 0.23 0.18 0.23 0.22 0.17 0.22 0.19 0.19	0.55 0.55 0.73 0.78 0.78 0.73 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	5 100 80 600 600	3
	- 100 100 100 110 110 110 110 110	0.10 0.25 0.22 0.22 0.16 0.22 0.27 0.27 0.19 0.19	0.73 0.78 0.77 0.78 0.77 0.77 0.78 0.77 0.78	80 80 75 600 80 80 80 80 80 80 80 80 80 80 80 80 8	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.22 0.22 0.22 0.16 0.23 0.27 0.27 0.17 0.19 0.19	3.3 0.78 0.78 0.78 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73	80 600 75	
	1 1/60 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/	0.22 0.16 0.18 0.23 0.23 0.27 0.27 0.19 0.19	0.78 0.78 0.78 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73	80 80 600 75	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.22 0.16 0.18 0.23 0.22 0.27 0.17 0.19 0.19	0.78 0.56 0.78 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73	80 600 75	
Deane Deane N N N N N N N N N N N N N N N N N N N	1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.16 0.18 0.23 0.22 0.27 0.17 0.19 0.19	0.56 0.63 0.78 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73	80 600 75	
	ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 1/gu	0.18 0.23 0.22 0.21 0.17 0.19 0.19	0.63 0.78 0.73 0.73 0.73 0.73 0.73 0.78 0.78 0.78 0.67	600 75	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.23 0.22 0.21 0.27 0.17 0.19 0.19	0.81 0.73 0.73 0.70 0.58 0.67	600 75	
	ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1	0.22 0.21 0.27 0.17 0.19 0.22	0.78 0.73 0.95 0.58 0.67 0.78	600 75	
	ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1	0.20 0.27 0.17 0.19 0.22	0.70 0.70 0.58 0.58 0.78	75	
	ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1	0.17 0.17 0.19 0.22	0.58 0.58 0.78 0.78	75	
	ug/L 1 ug/L 1 ug/L 1 ug/L 1 ug/L 1	0.17 0.19 0.22	0.58 0.67 0.78		
	ug/L 1 ug/L 1 ug/L 1 ug/L 1	0.19 0.22	0.67 0.78		
	ug/L 1 ug/L 1 ug/L 1	0.22	0.78		
	ug/L 1 ug/L 1			5	
	ug/L 1	0.20	0.69	7	
	-	0.24	0.84	20	
	ug/L 1	0.17	0.60	100	
	ug/L - 1	0.28	0.90	ß	
	ug/L 1 1/0/1 1	0.40	0.69		-
ND ND ND ND ND ND	10/1 1	010	0.00	200	
ON ON ON	ua/E	0.24	0.84	5	-
ND	ua/L 1	0.43	1.5		
DN	ug/L 1	0.19	0.66	100	
	ug/L 1	0.19	0.66		
vroethene	ug/L 1	0.22	0.78	5	
QN	ug/L 1	0.21	0.74	1000	
		0.20	0.60	Z00	
		0.30	11	0 40	
ethane ND		0.20	0.71	>	
QN	ug/L 1	0.17	0.60	.2	
lene ND	ug/L 1	0.37	1.3	10000	
QN	ug/L 1	0.21	0.73		
	ug/L 1	4.2	12		
QN	ng/L 1	0.17	0.59		
one	ug/L 1	0.50			
	ng/L I	QC.U	Z-U		J
ane (SURR)					00
					00
	-				2

S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Bromomethane recovery 74%

e: April 2019 414 PW48 Collected: 04/04/19 Analyzed: ME omethane te chloride	APP3	Printed: 05/01/2019 03:53	19 03:53				
ANALYTE NAME Benzene Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene	04/12/19 - Analytes: 43						
Benzene Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene		UNITS	DIL	гор	LOQ	MCL	Note
Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene	QN	ug/L	F	0.24	0.84	S	
Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene	Q	ug/L	-	0.27	0.94	80	
Bromomethane Carbon Tetrachloride Chlorobenzene	Q	ug/L		0.21	0.73	80	
Carbon letrachloride Chlorobenzene		ug/L		0.27	0.96	Ľ	
Chioropenzene		ug/L		0.16	0.07	007 007	
		ug/L		0.03	2.2	nn	
Chloroform		ug/L tid/l		0.22	0.78	80	
Chloromethane	QN	ua/L		0.22	0.78	2	
Dibromochloromethane	QN	ng/L		0.16	0.56	80	
1,2-Dibromo-3-Chloropropane	QN	ng/L	-	0.18	0.63		
1,2-Dibromoethane	ND	ng/L		0.23	0.81		
Dibromomethane	DN	ug/L	-	0.22	0.78		
1,2-Dichlorobenzene	QN	ng/L	۲-	0.21	0.73	600	
1,3-Dichlorobenzene	QN	ug/L	-	0.20	0.70		
1,4-Dichlorobenzene	QN	ng/L	, ,	0.27	0.95	75	
Dichlorodifluoromethane	ON .	ug/L		0.1/	0.58		
1,1-Dichloroethane		ng/L	-	0.19	0.07		
1,2-Dichloroethane		ug/L	-	0.22	0./8	10	
1,1-Dichloroethene		ng/L	- -	02.0	0.03	/	
cis-i,z-Uicnioroetnene		ng/L	-	0.17	0.60	100	
1 2-Dichloronronana	CN	13/2	-	0.28	0.98	2	
cis-1 3-Dichloropropene	QN	ng/L	-	0.26	0.91		
trans-1.3-Dichloropropene	QN	ng/L	1	0.19	0.69		
Ethylbenzene	QN	ug/L	÷	0.19	0.69	700	
Methylene chloride	QN	ug/L	~ -	0.24	0.84	5	
Naphthalene	QN	ug/L	-	0.43	1.5		
Styrene	QN	ug/L		0.19	0.66	100	
ortho-Xylene	QN	ng/L		0.19	0.66		
Tetrachloroethene	UN .	ug/L		0.22	0./8	0007	
Toluene		ng/L		1.7.0	0.74	000	
1,1,1-1-Incnioroetnane		ug/L		0.20	0.00	202	
1, 1, Z-1 HIGHOU OPTHARE		ug/L		0.32	11	27.0	
Trichloroftinoromethane	Q	ua/L		0.20	0.71		
Vinvl chloride	QN	ug/L	-	0.17	0.60	.2	
meta.para-Xvlene	QN	ng/L	-	0.37	1.3	10000	
MTBE	QN	ng/L	1	0.21	0.73		
Acetone	QN	ug/L	-	4.2	12		
Carbon Disulfide	QN	ug/L	+	0.17	0.59		
Methyl Ethyl Ketone	QN	ug/L	~	0.57	2.0		
Tetrahydrofuran	Q	ug/L		0.58	2.0		c
Dibromofluoromethane (SURR)	101%	• .					۵ م
Toluene-d8 (SURR)	113%		-				00
1-Bromo-4-Fluorobenzene (SUKK)	100%		_				0

S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Bromomethane recovery 74%

thon County Area A Private Wells Tamplate: STATAP3 Printed: 05(01/2019.03:53 Tamplate: STATAP3 Printed: 05(01/2019.03:53 RESULT UNTS PIL LOD LOQ MCL ND UgL 1 0.27 0.38 00 ND UGL 1 0.27 0.39 00 ND UGL 1 0.27 0.38 00 ND UGL 1 0.27 0.38 00 ND UGL 1 0.			>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					•
A3 A4 A4 SULT UNTS DIL LOD LO MCL SULT UNTS DIL LOD LO MCL OU ug/L 1 0.24 0.84 5 OU ug/L 1 0.24 0.84 5 OU ug/L 1 0.27 0.93 33 30 OU ug/L 1 0.23 0.87 60 96 OU ug/L 1 0.23 0.87 90 90 UNIS UNIS 1 0.22 0.97 90 90 UO ug/L 1 0.23 0.87 90 90 UO ug/L 1	Project Description: Marathon County Area A Privat Project Title: April 2019	APP3	nted: 05/01/2	019 03:53				
ME RESULT UNTS DL DO DO DO MC moltane ND ugl 1 0.24	Sample: 1113415 11rip Blank Collected: 04/04/19 Analyzed: 04/1	5. T						
Intellitation ND Ug/L 1 0.24 0.34 5 Chilotolation ND Ug/L 1 0.27 0.34 5 Chilotolation ND Ug/L 1 0.27 0.34 5 Chilotolation ND Ug/L 1 0.27 0.34 50 Chilotolation ND Ug/L 1 0.27 0.35 50 Chilotolation ND Ug/L 1 0.27 0.35 50 Chilotolation ND Ug/L 1 0.27 0.35 50 Chilotopanie ND Ug/L 1 0.27 0.35 50 Chilotopanie ND Ug/L 1 0.27 0.35 50 Enterie ND Ug/L 1 0.27 0.35 50 Enterie ND Ug/L 1 0.27 0.35 50 Enterie ND Ug/L 1 0.27 0.37 <td>ANALYTE NAME</td> <td>RESULT</td> <td>UNITS</td> <td>DIL</td> <td>ГОР</td> <td>ГОД</td> <td>MCL</td> <td>Note</td>	ANALYTE NAME	RESULT	UNITS	DIL	ГОР	ГОД	MCL	Note
	Benzene	QN	ng/L	-	0.24	0.84	5	
interface ND ug/l 1 0.21 0.23 0.3 0 e ND ug/l 1 0.22 0.33 0 e ND ug/l 1 0.22 0.33 0 enertiane ND ug/l 1 0.27 0.33 0 enertiane ND ug/l 1 0.27 0.33 75 enertiane ND ug/l 1 0.27 0.33 75 enertiane ND ug/l 1 0.27 0.33 70 enertiane ND ug/l 1 0.27 0.33 75 <	Bromodichloromethane	QN	ng/L	۲	0.27	0.94	80	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Bromoform	Q	ug/L	~-	0.21	0.73	80	
minorde ND ug/L 1 0.16 0.15 0	Bromomethane	QN	ng/L		0.27	0.96		ပ္ပ
e ND ugl 1 0.25 100 e ND ugl 1 0.25 0.57 00 Chilopopare ND ugl 1 0.22 0.75 00 Chilopopare ND ugl 1 0.22 0.76 00 Barene ND ugl 1 0.22 0.76 00 Barene ND ugl 1 0.22 0.76 75 Barene ND ugl 1 0.21 0.70 75 75 Barene ND ugl 1 0.21 0.70 75 75 Barene ND ugl 1 0.23 0.70 75 75 </td <td>Carbon Tetrachloride</td> <td>ON .</td> <td>ng/L</td> <td></td> <td>0.16</td> <td>0.55</td> <td>5</td> <td></td>	Carbon Tetrachloride	ON .	ng/L		0.16	0.55	5	
ender Interfane ND ugl ugl brittine 1 0.33 0.75 80 0.75 Actinopropriate Actinopropriate ND ugl ugl brittine 1 0.22 0.78 80 Actinopropriate Actinopropriate ND ugl ugl brittine 1 0.22 0.78 80 Actinopropriate ND ugl ugl brittine 1 0.22 0.78 7 Actinopropriate ND ugl ugl brittine 1 0.22 0.78 7 Actinopropriate ND ugl brittine 1 0.22 0.76 7 7 Actinopropriate ND ugl brittine 1 0.22 0.76 0.76 7 7 7 7 7 7 7	Chlorobenzene	(IN)	ng/L		0.25	0.87	100	
Tele ND Ugl 1 0.22 0.78 80 Enfortene ND Ugl 1 0.22 0.78 80 Enfortene ND Ugl 1 0.22 0.78 80 Enfortene ND Ugl 1 0.22 0.78 80 Entene ND Ugl 1 0.27 0.56 50 Entene ND Ugl 1 0.27 0.56 75 Entene ND Ugl 1 0.27 0.56 75 Entene ND Ugl 1 0.27 0.56 70 Entene ND Ugl 1 0.24 1.5 70 Entene	Chloroethane	QN	ug/L	-	0.93	3.3		
The contract ND UgL 1 0.22 0.78 60 Schloperopane ND UgL 1 0.12 0.78 60 Schloperopane ND UgL 1 0.22 0.73 600 Schloperopane ND UgL 1 0.22 0.73 600 Schloperopane ND UgL 1 0.22 0.73 600 Scene ND UgL 1 0.22 0.73 600 Scene ND UgL 1 0.22 0.75 67 Scene ND UgL 1 0.26 0.75 67 67	Chloroform	Q	ng/L		0.22	0.78	80	
Monethate ND ugl. 1 0.16 0.66 80 Chlopenogate ND ugl. 1 0.16 0.65 80 thate thate ND ugl. 1 0.23 0.61 75 entene ND ugl. 1 0.22 0.73 600 entene ND ugl. 1 0.17 0.65 7 contrethere ND ugl. 1 0.17 0.65 7 contrethere ND ugl. 1 0.17 0.65 7 controparte ND ugl. 1 0.22 0.63 70 controparte ND ugl. 1 0.24 0.74	Chloromethane	QN	ug/L		0.22	0.78		
Chlocorocane ND ugl 1 0.13 0.63 tane ND ugl 1 0.22 0.63 tane ND ugl 1 0.22 0.63 ncene ND ugl 1 0.22 0.63 ncene ND ugl 1 0.27 0.55 7 ncene ND ugl 1 0.23 0.66 7 ncene ND ugl 1 0.24 0.83 7 ncene ND ugl 1 0.23 0.66 7 ncene ND ugl 1 0.24 0.83 7 ncene ND ugl 1 0.24 0.83	Dibromochloromethane	QN	ug/L	• -	0.16	0.56	80	
Instruction NU Ug/L 1 U.2.3 U.8 Instrate ND Ug/L 1 0.27 0.59 75 Instrate ND Ug/L 1 0.27 0.55 75 Instrate ND Ug/L 1 0.27 0.55 75 Instruct ND Ug/L 1 0.27 0.56 70 Instruct ND Ug/L 1 0.26 0.69 70 Instructure ND Ug/L 1 0.26 0.69 70 Instructure ND Ug/L 1 0.24 0.69 70 Instructure ND Ug/L 1 0.24 1.5 70	1,2-Dibromo-3-Chloropropane	ON .	ug/L	, ,	0.18	0.63		
Rate NU UgL 1 0.22 0.73 600 enzere ND UgL 1 0.22 0.73 60 fance ND UgL 1 0.22 0.73 60 fance ND UgL 1 0.22 0.73 67 fance ND UgL 1 0.22 0.73 70 forestere ND UgL 1 0.26 0.70 0.70 forestere ND UgL 1 0.26 0.71 0.74 10 forestere ND UgL 1 0.72 0.74 1.5 0 forestere ND UgL 1 0.74 0.74 0 </td <td>1, Z-Dibromoetnane</td> <td></td> <td>ug/L</td> <td></td> <td>0.23</td> <td>0.01</td> <td></td> <td></td>	1, Z-Dibromoetnane		ug/L		0.23	0.01		
Enzene ND Ug/L 1 0.21 0.73 000 enzene ND Ug/L 1 0.21 0.73 055 75 enzene ND Ug/L 1 0.22 0.73 55 75 hane ND Ug/L 1 0.22 0.73 5 75 hane ND Ug/L 1 0.22 0.56 7 5 hane ND Ug/L 1 0.22 0.56 70 5 hane ND Ug/L 1 0.23 0.56 70 5 hane ND Ug/L 1 0.24 0.56 70 5 contropene ND Ug/L 1 0.19 0.56 70 5 5 contropene ND Ug/L 1 0.16 0.56 70 5 5 5 5 5 5 5 5 5 5	Dibromomethane		ng/L		77.0	0.78		
$ \begin{array}{c} \mbox{transform} transform$	1, 2-UICNIOTOBENZENE	DN S	ng/L	_	1.2.0	0.73	nna	
$ \begin{array}{c} \mbox{transform} transform$	1,3-Ulchlorobenzene		ug/L		0.20	0.70	LÌ	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	1,4-Dichlorobenzene		ng/L	-	0.27	0.95	¢/	
Interfere ND ug/L 1 0.12 0.03 5 thene ND ug/L 1 0.22 0.73 5 thene ND ug/L 1 0.22 0.73 5 thene ND ug/L 1 0.23 0.66 70 thene ND ug/L 1 0.26 0.93 5 constrate ND ug/L 1 0.26 0.93 5 constrate ND ug/L 1 0.24 0.83 5 constrate ND ug/L 1 0.23 0.66 70 constrate ND ug/L 1 0.24 5 6 constrate ND ug/L 1 0.24 5 6 constrate ND ug/L 1 0.24 15 6 constrate ND ug/L 1 0.24 0.24 15 tet			ng/L ≁/'	-	/1.0	0.00		
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	1, I-Dichloroetnane		ng/L 12/1		0.13	0.07	4	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	1, Z-Dicnioroetnane		ug/L /		77.0	0.70	0 1	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			ug/L 		0.20	60.0	\ \	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	CIS-1, Z-DICRIOTOECTERE		ug/L		0.44	0.04	0/1	
$\begin{array}{c} \label{eq:constraints} \mbox{Update} & \mbox{ND} & \mbox{ug/L} & 1 & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{Update} & \mbox{ND} & \mbox{ug/L} & \mbox{Update} & \\mbox{Update} & \Up$	ualis-1,2-Dicilioideurerie 4.0 Dichloromenene		ug/L		0.08	800	2 4	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,2-Dictition optioparte dis 13 Dichloropropene		- 101 101		0.26	-00 -0.00) .	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	us-1, J-Durino properte trans 13. Dichtaranana		- 101		0.40	0.00		
orde ND ug/L 1 0.24 0.84 5 ND ug/L 1 0.19 0.66 100 ND ug/L 1 0.19 0.66 100 ethane ND ug/L 1 0.29 0.66 100 ethane ND ug/L 1 0.21 0.74 1000 ethane ND ug/L 1 0.22 0.78 5 ethane ND ug/L 1 0.22 0.74 1000 ethane ND ug/L 1 0.22 0.74 1000 ethane ND ug/L 1 0.20 0.69 5 onethane ND ug/L 1 0.20 0.69 5 ethane ND ug/L 1 0.20 0.69 5 ethane ND ug/L 1 0.71 0.73 1 1 3 10000	ualis-1, s-divino properte Ethvihanzana		1011		0.10	0.69	200	
Oute ND UgL 1 0.43 1.5 0.6 ne ND UgL 1 0.19 0.66 100 ne ND UgL 1 0.19 0.66 100 ne ND UgL 1 0.22 0.73 5 ne ND UgL 1 0.20 0.78 5 nethane ND UgL 1 0.20 0.78 5 nethane ND UgL 1 0.20 0.74 5 nethane ND UgL 1 0.20 0.71 5 methane ND UgL 1 0.20 0.71 5 methane ND UgL 1 0.27 0.73 1000 etee ND UgL 1 0.21 0.73 13 1000 fee ND UgL 1 0.77 13 1000 1 <t< td=""><td>Lutyiverizerie Mathulana aklarida</td><td></td><td>1/Sh</td><td></td><td>0.24</td><td>0.00</td><td><u>о</u>г</td><td></td></t<>	Lutyiverizerie Mathulana aklarida		1/Sh		0.24	0.00	<u>о</u> г	
ND ug/L 1 0.73 100 0.66 100 rele ND ug/L 1 0.19 0.66 100 rele ND ug/L 1 0.12 0.78 5 relation ND ug/L 1 0.20 0.66 200 bethane ND ug/L 1 0.20 0.69 50 onthane ND ug/L 1 0.20 0.69 50 methane ND ug/L 1 0.20 0.60 200 methane ND ug/L 1 0.20 0.71 5 onethane ND ug/L 1 0.20 0.71 5 onethane ND ug/L 1 0.27 0.60 2.0 fea ND ug/L 1 0.77 0.60 2.0 fea ND ug/L 1 0.77 0.73 1.3 1.000		QN	10/1		1470	5 u	>	
Tene ND ug/L 1 0.19 0.66 ND Detrate ND ug/L 1 0.22 0.78 5 Detrate ND ug/L 1 0.22 0.78 5 Detrate ND ug/L 1 0.20 0.69 500 Detrate ND ug/L 1 0.22 0.74 1000 Detrate ND ug/L 1 0.22 0.74 1000 Detrate ND ug/L 1 0.22 0.74 1000 Detrate ND ug/L 1 0.22 0.71 5 Detrate ND ug/L 1 0.37 1.3 10000 Detrate ND ug/L 1 0.37 1.3 10000 Etone ND ug/L 1 0.37 1.3 10000 Etone ND ug/L 1 0.37 1.3 10000	Napitulacie Strene		-1/8n		0 19	0.66	100	
Tene ND Ug/L 1 0.22 0.78 5 Dethane ND Ug/L 1 0.21 0.74 1000 Dethane ND Ug/L 1 0.20 0.69 5 Dethane ND Ug/L 1 0.20 0.69 5 Dethane ND Ug/L 1 0.20 0.69 5 Dethane ND Ug/L 1 0.20 0.71 5 Dethane ND Ug/L 1 0.77 1.3 10000 Dete ND Ug/L 1 0.77 0.60 2 Conce ND Ug/L 1 0.77 1.3 10000 Dete ND Ug/L 1 0.77 1.3 10000 Dete ND Ug/L 1 0.77 1.3 10000 Dete ND Ug/L 1 0.77 1.3 10000 Dete </td <td>Otylette ortho-Yvlane</td> <td></td> <td>10/L</td> <td>- </td> <td>010</td> <td>0.00</td> <td>2</td> <td></td>	Otylette ortho-Yvlane		10/L	-	010	0.00	2	
ND Ug/L 1 0.24 0.17 0.10 Dethane ND Ug/L 1 0.20 0.69 500 Dethane ND Ug/L 1 0.20 0.69 500 Dethane ND Ug/L 1 0.20 0.69 5 Dethane ND Ug/L 1 0.20 0.71 5 Dethane ND Ug/L 1 0.20 0.71 5 Dethane ND Ug/L 1 0.20 0.71 5 Dethane ND Ug/L 1 0.21 0.71 5 Dethane ND Ug/L 1 0.27 0.73 1 10000 Etone ND Ug/L 1 0.21 0.71 0.59 7 Detene ND Ug/L 1 0.21 0.73 1 1 0.07 0 0 1 1 0 0 1	Dialor/Microsthene		1/01	-	0.22	0.78	Ľ	
Sethane ND ug/L 1 0.20 0.69 200 Dethane ND ug/L 1 0.20 0.69 5 Dethane ND ug/L 1 0.20 0.69 5 Dethane ND ug/L 1 0.20 0.69 5 Dethane ND ug/L 1 0.20 0.71 5 Dethane ND ug/L 1 0.20 0.71 5 Dethane ND ug/L 1 0.27 1.3 10000 Eve ND ug/L 1 0.21 0.73 12 Dethe ND ug/L 1 4.2 12 12 Cone ND ug/L 1 0.57 0.73 12 Dethe ND ug/L 1 0.57 2.0 13 Ide ND ug/L 1 0.57 2.0 13 Inflanc	Tedadiiloloeuleile Tolitene		10/1		0.21	0.74	1000	
Definition ND ug/L 1 0.20 0.00 5 effante ND ug/L 1 0.22 1.1 5 nethane ND ug/L 1 0.22 1.1 5 methane ND ug/L 1 0.27 0.71 5 methane ND ug/L 1 0.17 0.60 .2 ene ND ug/L 1 0.17 0.60 .2 ene ND ug/L 1 0.17 0.60 .2 ene ND ug/L 1 0.73 1.3 10000 ide ND ug/L 1 4.2 1.2 0.73 ide ND ug/L 1 0.59 2.0 0.73 inthane (SURR) ND ug/L 1 0.57 2.0 0.73 inthane (SURR) 105% 1 0.58 2.0 0.73 0.73	1 1 1 - Trichlornethane		1/01		0.20	0.69	200	
Defension ND ug/L 1 0.32 1.1 5 Inethane ND ug/L 1 0.37 1.1 5 Inethane ND ug/L 1 0.37 1.1 5 Inethane ND ug/L 1 0.37 1.3 10000 Inethane ND ug/L 1 0.37 1.3 10000 Inethane ND ug/L 1 0.37 1.3 10000 Inethane ND ug/L 1 0.73 1.2 0.73 Inethane ND ug/L 1 0.77 0.59 1.2 Inethane (SURR) ND ug/L 1 0.57 2.0 1.3 Inethane (SURR) 105% 1 0.58 2.0 1.3 1.0000	1, 1, 1-1 Includeduale		110/1		0.20	0.69	2014	
Interfane ND ug/L 1 0.20 0.71 2 interfane ND ug/L 1 0.17 0.60 .2 iene ND ug/L 1 0.17 0.60 .2 iene ND ug/L 1 0.77 1.3 10000 iene ND ug/L 1 0.73 1.3 10000 ide ND ug/L 1 0.71 0.73 10000 ide ND ug/L 1 0.77 0.59 12 interfane (SURR) ND ug/L 1 0.57 2.0 0.59 iURR) 105% 1 0.58 2.0 0.59 1 1	Trichloroathana		110/J	•	0.32	11) LC.	
ND ug/L 1 0.17 0.60 .2 ene ND ug/L 1 0.37 1.3 10000 ide ND ug/L 1 0.21 0.73 10000 ide ND ug/L 1 4.2 12 ide ND ug/L 1 0.17 0.59 inchane ND ug/L 1 0.57 2.0 inchane ND ug/L 1 0.57 2.0 inchane ND ug/L 1 0.58 2.0 inchane 105% 1 1 0.58 2.0 inchane 113% 1 1 1 1	Trichlorofluoromethane	CN	na/L		0.20	0.71		
ene ND ug/L 1 0.37 1.3 10000 ND ug/L 1 0.21 0.73 12 ND ug/L 1 4.2 12 ND ug/L 1 0.17 0.59 etone ND ug/L 1 0.57 2.0 an ND ug/L 1 0.57 2.0 methane (SURR) 105% 1 1 0.58 2.0 URR) 113% 1 1 1 1	Vinvl chloride	QN	ua/L		0.17	0.60	2	
ND ug/L 1 0.21 0.73 ND ug/L 1 4.2 12 ND ug/L 1 4.2 29 ND ug/L 1 0.17 0.59 ND ug/L 1 0.57 2.0 105% 1 1 0.58 2.0 113% 1 1 1	meta nara-Xviene	QN	na/L		0.37	1.3	10000	
ND ug/L 1 4.2 12 ND ug/L 1 0.17 0.59 ND ug/L 1 0.57 2.0 105% 1 0.58 2.0 113% 1 1 0.58 2.0	MTRF	QN	na/L	-	0.21	0.73		
ND ug/L 1 0.17 0.59 ND ug/L 1 0.57 2.0 ND ug/L 1 0.58 2.0 105% 1 0.58 2.0 113% 1 0.58 2.0	Acetone	DN	ua/L	~	4.2	12		
ND ug/L 1 0.57 2.0 ND ug/L 1 0.58 2.0 105% 1 1 0.58 2.0 113% 1	Carbon Disulfide	DN	ng/L	~	0.17	0.59		
ND ug/L 1 0.58 2.0 105% 1 1 113% 1	Methyl Ethyl Ketone	ND	ng/L	-	0.57	2.0		
105% 1 113% 1	Tetrahydrofuran	QN	ng/L	1	0.58	2.0		
113% 1	Dibromofluoromethane (SURR)	105%		-				S
	Toluene-d8 (SURR)	113%		4	•			S
104% 1	1-Bromo-4-Fiuorobenzene (SURR)	104%		↽				S

S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Bromomethane recovery 74%

NLS Private Well Sampling Form and Chain Of Custody (951053)

SITE: Marathon Co. Solid Waste Management Dept. / Area A – Private Wells

1A					·			
NLS Lab #:	Point Name / Hon	neowner: PW25	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (quant,text,color):
1113-406	Levand	loski, Mike Incan Road, Hatley	353	5 min	CLEAR	NO	لالم	
Date Sampled:	Time Sampled:	Sample Location:	L					Treated (Y/N)
4.4.19	0835	FAUCE	T NO.	RTH SIDE	of House	<u> </u>		
Comments:		<u> </u>						
		•		• .				· .
	•		•					
Softener - no Colle	ct from - outside fau	icet, north side of house						

NLS Lab #:	Point Name / Hon	neowner: PW68	DNR ID #: 361	Time Purged:	Color:	Odor:	Turbidity (quant,text,color):
401	Andras	Andraschko, Anthony R221630 Duncan Road, Hatley		SMIN	CLEAR	ND	ND	
Date Sampled:	Time Sampled:	Sample Location:		· _				Treated (Y/N)
4:4-19	0808	Ne	ort out	SIDE FAUCE	Ξ τ ·			N
Comments: NEC								
		••				•		
Softener - yes but no	t in use Collect fro	om – kitchen sink or Nortl	h outside faucet	t				

NLS Lab #:	Point Name / Hon Falkow	neowner: PW18 /ski, Janet	DNR ID #: 350	Time Purged:	Color:	Odor:	Turbidity (q いつ	uant,text,color):
408		ican Road, Hatley		5 MIN	CLEAR			
Date Sampled:	Time Sampled:	Sample Location:						Treated (Y/N)
4.4.19	0824	EAST	OUT	SIDE FAU	CET BALL	87 MOUS	s/=	ν ν
Comments:		L						
Softener-no Col	lect from - kitchen s	ink or outside back faucet	·					

NLS Lab #:	Point Name / Hor	neowner: PW19	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (q	juant,text,color):
409	Jozwiak-	Jozwiak-Popp, Rose R221561 Duncan Road, Hatley		5 mini	CLEAR.	ND.	NQ	
Date Sampled:	Time Sampled:	Sample Location: .	<u></u>	les di				Treated (Y/N)
4.4-19	0752	DUT SIDE	FAUCE	T ACROSS	DRIVEWAY	' <u>.</u>		N.
Comments:	L							
Softerer – Yes. Collect from – outside faucet across driveway from house (not softened – should be on year round)								
Rev 3/19					Sec rev	verse side for sample o	ustody informati	011

NLS Private Well Sampling Form and Chain Of Custody (pg 2 of 3)

SITE: Marathon Co. Solid Waste Management Dept. / Area A - Private Wells

2A			Additional includes an order of the localization		· · · · · · · · · · · · · · · · · · ·			
NLS Lab #:	Point Name / Hon	neowner: PW24	DNR ID #:					ant,text,color):
410		c, Mark Incan Road, Hatley	352 SMIN CLEAR NO				NL	>
Date Sampled:	Time Sampled:	Sample Location:		,				Treated (Y/N)
4.4.19	0844	FRONT OT	HOUSE	OLIT SIC	TE FAUCET	· ·		N
Comments:		Andreas and an and an and an						
•		•			•			
		• •		•	•			
Softener-no Colle	ct from – front outsi	ide faucet (4/21/10 – owne	er said front fau	cet now works and is	s closer to the well)			

NLS Lab #:	Point Name / Hor	Point Name / Homeowner: PW17		Time Purged:	Color:	Odor:	Turbidity (quant, text, color):
411	Liebe, Neal R174825 Willow Lane, Hatley		028 5 Min - 2		CLEAR:	NID	ND
Date Sampled:	Time Sampled:	Sample Location:	,			•	Treated (Y/N)
4.4.19	0918	FRONT C	of Hous	E EAST SIG	0 <i>6</i> By	DRINIE WAL	
Comments:							
Softener-no Colle	et from – East side o	of house near driveway					

NLS Lab #: 4/2	Sheehan, Carol		DNR ID #: 359	Time Purged:	Color: CIRAR	Odor: ND	Turbidity (qu N (
Date Sampled: 4.4.19	Time Sampled:			DELAC S	, Čenero			Treated (Y/N)
7. 7. 19 Comments:								
Softener – yes Colle	Softener – yes Collect from – faucet in basement before softener							

NLS Lab,#:	Point Name / Hor	neowner:	PW88	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (quant, text, color):
4/3		Zogata, Aaron R222036 Duncan Road, Hatley Time Sampled: Sample Location:		365	5 min	ND	ND	NO
Date Sampled:	Time Sampled:	Sample L	ocation:		_	A . 1		Treated (Y/N)
4.4.19	0852		OUTSI	DE FA	UCET FROM	AT at Ho	USE	N
Comments:								
Softener—yes Coll								
Rev 3/19	Rev 3/19 See reverse side for sample custody information						verse side for sample c	ustody information

NLS Private Well Sampling Form and Chain Of Custody (pg 3 of 3)

SITE: Marathon Co. Solid Waste Management Dept. / Area A - Private Wells

ЗA								
NLS Lab #: /	Point Name / Hor	ncowner: PW48	: PW48 DNR ID #: Time Purged: Color: Odor:		Turbidity (quant, text, color):			
414		i Co. Hwy Dept. incan Road, Hatley	356	5 Min	CLEAR	ND	NO	7
Date Sampled:	Time Sampled:	Sample Location:						Treated (Y/N)
4.4.19	0710	BA	TH ROOM	LOCKER	Room 5.	INK		\sim
Comments:								
		•			•			
Softener - No. Collec	ct from – bathroom/	locker room sink		u . , um				

Х

NLS Lab #:	Point Name / Hom	cowner:	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (qu	ant,text,color):
415	Trip Blank		999	N/A	N/A	N/A	1	N/A
Date Sampled:	Time Sampled:	me Sampled: Sample Location:		<u> </u>				Treated (Y/N)
	N/A			N/A				N/A
Comments:								
							•	
								L.

NLS Lab #:	Point Name / Hom	Point Name / Homeowner:		Time Purged:	Color:	Odor:	Turbidity (qu	ant,text,color):
Date Sampled:	Time Sampled:	Sample Location:						Treated (Y/N)
Comments:		l						
				•	•			
·····								

NLS Lab #:	Point Name / Hor	ncowner:	DNR ID #:	Time Purged:	Color:	Odor:	Turbidity (qui	ant,text,color):
Date Sampled:	Time Sampled:	Sample Location:						Treated (Y/N)
Comments:								
Rev 3/19					See rev	erse side for sample c	ustody information	



Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

Dec 6, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill: License No. 2892 Area A

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of October 2019. An exceedance table has been attached for the Area A landfill and can be found on the following page.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Megan Ballweg, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

		Marathon Cour	nty Solid Waste: Area A	A Groundwate	r Monitori	ng Wells			
	Area A	Facility #2892	Exceedances						
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments
333080	October 14 & 15	Dup 101519	Tetrachloroethylene	ug/L	0.63	0.50	5.00		NR140,10
333080	October 14 & 15	Dup 101519	Trichloroethylene	ug/L	7.20	0.50	5.00		NR140.10
333080	October 14 & 15	Dup 101519	Vinyl Chloride	ug/L	0,50	0.02	0.20		NR140.10
333080	October 14 & 15	R13R	Tetrachloroethylene	ug/L	0.74	0.50	5.00		NR140.10
333080	October 14 & 15	R13R	Trichloroethylene	ug/L	7.20	0.50	5.00		NR140.10
333080	October 14 & 15	R13R	Vinyl Chloride	ug/L	0.49	0.02	0.20		NR140.10
333080	October 14 & 15	R38	Tetrachloroethylene	ug/L	0.88	0.50	5.00		NR140.10
333080	October 14 & 15	R38	Trichloroethylene	ug/L	1.30	0.50	5.00		NR140.10
333080	October 14 & 15	R47	Trichloroethylene	ug/L	0.63	0.50	5.00		NR140.10
333080	October 14 & 15	R50P	Tetrachloroethylene	ug/L	0.57	0.50	5.00		NR140.10
333080	October 14 & 15	R35	Conductivity	umho@25C	770.00	510.00			well

Area A Groundwater Well Exceedance Table October 2019

The Area A exceedances that were detected during the October 2019 sampling event are consistent with the exceedances that were detected in previous sampling events.

Groundwater contamination was detected southeast of Area A during the late 1980s. By May of 1993, Marathon County completed a groundwater quality investigation and submitted a report to WDNR titled "Marathon County, Area A Landfill – Environmental Contamination Assessment (ECA) report". The ECA report suggested that contaminants may have been released to the environment from one or more of the leachate collection basins and other source locations. Consequently, several improvements were made and both leachate collection basins were removed in 1995. The identified groundwater contaminants of primary concern at this facility are VOCs, specifically the chlorinated aliphatic hydrocarbons (CAHs) and vinyl chloride. Since the remedial work from 1993 to 1996, significant reductions of CAH concentration have been measured near the suspected source zone.

It is the opinion of Marathon County that the exceedances are related to the leachate basins that were removed in 1995. The overall general concentrations reported at wells within the core of the plume are stable to decreasing. Marathon County will continue to monitor these wells for exceedances as required, and report any anomalies to the WDNR. Marathon County has installed groundwater monitoring wells along State Highway 29, just southeast of the site. If these particular wells begin showing signs of contamination, the County has a contingency plan in place and will respond to protect residents.

2

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- * Prepare one form for each license or monitoring ID.
- * Please type or print legibly.

 Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.

- * Attach a notification of any gas values that attain or exceed explosive gas levels.
- * Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

S. Same

Monitoring Data Submittal Information		an 2.27 million 2.27 million	行的自然的政治的法律的问题
Name of entity submitting data (laboratory, consultant, f Northern Lake Service, Inc.	acility owner):		and the second s
Contact for questions about data formatting. Include da	ta preparer's name, telephone nu	mber and E-mail addre	ss:
Name: Chris Geske	Phone: 715-4		
E-mail: lims@nlslab.com			
Facility Name	License No. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 200
Marathon County Landfill - Area A	02892	737054890	OCTOBER -14-2019 through OCTOBER -16-2019
Some Area A wells are linked to BRRDF site (Lic. 04228) but reported here.	-3 5/m		a the second
The enclosed results are for sampling required in the m OCTOBER -2019	onth(s) of: (e.g., June 2003)		i de -
Type of Data Submitted (Check all that apply) Groundwater monitoring data from monitoring wells Groundwater monitoring data from private water su Leachate monitoring data		itoring data oring data pecify)	
 No. No groundwater standards or explosive gas limits were exceeded Yes, a notification of values exceeding a groundwater standard is all groundwater standard and preliminary analysis of the cause and s Yes, a notification of values exceeding an explosive gas limit is attacted at the explosive gas limits. 	ached. It includes a list of monitoring points ionificance of any concentration.		
Certification		· 人名马利曼 马达特别的第三	\mathbf{n}_{i}
To the best of my knowledge, the information report are true and correct. Furthermore, I have attached of groundwater standards or explosive gas levels, and concentrations exceeding groundwater standards.	complete notification of any sa	mpling values meeting	g or exceeding of
David Hagenbucher	Operations M	lancger	715 551 5864
Facility Representative Name (Print)	Title 12 /06 /19	0 (/	Area Code) Telephone No.
Signature	Date		
FOR DNR USE ONLY: Check action take Found uploading problems on Notified contact of problems on EDD format(s): Diskette CD (initi	Initials Uploade	itials. Describe on bad ed data successfully o E∃mail (follow-up only	n

Marathon County Solid Waste Mgmnt Dept Marathon County Landfill - Area A 10-01-2019

Lab ID: 721026460 NLS Project: 333080 Collected: 10-01-2019 License: 02892 FID: 737054890

EXCEEDANCES:

well		510	770	umho@25C	Conductivity	R35 (050)
NR140.10	ຽ	.5	0.57	ug/L	Tetrachloroethylene	R50P (068)
NR140.10	5	.5	0.63	ug/L	Trichloroethylene	R47 (062)
NR140.10	ŋ	.5	1.3	ug/L	Trichloroethylene	R38 (053)
NR140.10	Сл	.5	0.88	ug/L	Tetrachloroethylene	R38 (053)
NR140.10	'n	.02	0.49	ug/L	Vinyl Chloride	R13R (074)
NR140.10	5	.5	7.2	ug/L	Trichloroethylene	R13R (074)
NR140.10	ъ	.5	0.74	ug/L	Tetrachloroethylene	R13R (074)
NR140.10	'n	.02	0.50	ug/L	Vinyl Chloride	Dup-101519 (074)
NR140.10	თ	.5	7.2	ng/L :-	Trichloroethylene	Dup-101519 (074)
NR140.10	5	.5	0.63	ug/L	Tetrachloroethylene	Dup-101519 (074)
Comments	ES	PAL/ACL	Result	Units	Parameter	Well Desc (Point ID)

Notes: site = site assigned PAL/ES : well = well assigned PAL/ES : NR140.10 = NR140 Public Health PAL/ES : NR140.12 = NR140 Public Welfare PAL/ES



Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line

715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

Dec 6, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill, License No. 3338 Area B.

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of October 2019. An exceedance table has been attached for the Area B landfill and can be found on the following page.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Megan Ballweg, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

Area B Groundwater Well Exceedance Table October 2019

		Marathon Cou	nty Solid Waste: Are	a B Groundw	ater Monitori	ng Wells			
	Area B	Facility #3338	Exceedances						C M Non Concernant of Concernant Property
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments
332917	October 14 & 15	Dup 10151901	Nitrate+Nitrite	mg/L	2.10	2,00	10.00		NR140.10
332917	October 14 & 15	R27	Nitrate+Nitrite	mg/L	4.80	2.00	10.00		NR140.10
332917	October 14 & 16	R45	Nitrate+Nitrite	mg/L	2.10	2,00	10.00		NR140.11

The Area B Nitrate/Nitrite levels at wells R45 and R27 can be a result of improper farming practices. Throughout the past few years, Area B has had ongoing vegetation management to establish growth on slopes. Seed, fertilizer, and mulch have all been applied in an effort to control erosion. Well R45 has indicated a slight decrease in concentration since the previous sampling event in April 2019. R27 has indicated a slight increase since sampling in October of 2018. Significant precipitation and historic rainfalls also contributed to erosion around Area B, and may be a contributing factor to these exceedances. The wells will continue to be monitored closely to ensure that levels decrease. In an effort to ensure that levels decrease, Marathon County will evaluate their erosion control methods in addition to continued observation of well R45 and well R27. Current site plans include the installation of a final cap on the Area B landfill within the next few years; this will also control erosion and potential runoff issues at the wells around the landfill.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- * Please type or print legibly.

 Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.

- Attach a notification of any gas values that attain or exceed explosive gas levels.
- * Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact WA/5

GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information		· · · · · · · · · · · · · · · · · · ·	
Name of entity submitting data (laboratory, consultant, fa	acility owner):		1 1 1 1 2 1 C
Northern Lake Service, Inc.	e konstant og sta		
Contact for questions about data formatting. Include data			'ess:
Name: Chris Geske	Phone: 715-4	78-2777	
E-mail: lims@nlslab.com	11 1	6	A MARINE I
Facility Name	License No. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003
Marathon County Landfill - Area B	03338	737092730	OCTOBER -14-2019
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The enclosed results are for sampling required in the mo	onth(s) of: (e.g., June 2003)		ta wasan awaya
OCTOBER -2019			 a. So P.R. and P. P. 10.
Type of Data Submitted (Check all that apply)			
Groundwater monitoring data from monitoring wells		itoring data	τ
Groundwater monitoring data from private water sup		oring data	(**** 8 ***) (***
Leachate monitoring data	Other (sp	ecify)	
Notification attached?	6		4
No. No groundwater standards or explosive gas limits were exceeded.			· · · ·
Yes, a notification of values exceeding a groundwater standard is alta	ched. It includes a list of monitoring point	s, dates, sample values,	
Yes, a notification of values exceeding a groundwater standard is and groundwater standard and preliminary analysis of the cause and sig Yes, a notification of values exceeding an explosive gas limit is attach	gnificance of any concentration.		
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To the best of my knowledge, the information reported	ed and statements made on th	is data submittal and	l attachements
are true and correct. Furthermore, I have attached co	omplete notification of any sa	mpling values meetin	ig or exceeding
groundwater standards or explosive gas levels, and a	a preliminary analysis of the o	ause and significant	of
concentrations exceeding groundwater standards.	1		and the second second
David Hagenbucher	Manager	7	155515864
Facility Representative Name (Print)	Title		(Area Code) Telephone No.
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Marathon County Solid Waste Mgmnt Dept Marathon County Landfill - Area B 10-01-2019

Lab ID: 721026460 NLS Project: 332917 Collected: 10-01-2019 License: 03338 FID: 737092730

EXCEEDANCES:

NR140.10	10	2	2.1	mg/L	Nitrate+Nitrite, dis.	R45 (208)
NR140.10	10	2	4:8-14	mg/L	Nitrate+Nitrite, dis.	R27 (156)
NR140.10	10	2	2.1	mg/L	Nitrate+Nitrite, dis.	Dup- 10151901 (208)
Comments	ES	PAL / ACL	Result	Units	Parameter	Well Desc (Point ID)

Notes: site = site assigned PAL/ES :: well = well assigned PAL/ES :: NR140:10 = NR140 Public Health PAL/ES :: NR140.12 = NR140 Public Welfare PAL/ES



marathoncountysolidwaste

Dec 6th, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill, License No.4228 BRRDF.

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of October 2019. An exceedance table has been attached for the Bluebird Ridge Landfill and can be found on the following page.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Megan Ballweg, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

	Ma	arathon County S	olid Waste: Bluebird	Ridge Groundv	vater Mon	itoring We	lls		
	BRRDF	Facility #4228	Exceedances						
Project #	Date	Well #	Parameter	Units	Result	PAL	ES	ACL	Comments
333066	October 14 & 15	R59P	Alkalinity	mg/L	380,00	230.00			well
333066	October 14 & 15	R59P	Conductivity	umhos@25C	670.00	470.00			well
333066	October 14 & 15	R59P	Hardness	mg/L	430.00	230.00			well
333066	October 14 & 15	R59WT	Alkalinity	mg/L	420.00	230.00			well
333066	October 14 & 15	R59WT	Conductivity	umhos@25C	710.00	470.00			well
333066	October 14 & 15	R59WT	Hardness	mg/L	470.00	230.00			well

<u>Bluebird Ridge Recycling and Disposal Facility Groundwater Well Exceedance Table</u> October 2019

Groundwater hardness can exhibit natural fluctuation over time. In addition, a typical indicator of hard water can be increased levels of calcium. Over the past few years, Marathon County has utilized liquid Calcium Chloride solution for dust control on main haul roads. It is a possibility that small amounts of Calcium Chloride may have leached into groundwater due to runoff from haul roads. This solution may be contributing to slight increases in conductivity. In addition to the Calcium Chloride application, this particular well is located within 50 feet of a major soil stockpile. During 2016, this stockpile received over 250,000 cubic yards of soil from the 10 acre cell expansion of the Bluebird Ridge Landfill. R59WT and R59P are directly at the toe of the slope of a 500,000+ cubic yard soil stockpile. The stockpile has been properly vegetated; however, the construction activity may be a contributing factor. The levels have not changed significantly since the last monitoring event, but this well will continue to be monitored to evaluate the source of the exceedances.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

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Instructions:

- * Prepare one form for each license or monitoring ID.
- * Please type or print legibly.
- * Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- * Attach a notification of any gas values that attain or exceed explosive gas levels.
- * Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information	机会会保持的 法保险 医正视的 医	[1] [1] · ······························	
Name of entity submitting data (laboratory, consultant, fa	acility owner):		and the second sec
Northern Lake Service, Inc Contact for questions about data formatting. Include data	a proparar's name, telephone n	umber and E-mail add	Iress:
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Name. Omis deske	Phone: 715-4	10-2111	The second se
E-mail: lims@nlslab.com	44 1 34-4		
Facility Name	License No. / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003
Marathon County - BRRDF	04228	337005680	OCTOBER -15-2019
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Groundwater monitoring data from private water sup	ply wells Air monit	oring data becify)	
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Certification	的主要的自己的问题。	这一些主动。他们最	\mathbf{n}
To the best of my knowledge, the information report are true and correct. Furthermore, I have attached c groundwater standards or explosive gas levels, and concentrations exceeding groundwater standards. Dav: A Hagenbucher	omplete notification of any sa a preliminary analysis of the c	mpling values meeti ause and significan	ng or exceeding
Facility Representative Name (Print)	Operations M. Title		(Area Code) Telephone No.
Facility Representative Warne (Finit)	,		
Vin Hayabarta	12/06/19		
Signature	Date		
FOR DNR USE ONLY. Check action taker Found uploading problems on Notified contact of problems on EDD format(s): Diskette CD (initia	initials Upload	ed data successfully	on

Marathon County Solid Waste Mgmnt Dept Marathon County - BRRDF 10-01-2019

Lab ID: 721026460 NLS Project: 333066 Collected: 10-01-2019 License: 04228 FID: 337005680

EXCEEDANCES:

Well Desc (Point ID)	Parameter	Units	Result	PAL / ACL	ES	Comments
R59P (237)	Alkalinity	mg/L	380	230		well
R59P (237)	Conductivity	umhos@25C	670	470		well
R59P (237)	Hardness	mg/L	430	230		well
R59WT (234)	Alkalinity	mg/L	420	230		well
R59WT (234)	Conductivity	umhos@25C	710	470		well
R59WT (234)	Hardness	mg/L	470	230		well



Marathon County Solid Waste Department 172900 E. Hwy 29 Ringle, WI 54471

Director: Site Supervisor: Administrative Office: Scale Master Solid Waste & Recycling Info Line 715-446-3101 X104 715-446-3101 X102 715-446-3101 X100 715-446-3101 X103 877-270-3989 toll-free

Dec 6, 2019

Wisconsin Department of Natural Resources Bureau of Solid Waste Management GEMS Data Submittal Contact, WA/3 P.O. Box 7921 Madison, WI 53707-7921

RE: Exceedance of Groundwater Standards for Marathon County Landfill, License No. 2892, 3338 & 4228 (Private Wells)

In accordance with NR 140, please accept this notification of groundwater monitoring results for the reporting period of October 2019. There were no exceedances in the private groundwater wells, and therefore an exceedance table has not been provided.

If you have any questions, please contact me.

Thank you,

David Hagenbucher Operations Manager Marathon County Solid Waste

C.c: Nathan Coller, Megan Ballweg, Sally Hronek, Meleesa Johnson, Lee Daigle, Mark Torresani.

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin

Department of Natural Resources Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID. *
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact WA/5 *

Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Ionitoring Data Subinitation network	是自己的社会。但我们的社会。其他当时是为主人的事情。	Bertin And Deliver (1414)
Monitoring Data Submittal Information ame of entity submitting data (laboratory, consultant, fac	cility owner):	 Second Second Sec
orthorn Lake Service Inc	6.41	, 1
ontact for questions about data formatting. Include data	a preparer's name, telephone number and E-m	ail address:
ame: Chris Geske	Phone: 715-478-2777	and the second sec
mail: lims@hlslab.com	$\nabla t = a$	ta y that the second
acility Name	License No. / Monitoring ID Facility ID	[FID] Actual sampling dates (e.g., July 2-6, 20
Marathon County Area A Private Wells	02892	OCTOBER -16-2019
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 State of the state of the state	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$(1^{-1},2^{-1})_{1}^{1} = (1^{-1},2^{-1})_{1}^{1} + (1^{-1},2^{-1})_{2}^{1} + (1^{-1},2^{-1})_$
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and the providence of the second seco	- 49 - 20 -	
ne enclosed results are for sampling required in the mo	nth(s) of: (e.g., June 2003)	a species and a second se
CTOBER -2019		the tradition of the state of the
ype of Data Submitted (Check all that apply)		7
Leachate monitoring data otification attached? No. No groundwater standards or explosive gas limits were exceeded. Yes, a notification of values exceeding a groundwater standard is atta groundwater standard and preliminary analysis of the cause and sig Yes, a notification of values exceeding an explosive gas limit is attach explosive gas limits.	nched. It includes a list of monitoring points, dates, sample val	
	and the second	the second s
Certification		
o the best of my knowledge, the information reporte re true and correct. Furthermore, I have attached co roundwater standards or explosive gas levels, and a	omplete notification of any sampling values a preliminary analysis of the cause and sign	nificant of
o the best of my knowledge, the information reporter re true and correct. Furthermore, I have attached co roundwater standards or explosive gas levels, and a oncentrations exceeding groundwater standards. Davich Hagenbucker	omplete notification of any sampling values a preliminary analysis of the cause and sign	nificant of
o the best of my knowledge, the information reporter re true and correct. Furthermore, I have attached co roundwater standards or explosive gas levels, and a oncentrations exceeding groundwater standards. David Hagenbucker	omplete notification of any sampling values a preliminary analysis of the cause and sign	nificant of
o the best of my knowledge, the information reports re true and correct. Furthermore, I have attached co roundwater standards or explosive gas levels, and oncentrations exceeding groundwater standards.	omplete notification of any sampling values a preliminary analysis of the cause and sign	meeting of exceeding

Marathon County Solid Waste Mgmnt Dept Marathon County Area A Private Wells 10-01-2019

> Lab ID: 721026460 NLS Project: 333074 Collected: 10-01-2019 License: 02892 FID:

EXCEEDANCES:

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Notes: site = site assigned PAL/ES : well = well assigned PAL/ES : NR140.10 = NR140 Public Health PAL/ES : NR140.12 = NR140 Public Welfare PAL/ES

ENVIRONMENTAL MONITORING DATA CERTIFICATION Form 4400-231(R 1/04)

State of Wisconsin Department of Natural Resources

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30; NR635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- * Prepare one form for each license or monitoring ID.
- * Please type or print legibly.
- * Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- * Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5 Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 - 7921

Monitoring Data Submittal Information	1999年1月1日日期日本	国际中的时期 民国	物的原因是是自然的问题。在自然情况很
Name of entity submitting data (laboratory, consultant, fa	cility.owner):		(9428) (1942) (11) (17)
Northern Lake Service, Inc.	tar 14	umber and E-mail add	ress's the set of the set
Contact for questions about data formatting. Include data		78-2777	1000.
Name: Chris Geske	Phone: 715-4	10-2111	
E-mail: lims@nlslab.com	5 (B)		Actual compling dates (o.g., July 2.6, 200
Facility Name	License No. / Monitoring ID 04228	Facility ID [FID] 337005680	Actual sampling dates (e.g., July 2-6, 200 OCTOBER -16-2019
Marathon County BRRDF Private Wells	04220	337000000	
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Groundwater monitoring data from monitoring wells Groundwater monitoring data from private water sup Leachate monitoring data	ply wells Air monit	toring data pecify)	
Notification attached?			~ ~
No. No groundwater standards or explosive gas limits were exceeded. Yes, a notification of values exceeding a groundwater standard is atta	ched. It includes a list of monitoring point	s, dates, sample values,	1 41 A
groundwater standard and preliminary analysis of the cause and sig Yes, a notification of values exceeding an explosive gas limit is attach	inificance of any concentration.		
explosive gas limits.	ed. It moldes dis montening partiel and		
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Certification		有自己的法规通信的	$\mathbb{E} = \{ \{ i,j\} \} \in \mathbb{E} : j \in [1,\infty] \} $
To the best of my knowledge, the information reporte are true and correct. Furthermore, I have attached co groundwater standards or explosive gas levels, and a concentrations exceeding groundwater standards.	omplete notification of any sa a preliminary analysis of the c	mpling values meetin cause and significant	ng or exceeding t of
David Hagenbucher	Operations	Manager	715 551 5864
Facility Representative Name (Print)	title	Ų	(Area Code) Telephone No.
Diltant	12/06/10	9	715 551 5864 (Area Code) Telephone No.
Signature	Date		
FOR DNR USE ONLY. Check action taken Found uploading problems on Notified contact of problems on EDD format(s): Diskette CD (initia	Initials Upload	ed data successfully	on

Marathon County Solid Waste Mgmnt Dept Marathon County BRRDF Private Wells 10-01-2019

> Lab ID: 721026460 NLS Project: 333072 Collected: 10-01-2019 License: 04228 FID: 337005680

EXCEEDANCES:

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Notes: site = site assigned PAL/ES : well = well assigned PAL/ES : NR140.10 = NR140 Public Health PAL/ES : NR140.12 = NR140 Public Welfare PAL/ES

	ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = I DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded	Parameter LOD LOQ/MCL Analyzed Method Lab Field depth to water 1 1 10/16/19 NA 721026460 Field depth to bottom 6.82 ft. 1 10/16/19 NA 721026460 Field depth to bottom 6.82 ft. 1 1 10/16/19 NA 721026460 Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered Values in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.	Project: Marathon County BRRDF Private Wells October 2019 PW11 NLS ID: 1155378 Matrix: GW Collected: 10/16/19 14:12 Received: 10/16/19	Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754	NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060
	LOQ = Limit of Quantitation NA = Not Applicable Revie 1000 ug/L = 1 mg/L Shaded results indicate >MCL.	t Units Dilution LOD ft. 1 ft. 1 s than the LOQ and are within a region of "Less-Certain Qua sterisk(*) are considered Reporting Limits. All LOD/LOQs a			ANALYTICAL REPORT
	Reviewed by: Mal K R. T. Krueger President	LOQ/MCL Analyzed Method Lab 10/16/19 NA 721026460 10/16/19 NA 721026460 antitation". Results greater than or equal to the LOQ are considered to reflect dilution and/or solids content.		NLS Project: 333072 NLS Customer: 20080 Fax: 715 446 2906 Phone: 715 446 3339	WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/14/19 Page 1 of 4

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NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060	ANALYTICAL REPORT	WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. W100034 Printed: 11/14/19 Page 2 of 4
Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29		NLS Project: 333072 NLS Customer: 20080 Fax: 715 446 2906 Phone: 715 446 3339
Project: Marathon County BRRDF Private Wells October 2019	2019	
LS ID: 1155379		
Parameter	Result Units Dilution LOD	_
Field turbidity	none detected	10/16/19 WA 10/16/19 WA 721026460 40/22/49 Wolds 82600 724026460
Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-4 to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(") are considered Reporting Limits. All LC ND = Not Detected (< LOD) ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.	'Less-' All LC cable	han or equal to the LOQ /or solids content.
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Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520.

ANALYTICAL REPORT

Client: R18500 East Highway 29 Ringle, WI 54471 9754 Attn: Dave Hagenbucher Marathon County Landfill Marathon County Solid Waste Mgmnt Dept

> WDATCP Laboratory Certification No. 105-330 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. WI00034 Printed: 11/14/19 NLS Project: Page 3 of 4 333072

NLS Customer: 20080

Project: Marathon County BRRDF Private Wells October 2019

PW8575 NLS ID: 1155380

Collected: 10/16/19 12:25 Received: 10/16/19 Matrix: GW

VOCs (water) by GC/MS see attached	Field furbidity none detecte	Field odor none detecte	Field color none detected	Parameter	
	đ			Units Dilution LOD LOQ/MCL Analyzed Method	
10/22/19 SW846 8260C	10/16/19 NA	10/16/19 NA	AN RI/01/01	Analyzed Method	
721026460	721026460	121026460	004020127	Lab	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 10000MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL

1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President R. T. Krueger Authorized by:

Project: Marathon County BRRDF Private Wells October 2019 Trip Blank NLS ID: 1155381 Matrix: TB Collected: 10/16/19 00:00 Received: 10/16/19	019			
Parameter Construct Analyzed Analyzed Analyzed Metric for Construct Analyzed Analyzed Metric for Construct Construct Analyzed Metric for Construct Construct Construct Analyzed Metric for Construct Construct Construct Analyzed Metric for Construct Construct <thconstruct< th=""> <thconstruct< th=""></thconstruct<></thconstruct<>	Result Units see attached Image: See attached D but less than the LOQ and are with an asterisk(*) are considered F LOQ = Limit of Quantitation 1000 ug/L = 1 mg/L Shaded results indicate >MCL.	thin a region of "Less-Certain Qua teporting Limits. All LOD/LOQs ac NA = Not Applicable Reviev	LOGINGL Analyzed Mediation 10/22/19 EPA 624 10/22/19 EPA 624 DQs adjusted to reflect dlution and/or solids content. Reviewed by: Made x	721026460 LOQ are considered Authorized by: R. T. Krueger President
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Page 1 of 3

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ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3) Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: Project Description: Marathon County BRRDF Private Wells NLS Project: 333072

Project Title: October 2019	Template: SAT3APP3	Printed: 11/14/2019	19 07:19		
Sample: 1155379 PW26 Collected: 10/16/19 Analyzed: 10/22/19 - Analytes: 43	ed: 10/22/19 - Analytes: 43				
ANALYTE NAME	RESULT	UNITS DIL			Note
Benzene	DN	ug/L 1		0.69	
Bromodichloromethane	ND	ug/L 1			
Bromoform	ND	ug/L 1	0.16		
Bromomethane		100/L			
Chlorobenzene	ND	ug/L 1		0.56 100	
Chloroethane	dN	ug/L 1			
Chloroform	ND	ug/L 1		0.60 80	
Chloromethane	ND	ug/L 1		0.68	
Dibromochloromethane	ND	ug/L 1		0.61 80	
1,2-Dibromo-3-Chloropropane	DN	ug/L 1)./3	
1,2-Dibromoethane				73	
Dibromomethane				78 800	
1.2-Dichlorobenzene	ND	ua/L 1			
1.4-Dichlorobenzene	DN	ug/L 1		0.76 75	
Dichlorodifluoromethane	ND	ug/L 1		0.49	
1,1-Dichloroethane	DN	ug/L 1			
1,2-Dichloroethane	ND	ug/L 1			
1,1-Dichloroethene	ND	, <u>1/6n</u>			
cis-1,2-Dichloroethene	ND	100/L 1		1.02 10	
1 3 Diabloropropaga					
ris-1 3-Dichloropropene	ND	ug/L 1			
trans-1,3-Dichloropropene	ND	ug/L 1			
Ethylbenzene	DN	ug/L 1		1.1 /00	
Methylene chloride	ND	ug/L 1			
Naphthalene		19/F			
Styrene		10/L 1		1.56	
Tetrachlornethene	dn	ua/L 1			
Toluene	ND	ug/L 1		0.68 1000	
1,1,1-Trichloroethane	ND	ug/L 1			
1,1,2-Trichloroethane	DN	ug/L 1			
Trichloroethene	DN	ug/L 1			
Trichlorofluoromethane	N	1/bn			
Vinyl chloride	ND	1/ <u>U</u>			
meta,para-Xylene	UN	line line line line line line line line			
MTBE	ND	ug/L 1		4.10	
Acetone		UQ/E 1		0 58 0 58	
Carbon Disuilide				1 20	
Tetrahydrofiiran	dN			<u>ы</u> 5	
Dibromofluoromethane (SURR)	122%				S
Toluene-d8 (SURR)	116%	×>			00
1-Bromo-4-Fluorobenzene (SURR)	109%				U
NOTES APPLICABLE TO THIS ANALYSIS:					

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method.

Page 2 of 3

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ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3) Customer: Marathon County Solid Waste Mgmnt Dept NLS PI Project Description: Marathon County BRRDF Private Wells Proiect Title: October 2019 Template: SAT3/ NLS Project: 333072

Template: SAT3APP3 Printed: 11/14/2019 07:19

Project Litle: Uctober 2019	I emplate: SAI 3APP3	Printed: 11/14/2018	BL:/DB			
Sample: 1155380 PW8575 Collected: 10/16/19 Analyzed: 10/22/19 - Analytes: 43	red: 10/22/19 - Analytes: 43					
ANALYTE NAME	RESULT	UNITS DIL	ГОД	Log	MCL	Note
Benzene	ND	ug/L 1	0.19	0.69	წთ	
Bromodichloromethane			0.19	0.00 7.50	80	
Bromotorm			0.22	0.79		
Carbon Tetrachloride	ND	ug/L 1	0.19	0.66	თ	
Chlorobenzene	ND	ug/L 1	0.16	0.56	100	
Chloroethane	ND	ug/L 1	1.5	5.4	8	
Chloroform	ND	ug/L 1	.0.17	0.60	80	
Chloromethane	ND	ug/L 1	0.19	0.68	٩	
Dibromochloromethane	ND	ug/L I	0.1/	0.01	00	
1,2-Dibromo-3-Chloropropane			0.21	0.43		
1,2-UDIOITOEUTATIE		1in/1 1	0.21	0.73		
1 2-Dichlorobenzene	DN	ug/L 1	0.22	0.76	600	
1.3-Dichlorobenzene	DN	ug/L 1	0.20	0.72		
1,4-Dichlorobenzene	ND	ug/L 1	0.21	0.76	75	
Dichlorodifluoromethane	ND	ug/L 1	0.14	0.49		
1,1-Dichloroethane	ND	ug/L 1	0.10	0.64	л	an a
1,2-Dichloroethane			0.18	0.00	7	
r, r-Dichloroethene	ND	ug/l 1	0.18	0.62	70	
trans-1.2-Dichloroethene	DN	ug/L 1	0.15	0.51	100	
,2-Dichloropropane	DN	ug/L 1	0.24	0.84	თ	
cis-1,3-Dichloropropene	ND	ug/L 1	0.19	0.68		
rans-1,3-Dichloropropene	ND	ug/L 1	0.14	0.51	400	
Ethylbenzene			0.30		700	
Methylene chloride		110/L 1	0.29	1.0	l	
Styrene	ND	ug/L 1	0.16	0.56	100	
ortho-Xylene	DN	ug/L 1	0.16	0.56		
etrachloroethene	ND	<u>ug/L 1</u>	0.17	0.58	500	
oluene	ND	ug/L 1	0.19	0.64		
1,1-Trichloroethane	ND		0.17	0.01	л о	
, 1,2-11ICHOUGHAIR	ND	ug/L 1	0.24	0.84	5	
richlorofluoromethane	DN	ug/L 1	0.17	0.60		
Vinyl chloride	ND	ug/L 1	0.16	0.57	.2	
meta,para-Xylene	ND	ug/L 1	0.32	1.1	10000	
MTBE	·	ug/L 1	0.22	10.70		
Acetone			0.16	0.58		
Methyl Ethyl Ketone	D	ug/L 1	0.50	1.8		
Tetrahydrofuran	DN	ug/L 1	0.97	3.5		
Dibromofluoromethane (SURR)	120%					s S
Toluene-d8 (SURR)	110%	× ×				o c
I-Bromo-4-Fluoropenzene (SUKK)	107.70					c

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method.

Page 3 of 3

ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3) Customer: Marathon County Solid Waste Mgmnt Dept NLS P Project Description: Marathon County BRRDF Private Wells NLS Project: 333072

	シアノテレージャードにたたとう。人口の時間になって			Contraction of the second s	Contraction of the second s	「ないない」はないのでは、「「「」」ないない」にいっていたのです。
Sample: 1155381 Trip Blank Collected: JU/19/19 Allalyzeu:	Allayzed weeking meeting		LOD	LOQ	MCL	Note
ANALYTE NAME			0.19	0.69	თ	
Benzene	CIN	ug/L 1	0.19	0.68	80	
Bromodichloromethane	ND	ug/L 1	0.16	0.56	80	
Bromomethane	D	ug/L 1	0.22	0.79	ת	
Arbon Tetrachloride	ND	ug/L 1	0.18	0.00	100	
horobenzene	ND	ug/L 1	0.16	5.4	100	
hloroethane	ND	ug/L 1	0.17	0.60	80	
hloroform	ND		0.19	0.68		
hloromethane			0.17	0.61	80	
ibromochloromethane			0.21	0.73		
2-Dibromo-3-Chloropropane	CIN	110/1 1	0.12	0.43		
2-Dibromoethane		ua/L 1	0.21	0.73		
ibromomethane	CN	ua/L 1	0.22	0.76	600	
2-Dichlorobenzene	ND	ug/L 1	0.20	0.72		
3-Dichloppenzerie	ND	ug/L 1	0.21	0.76	75	
4-Dichioroperizerie	ND	ug/L 1	0.14	0.49		
-Dichloroethane	ND	ug/L 1	0.18	0.64	n	
D-Dichlomethane	ND	ug/L 1	0.19	0.02	10	
1-Dichloroethene	ND	ug/L 1	0.10	0.57	70	
is-1.2-Dichloroethene	ND	L	0.10	0.02	100	
rans-1,2-Dichloroethene	ND	ug/L 1	0.12	0.84	5	
2-Dichloropropane	ND	10/1 1	0.19	0.68		
is-1,3-Dichloropropene			0.14	0.51		
rans-1,3-Dichloropropene	ND	ug/L 1	0.30	1 .1	700	
thylbenzene	10.29	ug/L 1	0.20	0.70	G	JLB
	ND	ug/L 1	0.29	1.0	122	-
	ND	ug/L 1	0.16	0.56	001	
Wielle	ND	ug/L 11	0.16	0.56	1	
Tetrachloroethene	DN	ug/L 1	0.17	0.58	1000	
oluene	ND	ug/L 1	0.19	0.60	200	
1,1-Trichloroethane	NC	ug/L 1	0,17	0.01	5	
1,2-Trichloroethane	ND	ug/r 1	0.24	0.84	с п	
richloroethene	ND	19/1 1	0.17	0.60		
richlorofluoromethane	ND		0.16	0.57	.2	
	ND	uq/L 1	0.32	1.1	10000	
ITER, Dala-Ayleite	ND	ug/L 1	0.22	0.76		
	dN	ug/L 1	4.2	12		
Acetorie Carbon Disulfide	DN	ug/L 1	0.16	0.58		
Methyl Ethyl Ketone	DN	ug/L 1	0.50	3		
etrahvdrofuran	ND	ug/L 1	0.97	<u>ى</u> .5		N N
	104%	4				S
ibromotiuoromethane (SUKK)	07.771	- ~				S

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation. S = This compound is a surrogate used to evaluate the quality control of a method. LB = Compound is suspected of being a laboratory contaminant.

NLS Private Well Sampling Form and Chain Of Custody

SITE: Marathon Co. Solid Waste Management Dept. / BRRDF - Private Wells IA

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					ample Location:	s :bolqme2 omiT	Date Sampled:
Treated (Y/N):		rr				R222780 Duncan	
						William Ka	91cm
······································				L70		Point Name / Homeowne	04-2-22
Turbidity (quant, text, color):	:10bO	Color:	Time Purged:	:# ONB ID #:	LIW9 a	animotical and another	- # 951S1N

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				•		Sample Location:	:bolqms2.amiT	Date Sampled:
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quant,text,color);	Turbidity (Odor:	Color:	Time Purged:	:# AI NA	Vuer: PW26	Point Name / Homeon	H SIN

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Qane Sampled: Time Sampled: Samp	sample Location:					
NLS Lab #: Point Name / Homeowner: Arts I and T'T and T'r point ware found		666 :# ai yna	:bogruf omiT	Color:	Odor:	ל מרטומולא (קטמול, נכגל, כסוסר): ד

Seo reverse side for sample custody information		

81/01 voA

Outside faucet side of house

NLS FIELD QUALITY ASSURANCE RECORD

	Reagent Water Date Filled:
:# iol rəilif oqsiQ 0.1 VWE	Reagent Grade Water, Jug #:
:# [əbom rəilifi oqzid 24. QAÇ	STDs & Buffers, Date Made:
:# tol rətlft norzim 24. dəətəəD	Instruments Checked By:
Thermometer – NLS #:	Bottles Prepared By:
	CLIENT / SITE: Marathon County Solid Waste Management Department / Annual Private Well Monitori Department / Annual Private Well Monitori

Bracket test samples using the appropriate pH buffers. Use pH buffer 4.01 with pH buffer 7.00 for low pH samples and pH buffer 10.01 with pH buffer 7.00 for samples having a high pH. On a routine basis use pH buffers 4.01 and 7.00.

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							в∪тғеқ <u>10.01</u>
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						DATE:
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Comments:

Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060 NORTHERN LAKE SERVICE, INC.

ANALYTICAL REPORT

WDATCP Laboratory Certification No. 105-330

EPA Laboratory ID No. WI00034

Printed: 11/13/19

Page 1 of 17

333074 20080

WDNR Laboratory ID No. 721026460

NLS Customer: NLS Project:

Client: Ringle, WI 54471 9754 Marathon County Solid Waste Mgmnt Dept Marathon County Landfill R18500 East Highway 29 Attn: Dave Hagenbucher

Project: Marathon County Area A Private Wells October 2019

Matrix: GW PW48 NLS ID: 1155386

Collected: 10/16/19 10:55 Received: 10/16/19

Parameter Field color -ield turbidity /OCs (water) by GC/MS ield odor none detected see attached Result none detected Units Dilution 6 6 LOO/MCL 10/16/19 10/16/19 10/16/19 Analyzed Method 10/22/19 SW846 8260C X X X **Lab** 721026460 721026460 721026460 721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content. Results greater than or equal to the LOQ are considered

ND = Not Detected (< LOD) DWB = Dry Weight Basis MCL = Maximum Contaminant Levels for Drinking Water Samples. %DWB = (mg/kg DWB) / 10000 LOD = Limit of Detection

Shaded results indicate >MCL 1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President R. T. Krueger

Authorized by:

ANALYTICAL REPORT

WDATCP Laboratory Certification No. 105-330

EPA Laboratory ID No. WI00034

Printed: 11/13/19

Page 2 of 17

333074 20080

WDNR Laboratory ID No. 721026460

NLS Customer: NLS Project:

Client: Marathon County Solid Waste Mgmnt Dept Ringle, WI 54471 9754 R18500 East Highway 29 Marathon County Landfill Attn: Dave Hagenbucher

Project: Marathon County Area A Private Wells October 2019

PW88 NLS ID: 1155387

Collected: 10/16/19 12:17 Received: 10/16/19 Matrix: GW

Parameter Field color Field odor Field turbidity /OCs (water) by GC/MS see attached none detected none detected none detected Result Units Dilution Б LOQ/MCL Analyzed Method 10/16/19 NA 10/16/19 NA 10/16/19 NA 10/22/19 SW846 8260C Lab 721026460 721026460 721026460 721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content. Results greater than or equal to the LOQ are considered

MCL = Maximum Contaminant Levels for Drinking Water Samples. DWB = Dry Weight Basis ND = Not Detected (< LOD) %DWB = (mg/kg DWB) / 10000 LOD = Limit of Detection Shaded results indicate >MCL

1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President R. T. Krueger Authorized by:

400 North Lake Avenue - Crandon, WI 54520	NORTHERN LAKE SERVICE, INC.
Ph: (715)-478-2777 Fax: (715)-478-3060	Analytical Laboratory and Environmental Services

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 3 of 17 NLS Project: 333074

NLS Customer:

20080

Project: Marathon County Area A Private Wells October 2019

PW24 NLS ID: 1155388 Matrix: GW

Collected: 10/16/19 12:09 Received: 10/16/19

VOCs (water) by GC/MS	Field turbidity	Field odor	Field color	Parameter and the second se
see attached	none detected	none detected	none detected	Result States Units
10/22/19 SW846 8260C 721026460	10/16/19 NA	10/16/19 NA	AN 61./01	Dilution LOD LOQ/MCL Analyzed Method
721026460	721026460	721026460	121020400	Lab

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionLOQ = LimitDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 100001000 ug/LMCL = Maximum Contaminant Levels for Drinking Water Samples.Shaded re

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 4 of 17 NLS Project: 333074

NLS Project: 333074 NLS Customer: 20080

Project: Marathon County Area A Private Wells October 2019

PW25 NLS ID: 1155389 Matrix: GW

Collected: 10/16/19 12:00 Received: 10/16/19

	in a set of a Result was also and the Units of the set of Diu	tion LOD LOQ/MCL Analyzed Method	Lab
Field color	none detected	10/16/19 NA	721026460
Field odor		10/16/19 NA	721026460
Field turbidity	none detected	10/16/19 NA	721026460
VOCs (water) by GC/MS	see attached	10/22/19 SW846 8260C 721026460	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect duition and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionLOQ = Limit of 0DWB = Dry Weight Basis%DWB = (mg/kg DWB) / 100001000 ug/L = 1 mMCL = Maximum Contaminant Levels for Drinking Water Samples.Shaded results i

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept R18500 East Highway 29 Ringle, WI 54471 9754 Marathon County Landfill Attn: Dave Hagenbucher

> WDATCP Laboratory Certification No. 105-330 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 5 of 17

ANALYTICAL REPORT

NLS Project: 333074

NLS Customer: 20080

Project: Marathon County Area A Private Wells October 2019

Matrix: GW PW18 NLS ID: 1155390

Collected: 10/16/19 11:40 Received: 10/16/19

	n de la companya de la Result de la subset de la companya de la Dilution de la Co			Lab
	none detected	The second s	10/16/19 NA	721026460
Field odor			10/16/19 NA	721026460
Field furbidity			10/16/19 NA 721026460	721026460
VOCs (water) by GC/MS			10/22/19 SW846 8260C	721026460
		A THE REAL PROPERTY AND ADDRESS OF A DREAM ADDR		

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD) MCL = Maximum Contaminant Levels for Drinking Water Samples. DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 LOD = Limit of Detection Shaded results indicate >MCL

1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President Authorized by: R. T. Krueger

Client: R18500 East Highway 29 Ringle, WI 54471 9754 Marathon County Solid Waste Mgmnt Dept Marathon County Landfill Attn: Dave Hagenbucher

> WDATCP Laboratory Certification No. 105-330 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. WI00034 Printed: 11/13/19

ANALYTICAL REPORT

NLS Project: Page 6 of 17 333074

NLS Customer: 20080

Project: Marathon County Area A Private Wells October 2019

Matrix: GW PW68 NLS ID: 1155391

Collected: 10/16/19 11:28 Received: 10/16/19

	A COMPANY RESULT AND AN ANY UNITS OF A REAL DIRUCTION AND A LOD TO LOQ/MCL	Analyzed Method	Lab
	none detected	10/16/19 NA	721026460
Field odor	none detected	10/16/19 NA	721026460
Field furbidity	none detected	10/16/19 NA	721026460
VOCs (water) by GC/MS	see attached	10/22/19 SW846 8260C 721026460	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD) DWB = Dry Weight Basis MCL = Maximum Contaminant Levels for Drinking Water Samples. %DWB = (mg/kg DWB) / 10000 LOD = Limit of Detection Shaded results indicate >MCL.

1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President Authorized by: R. T. Krueger

NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060
--

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

> WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034

ANALYTICAL REPORT

Printed: 11/13/19 Page 7 of 17

NLS Project: 333074

NLS Customer: 20080

Project: Marathon County Area A Private Wells October 2019

PW19 NLS ID: 1155392 Matrix: GW

Collected: 10/16/19 11:20 Received: 10/16/19

r Standard Provide Antice	L Analyzed Method 10/16/19 NA
none detected	10/16/19 NA
none detected	10/16/19 NA
difv none detected	10/16/19 NA
) by GC/MS see attached	10/28/19 SW846 8260C 721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

 ND = Not Detected (< LOD)</td>
 LOD = Limit of Detection
 LOQ = L

 DWB = Dry Weight Basis
 %DWB = (mg/kg DWB) / 10000
 1000 ug

 MCL = Maximum Contaminant Levels for Drinking Water Samples.
 Shaded

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 8 of 17 NLS Project: 333074

Project: Marathon County Area A Private Wells October 2019

PW64 NLS ID: 1155393

Matrix: GW Collected: 10/16/19 11:10 Received: 10/16/19

	A Control of the Result Management of Units Control And	Analyzed Method	Lab
n nan yan na sana ana ana ana ana ana ana ana a	none detected	10/16/19 NA	721026460
Field odor	none detected	10/16/19 NA	721026460
Field turbidity	none detected	10/16/19 NA	721026460
VOCs (water) by GC/MS	see attached	10/28/19 SW846 8260C	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 10000MCL = Maximum Contaminant Levels for Drinking Water Samples.

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

ANALYTICAL REPORT

Client: R18500 East Highway 29 Ringle, WI 54471 9754 Marathon County Solid Waste Mgmnt Dept Marathon County Landfill Attn: Dave Hagenbucher

> WDATCP Laboratory Certification No. 105-330 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. WI00034 Printed: 11/13/19 NLS Project: Page 9 of 17 333074

Project: Marathon County Area A Private Wells October 2019

Matrix: GW PW27 NLS ID: 1155394

Collected: 10/16/19 13:40 Received: 10/16/19

	n and a Result in a statistic Units with a statistic of Dilution and LOD and LOQ/MCL	Analyzed Method	Lab
A CONTRACTOR OF THE OWNER OF THE OWNER OF	none detected	10/16/19 NA	721026460
Field odor		10/16/19 NA	721026460
Field furbidity	none detected	10/16/19 NA	721026460
VOCs (water) by GC/MS	see attached 10/28/19 SW846 8260C 721026460	10/28/19 SW846 8260C	721026460
			A THAT IN THE ACT AND A THAT A

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(") are considered Reporting Limits. All LOD/LOQs adjusted to reflect dution and/or solids content.

ND = Not Detected (< LOD) DWB = Dry Weight Basis MCL = Maximum Contaminant Levels for Drinking Water Samples. %DWB = (mg/kg DWB) / 10000 LOD = Limit of Detection Shaded results indicate >MCL

1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President Authorized by: R. T. Krueger

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 10 of 17 NLS Project: 333074

NLS Customer:

20080

Project: Marathon County Area A Private Wells October 2019

PW65 NLS ID: 1155395 Matrix: GW

Collected: 10/16/19 13:30 Received: 10/16/19

A CARL IN THE REPORT OF A CARL PARTY OF A CARL			
721026460	10/28/19 SW846 8260C	/OCs (water) by GC/MS see attached	VOCs (
721026460	10/16/19 NA	Field turbidity none detected	Field tu
721026460	10/16/19 NA	Field odor none detected	Field oc
721026460		none detected	Field cc
Lab	Analyzed Method	Parameter Result Units Dilution LOD LOQ/MCL	Parame

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionLOQ = 1DWB = Dry Weight Basis%DWB = (mg/kg DWB) / 100001000 ugMCL = Maximum Contaminant Levels for Drinking Water Samples.Shaded

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 11 of 17 NLS Project: 333074 NLS Customer: 20080

Project: Marathon County Area A Private Wells October 2019

PW100 NLS ID: 1155396

Matrix: GW Collected: 10/16/19 13:20 Received: 10/16/19

VOCs (water) by GC/MS	Field turbidity				Parameter		
see attached	none detected		none detected	none detected			
						Analyzed Method	
		10/18/10 NA	10/16/19 NA			Analyzed Method	
004020127	701020121	721026460	121026400	001000	721028480	Lab	

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect duition and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 10000MCL = Maximum Contaminant Levels for Drinking Water Samples.

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

> WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034

ANALYTICAL REPORT

Printed: 11/13/19 Page 12 of 17 NLS Project: 333074

NLS Customer: 20080

Project: Marathon County Area A Private Wells October 2019

PW80 NLS ID: 1155397 Matrix: GW

Collected: 10/16/19 12:57 Received: 10/16/19

) by GC/MS	ditv			Parameter in the second state of the
see attached 10/28/19 SW046 8260C 721026460	none detected	ione detected		Result
10/28/19 SW846 8260C	10/16/19 NA	10/16/19 NA	10/16/19 NA	Analyzed Method
721026460	721026460	721026460	721026460	Lab

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionLOCDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 100001000MCL = Maximum Contaminant Levels for Drinking Water Samples.Sha

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept R18500 East Highway 29 Marathon County Landfill Attn: Dave Hagenbucher

Ringle, WI 54471 9754

Project: Marathon County Area A Private Wells October 2019

Matrix: GW PW53 NLS ID: 1155398

Collected: 10/16/19 13:06 Received: 10/16/19

Parameter Field color -ield odor -ield turbidity OCs (water) by GC/MS see attached none detected none detected none detected Result Units Dilution 50 LOQ/MCL Analyzed Method 10/16/19 NA 10/16/19 NA 10/16/19 NA 10/28/19 SW846 8260C 721026460 721026460 Lab 721026460 721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content. Results greater than or equal to the LOQ are considered

MCL = Maximum Contaminant Levels for Drinking Water Samples. DWB = Dry Weight Basis ND = Not Detected (< LOD) LOD = Limit of Detection %DWB = (mg/kg DWB) / 10000

Shaded results indicate >MCL 1000 ug/L = 1 mg/L LOQ = Limit of Quantitation NA = Not Applicable

Reviewed by:

President Authorized by: R. T. Krueger

WDATCP Laboratory Certification No. 105-330 WDNR Laboratory ID No. 721026460 EPA Laboratory ID No. W100034 Printed: 11/13/19 NLS Project: Page 13 of 17

333074

NLS Customer: 20080

ANALYTICAL REPORT

ANALYTICAL REPORT

WDATCP Laboratory Certification No. 105-330

EPA Laboratory ID No. WI00034

Printed: 11/13/19 P NLS Project: NLS Customer:

Page 14 of 17

333074 20080 WDNR Laboratory ID No. 721026460

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

Marathon County Area A Private Wells October 2019

PW29 NLS ID: 1155399 Matrix: GW

Project:

Collected: 10/16/19 12:45 Received: 10/16/19

VOCA (motor) by CC MAS	Field turbidity	Field odor			
see attached	none detected	none detected		none detected	na sha sha sha she
10/28/19 SW846 8260C	10/16/19 NA		10/10/10 NIA	10/16/19 NA	n LOD LOQ/MCL Analyzed Method
721026460	/21026460	001000101	031300107	721026460	Lab

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionLOQ =DWB = Dry Weight Basis%DWB = (mg/kg DWB) / 100001000 ugMCL = Maximum Contaminant Levels for Drinking Water Samples.Shaded

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

ANALYTICAL REPORT

WDATCP Laboratory Certification No. 105-330

EPA Laboratory ID No. WI00034

Printed: 11/13/19 P. NLS Project: NLS Customer:

Page 15 of 17

333074 20080 WDNR Laboratory ID No. 721026460

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

Project: Marathon County Area A Private Wells October 2019

PW54 NLS ID: 1155400 Matrix: GW

Collected: 10/16/19 12:35 Received: 10/16/19

|--|

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionLCDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 1000010MCL = Maximum Contaminant Levels for Drinking Water Samples.Sh

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL.

Reviewed by:

Client: Marathon County Solid Waste Mgmnt Dept Attn: Dave Hagenbucher Marathon County Landfill R18500 East Highway 29 Ringle, WI 54471 9754

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. W100034 Printed: 11/13/19 Page 16 of 17 NLS Project: 333074

Project: Marathon County Area A Private Wells October 2019

PW17 NLS ID: 1155401

Matrix: GW Collected: 10/16/19 14:05 Received: 10/16/19

	、Result: A Marking Contract, A Contract Dilution Party CLODA でLOQ/	L Analyzed Method	Lab
Field color	none detected	10/16/19 NA	721026460
Field odor		10/16/19 NA	721026460
Field turbidity	Q .	10/16/19 NA	721026460
VOCs (water) by GC/MS		10/28/19 SW846 8260C 721026460	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(") are considered Reporting Limits. All LOD/LOQs adjusted to reflect dlution and/or solids content.

ND = Not Detected (< LOD)</th>LOD = Limit of DetectionDWB = Dry Weight Basis%DWB = (mg/kg DWB) / 10000MCL = Maximum Contaminant Levels for Drinking Water Samples.

LOQ = Limit of Quantitation NA = Not Applicable 1000 ug/L = 1 mg/L Shaded results indicate >MCL

Reviewed by:

· · · · · · · · · · · · · · · · · · ·			Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region or Less- to be in the region of "Certain Quantitation". LOD and LOQ tagged with an asterisk(") are considered Reporting Limits. All LO ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.	Parameter VOCs (water) by GC/MS	Collected: 10/16/19 00:00 Received: 10/16/19	Project: Marathon County Area A Private Wells October 2019		Client: Marathon County Solid Waste Mgmnt Dept	NORTHERN LAKE SERVICE, INC. Analytical Laboratory and Environmental Services 400 North Lake Avenue - Crandon, WI 54520 Ph: (715)-478-2777 Fax: (715)-478-3060
· · ·				Result Units Dilution		2019	· ·		ANALYTICAL REPORT
			All LOD/LOQs adjusted to reflect diution and/or solids content. All COD/LOQs adjusted to reflect diution and/or solids content. Cable Reviewed by: MAL & R. T. Krueger R. T. Krueger President	LOD LOQ/MCL Analyzed Method Lab 10/28/19 NA 721026460 Control Constitution" Depute amount of the LOO are considered			er: 715 /	••	WDNR Laboratory ID No. 721026460 WDATCP Laboratory Certification No. 105-330 EPA Laboratory ID No. WI00034 Printed: 11/13/19 Page 17 of 17

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ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3) Customer: Marathon County Solid Waste Mgmnt Dept NLS P Project Description: Marathon County Area A Private Wells NLS Project: 333074

CAT2APP2 Printed: 11/13/2019 09:36

Project Title: October 2019	Template: SAT3APP3	Printed: 11/13/2019	9 09:36			
5 PW/48 Collected: 10/16/19	Analyzed: 10/22/19 - Analytes: 43					
	RESULT	UNITS DIL	LOD		MCL	Note
Benzene	ND	ug/L 1	0.19	0.69	ς σ	
Bromodichloromethane	ND	ug/L 1	0.19	0.68	38	
Bromoform	ND	ug/L 1	0.16	0.56	08	
Bromomethane			0.22 N 19	0.55	ת	
Carbon Letrachioride	ND		0.16	0.56	100	
Chlomethane	ND	ug/L 1	1.5	5.4		
Chloroform	DN	ug/L 1	0.17	0.60	80	
Chloromethane	DN	ug/L 1	0.19	0.68		
Dibromochloromethane	DN	ug/L 1	0.17	0.61	08	
1,2-Dibromo-3-Chloropropane	ND	ug/L 1	0.21	0.73		
1,2-Dibromoethane	UN	l l	0.12	0.40		
Dibromomethane	ND	ug/r 1	12.0		200	
1,2-Dichlorobenzene	ND	Ug/L 1	0.22		000	
1,3-Uichlorobenzene		100/1	0.21	0.76	75	
1,4-Dicitiotopetizerie	DN		0.14	0.49		
1.1-Dichloroethane	D	ug/L 1	0.18	0.64		-
1.2-Dichloroethane	ND	ug/L 1	0.19	0.69	5	
1,1-Dichloroethene	DN	ug/L 1	0.16 .	0.57	7	
cis-1,2-Dichloroethene	DN	ug/L 1	0.18	0.62	70	
trans-1,2-Dichloroethene	ND	ug/L 1	0.15	0.51	100	
1,2-Dichloropropane	NU	line in the second seco	0.24	0.84	c	
cis-1,3-Dichloropropene	N	ug/L 1	0.18	0.50		
Ethulbonzono			0.30	1.1	700	
Mathylane chloride		1/D	0.20	0.70	σı	
Nanhfhalene	ND	ug/L 1	0.29	1.0		
Styrene	ND	ug/L 1	0.16	0.56	100	
ortho-Xylene	DN	ug/L 1	0.16	0.56		
Tetrachloroethene	ND	ug/L 1	0.17		G	
Toluene	DN	ug/L 1	0.19		1000	
1,1,1-Trichloroethane	DN	ug/L 1	0.17		200	
1,1,2-Trichloroethane	DN	ug/L 1	0.17		י ני	
Trichloroethene	ND	<u>ug/L 1</u>	0.24	0.84	С Г	
Trichlorofluoromethane	ND	ug/L 1	0.1/	0.60	2	
Vinyl chloride	ND	ug/L 1	0.16		<u>~~</u>	
meta,para-Xylene	ND	Ug/L 1	0.32	0.78		
			C V	10		
Carbon Disulfide	ND	ug/L 1	0.16	0.58		
Methyl Ethyl Ketone	ND	ug/L 1	0.50	1.8		
Tetrahydrofuran	DN	ng/L 1	0.97	3.5		
Dibromofluoromethane (SURR)	109%					s S
Toluene-d8 (SURR)	116%	.				n ¢
1-Bromo-4-Fluorobenzene (SURR)	11/%					U
NOTES APPLICABLE TO THIS ANALYSIS:						

S = This compound is a surrogate used to evaluate the quality control of a method.

							NOTES APPLICABLE TO THIS ANALYSIS:
S				<u>ا</u> د.		107%	ΠL
S						114%	Tolijene-d8 (SURR)
S				1		117%	Dibromofluoromethane (SURR)
		3.5	0.97	-1	ug/L	ND	Tetrahydrofuran
		1.8	0.50		1/bn	ND	Methyl Ethyl Ketone
		0.58	0.16		ug/L	ND	Carbon Disulfide
		212	4.2			ND	Acetone
		0.76	0.22		ug/L	<u>UN</u>	MTBE
	00001.	7.7	0.32			ND	meta,para-Xylene
	10000	0.0/	0.16		ng/L	, ND	Vinyl chloride
-	2	0.00	0.17		ug/L	, ND	Inchlorotluoromethane
	σ	0.84	0.24		ug/L	NU	Trichloroethene
	n U	0.59	0.1/	.	ug/L	N	1,1,2-1 richloroethane
	-	0.01	0.17	.	1/Bn		1,1,1-I richloroethane
	2000	0.00	0,12	×	ug/L		loluene
	1000	0.00	0.17	x	ug/r		l etrachioroethene
	л	о лх О	0.10	<u>ـ</u> د	ug/1		
	-	0.50	0.10		1/0/1		
	100	0.56	0 16	_	110/1	CDN	Chirone
		1.0	0.29		ua/L	D	Nanhfhalene
	රා	0.70	0.20	1	uq/L	ND	Methylene chloride
	700	1.1	0.30		ug/L	DN	Ethylbenzene
		0.51	0.14		ug/L	DN	trans-1,3-Dichloropropene
		0.68	0.19		ug/L	DN	cis-1,3-Dichloropropene
	σ	0.84	0.24		ug/L	ND	1,2-Dichloropropane
	100	0.51	0.15		ug/L	DN	trans-1,2-Dichloroethene
	6	0.62	0.18		ug/L	DN	cis-1,2-Dichloroethene
	7	0.57	0.16	-	ug/L	DN	1,1-Dichloroethene
	ıσ	0.69	0.19		ug/L	DN	1,2-Dichloroethane
		0.64	0.18		ug/L	DN	1,1-Dichloroethane
		0.49	0.14	-	ug/L	DN	Dichlorodifluoromethane
	6/	0.76	0.21		ug/L	DN	1,4-Dichlorobenzene
	11	0.72	0.20	-	ug/L	DN	1,3-Dichlorobenzene
	600	0.76	0.22	-	ug/L	DN	1,2-Dichlorobenzene
	000	0./3	0.21	.	ug/L	ND	Dibromomethane
		0.40	0.12		-1/gu	ND	1,2-Dibromoethane
		0.73	17.0	× '		NC	1,2-Dibromo-3-Chloropropane
	00	0.01	0.17	.	1/6n	NU	Dibromochloromethane
	80	0.00	0.19	×	-16n	ND	Chloromethane
	00	0.00	0.17	×	ug/L		Chloroform
	00	0.20	0.17	×	ug/L		Chloroethane
	100	0.00	0.10	× '	ug/L	NL	Chlorobenzene
	20	0.00	0.19	.		NU	Carbon Tetrachloride
	'n	6/10	0.22	\ 		D	Bromomethane
	a0	0.56	0.16	.	ug/L	DN	Bromoform
	80	0.68	0.19		ug/L	ND	Bromodichloromethane
	8 u	0.69	0.19			ND	Benzene
Note	MCL	Log	ГОД	DIL	UNITS	RESULT	ANALYTE NAME
						- Analytes, 45	Sample: 1155387 PW88 Collected: 10/16/19 Analyzed: 10/22/19 - Analytes: 43
			09:36	Printed: 11/13/2019	Printed: 1	Template: SAT3APP3	Project Description: Maranion County Area A Trease Sector Project Title: October 2019 Template:
						Wolle	Divident Dependention: Warathon County Area A Drivate
					: 333074	MLS Project: 333074	
Page 2 of 6						r - (VarSat3)	ANAI YTICAI RESUITS. VOC's hv P&T/GCMS - Water - (VarSat3)

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NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method.

							Dago 3 of 6
ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSats) Customer: Marathon County Solid Waste Mgmnt Dept NLS F	rsats) NLS Project: 333074	333074					rayes or o
Project Description: Maratinon County Area A Private wells Project Title: October 2019 Template: S	SAT3APP3	Printed: 11/13/2019		09:36			
Sample: 1155388 PW24 Collected: 10/16/19 Analyzed: 10/22/19 Analytes: 43	s: 43						
ANALYTE NAME	RESULT	UNITS	DIL	ГОД	LOQ	MCL	Note
Renzene	DN	ug/L		0.19	0.69	5	
Bromodichloromethane	ND	L/Gn		0.19	0.68	80	
Bromoform	ND	ug/L		0.16	0.56	80	
Bromomethane	ND	ug/L	.	0.22	0.79	7	
Carbon Tetrachloride	ND	ug/L		0.19	0.66	50	
Chlorobenzene	ND	ug/L		0.10	0.00	100	
Chloroethane		ug/L	-	0 17	0.60	80	
Chlorotorm				0.19	0.68		
Dibromochloromethane	ND	uq/L	 د-	0.17	0.61	80	
1 2-Dibromo-3-Chloropropane	ND	ug/L		0.21	0.73		
1.2-Dibromoethane	ND	ug/L		0.12	0.43		
Dibromomethane	ND			0.21	0.73	200	
1,2-Dichlorobenzene	ND	ng/L	\	0.22	0.70	000	
1,3-Dichlorobenzene		ug/L		0.20	0.76	75	
1,4-UICNIOROBERIZERE	N	ug/L		0.14	0.49		
1 1-Dichloroethane	DN	ug/L	-1	0.18	0.64		
1.2-Dichloroethane	UN	ug/L	1	0.19	0.69	- л	
1,1-Dichloroethene	ND	ug/L		0.16	0.57	72	
cis-1,2-Dichloroethene	ND	ug/L	<u>ــ</u>	0.18	0.62	100	
trans-1,2-Dichloroethene		ug/L	<u>ـــا</u>	0.10	0.01	л Л	
1,2-Dichloropropane		ug/L	-	0 19	0.68		
trans_1 3-Dichloronronene	N	ua/L	-	0.14	0.51		
Italia-1,3-Diciliolopiopolio Ethylbenzene	N	ua/L	-	0.30	1.1 .1	700	
Methylene chloride	ND	ug/L	1	0.20	0.70	5	
Naphthalene	ND	1/bn		0.29	1.0		
Styrene	ND	ug/L	1	0.16	0.56	100	
ortho-Xylene	ND	ug/L		0.16	0.56	1	
Tetrachloroethene	N			0.17	0.58	200	
Toluene	NU	ug/L	×	0.12	0.00	2000	
1,1,1-Trichloroethane		ug/L	x	0.17	0.01	200	
1, 1, 2- Trichloroethane		1/ <u>0</u>	<u>ــ</u>	0.17	0.02	лС	
I richlosoftionamathana		ug/L	-	0.24	0.60		
Vinyl chlorida		110/1		0.16	0.57	i2	
meta nara-Xvlene	S	ua/L	<u></u>	0.32	1.1	10000	-
MTBE	ND	ug/L		0.22	0.76		
Acetone	ND	ug/L		4.2	12		
Carbon Disulfide	ND	ug/L	1	0.16	0.58		
Methyl Ethyl Ketone	ND	ug/L	-	0.50	1.8		
Tetrahydrofuran	ND		4	0.97	<u>з</u> .5		
Dibromofluoromethane (SURR)	123%		. <u> </u>				n v
Toluene-d8 (SURR)	110%		×				00
	%60L						c
NOTES APPLICABLE TO THIS ANALYSIS:							

S = This compound is a surrogate used to evaluate the quality control of a method.

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							NOTES APPLICABLE TO THIS ANALYSIS:
S						111%	1-Bromo-4-Fluorobenzene (SURR)
S				1		115%	
S				<u>د</u>		106%	Dibromofluoromethane (SURR)
		3.5	0.97		ug/L	DN	Tetrahydrofuran
		1.8	0.50	-	ug/L	ND	Methyl Ethyl Ketone
		0.58	0.16		ug/L	ND	Carbon Disulfide
		12	4.2		ug/L	ND	Acetone
		0.76	0.22		ug/L	ND	MTBE
	10000	1.1	0.32	.	ug/L	ND	meta,para-Xylene
	.2	0.57	0.16		ug/L	ND	Vinyl chloride
		0.60	0.17	-	ug/L	ND	Trichlorofluoromethane
	σ	0.84	0.24	\	-1/Bn	ND	Trichloroethene
	10	0.59	0.17	.	-1/gu	UN	1,1,2-Trichloroethane
	200	0.51	0.1/	.	ug/L	ND	1,1,1-Trichloroethane
		0.00	0.19	\	1/bn		Toluene
	1000	0.00	0.17		ug/L		Tetrachloroethene
	л	0.00	01.10	×	ug/L	Z	ortho-Xylene
	100	0.00	0.10	-	ug/r		Styrene
	100	0.50	0.429	×	-1/0U		Naphthalene
	¢	40	0.20	-	1/0/I		Metriviene chloride
	თ	0.70	0 20	. د	1.0/1		Mothulana ablarida
	700	1	0.30	. د	1/011		Ethyllonzono
		0.51	0.14	_	1/0/1		trans 1.3 Dichloropropone
		0.68	0.19		ua/L	ND	rie-1 3-Dichloropropano
	თ	0.84	0.24		ua/L	ND	1 2-Dichloronzonane
	100	0.51	0.15		ug/L	ND	trans-1 2-Dichloroethene
	70	0.62	0.18	-1	ug/L	ND	cis-1 2-Dichloroethene
	7	0.57	0.16		ug/L	ND	1 1-Dichloroethene
	ნ	0.69	0.19		ug/L	D	1 2-Dichloroefhane
		0.64	0.18	-	ug/L	DN	1 1-Dichloroethane
		0.49	0.14		ug/L	ND	Dichlorodifluoromethane
	75	0.76	0.21	-	ug/L	ND	1 4-Dichlorohenzene
		0.72	0.20		ug/L	ND	1.2 Dichlorohenzene
	600	0.76	0.22	د.	ug/L	ND	1 2-Dichlorobenzene
		0.73	0.21		ug/L	ND	Dibromomethane
		0.43	0.12	<u>.</u>	ug/L	ND	1 2-Dibromoethane
		0.73	0.21	_	ug/L	ND	1.2-Dibromo-3-Chloropropane
	80	0.61	0.17	- -	ug/L	ND	Dibromochloromethane
		0.68	0.19	-	ug/L	DN	Chloromethane
	80	0.60	0.17		ug/L	DN	Chloroform
		5.4	1.5	_	ug/L	DN	Chloroethane
	100	0.56	0.16		ug/L	ND	Chlorobenzene
	5	0.66	0.19		ug/L	ND	Carbon Tetrachloride
	I	0.79	0.22		ug/L	ND	Bromomethane
	80	0.56	0.16	-	ug/L	ND	Bromoform
	80	0.68	0.19	<u> </u>	ug/L	DN	Bromodichloromethane
	30	0.69	0.19		ug/L	ND	Benzene
Note	MCL	Log	LOD	סור	UNITS	RESULT	ANALYTE NAME
						/19 - Analytes: 43	Sample: 1155389 PW25 Collected: 10/16/19 Analyzed: 10/22/19 - Analytes: 45
		References in the state of the					
)9:36	Printed: 11/13/2019 09:36	Printed: 1	[emplate: SAT3APP3	Project Title: October 2019
						Welle	Custollier, Maration: Marathon County Area A Drivate Wells
					: 333074		arathon Coi
Page 4 of 6		-				ater - (VarSat3)	ANALYTICAL DECITIES VIOC'S by D&T/GCMS - Water -

S = This compound is a surrogate used to evaluate the quality control of a method.

							NOTES APPLICABLE TO THIS ANALYSIS:
s						110%	1-Bromo-4-Fluorobenzene (Sl·IRR)
2				->		7170	
S					ž	101%	Dibromofluoromethane (SURR)
		3.5	0.97	11	uq/L	ND	Tetrahvdrofuran
		1.8	0.50	/L 1	1/Bn	ND	Methyl Ethyl Ketone
		0.58	0.16	/L 1	ug/L	ND	Carbon Disulfide
		12	4.2	1	nd	ZD	Acetone
		0.76	0.22	11	ug/L	DN	MTBE
	10000	1.1	0.32	/L 1	/Bn	DN	meta,para-Xylene
	.2	0.57	0.16	1 1		DN	Vinyl chloride
		0.60	0.17	1	1/bn	ND	Trichlorofluoromethane
	σ	0.84	0.24	1	_1/Bn	ND	Trichloroethene
	י טי ו	0.59	0.17	1	ug/L	DN	1,1,2-Trichloroethane
	200	0.61	0,17	1	l/bn	ND	1,1,1-Trichloroethane
	1000	0.68	0.19	1	ug/L	DN	Toluene
	5	0.58	0.17	/L 1	ug/L	DN	Tetrachloroethene
	1	0.56	0.16		ug/L	ND	ortho-Xylene
	001	0.56	0.16	L 1	ug/L	ND	Styrene
	100	1.0	62.0		ug/L	NC	Naphthalene
	c	4.0	0.20	× -	ug/L		Metnylene chloride
	лс	0 70	0.00	> -			
	700	4 C-U	0.00	> F	1/6n		trans-1,3-Uichioropropene
		0.00	0.18	> -	<u>1/6n</u>		cis-1,3-Uichioropropene
	c	0.04	0 10		-1/6n		1,2-Dichloropropane
	סת	0.01	0.10		1/0/1		Irans-1,2-Dichloroetherie
	100	0.51	0 15	> r	10/1		CIS-1, Z-DICHICIDEUIEIIE
	70	0.62	0.18	> r	1,60		
	7	0.57	0.16		1/01		1,2-Dichloroothana
	ъ	69 0	0 19	<u> </u>	1111		1, I-Dichloroethano
		0.64	0.18		1/0/1		1 1 Dickloroothana
		0.49	0.14	1.	[/Dil		1,4-Dichlorodifluoromothano
	75	0.76	0.21	1	1/D	CUN	1.J-Dicklorobenzene
		0.72	0.20	1	ua/L	ZD	1.2 Dichlombenzene
	600	0.76	0.22	1	ua/L	dN	1 2-Dichlorohenzene
		0.73	0.21	1	uq/L	ND	Dibromomethane
		0.43	0.12	-	ug/L	ND	1 2-Dibromoethane
		0.73	0.21	1	ug/L	ND	1.2-Dibromo-3-Chloropropane
	80	0.61	0.17	1	ug/L	ND	Dibromochloromethane
		0.68	0.19	11	ug/L	ND	Chloromethane
	80	0.60	0.17	۲ 1	ug/L	ND	Chloroform
		5.4	1.5	1	ug/L	ND	Chloroethane
	100	0.56	0.16	1	ug/L	DN	Chlorobenzene
	JUI	0.66	0.19	1	ug/L	ND	Carbon Tetrachloride
		0.79	0.22	1	ug/L	DN	Bromomethane
	80	0.56	0.16	11	ug/L	DN	Bromoform
	80	0.68	0.19	1	_ug/L	DN	Bromodichloromethane
	с л	0.69	0.19	<u>1</u>		ND	Benzene
Note	MCL	LOQ	ГОД	TS DIL	UNITS	RESULT	ANALYTE NAME
						2/19 - Analytes: 43	Sample: 1155390 PW18 Collected: 10/16/19 Analyzed: 10/22/19 Analytes: 43
subsystem and an an approximate material and interval in the state of the control of the	And a second state and the second state and the second state of th						
	•		09:36	Printed: 11/13/2019	Printe	Temnlate: SAT3APP3	October 2019
						rate Wells	Drainat Description: Marathen County Area A Priv
				4	t: 33307.	Dept NLS Project: 333074	Customer: Marathon County Solid Waste Momnt Dept
Page 5 of 6						/ater - (VarSat3)	ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3)

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method.

Page 6 of 6

ANALYTICAL RESULTS: VOC's by P&T/GCMS - Water - (VarSat3)

Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: 333074 Project Description: Marathon County Area A Private Wells

Project Title: October 2019 Template: SAT3APP3 Printed: 11/13/2019 09:36

	I ellipiate: On I on I o	1 111004. 1 11 10	10 00.00			
Sample: 1155391 PW68 Collected: 10/16/19 Analyzed: 10/22/19 - Analytes: 43	: 10/22/19 - Analytes: 43					
ANALYTE NAME	RESULT	UNITS		LOQ	MCL	Note
Benzene	ND	ug/L	1 0.19	0.69	ο 20	
Bromodichloromethane	ND	ug/L	1 0.19	0.56	80	
Bromomethane	ND	ug/L	1 0.22	0.79		
Carbon Tetrachloride	DN	ug/L	1 0.19	0.66	5	
Chlorobenzene	ND	ug/L	1 0.16	0.56	100	
Chloroethane			4 0 1 2	0.80	80	
Chloromethane	ND	ug/L	1 0.19	0.68		
Dibromochloromethane	ND	ug/L	1 0.17	0.61	80	
1.2-Dibromo-3-Chloropropane	ND	ug/L	1 0.21	0.73		
1,2-Dibromoethane	DN	ug/L	1 0.12	0.43		
Dibromomethane	DN	ug/L	1 0.21	0.73		
1,2-Dichlorobenzene	ND		1 0.22	0.76	600	
1,3-Dichlorobenzene	ND	ug/L	1 0.20	0.72	75	
1,4-Dichlorobenzene	ND	ug/L	1 0.14	0.49	- 2	
1.1-Dichloroethane	ND	ug/L	1 0.18	0.64		
1,2-Dichloroethane	DN	ug/L	1 0.19	0.69	G	
1,1-Dichloroethene	ND	l	1 0.16	0.57	7	
cis-1,2-Dichloroethene		un/l	1 0.18	0.51	100	
1 2-Dichloropropane	ND	ug/L	1 0.24	0.84	сл	
cis-1,3-Dichloropropene	DN	ug/L	1 0.19	0.68		
trans-1,3-Dichloropropene	DN	ug/L	1 0.14	0.51	100	
Ethylbenzene	ND	ug/L	1 0.30	1.1	100	
Methylene chloride		ug/L	1 0.20	10	U	
Shirana	ND	1/011	1 0.16	0.56	100	
ortho-Xylene	ND	ug/L	1 0.16	0.56		
Tetrachloroethene	DN	ug/L	1 0.17	0.58	5	
Toluene	DN	ug/L	1 0.19	0.68	1000	
1,1,1-Trichloroethane	ND	ug/L	1 0.17	0.61	200	
1,1,2-Trichloroethane	ND		1 0.1/	0.59	ıσ	
Trichloroethene	ND	ug/L	1 0.24	0.84	G	
1 richloronuoronemane			1 0 1 0	0.00	c	
Vinyl chloride		ug/L	1 0 22 0	1.3/	10000	
MTRE		ug/L	1 0.32	0.78	10000	
Acetone	ND	ua/L	4.2	12		
Carbon Disulfide	ND	ug/L	1 0.16	0.58		
Methyl Ethyl Ketone	ND	ug/L ·	1 0.50	1.8		
Tetrahydrofuran	ND	ug/L	1 0.97	3.5		
Dibromofluoromethane (SURR)	113%		د			n N
Toluene-d8 (SURR)	120%		د. ،			n u
I-Brottio-4-Fluoropenzene (SURK)	11170					c

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method.

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ANALYTICAL RESULTS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200) Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: 333074

Project Description: Marathon County Area A Private Wells

Project Title: October 2019 Template: SATRAPP3 Printed: 11/13/2019 09:38

Sampler 115221 : 1912 : 001/01/01/01/01/01/01/01/01/01/01/01/01/	INTER THE OCCASE FOR	• •••••						and a second
SULT UNTS DIL LOD LOD MCL 10 0 0 1 0 0 1 1 0 1 1 0 1 1 0 1 1 0 1 <th>sample 1155392 PW19 Collected 10/16/19 Analyzed 10/2</th> <th>8/19 - Analytes: 43</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	sample 1155392 PW19 Collected 10/16/19 Analyzed 10/2	8/19 - Analytes: 43						
Image: Supersonal of	ANALYTE NAME	RESULT	UNITS	머니	LOD	LOQ	MCL	Note
energy energy<	Benzene	ND	ug/L	<u>نـ </u>	0.41	4 4	g a	
Bill Oppose Oppose <td>Bromodichloromethane</td> <td>ND</td> <td>ug/L</td> <td>د_ د</td> <td>0.45</td> <td> - ¥</td> <td>R N</td> <td></td>	Bromodichloromethane	ND	ug/L	د_ د	0.45	 - ¥	R N	
opene NO	Bromoform		1/0/1	- -	0.14	0.46		
NO NO<	Bromomethane	ND	ua/L		0.46	1.5	თ	
Iogene ND ug/d 1 0.42.1 1.3. 0.0 ND ug/d 1 0.42.1 1.3. 0.42.1 1.3. 0.42.1 ND ug/d 1 0.42.1 1.3. 0.42.1 1.3. 0.42.1 ND ug/d 1 0.42.1 1.3. 0.42.1 1.3. 0.42.1 ND ug/d 1 0.42.1 1.3. 0.42.1 1.3. 0.44.1 1.3. 0.44.1 1.3. 0.44.1 1.4.1<		ND	ug/L	_	0.45	1.4	100	
ND ND Ug/L 1 0.42 1.3 80 ND ug/L 1 0.44 1.4 1.5 75 ND ug/L 1 0.44 1.4 70 1.4 1.5 75 ND ug/L 1 0.44 1.4 70 1.4 1.6 1.4 1.5	Chloroethane	ND	ug/L	1	2.1	6.7		CC
oppane ND upf. 1 1.3 80 e ND upf. 1 0.42 1.3 0.9 e ND upf. 1 0.42 1.3 0.9 e ND upf. 1 0.42 1.3 0.9 a ND upf. 1 0.42 1.3 0.9 a ND upf. 1 0.44 1.3 0.9 a ND upf. 1 0.44 1.3 60 a ND upf. 1 0.44 1.3 60 ND upf. 1 0.44 1.3 60 1.4 1.3 60 ND upf. 1 0.44 1.3 70 1.4 1.3 60 ND upf. 1 0.44 1.4 1.3 70 ND upf. 1 0.44 1.4 1.3 70 N	Chloroform	DN	Ug/L		0.42	1.3	80	
ND ND up1 nu	Chloromethane	ND	ug/L		0.42	<u>ر</u> بن د	0	
oppme ND ugf 1 0.27 0.27 e ND ugf 1 0.47 0.39 n ND ugf 1 0.47 0.39 n ND ugf 1 0.46 1.3 60 n ND ugf 1 0.46 1.4 1.3 a ND ugf 1 0.41 1.3 60 ND ugf 1 0.43 1.4 1.3 60 ND ugf 1 0.43 1.4 1.3 60 ND ugf 1 0.43 1.4 6 1.4 6 ND ugf 1 0.43 1.4 6	Dibromochloromethane	DN			0.40	1.0	0	
e ND ND </td <td>1,2-Dibromo-3-Chloropropane</td> <td>NU</td> <td>ug/L</td> <td>\</td> <td>0.41</td> <td>4.90</td> <td></td> <td></td>	1,2-Dibromo-3-Chloropropane	NU	ug/L	\	0.41	4.90		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,2-Dibromoethane	UN	ug/L		0.4			
• ND Ug1 1 0.45 1.4 000 • ND Ug1 1 0.45 1.4 0.45 • ND Ug1 1 0.45 1.4 1.5 • ND Ug1 1 0.46 1.3 76 • ND Ug1 1 0.47 1.5 76 • ND Ug1 1 0.44 1.5 76 • ND Ug1 1 0.43 1.4 100 ND Ug1 1 0.44 1.4 5 5 • ND Ug1 1 0.43 1.4 5 • ND Ug1 1 0.44	Dibromomethane	UN			0.30	3	200	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,2-Dichlorobenzene	ND		.	0.42	1.3	000	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,3-Dichlorobenzene	ND	ug/L	<u>ــ</u> ـ	0.45	ч.– л.–	75	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,4-Dichlorobenzene			×	0.40	<mark>ء ا</mark>	ī	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Dichlorodifluoromethane	ND	ug/L	- 4	0.40			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,1-Dichloroethane			- - 	0 4 1	1.3	თ	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,Z-Dichloroethane		110/1		0.48	1.5	7	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ris-1 2-Dichloroethene	ND	ug/L	-	0.41	1.3	70	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	frans-1 2-Dichloroethene	ND	ug/L		0.35	1.1	100	
9 ND ug/L 1 0.20 0.66 ND ug/L 1 0.20 0.66 ND ug/L 1 0.22 0.74 ND ug/L 1 0.43 1.4 700 ND ug/L 1 0.43 1.4 700 ND ug/L 1 0.22 0.74 1.4 5 ND ug/L 1 0.24 1.4 5 6 ND ug/L 1 0.24 1.4 1.4 5 ND ug/L 1 0.43 1.4 100	1.2-Dichloropropane	DN	ug/L		0.38	1.2	თ	
ne ND ug/L 1 0.122 0.14 700 ND ug/L 1 0.44 1.4 5 ND ug/L 1 0.44 1.4 5 ND ug/L 1 0.43 1.4 5 ND ug/L 1 0.46 1.5 5 ND ug/L 1 0.46 1.5 5 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 2.0 ND<	cis-1,3-Dichloropropene	ND	ug/L	-	0.20	0.66		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	trans-1,3-Dichloropropene	ND	ug/L		0.22	0.74	700	
ND ND Ug/L 1 0.24 0.44 1.4 3 ND ND Ug/L 1 0.24 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.00 1.4 1.4 1.4 1.4 1.4 1.00 1.4 1.4 1.4 1.4 1.4 1.00 1.4 1.4 1.6 2.00 1.6 2.00 1.6 2.00 1.6 2.00 1.6 2.00 1.6 5 1.4 1.00 1.6 5 1.4 1.00 1.6 5 1.4 1.00 1.6 5 1.4 1.6 5 1.4 1.6 5 1.4 1.6 5 1.4 1.000 1.6 5 1.4 1.0000 1.4	Ethylbenzene	ND			0.43	1.4	700	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Methylene chloride	NU	ug/L	<u>ــ</u> ا	0.44	0 63	U	
ND ND UP/L 1 0.25 0.79 100 ND ug/L 1 0.25 0.79 100 ND ug/L 1 0.43 1.4 5 ND ug/L 1 0.45 1.4 5 ND ug/L 1 0.45 1.4 2.0 ND ug/L 1 0.42 .2 2 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 2.0 ND<	Vaphthalene		ug/L	×	0.20	4 4		r
ND Up/L 1 0.425 0.47 1 ND ug/L 1 0.43 1.4 5 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 5 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.43 1.4 5 ND ug/L 1 0.45 1.4 5 ND ug/L 1 0.45 1.4 1000 ND ug/L 1 0.43 1.4 1000 ND ug/L 1 0.44 1.4 1000 ND ug/L 1 0.43 1.4 10000 ND ug/L 1 0.43 1.4 10000 ND ug/L 1 0.83 2.7 1 ND ug/L	ortho-Xylene	NU	ug/L		0.44	0 - 10 + - 0	*00	
ND ND Ug/L 1 0.43 1.4 100 ND ug/L 1 0.45 1.4 100 ND ug/L 1 0.41 1.4 1000 ND ug/L 1 0.43 1.4 10000 ND ug/L 1 0.43 1.4 10000 ND ug/L 1 0.43 1.4 10000 SURR) ND ug/L 1 0.83 2.7 <	Styrene	NL	ug/L	×	C2.0	0.78	n 100	
ND ND ug/L 1 0.45 1.6 200 ND ug/L 1 0.46 1.5 5 ND ug/L 1 0.45 1.4 200 ND ug/L 1 0.45 1.4 200 ND ug/L 1 0.45 1.4 2 ND ug/L 1 0.43 0.42 2 2 ND ug/L 1 0.44 1.4 1 4 1 ND ug/L 1 0.43 1.4 2.8 10000 ND ug/L 1 0.43 1.4 1 4 1 ND ug/L 1 0.43 1.4 1 1 4 1 ND ug/L 1 0.64 2.0 1	[etrachloroethene		- ug/L	- -	0.40	 - -	1000	
ND ug/L 1 0.46 1.5 5 ND ug/L 1 0.46 1.5 5 ND ug/L 1 0.45 1.4 1 ND ug/L 1 0.45 1.4 1 ND ug/L 1 0.41 1.4 1 ND ug/L 1 0.43 2.0 1 ND ug/L 1 0.83 2.7 1 SURR) 97.11% 1 0.83 2.7 1 96.31% 1 1 1 1 1	loluene		1/UU/L	-	0.40		200	
ND ND Ug/L 1 0.50 1.6 5 ND Ug/L 1 0.45 1.4 2.2 ND Ug/L 1 0.45 1.4 2.2 ND Ug/L 1 0.45 1.4 2.8 ND Ug/L 1 0.43 1.4 1.4 ND Ug/L 1 0.64 2.0 1.4 ND Ug/L 1 0.83 2.7 1.4 SURR) 95.31% 1 1 1 1 96.31% 1 1 1 1 1	1, 1, 1-11ICHI010EUIAIIE		1/011	· .	0.46	1.5	თ	
ND ug/L 1 0.45 1.4 ND ug/L 1 0.13 0.42 .2 ND ug/L 1 0.89 2.8 10000 ND ug/L 1 0.43 1.4 1.4 ND ug/L 1 0.89 2.8 10000 ND ug/L 1 0.44 1.4 1.4 ND ug/L 1 0.43 1.4 1.4 ND ug/L 1 0.43 1.4<	richlomethene	D	ùq/L		0.50	1.6	თ	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Trichlorofluoromethane	ND	ug/L	1	0.45	1.4		
ND ug/L 1 0.89 2.8 1000 ND ug/L 1 0.44 1.4 1.4 ND ug/L 1 0.43 1.4 1.4 ND ug/L 1 0.43 1.4 1.4 ND ug/L 1 0.63 1.4 1.4 ND ug/L 1 0.63 2.7 1.4 ND ug/L 1 0.83 2.7 2.0 89.13% 1 1 1 1 96.31% 1 1 1 1	Vinyl chloride	DN	ug/L		0.13	0.42	.2	
ND ug/L 1 0.44 1.4 ND ug/L 1 2.1 6.7 ND ug/L 1 0.43 1.4 ND ug/L 1 0.64 2.0 ND ug/L 1 0.64 2.0 ND ug/L 1 0.83 2.7 89.13% 1 1 0.83 2.7 96.31% 1 1 1 1	meta,para-Xylene	ND	ug/L	-	0.89	2.8	10000	
ND ug/L 1 2.1 6.7 ND ug/L 1 0.43 1.4 ND ug/L 1 0.64 2.0 ND ug/L 1 0.83 2.7 89.13% 1 1 0.83 2.7 97.11% 1 1 1 96.31% 1 1 1	MTBE	ND	ug/L	_	0.44	1.4		
ND ug/L 1 0.43 1.4 ND ug/L 1 0.64 2.0 ND ug/L 1 0.83 2.7 89.13% 1 1 0.83 2.7 97.11% 1 1 1 96.31% 1 1 1	Acetone	ND	ug/L	- -	2.1	6.7		
ND ug/L 1 0.64 2:0 ND ug/L 1 0.83 2:7 89.13% 1 0.83 2:7 97.11% 1 96.31% 1	Carbon disulfide	DN	ug/L	-	0.43	1.4		
ND ug/L 1 0.83 2.7 97.11% 1 96.31% 1 96.31% 1	Methyl ethyl ketone	DN	ug/L	-	0.64	2.0		
89.13% 1 97.11% 1 96.31% 1		ND	ug/L	.	0.83	2.1		0
96.31% 1		89.13%		× ×				nu
90.3170	1 oluene-d8 (SURR)	06 310/		- L				s
	1-Bromo-4-Fluoropenzene (SUKK)	90.31%		-				

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

)					J 222 J 25 40
TS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200)	U)					
County Solid Waste Mgmnt Dept NLS Project: 3	33074					
Marathon County Area A Private Wells))			
er 2019 Template: SATRAPP3 Printed: 11/13/2019 09:38	Printed: 11	/13/2019 03	9:38			
Collected: 10/16/19 Analyzed: 10/28/19 - Analytes: 43						
RESULT	UNITS	민	LOD	LOQ	MCL	Note
ND	ug/L		0.41	1.3	G	
ND	ug/L		0.45	1.4	80	
ND	ug/L		0.36	1.1	80	
D	ug/L		0.14	0.46		
DND	ug/L		0.46	-1 5	50	
DN	ug/L		0.45	1.4	100	
DN	ug/L	-	2.1	6.7		66
DN	ug/L		0.42	1.3	UR	
ND	ug/L		0.42	1.3		
DN	ug/L		0.40	1.3	80	
ND	ug/L	-	0.27	0.90		
	ug/L		0.41	1.3		
DN	ug/L		0.36		222	
DN	ug/L	-	0.42	1.3	600	
ND		-	0.45	1.4		
DN	ug/L		0.46		ç/	
DN	ug/L		0.40	. <u>1</u> .ω		
	ug/L		0.47	. 1.5		
DN	ug/L		0.41	1.3	10	
DN	ug/L		0.48	 	7	
DN	ug/L		0.41	1.3	100	
DN	ug/L		0.35	1.1	100	
DN	ug/L		0.38	. 1.2	J	
DN	ug/L		0.20	0.00		
NU	ug/L	.	0.22	4.0	100	

S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77% Tetrahydrofuran Dibromofluoromethane (SURR) Toluene-d8 (SURR) 1-Bromo-4-Fluorobenzene (SURR) NOTES APPLICABLE TO THIS ANALYSIS: meta,para-Xylene MTBE

richlorofluoromethane

1/6n

ug/L ug/L

1.4 6.7

10000

chloride

richloroethene

,1-Trichloroethane ,2-Trichloroethane

uene

rachloroethene

Carbon disulfide

lethyl ethyl ketone

Acetone

Styrene

ortho-Xylene

Nethylene chloride Vaphthalene thylbenzene xis-1,3-Dichloropropene rans-1,2-Dichloroethene 1,2-Dichloropropane i,1-Dichloroethene sis-1,2-Dichloroethene

rans-1,3-Dichloropropene

SSSSS

ng/ ng/bn

ug/L ug/L

 $\begin{array}{c} 0.000 \\$

0.42

<u>5 500</u>5

1.4 0.79

00

1.4 0.62

500

82.8% 92.18% 94.99%

/gu /gu

> 2.7 2.0

SOS

ANALYTICAL RESULT

Sample: 1155393 PW64

ANALYTE NAME

Benzene

Bromodichloromethane

Project Title: Octobe Project Description: **Customer: Marathon**

Chlorobenzene Chloroethane

loroform

hloromethane bibromochloromethane

Bromomethane Bromoform

Carbon Tetrachloride

Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane

ibromomethane

2-Dibromoethane 2-Dibromo-3-Chloropropa

,3-Dichlorobenzene ,2-Dichlorobenzene

4-Dichlorobenzene

				-		00:12 - 10	NOTES APPLICABLE TO THIS ANALYSIS:
S O		,		- -		93.24%	1-Bromo-4-Fluorohenzene (SURR)
м v						89 77%	Toliene-d8 (SLIBR)
S				<u>ـ</u>	- - 2	85 04%	Dibromofluoromethane (SLIRR)
		2.7	0.83	-	ua/L	N	Tetrahvdrofuran
		2.0	0.64		uq/L	ND	Methyl ethyl ketone
		1.4	0.43		ug/L	dN	Carbon disulfide
		6.7	2.1	-	⊔/Dn	ND	Acetone
		1.4	0.44	L	ug/L	ND	MTBE
	10000	2.8	0.89	1	ug/L	ND	meta,para-Xylene
	i2	0.42	0.13	-1	ug/L	ND	Vinyl chloride
		1.4	0.45		ug/L	ND	Trichlorofluoromethane
	5	1.6	0.50		ug/L	ND	Trichloroethene
	თ	1.5	0.46	-	ug/L	ND	1,1,2-Trichloroethane
	200	1.6	-0.49		ug/L	ND	1,1,1-Trichloroethane
	1000	1.4	0.43		ug/L	DN	Toluene
	σı	1.4	0.43	-	ug/L	ND	Tetrachloroethene
	100	0.79	0.25	-	ug/L	ND	Styrene
		1.4	0.44		ug/L	DN	ortho-Xylene
		0.62	0.20		ug/L	ND	Naphthalene
	ഗ	1.4	0.44		ug/L	ND	Methylene chloride
	700	1.4	0.43		ug/L	ND	Ethylbenzene
		0.74	0.22		ug/L	ND	trans-1,3-Dichloropropene
		0.66	0.20		ug/L	ND	cis-1,3-Dichloropropene
	5	1.2	0.38	1	ug/L	DN	1,2-Dichloropropane
	100	1.1	0.35		ug/L	N	trans-1,2-Dichloroethene
	70	1.3	0.41	1	ug/L	ND	cis-1.2-Dichloroethene
	7	1.5	0.48	<u></u> .	ua/L	ND	1,2-Dichloroethene
	יט	1 :3	0.41	<u>ہ</u>	110/1		1. 1-Dichloroothano
		1.5	0.47		110/1		1 1 Dichlomothane
			0.40	- 4	10/1		Dishloradifiliaramathana
	75	-1 - - -	0.46		110/l	ND	1,3-Uichlorobenzene
	000	14	0.4F		110/l		
	600	1 - 	0.50		10/L		1 3 Distriction
		л. - i	0.4-		10/L		
		1 2	0.21	<u>ــــــــــــــــــــــــــــــــــــ</u>	ug/L	N	1,2-Dibromo-3-Chloropropane
	C	2	0.40	× -	ug/L		Libromochloromethane
	ñ	1.0	0.42	<u>ــ</u> ا		N	Chloromethane
	ä	1.3	0.42	\ 	ug/L	ND	Chloroform
CC	8	6./	2.1		ug/L	ND	Chloroethane
8	100	1.4	0.45		ug/L	DN	Chlorobenzene
	50	 .5	0.46		ug/L	ND	Carbon Tetrachloride
		0.46	0.14	-	ug/L	ND	Bromomethane
	80	1.1	0.36	1	ug/L	ND	Bromoform
	80	1.4	0.45		ug/L	DN	Bromodichloromethane
	σ	1.3	0.41	- -	ug/L	ND	Benzene
Note	MCL	LOQ	LOD	미니	UNITS	RESULT	ANALYTE NAME
						Analytes: 43	Sample: 1155394 PW27 Collected: 10/16/19 Analyzed: 10/28/19 - Analytes: 43
			09:38	1/13/2019	Printed: 11/13/2019	Template: SATRAPP3	Project Title: October 2019 Tem
						Wells	Droiect Description: Marathon County Area A Private Wells
ţ					333074	t NLS Project: 333074	Customer: Marathon County Solid Waste Mamnt Dept
Page 3 of 10					00)	ndix III - (VarSat22	ANALYTICAL RESULTS: VOC'S by P&T/GC/MS - Appendix III - (VarSat2200)

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

Page 4 of 10

ANALYTICAL RESULTS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200) Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: 333074 Customer: Marathon County Solid Waste Mgmnt Dept

Project Description: Marathon County Area A Private Wells Proiect Title: October 2019 Template: \$ Template: SATRAPP3 Printed: 11/13/2019 09:38

Project Title: October 2019	lemplate: SAI KAPPS	Printed: 11/13/2	5/2019 09.30			
	: 10/28/19 - Analytes: 43					
ANAI YTE NAME	RESULT	UNITS D	DIL LOD	LOQ	MCL	Note
Benzene	ND	ug/L	0.41	4 .3	8 U	
Bromodichloromethane	NU	ug/L	0.40	- - + +	80	
Bromoform			0.14	0.46		
Bromomethane	ND	ua/L	0.46	1.5	თ	
	ND	ug/L	0.45	1.4	100	~
Chloroethane	DN	ug/L	2.1	6.7	ŝ	CC.
Chloroform	DN	ug/L	0.42	1.0	00	
Chloromethane	ND		0 40	1.3	80	
Dipromocniorometriarie	CIN	ua/L	0.27	0.90		
1,2-Dibromoethane	D	ug/L	0.41	1.3		
Dibromomethane	dN	ug/L	0.36	, ,	200	
1 2-Dichlorobenzene	ND	ug/L	0.42	1.3	000	
1,3-Dichlorobenzene	DN	ug/L	0.45	4 n 4	75	
1,4-Dichlorobenzene	NU	ug/L	0.40	<u>م</u> ا. ت	10	
Dichlorodifluoromethane			0 /7	<u>л</u> .		
1,1-Dichloroethane	ND		0.41	1.3	თ	
1,2-Dichloroethane	ND	ug/L	0.48	1.5	7	
1, I-Dichloroethene	DN	ug/L	0.41	1.3	70	
trans-1.2-Dichloroethene	DN	ug/L	1 0.35		100	
1,2-Dichloropropane	ND	ug/L	0.38	2.1.2	o	
cis-1,3-Dichloropropene	ND	ug/L	0.20	0.00		
trans-1,3-Dichloropropene		ug/L	1 0.22	14	700	
Ethylbenzene		1/1 1/1	0.44	14	5	
Wethylene chloride	ND	ua/L	0.20	0.62		
ortho_Yvlene	ND	uq/L	0.44	1.4		
Styrene	DN	ug/L	1 0.25	0.79	100	
Tetrachloroethene	ND	ug/L	0.43	1.4	0	
Toluene	ND	ug/L	0.43	4.0		
1,1,1-Trichloroethane	ND		1 0.49	- <u>-</u>	50	
1, 1, 2-1 Inchloroethane	ND	110/1	0.50	1.6	თ	
Trichlorofluoromethane	ND	ua/L	1 0.45	1.4		
Vinvi chloride	DN	ug/L	1 0.13	0.42	.2	
meta,para-Xylene	DN	ug/L	1 0.89	2.8	10000	
MTBE	ND	ug/L	0.44	1.4 0.1		
Acetone	DN	ug/L	1 2.1	0./		
Carbon disulfide	DN	ug/L	1 0.43	7.4		
Methyl ethyl ketone	ND	ug/L	U.64	2.C		
	UN UN	UG/L	- U.O.J	2.1		s
Dibromofluoromethane (SURR)	06.1%		-			s
1 Divene-da (SUKK)	100 15%					S
NOTES APPLICABLE TO THIS ANALYSIS:						

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

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Page 5 of 10

ANALYTICAL RESULTS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200) Customer: Marathon County Solid Waste Mgmnt Dept N Project Description: Marathon County Area A Private Wells NLS Project: 333074

Project Title: October 2019 Template: SATRAPP3 Printed: 11/13/2019 09:38

	s/ IS - Analytes: 43		A STATE OF A				
	RESULT	UNITS	DIL	LOD	LOQ	MCL	Note
Benzene	ND	ug/L		0.41	1.3	; თ	
Bromodichloromethane	ND	ug/L	. _	0.45	4.4	80	
Bromoform	DN	ug/L	.	0.36).1.1	80	
Bromomethane	DN	ug/L		0.14	0.46	1	
Carbon Tetrachloride	DN	ug/L	.	0.46		5°0	
Chlorobenzene	D	ug/L	.	0.45	7.4 ~ 7	UU	22
Chloroethane	DN	ug/L	.	2.1	6./	2	CC
Chloroform	ND		·	0.42	<u>-</u> ا ی د	ä	
Chloromethane .	NC	ug/L		0.42	າ ນັ	08	
Jibromochloromethane		110/1	-	0.70	0.90	00	
1,2-Dibromoethane	D	ua/L	. . 	0.41	1.3		
Thromomethane	ND	ug/L		0.36	1.1		
1.2-Dichlorobenzene	ND	ug/L	L	0.42	1.3	600	
1,3-Dichlorobenzene	ND	ug/L	-	0.45	1.4		
1,4-Dichlorobenzene	ND	ug/L	د ا	0,46		6)	
Dichlorodifluoromethane	DN	ug/L	- -	0.40	. <u>.</u>		
1,1-Dichloroethane	ND	ug/L	\	0.47	-1- 	7	
1,2-Dichloroethane	ND		.	0.41	1.5	10	
1,1-Dichloroethene	ND	Ug/L	-	0.40	- د ن د	70	
UIS-1,2-DIGHIOIOEUTETTE	ND	1/0/1	. ا	0.35	1.1 •	100	
1 2-Dichloropropane	ND	uq/L		0.38	1.2	თ	
cis-1,3-Dichloropropene	ND	ug/L	-	0.20	0.66		
trans-1,3-Dichloropropene	ND	ug/L	1	0.22	0.74		
Ethylbenzene	ND	ug/L	-	0.43	1.4	700	
Methylene chloride	ND	ug/L	<u>د</u>	0.44	1.4	თ	
Naphthalene	ND	ug/L		0.20	0.62		
rtho-Xylene	ND	ug/L		0.44	1.4		
Styrene	ND	ug/L	-	0.25	0.79	100	
etrachloroethene	DN	ug/L	<u>د</u>	0.43	1.4	50	
oluene	DN	ug/L		0.43	1.4	1000	
,1,1-Trichloroethane	ND	ug/L		0.49	1.6	200	
,1,2-Trichloroethane	ND	ug/L		0.46	1.5	o	
richloroethene	DN	ug/L		0.50	1.6	U	
richlorofluoromethane	ND	ug/L	.	0.45	1.4		
/inyl chloride	ND	ug/L	.	0.13	0.42	.2	
meta,para-Xylene	ND		\ 	0.89	2.8	10000	
VIBE	NC	UQ/L		o.44	0-1-4		
Acetone	ND	ug/L	×	2.1	40,7		
	ND	ug/r	×	0.40	- c + c		
Meuryi euryi nettire Tetrahvdrofi iran			- -	0.04	270		
Dibromofluoromethane (SURR)	83.76%						S
	92.36%		-				s S
1-Bromo-4-Fluorobenzene (SURR)	96.57%		<u>د.</u>				S
NOTES ADDI ICARI E TO THIS ANAI VSIS:							

NOTES APPLICABLE TO THIS ANALYSIS: S = This, compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

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ANALYTICAL RESULTS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200) Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: 333074

Project Description: Marathon County Area A Private Wells Project Title: October 2019 Template: \$

Template: SATRAPP3 Printed: 11/13/2019 09:38

Project Litle: Uctober 2019	Template, OATIVALED	[IIIIten: I II				
Sample: 1155397 PW80 Collected: 10/16/19 Analyzed: 10/28/19 - Analytes: 43	1: 10/28/19 - Analytes: 43					
	RESULT	UNITS	DIL LOD		MCL	Note
Benzene	ND	ug/L	1 0.41	1.3	βu	
Bromodichloromethane		ug/L	10.0 		80	
Bromoform	ND	ug/L				
Bromomethane		ug/L	1 0.4		თ	
Carbon Tetrachloride		110/1	1 0.4		100	
Chlorobenzene		1/D/1	1 2.1			00
Chioroetnane	ND	ug/L	1 0.42		80	
Chloromethane	ND	ug/L	1 0.4:			
Dibromochloromethane	DN	ug/L	1 0.40		08	
1.2-Dibromo-3-Chloropropane	DN	ug/L	1 0.2			
1.2-Dibromoethane	DN	ug/L	1 0.4		-	
Dibromomethane	ND	ug/L	0.3		600	
1,2-Dichlorobenzene	ND	ug/L	0.4		000	
1,3-Dichlorobenzene	ND	1/2/I	 0.4		75	
1,4-Dichlorobenzene		1/0/1	1 0.40			
1 1-Dichloroethane	ND	ug/L	1 0.4			
1 2-Dichloroethane	ND	ug/L	1 0.4		ı ص	
1.1-Dichloroethene	ND	ug/L	1 0.4		70	
cis-1,2-Dichloroethene	:D	ug/L	1 0.4		100	
rans-1,2-Dichloroethene		U9/L	1		л ос	
,2-Dichloropropane		1/0/1	1 0.2			
		1/011	1			
Taris-1, 3-Dicition optoperte	dN	ug/L	1 0.4	3 1.4	700	
Methylene chloride	ND	ug/L	1 0.4		5	
Vaphthalene	ND	ug/L	1 0.2			
ortho-Xylene	ND	ug/L	1 0.4		200	
Styrene	ND	ug/L	1 0.2		100	
etrachloroethene	ND	ug/L	0.4		1000	
	ND		1 - 0.4 0.4		200	
4 3 Trichloroethane	CUN	ua/L	1 0.4		თ	
Tichloroethene	ND	ug/L	1 0.5		5	
Trichlorofluoromethane	ND	ug/L	1 0.4		>	
/inyl chloride	ND	ug/L	. 1		-2.2	
meta,para-Xylene		ug/L	1			
MTBE	ND	ug/L	 - د + د			
Aceione		na/r	1 · · · · · · · · · · · · · · · · · · ·			
Vethyl ethyl ketone	ND	ug/L	1 0.6			
Tetrahydrofuran	DN	ug/L	1 0.8			
Dibromofluoromethane (SURR)	79.22%					n 0
Toluene-d8 (SURR)	90.74%		د_ \ ا			0
1-Bromo-4-Fluorobenzene (SURR)	95.35%					c
NOTES APPLICABLE TO THIS ANALYSIS:						

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: 33	III - (VarSatzzuu) NLS Project: 333074	333074					rage / of to
Project Description: Marathon County Area A Private Wells Project Title: October 2019	s : SATRAPP3	Printed: 11/13/2019 09:38	/13/2019 ()9:38			
<u>~</u>	/tes: 43						
ANALYTE NAME	RESULT	UNITS	DIL	LOD	Год	MCL	Note
Benzene	ND	ug/L	_	0.41	1.3	თ	
Bromodichloromethane	ND	ug/L		0.45	1 -1 2 -2 2 -2	80	
Bromoform		ug/L	-	0.30	0 / 6	Q	
Bromomethane		10/I		0.14	1.5	ы	
	S	ug/L		0.45	1.4	100	
Chloroethane	ND	ug/L	-	2.1	6.7		CC
Chloroform	dN	ug/L		0.42		80	
Chloromethane	ND	ug/L	د اد	0.42	<u>د</u> دن د	00	
Dibromochloromethane	ND	ug/L	\	0.40	1.0	0	
1,2-Dibromo-3-Chloropropane		ug/L	×	0.27	0.90		
1,2-Dibromoethane		ug/L		0.41	11.0		
1 9-Dichlombenzene	N	ua/L		0.42	1.3	600	
1,3-Dichlorobenzene	ND	ug/L	Ч	0.45	1.4		
1,4-Dichlorobenzene	ND	ug/L	-	0.46	1.5	75	
Dichlorodifluoromethane	ND	ug/L .		0.40	1.3		
1,1-Dichloroethane	ND		<u> </u>	0.4/	1.0	n	
1,2-Dichloroethane	NU	ug/L		0.41	<u>л</u> .	C C	
1,1-UICNIOROETNENE	z z		- -	0.41	1.3	70	
trans-1 2-Dichloroethene	N	uq/L		0.35	1.1	100	
1.2-Dichloropropane	ND	ug/L		0.38	1.2	თ	
cis-1,3-Dichloropropene	ND	ug/L		0.20	0.66		
trans-1,3-Dichloropropene	ND	ug/L	-	0.22	0.74		
Ethylbenzene,	ND	ug/L	. <u> </u>	0.43	1.4	700	
Methylene chloride	ND	ug/L	. <u> </u>	0.44	1.4	5	
Naphthalene	BC	ug/L	<u>ــ</u>	0.20	1.62		
		ug/L	ـ. د	0.77	0 70	100	
Styrene		ug/L	- L	0.20	14	л <mark>с</mark>	
Tolijene	N	ua/L		0.43	.1. .4	1000	
1,1,1-Trichloroethane	dN	ug/L	د.	0.49	1.6	200	
1,1,2-Trichloroethane	ND	ug/L	-	0.46	1.5	თ	
Trichloroethene	ND	ug/L		0.50	1.6	5	
Trichlorofluoromethane			<u>د</u> ا	0.45	7.4	د	
Vinyl chloride	BE	ug/L		0.13	0.42 28	10000	
MTRE	N	110/L		0.44	1.4		
Acetone	ND	ug/L	-	2.1	6.7		
Carbon disulfide	ND	ug/L	_	0.43	1.4		
Methyl ethyl ketone	ND	ug/L	-	0.64	2.0		
	DN	ug/L		0.83	2.7)
Dibromofluoromethane (SURR)	81.84%						o v
Toluene-d8 (SURR)	92.55%						0
ene	94./5%		-				J
NOTES APPLICABLE TO THIS ANALYSIS:							

S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

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ANALYTICAL RESULTS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200) Customer: Marathon County Solid Waste Mgmnt Dept NLS Project: 333074 Customer: Marathon County Solid Waste Mgmnt Dept N Project Description: Marathon County Area A Private Wells

CATRAPP3 Printed: 11/13/2019 09:38

Project litie: October 2018							
	alyzed: 10/28/19 - Analytes: 43						
ANALYTE NAME	RESULT	UNITS	PF	Fob	LOQ	MCF	Note
Benzene	ND	ug/L	د د	0.41	1.3	800	
Bromodichloromethane		ug/L		0.36		80	
Bromoform	CN CN	ug/L		0.14	0.46		
Carbon Tefrachloride	D	ug/L		0.46	1.5	р СП	
Chlorobenzene	ND	ug/L	.	0.45	1.4 ~ 7	100	00
Chloroethane	ND	ug/L	x	C 4 2	4.2	08	
hloroform		110/1		0.42	1.3		
	ND	ua/L	-	0.40	1.3	80	
2-Dibromo-3-Chloropropane	ND	ug/L	-	0.27	0.90		
2-Dibromoethane	ND	ug/L	د ــ	0.41	1.3		
bibromomethane	DN	l	×	0.36	1.1	600	
2-Dichlorobenzene	ND	ug/L	×	0.42	4 - i	000	
,3-Dichlorobenzene	ND		- -	0.40	- <u>-</u>	75	
,4-Uichioropenzene	ND	uq/L		0.40	1.3		
1-Dichlomethane	DN	ug/L	-	0.47	1.5		
,2-Dichloroethane	DN	ug/L		0.41	1.3	10	
,1-Dichloroethene	ND	ug/L	<u>د</u> د	0.48	 	70	
cis-1,2-Dichloroethene	ND	ug/L	×	0.41	<u>م ا</u>	100	
rans-1,2-Dichloroethene		ug/L		0.38	1.2	5	
1,2-Dichloroproparie	DN	uq/L	<u>-</u>	0.20	0.66		
ans-1,3-Dichloropropene	ND	ug/L	. <u> </u>	0.22	0.74	100	
thylbenzene	ND	ug/L	·	0.43	1.4	100	
Methylene chloride	ND	ug/L		0.44	0.62	c	
laphtnalene		1/0/1		0.44	1.4		
Shrana	ZD	ug/L		0.25	0.79	100	
etrachloroethene	ND	ug/L	-	0.43	1.4	ហ	
oluene	D	ug/L	× ×	0.43	1.4	000	
,1,1-1 richloroethane		10/L		0.46	л. Э.С	5	
richloroethene	ND	uq/L		0.50	-1.6	თ	
richlorofluoromethane	ND	ug/L	1	0.45	1.4		
Inyl chloride	ND	ug/L		0.13	0.42	10000	
neta,para-Xylene		ug/L		0.89	1.0		
	ND	ug/L		2.1	6.7		
Carbon disulfide	ND	ug/L	<u>د</u>	0.43	1.4		
/lethyl ethyl ketone	ND	ug/L		0.64	2.0		
etrahydrofuran	DN	ug/L	<u>د</u>	0.83	.2.1		ŝ
Dibromotluoromethane (SUKK)	01./470 00 18%		-				S.
Bromp 1 Eliverphonetop (CI IDD)	95.57%		.				S

b cr						83.59%	Uibromotluoromethane (SURR)
2		2.1	0.83		ug/L	ND	Tetrahydrofuran
		2.0	0.64	.	1/6n	ND	Methyl ethyl ketone
		1.4	0.43		ug/L	DN	Carbon disulfide
		6.7	2.1		ug/L	ND	Acetone .
		1.4	0.44	1	1/bn	DN	MTBE
	10000	2.8	0.89	-1	J/6n	DN	meta,para-Xylene
	.2	0.42	0.13		ug/L	DN	Vinyl chloride
		1.4	0.45		ug/L	DN	Trichlorofluoromethane
	თ	1.6	0.50		ug/L	ND	Trichloroethene
	σ	1.5	0.46		ug/L	ND	1.1.2-Trichloroethane
	200	1.6	0.49	-	ug/L	ND	1.1.1-Trichloroethane
	1000	1.4	0.43		ug/L	DN	Toluene
	տ	1.4	0.43		ug/L	DN	Tetrachloroethene
	100	0.79	0.25		ug/L	ND	Styrene
		1.4	0.44	<u> </u>	ug/L	ND	ortho-Xylene
		0.62	0.20		ug/L	ND	Naphthalene
	տ	1.4	0.44	<u>د</u>	ug/L	ND	Methvlene chloride
	700	1.4	0.43		ug/L	ND	Ethylbenzene
		· 0.74	0.22		ug/L	ND	trans-1.3-Dichloropropene
		0.66	0.20		ug/L	Ŋ	cis-1.3-Dichloropropene
	ഗ	1.2	0.38	-	ug/L	ND	1.2-Dichloropropane
	100	 	0.35	-	ug/L	ND	trans-1.2-Dichloroethene
	70	1.3	0.41		ug/L	ND	cis-1.2-Dichloroethene
	7	1.5	0.48		uq/L	ND	1 1-Dichloroethene
	თ	1.3	0.41		ua/L	ND	1 2-Dichloroethane
		1.5	0.47	-	uq/L	ND	1 1-Dichloroethane
		1.3	0.40		uq/L	ND	Dichlorodifluoromethane
	75	1.5	0.46		uq/L	N	1,J-Dichlorobenzene
		1.4	0.45		ua/L	CN	1.2-Dichlombenzene
	600	1.3	0.42		ua/L	ND	1.3 Dicklorobenzene
		1.1	0.36	-	ua/L	ND	1,2-Dibiointochane
		1.3	0.41		ua/L	ND	1.2 Dibromoethane
		0.90	0.27		ug/L	ND	1 2-Dibromo-3-Chloropronane
	80	1.3	0.40		uq/L	ND	Dibromochloromethane
		1.3	0.42		ug/L	ND	Chloromethane
	80	1.3	0.42	 اد	ua/L	N	Chloroform
CC		6.7	2.1			Ŋ	Chiopothana
	100	1.4	0.45	-	ua/L	ND	Chlombenzene
	տ	1:5	0.46		ua/L	ND	Carbon Tetrachloride
		0.46	0.14		ug/L	ND	Bromomethane
	80	1.1	0.36	ــــــــــــــــــــــــــــــــــــــ	uq/L	S	Bromoform
-	80	1.4	0.45		ua/L	CIN	Dramadiobioromothano
	G	1.3	0.41		ug/L	ND	Renzene
Note	MCL	LOQ		DIL	UNITS	RESULT	ANALYTE NAME
						lytes: 43	Sample: 1155400 PW54 Collected: 10/16/19, Analyzed: 10/28/19 - Analytes: 43
							Project fille: October 2013
			09-38	1/13/2019	Drinted: 11/13/2019		
						10	Custoffer, Malation County Cona Practice Angel A Derivate Woll
					333074	NLS Project: 333074	Customer: Marathon County Solid Waste Mommt Dept
Page 9 of 10					00)	III - (VarSat22	ANAI VTICAL RESULTS. VOC's by P&T/GC/MS - Appendix III - (VarSat2200)

Dibromofluoromethane (SURR) Toluene-d8 (SURR) 1-Bromo-4-Fluorobenzene (SURR) NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits.

-

Chloroethane recovery 77%

	80	د د	0.3A	د	1171		
	au	7.4	0.45		ug/L	ND	Bromodichloromethane
	ς σ	1.3	0.41		ug/L	ND	Benzene
Note	MCL	Log	ГОР	DIL	UNITS	RESULT	ANALYTE NAME
						28/19 - Analytes: 43	Sample: 1155401 PW17 Collected: 10/16/19 Analyzed: 10/28/19 - Analytes: 43
			09:38		Printed: 11	Template: SATRAPP3 Printed: 11/13/2019	Project Title: October 2019
)))			ivate Wells	Project Description: Marathon County Area A Private Wells
					333074	Dept NLS Project: 333074	Customer: Marathon County Solid Waste Mgmnt Dept
Page 10 of 10					00)	Appendix III - (VarSat22	ANALYTICAL RESULTS: VOC's by P&T/GC/MS - Appendix III - (VarSat2200)

I DICAL LINC. COLORAL FOIL							
Sample: 1155401 PW17 Collected: 10/16/19 Analyzed: 10/28/19 - Analytes: 43	10/28/19 - Analytes: 43						
ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	MCL	Note
Benzene	ND	ug/L		0.41	1.3	g a	
Bromodichloromethane		ug/L	- -	0.45	 + 	80	
Bromomethane	ND	ug/L	·	0.14	0.46		
Carbon Tetrachloride	ND	ug/L	د	0.46	1.5	5	
Chlorobenzene	ND	ug/L		0.45	1.4	100	
Chloroethane	DN	ug/L	<u>ــ</u>	2.1	6.7	F 1	CC
Chloroform	ND	ug/L		0.42	<u>د د</u> نی	080	
Chloromethane	NU	ug/L	<u> </u>	0.42	3 - C	00	
Dibromochloromethane	ND	ug/L	<u>ــ</u> ا	0.40	1.0	00	
1,2-Dibromo-3-Chloropropane	ND	ug/L		0.27	08.0		
1,2-Dibromoethane	ND	ug/L	<u>د</u> ا	0.41	1.3		
Dibromomethane	ND	ug/L		0.30		200	
1,2-Dichlorobenzene	ND	ug/L	. <mark>–</mark>	0.42		600	
1,3-Dichlorobenzene	ND	ug/L	. 	0.45	4		•
1,4-Dichlorobenzene	ND	ug/L	× ×	0.46		6/	
1 1 Dichlorodtfluoromethane	ND	ug/L		0.47	1.5		
1.2-Dichloroethane	ND	1/bn	ш	0,41	1.3	S	
1,1-Dichloroethene	ND	ug/L	<u>ــ</u>	0.48	1.5	- 7	
cis-1,2-Dichloroethene	ND	ug/L	. <u>–</u>	0.41		70	
trans-1,2-Dichloroethene	ND	ug/L	<u>د ک</u>	0.35	<u>-</u> د		
1,2-Dichloropropane			- -	0.00	0 66	c	
trans 1 3 Dichleronnonono				0.22	0.74		
Fthvlhenzene	ND	uq/L		0.43	1.4	700	
Methylene chloride	ND	ug/L		0.44	1.4	σ	
Naphthalene	DN	ug/L	-	0.20	0.62		
ortho-Xylene	DN	ug/L	<u>ــ</u>	0.44	1.4		
Styrene	ND	ug/L		0.25	0.79	100	
Tetrachloroethene	ND	<u>'l</u> gu		0.43	1.4	500	
Toluene	ND	ug/L	.	0.43	1.4	UUU	
1, 1, 1-Trichloroethane	ND	ug/L		0.49	1.6	200	
1,1,2-Trichloroethane	ND	ug/L	· /	0.46	1.5	יטי	
Trichloroethene	ND	ug/L	·	0.50	1.6	σ	
Trichlorofluoromethane	ND	ug/L		0.45	1.4		
Vinyl chloride	ND	ug/L	<u>د </u>	0.13	0.42	.2	
meta, para-Xylene	ND	ug/L	.	0.89	2.8	UUUU	
MTBE	UN	ug/L		0.44	1.4		
Acetone	DN			2.1	6./		
Carbon disulfide	ND	ug/L	د .	0.43	7.4		
Methyl ethyl ketone	ND		<u>د.</u>	0.64	2.0		
Tetrahydrofuran	CIN CIN	ug/L	\ 	0.83	2.1		D
Dibromofluoromethane (SURR)	%65.08						SD O O
Toluene-d8 (SURR)	87.83%		×				0 20 0
	90.00%		-				

NOTES APPLICABLE TO THIS ANALYSIS: S = This compound is a surrogate used to evaluate the quality control of a method. CC = Continuing calibration verification standard recovery was outside QC limits. Chloroethane recovery 77%

SR = Surrogate recovery was outside QC limits. Toluene-d8 recovered below QC limits.

TICAL DEGILI TO: VOC'S by	- (1/a=Cat0000)						Page 1 of 1
ANALY HCAL RESULTS: YOU'S BY PATHGUNS - Water - Customer: Marathon County Solid Waste Mgmnt Dept	t NLS Project: 333074	: 333074					
Project Description: Marathon County Area A Private wells Project Title: October 2019 Template:	Vate weils Template: SATAPP3	Printed: 11/13/2019		09:39			
ST I	/19 - Analytes: 43						
ANALYTE NAME	RESULT	UNITS	DIL		Log	MCL	Note
Benzene	ND	ug/L	-	0.24	0.84	տ	
Bromodichloromethane	ND	ug/L	<u> </u>	0.27	0.94	88	
Bromoform	ND	ug/L	_ _	0.21	0.00	ç	
Bromomethane		ug/L	-	0.16	0.55	თ	
Chlorobenzene	DN	ug/L		0.25	0.87	100	
Chloroethane	ND	ug/L		0.93	3.3	8	
Chloroform				0.22	0.70	ç	
Chloromethane	ND	ua/L	<u></u> .	0.16	0.56	80	
1 2-Dibromo-3-Chloropropane	DN	ug/L	Т	0.18	0.63		
1,2-Dibromoethane	ND	ug/L		0.23	0.81		
Dibromomethane	ND	ug/L		0.22	0.78	222	
1,2-Dichlorobenzene	ND	1/gu	- -	0.21	0.73	000	
1,3-UICNIOROBERZERE	S	ua/L		0.27	0.95	75	
1,+-Dicitionoperizeric	ND	ug/L		0.17	0.58		
1,1-Dichloroethane	DN	ug/L	-	0.19	0.67	1	
1,2-Dichloroethane	ND	ug/L	_ _	0.22	0.78	1σ	
1,1-Dichloroethene		ug/L		0.20	0.03	70-	
rans-1 2-Dichloroethene	ND	ug/L		0.17	0.60	100	
1 2-Dichloropropane	DN	ug/L		0.28	0.98	Сл	
cis-1,3-Dichloropropene	ND	ug/L ·		0.26	0.91		
trans-1,3-Dichloropropene	ND	ug/L	·	0.19	0.69	700	
Ethylbenzene	ID UN			0.19	0.84	сл Сл	JLB
Nanhthalana	ND	ua/L	_	0.43	1.5		
Styrene	N	ug/L	-	0.19	0.66	100	
ortho-Xylene	ND	ug/L	 -	0.19	0.66		
Tetrachloroethene	ND			0.22	0.78	500	-
	ND	ug/L	×	0.21	0.74	2000	
1, 1, 1-11/01/00/0000000000000000000000000000	S	ua/L		0.20	0.69	л	
Trichloroethene	D	ug/L		0.32	1.1	J	
Trichlorofluoromethane	ND	_1/bn	-	0.20	0.71		
Vinyl chloride	ND	ug/L		0.17	0.60	i>	
meta,para-Xylene	ND			0.37	1.3	10000	
MTBE	ND	ug/L	×'	0.21	10/3		
Acetone		1/0/L	I	4.2 0 17	0 79		
Methyl Ethyl Ketone	ND	ug/L		0.57	2.0		
Tetrahydrofuran	DN	ug/L		0.58	2.0		
Dibromofluoromethane (SURR)	. 112%						o v
Toluene-d8 (SURR)	121%						, v
	286						0

S = This compound is a surrogate used to evaluate the quality control of a method.
 B = Compound is a surrogate used to evaluate the quality control of a method.
 LB = Compound is suspected of being a laboratory contaminant.

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NLS Private Well Sampling Form and Chain Of Custody

SITE: Marathon Co. Solid Waste Management Dept. / Area A – Private Wells (page 1 of 5) $\,$

						locker room sink	ct from – bathroom/	Softener-no Collee
								:sinemmo2
Treated (Y/N):		H. 007 :	דחרונובע	פוקור	Manz	Sample Location:	:bolqme2 omiT	Date Sampled: 70 . 16 . 19
6	N E	-an	CLUME	2-10107	955	, Highway Dept. an Road, Hayley	O notherathon Co 222005 Dung	98855
unnt,(ext,color):) tibidruT	:robO	Colori	Time Purged:	:# DI NNO		roint Vame/ Hon	ארצ דייף #:
						<u></u>		¥1

:	•						Comments;
N			7.51	24 1-101	FRONT C	6121	
Treated (Y/N):					Sample Location:	:bolqme2 omiT	:bolqmn2 otnU
an	an	601	Giniz.	595	istensen Troy Vuncan Road, Hatley		LSE
Turbidity (quant, text, color):	Odor:	Color:	Time Purged:	אני זם #:	acowaer: PW88	Point Name/Hon	ארצ רשף #: ארצ רשף א

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					· · · · · · · · · · · · · · · · · · ·	-	Comments:
· 01			1.30	1201 1	FRen	5001	61.91.01
Treated (X/N):					Sample Location:	:bolqma2 omiT	Date Sampled:
n P	an	911	. rimig	7 55	, Mark nean Road, Hatley		885
Turbidity (quant, text, color):	Odor:	Color:	Time Purged:	:# AI XINA	100Mner: PW24	Point Name / Hon	ארצ רייף #:

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. 						·		Comments:
\cap		399M0)	-1 20 30	Nº S'!	132441	JOISLNQ	0021	51-91.01
Treated (Y/N):			-	```		Sample Location:	:bolqma2 omiT	:bolqma2 otaC
d	I	no-	ci M lo	Curring	ESE	oski, Mike can Road, Hatley		282
(quant,text,color);	Turbidity	:robO	Color:	Time Purged:	ι :# αι ανα	COWRET: PW25	Point Name / Hom	IT STN
			15					

Softener - no Collect from - front outside faucet (4/21/10 - owner said front faucet now works and is closer to the well)

Softener - yes Collect from - outside faucet, front of house

noitemtõhi vhot	reverse side for sample cus	Sec				8	Rev 10/18
					cet, north side of house	usi obiziuo - mori iz	oftener - no Collec
$\langle \cdot \rangle$	ธุสุสถุกด	(NEM	Taimh2	S hr	BERNINS 3 H	(10)	
			~	-			:21100000
Treated (Y/V):	פו ^ע בא	-1 ,10 ¥	N. 5'.	132444	Sample Location:	:bəlqms2 əmiT 1200	10.1191.01 10.191.01
	-071	ci M	Simin	555	loski, Mike Joski, Mike nean Road, Hatley	R221828 Du	985

NLS Private Well Sampling Form and Chain Of Custody

SITE: Marathon Co. Solid Waste Management Dept. / Area A - Private Wells (page 2 015)

						nk or outside back faucet	ie nodotiu – kitehen si	Softener-no Colle
			·		•			
	r							:stnommoD
N	· ·		מכובי	WY SISHO	30	is inc	01411	31.71.01
:(N/Y) botsorT						sample Location:	:bəlqms2 əmiT	Date Sampled:
	an .	001	an	Gining		ican Road, Hatley		OLC
				•	320	vski, Janet		102
unu;text,color);	Turbidity (n	Odor:	Color:	Time Purged:	H OI VINO	100Wner: PW18	Point Name / Hon	34 T ³ P #
								¥7

l			·····				Comments:
		_	3214 30	nsinq	NORTH	8711	61.71.01
Treated (Y/N):			•		Sample Location:	:bolqma2 omiT	Date Sampled:
aN	CIM	an	(im s	TOO	сһко, Апthony 1221 Колд, Найсу		110
Turbidity (quant, text, color);	• •	Color:	Time Purged:	19E :# UI UNU		noH \ ameN inioA	/ 6と Nrz F ^u p #:

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	-							Comments:
Treated (X/V):	1) <del>1,</del> 10	3017(1 5	50722/	120145 30	'ISLNQ	Sample Location:	Time Sampled:	Date Sampled: 10.16.18.
t(tolo2,tot,tanp		:robO	CK 644	Time Purged:	נאנ אומ זאאם #	100 PM 100 PM 19 -Popp, Rose mean Road, Hailey	Point VameV triof -AniwzoL UU 182122A	CPE. NLS LAD #:

						,	
				·			Comments:
//			13ont	12 200	ZW 3542	0111	51-71-01
Treated (Y/V):					Sample Location:	:bolqma2 amiT	Date Sampled:
40	50	00	E min		n, Carol rean Road, Hatley		C/C
urbidity (quant,text,color):	T :robO	Color:	Time Purged:	955 איז דם #:		moH \ 2111RN 31110A	Z.OC #987 STN

Sofferer – Xes. Collect from – outside faucet across driveway from house (not soffened – should be on year round

Softener-yes but not in use Collect from - kitchen sink or North outside faucet

	custody information	olqmez tot obie servers	Sec			81	Kev 10/
					ranotios soliener	l ni toouri – mort tool	Softener-yes Col
				•			
						,	
							:sinammoD
N				FAUCET	2013111 3548	0111	31-71-01
:(N/X) boteor	u				Sample Location:	:bolqma2 omiT	Date Sampled:
					Kougu Kogov ugov		

#### VLS Private Well Sampling Form and Chain Of Custody

SITE: Marathon Co. Solid Waste Management Dept. / Area A – Private Wells (page 3 of 5)

						set, south side of house	et from – outside fau	Softener-no Colle
						·		
			. <b>N</b>					Comments:
2	Janet	1 to zois ?	5 . 237	DIE LANC	ISTUD	······································	0/121	61-91-01
Treated (Y/N):	•	-		~		sample Location:	:bolqma2 amiT	Date Sampled:
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:(nolos,test,tanu)	Turbidity (q	:10pO	Color:	Time Purged:	איז זאמ:	Cowner: PW27	moH \ əmrN inioA	ארצ רשף #:
			м н. (					Ψ£

					•		Comments:
N			J.S.m.o.J. ,	10 110	Fer	OBE1	31.91.91
Treated (Y/N):					Sample Location:	:bolqms2 omiT	Date Sampled:
ND ND	bo	Od	NIWS	095	n, Andy Road, Ringle	धारा ४८६१२८४ हामांचे	SPE
Turbidity (quant,text,color):	Odor:	Color:	Time Purged:	:# ai ¥Na	2004 Sower: PW65	roH \ 9maN trioA	ארצ רשף #:

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								:stnammoD
101	,			3512	0/1 10	717618	2851	61.71.01
Treated (Y/V):						Sample Location:	Time Sampled:	Date Sampled:
Ø	$\sim$	an	ON	Smin	995	, Brandon 1917 Silk Road, Ringle		968
:(10102,1231,1nnnf	Turbidity (	:TobO	Color:	Time Purged:	H UI ANU	160Wner: PW100	Point Name / Hon	ארצ דייף #:

Treated (Y/V):				3.Snof	0-ر 1	Sample Location: 7 Mig – J	:bolqma2 omiT 7 2 5 2 1	Date Sampled: Pl · Ol·Ol
	) VibidiuT	O N O	N⊅ Color:	Time Purged:	364 Дик ID #:	feath	Point Name / Home Gaedtke, I Aliz 0371228	L62. :# 907 STN
L-							· · ·	

						icet, west side of house	usi shizino – morì i:	Softener-no Collee
								Comments:
N				3snof	1 +0	7103-1	LSZI	61.91.01
Treated (Y/V):				•		Sample Location:	:bolqms2 omiT	Date Sampled:
	nd	ON	AN	NING	+00	Field Road, Ringle	Albard Gaedtke,	1.65

Softener - No Collect from - outside faucet, back west side of apartments (1 well shared by both apartments in duplex)

81/01 voA

Softener - no Collect from - outside front faucet

See reverse side for sample custody information

#### NLS Private Well Sampling Form and Chain Of Custody

SITE: Marathon Co. Solid Waste Management Dept. / Area A – Private Wells (page 4 of 5)

(	DENED	1905 1a(	NEL N DULZIDE		<del>, (taioq-bo</del>	uəyosun-fino) yatına llavı-	momosed—moritica	Softener-yes <del>Colle</del>
		·		r				
			State State					comments:
N		.06	ing Ro	172 - LACI	t Hor	0 3015	9091	61.21.91
Treated (X/N):					-	Sample Location:	:bolqma2 amiT	Date Sampled:
50		001	50	CIME	LSE	vski, Michael Road, Ringle	All Buchkov	868
ity (quant,text,color):	bidauT	Odor:	Color:	Time Purged:	ING ID #	ESWIG : 190W63	Point Name / Hon	ארצ רשף #:
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.J.Sno.J.I	for 1/242 (	VI 230	int most	(131)	GOLLE		
			220	m 100	530Q		Comments:
j-N-	75m.0/-2 -1a	2:015	05 2300		115110	אש הנצ	61 91.01
Treated (Y/V):	-				Sample Location:	:bolqma2 omiT	Date Sampled:
201	aN	'dN	<u>ק ווו ייך</u>	322	, James 3084, Ringle	Porter Porter Porter	668
Turbidity (quant, text, color):	Odor:	Color:	Time Purged:	:# AI YINA	бътрания в 1929	noH \ smnN tnioT	NFS F ³ P #:

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							·	Comments:
d				5°5 31.51	10+1 +0	1749	1332	61-91-01
Treated (Y/N):			, ,	> >		Sample Location:	:bolqma2 omiT	Date Sampled:
Q	a	aN	ON	(VI) UNS	000	, Daniel Ringle	भाड ८५९१ ररध meg	707
Tuant, text, color):	Turbidity (c	Odor:	Color:	Time Purged:	85E :# ai vina		Point Name/Hon	ארצ רייף #:

					•		Comments:
N	74	11-1 51	1=170104 14	Lad-		_50hl	319101
Treated (Y/N):				-	Sample Location:	:bolqmn2 omiT	Date Sampled:
CIN	0N	50	- MIMS	870	e, Neal llow Lane, Hatley		101
Turbidity (quant,text,color):	Odor:	Color:	time Purged:	:# AI XNA	TWI TOWNOON	Point Name / Hon	31 rsp #:

See reverse side for sample custody information		81/01 /03	4
notemalai vholen elana 13 olin envise 62	(front faucet by brick deek broken – per owner 4/21/10)		

Softener - no Collect from - faucet in garage, on year round or contaide/south faucet

Softener - yes Collect from - outside faucet, south side of house

#### NLS Private Well Sampling Form and Chain Of Custody

#### SITE: Marathon Co. Solid Waste Management Dept. / Area A – Private Wells (page 5 od 5)

			1.1.21	T	<u>iça</u>	·····		:stnommoD
Treated (Y/V):			1. N. M.			Sample Location:	:bolqma2 omiT	:bolqma2 otad
נפצנ,כסוסג); זאחחון	rturbidity (q	Odor:	Color:	ibogruf omil	666 אנא זם #:	neowner: Blank	_	# 9º7 S7N
		•						٧S

								:stnommoD
Treated (Y/V):						Sample Location:	:bolginn2 oiniT	Date Sampled:
•							-	
:(rolos,txs),tnaup	Turbidity (	:robO	Color:	time Purged:	י# מו אאמ	neowner:	roH \ 2mrN 1nioA	ארצ רשף #:

				. · ·				
								Connrents:
Treated (X/N):						Sample Location:	Time Sampled:	Date Sampled:
tolos,)xs),innul;	Turbidity (d	:10bO	Color:	Time Purged:	י# מו צואס	neowner:	roH \ smnN mioA	אדצ דשף #:

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					**********			Comments:
Treated (Y/V):			••••••••••••••••••••••••••••••••••••••			Sample Location:	:bolqmn2 omiT	:bolqmn2 otnU
:(10102,129),1nnup	) Supposed (c	:10bO	Color:	:bogruf omiT	:# DI XND	neowney:	noH \ sunn tnioA	:# 9 ¹ 7 S7N

Seo reverse side for sample custody information

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#### NLS FIELD QUALITY ASSURANCE RECORD

		······································	Reagent Water Date Filled:
.1 .0 Display the second secon	ΦMÐ		Reagent Grade Water, Jug #:
:# ləbom rəiliH oqziQ 24.	бed		STDs & Buffers, Date Made:
:# iol railit norzim 24. dos	Deoto		Instruments Checked By:
nometer – NLS #:	Тлепт	SHA	Bottles Prepared By:
Date(s): 10 - 10	e Well Monitoring	heviry lennas ( )	<b>Department</b>
Date(s): 01 . 16 - 18			CLIENT / SITE: Marathon (

Bracket test samples using the appropriate pH buffers. Use pH buffer 4.01 with pH buffer 7.00 for low pH samples and pH buffer 10.01 with pH buffer 7.00 for samples having a high pH. On a routine basis use pH buffers 4.01 and 7.00.

#### PH METER NUMBER

						ואסצדע <u>נוסיסו</u> (צעז)
						פעצ <u>2.00</u> (צ/S)
						BUFFER 4.01 (R/S)
	<u></u>				, 	згоре:
}		 				STD BY:
			 			TIME:
						DATE:

#### CONDUCTIVITY METER NUMBER

R = Initial Reading; S = Standardized Reading									
						(S/X)			
		$\vee$				7°2°C @ onmn 817			
						STD BY:			
	1					TIME:			
						:ETAG			
L	<u></u>								

Comments: