

NO FURTHER ACTION REQUEST **COVER SHEET AND REPORT FORMAT**

State Form 56088 (6-16) 329 IAC 9-5 Indiana Department of Environmental Management Office of Land Quality

INDIANA DEPARTMENT OF **ENVIRONMENTAL MANAGEMENT**

Attention: Leaking UST Section Office of Land Quality 100 N. Senate Ave., MC 67-18, IGCN 1101 Indianapolis, IN 46204-2251 Phone number: (317) 232-8900

This form is intended to assist with the organization of No Further Action (NFA) Requests.

The Cover Sheet should be attached as cover to your NFA report submittal. The directions for the required NFA format are not required to be attached.

Depending on the nature of the project, some of the following sections or appendices may not be applicable. If this is the case, do not leave the section blank, omit, or reorder. Instead, enter "Not Applicable" or provide an explanation to indicate that the section does not apply or that information is not available, and why.

	A. FACILITY	Y INFO	DRMATION					
Facility Name: Bernie's Amoco		FAC	ILITY IDENTIFIC	ATION NUMBER	R: 10593			
		1	LUST Incident Nu	mber(s): 201307	7505			
Street Address (number and street): 2120 N	North Lebanon St	treet						
City: Lebanon	Lebanon County: Boone ZIP Code: a							
B.SITE INFORMATION								
Is the site currently an operational UST facility? ☑ YES ☐								
Have all USTs been removed or properly	closed in-place?			☐ YES		☑ NO		
Is there more than one incident being ad	dressed in this NFA	A Requ	uest Report?	☐ YES		☑ NO		
Is the site located within a Well Head Pro	otection Area (WHF	PA)?		☐ YES		☑ NO		
Are you requesting an Unconditional Clo	sure?			☐ YES		☑ NO		
Is soil contamination present off site abo	ve screening levels	s?		☐ YES		☑ NO		
Is groundwater contamination present of	f site above screen	ning lev	vels?	☐ YES		☑ NO		
Is there an existing Environmental Restri	ctive Covenant (EF	RC) on	the deed?	☐YES		☑ NO		
Are there exposure pathways that need to	to be controlled by	using	an ERC?	☑ YES		□NO		
Is a draft ERC attached?				✓ YES		_ NO		
Is full QA/QC submitted in Appendix C f	or closure purpose	s?		YES		✓ NO		
Under what guidance are you requesting	closure?			Select one				
	C. TANK(S) OW	/NER I	NFORMATION					
Owner Name: HK Petroleum Inc.								
Street Address (number and street): 2120	North Lebanon S	Street						
City: Lebanon			ZIP Code:	46052				
Contact Person: Karamjeet Mann		-	Telephone Numbe	er: (765) 398-1	260			
E-Mail Address: zidjattdi@yahoo.com								

	D. TANK(S) OPERATO	OR INFORMATION					
Company Name: HK Petroleum	Inc.	· -					
Street Address (number and street):	2120 North Lebanon Stree	et					
City: Lebanon	State: Indiana		ZIP Code: 46052				
Contact Person: Karamjeet Ma	ınn	Telephone Number: (765) 398-1	260				
E-mail Address: zidjattdi@yahoo	o.com						
	E. UST PROPERTY OW	NER INFORMATION					
Company Name: Sherry Petroleu	um Inc.						
Street Address (number and street):	2120 North Lebanon Stree	et					
City: Lebanon	State: Indiana	•	ZIP Code: 46052				
Contact Person:		Telephone Number: (765) 398-1	260				
E-mail Address: kam727@me.co	om						
	F. REPORT PREPARE	ER INFORMATION					
Company Name: Heartland Envi	ronmental Associates, Inc.						
Street Address (number and street): 3	3410 Mishawaka Avenue						
City: South Bend	State: Indiana		ZIP Code: 46615				
Contact Person: Sean Hall Telephone Number: (574) 289-1191							
E-mail Address: SHall@heartlan	denv.com		· · · · · · · · · · · · · · · · · · ·				
	G. CERTIFICATION OF R						
statements in this document and	d all attachments are true, a itted to IDEM Leaking Unde	t to the best of my knowledge and occurate, and completed per 329 IA rground Storage Tank Section on t le Party identified within.	C 9-5-7(f)(1)(M). I				
Name	Position	Company	Date (month, day, year)				
Sean Hall	Sr. Project Manager	Heartland Environmental Assoc.	June 28, 2024				
Environmental Professional Cressional Cressi	dentials	Date (month, day, year):	Jun 28, 2024				
Please note, per 329 IAC 9/this do Geologist, a Certified Hazardous M State of Indiana.	ocument must be signed by a faterials Manager, or a Profes	Registered Professional Engineer, a ssional Soil Scientist. All must be spe	Licensed Professional ecifically certified in the				
Additional Signatures (as approp	priate or desired)						
Signature:		Date (month, day, year):					
Printed name:							
Trinted name.	·						
Signature:							



QUARTERLY GROUNDWATER MONITORING REPORT 1st QUARTER 2024 AND NO FURTHER ACTION REQUEST

BERNIE'S AMOCO 2120 North Lebanon Street Lebanon, Indiana 46052

Facility ID #10593 LUST Incident #201307505

Prepared by

HEARTLAND ENVIRONMENTAL ASSOCIATES, INC.
3410 Mishawaka Avenue
South Bend, Indiana 46615

June 28, 2024

Heartland Project Number: 5627-22-01

"Your dependable partner for environmental compliance"

3410 Mishawaka Ave. South Bend, Indiana 46615 Phone 574.289.1191 Fax 574.289.7480

This report is prepared by:

Heartland Environmental Associates, Inc. 3410 Mishawaka Avenue, South Bend, IN 46615

Phone: 574-289-1191 Fax: 574-289-7480

Prepared for:

Mann Brothers Holdings, LLC 901 Kossuth Street Lafayette, Indiana 47905

For the Site:

Bernie's Amoco 2120 North Lebanon Street Lebanon, Indiana 46052 FID #10593 Incident #201307505

Heartland Project Number: 5627-22-01

Report prepared by:

Sean E. Hall, LPG

Senior Project Manager / Geologist

June 28, 2024

Date

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EXECUTIVE SUMMARY

Heartland Environmental Associates, Inc. (Heartland) presents this 1st Quarter 2024 Quarterly Groundwater Monitoring Report (QMR) and No Further Action (NFA) Request on the behalf of Mann Brothers Holdings, LLC (MBH) for the Bernie's Amoco facility located at 2120 North Lebanon Street in Lebanon, Indiana (hereinafter referred to as the "Site"). The Site is identified with the Indiana Department of Environmental Management (IDEM) Facility Identification #10593 and Leaking Underground Storage Tank (LUST) Incident #201307505. Heartland has prepared this report to document the following activities:

• Quarterly groundwater monitoring well sampling event completed on January 23, 2024.

Numerous investigative and reporting activities have been performed since a release was reported for the Site on July 5, 2013 and IDEM assigned LUST Incident #201307505. From 2013 through October 2022, these activities were performed by a previous environmental consulting firm overseeing the release/incident. Historical Site investigations and reporting conducted by Heartland and pertaining to this incident include the following:

- Further Site Investigation Report dated March 8, 2023;
- Quarterly Groundwater Monitoring Report dated May 17, 2023; and
- Quarterly Groundwater Monitoring Report dated November 28, 2023.

This QMR evaluates the LUST Incident in accordance with IDEM Risk-based Closure Guide (R2) Published Levels (PLs) (effective July 8, 2022 and updated March 2024).

Seven (7) groundwater monitoring wells were gauged and sampled on January 23, 2024 as part of quarterly groundwater monitoring activities. Groundwater flow trends south-southwest. Groundwater samples were analyzed for volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8260 and polynuclear aromatic hydrocarbons (PAHs) using USEPA SW-846 Method 8270 by Selected Ion Monitoring (SIM).

The 1st Quarter 2024 sampling results show that impacts of VOCs and PAHs are present in two (2) monitoring wells (MW-3 and MW-5) at levels exceeding one (1) or more IDEM R2 Long Term Residential Groundwater PLs. The impacts include detections of benzene and naphthalene. No other VOC or PAH constituents were encountered in groundwater samples collected during this quarterly monitoring event that exceeded IDEM R2 Long Term Residential Groundwater PLs.

Based upon the findings of this QMR and historical investigation activities performed at the Site, the groundwater contaminant plume associated with LUST Incident #201307505 is stable and primarily confined to the on-Site property. At this time, the groundwater contaminant plume has been sufficiently delineated, and additional investigation is not warranted.

A proposed draft Environmental Restrictive Covenant (ERC) is included with this report for IDEM review. The proposed ERC lists restrictions that are recommended to prevent potential exposure to residual impacts identified at the Site as part of investigative efforts performed in response to LUST Incident #201307505.

Given the above conclusions, which are reflective of the four (4) quarters of groundwater monitoring conducted at the Site, coupled with the updated conceptual site model (CSM) pathway evaluation/exposure assessment, Heartland respectfully requests, on behalf of MBH for the Bernie's Amoco, that IDEM grant NFA status to LUST Incident #201307505 at the Bernie's Amoco facility (FID #10593). A copy of the NFA Request Cover Sheet and Report Format form (State Form #56088) is included as the cover to this report.

1.0 SITE DESCRIPTION

1.1 Regional Location

The Site is located in a mixed-use commercial and residentially developed area on the northside of Lebanon, Boone County, Indiana and is situated in Section 25, Township 19 North, Range 1 West, which is shown on the Lebanon, Indiana 7.5-Minute U.S. Geological Survey Topographic Quadrangle map (Figure 1).

1.2 Site Location

One (1) parcel (State Parcel Identification #06-10-25-000-207.000-002) comprises the Site property, which is addressed at 2120 North Lebanon Street in Lebanon, Indiana. The Site parcel is situated on the western side of North Lebanon Street and south of Maple Drive. Properties surrounding the Site include a bank followed by a strip mall to the north of the Site beyond Maple Drive, residential properties east of the Site beyond North Lebanon Street, a drainage ditch followed by self-storage units to the south of the Site and a Fraternal Order of Eagles lodge west of the Site. Properties in the vicinity of the Site and approximate parcel boundaries are shown on an aerial photograph included as Figure 2.

The Site currently operates as a retail petroleum service station and includes a station building, located on the western portion of the Site and a canopy and pump islands situated east of the station building. Two (2) 8,000-gallon gasoline underground storage tanks (USTs) and one (1) 8,000-gallon diesel UST are located on the northeastern portion of the Site. The Site is generally flat with undeveloped grass covered areas along the southern portion of the Site sloping to the south and southwest towards the drainage ditch, which flows to the west. Site features are depicted on the site layout map included as Figure 3. It is presumed that the Site will continue to be used for commercial retail petroleum service station operations for the foreseeable future.

2.0 FREE PRODUCT RECOVERY

As noted on Table 1, free product was not encountered at the Site as part of the LUST incident investigations completed to date.

3.0 ACTIVE REMEDIATION SYSTEM INFORMATION

No active remediation has been performed at the Site location as part of the LUST incident investigations completed to date. Groundwater conditions have been monitored and evaluated for potential plume stability and natural attenuation.

4.0 SAMPLING METHOD DESCRIPTION

4.1 Groundwater Elevation Measurements

On January 23, 2024, groundwater levels were measured across the monitoring well network (MW-2 through MW-8). Depth to groundwater measurements were collected prior to sampling the monitoring wells using a Solinst Oil/Water interface probe. No free product was observed during the gauging of the wells. The average groundwater elevation observed across the Site was 92.72-feet and reflects an increase in average groundwater elevation from the fourth quarter 2023 of 1.02-feet. Results from the gauging event are presented on Table 2.

The recorded depth to water and corresponding groundwater elevation measurements were used to calculate groundwater gradients and a Site-wide flow direction using the USEPA On-line Tools for Site Assessment methodology. The hydraulic gradient calculated from the January 23, 2024 gauging event is 0.02499 feet/foot and flows at a calculated direction of 37.1 degrees west of south. A potentiometric surface map was generated using corrected groundwater elevation data and depicts a general groundwater flow direction to the south-southwest (Figure 4). Historical groundwater measurements are tabulated on Table 1 in Appendix A.

4.2 Groundwater Sampling Event

Groundwater samples were collected from monitoring wells MW-2 through MW-8 on January 23, 2024. Monitoring wells were sampled using IDEM approved methods consisting of purging and sampling each of the monitoring wells with dedicated disposable bailers. Prior to sample collection the volume of standing water in each well was calculated using groundwater gauging data and three (3) well volumes were purged from each well. Well covers and compression caps were inspected and noted to be in good condition. Samples were decanted into laboratory supplied 40-ml vials with hydrochloric acid (HCl) preservative and unpreserved 40-ml amber vials. Groundwater sampling locations are shown on Figure 3.

The sample vials were immediately labeled and placed in secure coolers with ice maintained at less than 6° Celsius. Samples were shipped via overnight courier to Pace Analytical Services, LLC (Pace) in Indianapolis, Indiana under chain-of-custody protocol. Groundwater samples were analyzed for VOCs using USEPA SW-846 Method 8260 and PAHs using USEPA SW-846 Method 8270 SIM. Appropriate quality assurance/quality control (QA/QC) samples were collected, including a field duplicate and a matrix spike/matrix spike duplicate (MS/MSD) sample.

Results are shown on Figure 5 and summarized in Tables 3A and 3B. The laboratory certificate of analysis and associated chain-of-custody forms are included in Appendix B. A full laboratory data quality package may be provided upon request.

5.0 DATA DISCUSSION AND RESULTS

The purpose of this 1st Quarter 2024 groundwater monitoring event was to evaluate the nature and extent of groundwater contamination associated with LUST Incident #201307505. Groundwater sampling results were evaluated using the IDEM R2 Long Term Residential Groundwater PLs.

Groundwater samples were collected from monitoring wells MW-2 through MW-8 on January 23, 2024. Analytical results from the current sampling event are presented in Tables 3A and 3B. Current and historical groundwater sampling analytical results are presented in Appendix A, Tables 2A and 2B. Current groundwater analytical results are depicted on Figure 5.

Petroleum related VOC and/or PAH constituents exceeding one (1) or more of their respective IDEM R2 Long Term Residential Groundwater PLs were detected in groundwater samples collected from two (2) of the seven (7) Site monitoring wells sampled as part of the groundwater sampling activities conducted during the 1st Quarter of 2024.

Detections of the VOC constituent benzene were identified in two (2) groundwater samples, MW-3 MW-5, at respective concentrations of 13.3 and 34.6 micrograms per liter (μ g/l), which exceeded its IDEM R2 Long Term Residential Groundwater PL of 5 μ g/l. No other VOC constituents were detected with concentrations that exceeded IDEM R2 Long Term Residential Groundwater PLs.

A detection of the PAH constituent naphthalene was identified in one (1) groundwater sample, MW-5, at a concentration of 6.7 μ g/l, which exceeded its IDEM R2 Long Term Residential Groundwater PL of 1 μ g/l. No other PAH constituents were detected with concentrations that exceeded IDEM R2 Long Term Residential Groundwater PLs.

A groundwater contaminant plume map depicting the extent of benzene and naphthalene impacts in groundwater identified as part of this quarterly groundwater monitoring event that are above IDEM R2 Long Term Residential Groundwater PLs is provided as Figure 6.

No data validation concerns were noted in a review of the groundwater QA/QC results and the field duplicate sample results were consistent with its paired sample results.

6.0 CONCEPTUAL SITE MODEL UPDATE

A CSM is presented below for portions of the Site property.

6.1 Site Description

The Site is in a mixed-use commercial and residentially developed area on the northside of Lebanon, Boone County, Indiana and is situated in Section 25, Township 19 North, Range 1 West, which is shown on the Lebanon, Indiana 7.5-Minute U.S. Geological Survey Topographic Quadrangle map (Figure 1).

One (1) parcel (State Parcel Identification #06-10-25-000-207.000-002) comprises the Site property, which is addressed at 2120 North Lebanon Street in Lebanon, Indiana. The Site parcel is situated on the western side of North Lebanon Street and south of Maple Drive. Properties surrounding the Site include a bank followed by a strip mall to the north of the Site beyond Maple Drive, residential properties east of the Site beyond North Lebanon Street, a drainage ditch followed by self-storage units to the south of the Site and a Fraternal Order of Eagles lodge west of the Site. Properties in the vicinity of the Site and approximate parcel boundaries are shown on an aerial photograph included as Figure 2.

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Extensive investigation has been performed in the shallow soils extending to an approximate depth of 15-feet below ground surface (bgs). The native soils are predominantly comprised of clay with a saturated sand interval encountered at approximately 8 to 9-feet bgs. Residual shallow soil contamination is presumed to be limited and remains in the immediate vicinity of the UST system and dispenser islands. Groundwater contamination is primarily located in the saturated soil interval first encountered at a depth of approximately 8-feet bgs.

6.2 Nature and Extent of Contaminants

According to information obtained from the IDEM Virtual File Cabinet (VFC), one (1) active LUST Incident from 2013 (LUST Incident #201307505) has been reported for the Site. No historical/closed LUST Incidents are known to be associated with the Site.

On July 5, 2013, a surface spill/overfill of petroleum product was reported during routine tanker filling of the regular unleaded gasoline UST as the shut-off/overfill protection malfunctioned and

did not work properly. Reportedly, the spill only lasted a few seconds as the tanker driver shut off the flow of fuel when it was realized the overfill protection had failed.

In February of 2015, Golars Environmental Engineering, Inc. (Golars) of Indianapolis, Indiana was retained as the environmental consultant for the Site. On February 6, 2015, Golars submitted a Spill Recovery Response Report that documented the July 2013 release and subsequent abatement activities. Details pertaining to the release identified that the pavement area immediately surrounding the fill ports was reportedly affected and that the spilled gasoline flowed into a storm water sewer drain that subsequently drained into the nearby unnamed creek.

On March 1, 2017, Golars prepared an IDEM LUST Initial Incident Report (IIR) that reported a confirmed release. In the IIR, Golars stated that, based on Limited Site Investigation (LSI) observations, it appeared that a release had occurred from the UST system that is not related to the July 2013 surface overfill release/spill that triggered IDEM LUST Incident #201307505.

On April 27, 2018, Golars mobilized to the Site and advanced three (3) on-Site soil borings (SB-4, SB-5, and SB-6). Soil samples were collected from each soil boring during soil logging activities and 'grab' groundwater samples were collected through temporary piezometers that were installed in each soil boring. Soil and groundwater samples were collected to evaluate and characterize the petroleum hydrocarbon impacts at the Site.

On August 10, 2018, Golars submitted a report entitled Response to IDEM Comments and Further Site Investigation (FSI) Report – 2018 (FSI-2018) to document the April 2018 investigation and to again request deactivation of LUST Incident #201307505 and to open a new LUST Incident.

In a September 19, 2018 letter entitled *Further Site Investigation Review and Request for Additional Investigation*, IDEM provided comments on the FSI-2018 report and stated that additional investigation is necessary. IDEM also stated that petroleum impacts to soil and groundwater at the Site may be indicative of an old release, but that a new LUST Incident could not be opened.

On May 3 through June 23, 2022, Golars mobilized to the Site and advanced four (4) soil borings (SB-7 through SB-10) and installed five (5) permanent groundwater monitoring wells (MW-1 through MW-5). Soil samples were collected from each soil boring and groundwater samples were collected from each of the monitoring wells to evaluate and characterize the petroleum hydrocarbon impacts at the Site.

On July 29, 2022, Golars submitted a report entitled Further Site Investigation Report – 2022 which summarized the results from the 2022 FSI activities. Golars did not recommend further investigation; however, Golars did recommend commencing quarterly groundwater sampling at the Site.

In an October 4, 2022 letter entitled *Further Site Investigation Request*, IDEM provided comments on the FSI-2022 report and stated that additional investigation is necessary.

In March 2023, Heartland performed an FSI that included the installation of three (3) additional monitoring wells (MW-6, MW-7, and MW-8) per IDEM's request. Following the FSI, IDEM, in its Site Characterization Approval and Request for Groundwater Monitoring letter dated May 5, 2023, confirmed that site characterization was complete and requested four (4) quarters of monitoring be performed at the Site with the report for the fourth quarterly monitoring event to include an NFA request. Heartland commenced quarterly sampling events in the first quarter of 2023 and completed the quarterly events with the sampling event that was performed in the first quarter of 2024. Note that, due to logistics, the second planned quarterly event did not take place by the end of June 2023, as such, the schedule was modified with the second planned event to occur in the third quarter of 2023. The amended schedule was approved by the IDEM project manager.

6.3 Potential Receptors

The Site is currently, and presumed to continue for the foreseeable future to be, operated as a commercial gasoline service station situated along the west side of North Lebanon Street. The area of potential human exposure appears to be delineated on-Site and is localized to within the vicinity of the UST system/dispenser islands.

An unnamed creek borders the Site to the south. No other surface water bodies or known potable water wells exist near or on-Site. The online IDEM Source Water Proximity Determination Tool was utilized on June 10, 2024 and demonstrated that the Site is not located in a Wellhead Protection Area or Source Water Area.

No other noteworthy property uses exist on-Site that would affect an exposure pathway and risk evaluation (i.e., residential property, school, etc.).

6.4 Exposure Pathway Evaluation

6.4.1 Preferential Pathways

Extensive investigation has been performed in the shallow soils extending to an approximate depth of 15-feet bgs. The native soils are predominantly comprised of clay with a sand interval encountered at approximately 8 to 9-feet bgs. The Site building is constructed with a slab-on-grade foundation.

As contaminants are primarily located in groundwater encountered in the sand interval at approximately 8-feet bgs, and at a depth well below most/all underground utility lines, the potential for contaminants to migrate via a utility preferential pathway at the Site is very low to non-existent.

6.4.2 Soil Exposure Pathway

Detections in only one (1) soil sample exceeded current IDEM R2 PLs. Soil sample HA-1 collected from 0 to 2-feet bgs exceeded its IDEM R2 Residential Soil PLs (IDEM R2 RSPLs) for benzo(a)pyrene and benzo(b)fluoranthene and only marginally exceeded its IDEM R2 Commercial Soil PL (IDEM R2 CSPL) for benzo(a)pyrene with a detection of 24 milligrams per kilogram (mg/kg) versus its IDEM R2 CSPL of 20 mg/kg. No other IDEM R2 PL exceedances were observed in soil samples and the limited impacts observed at HA-1 (collected from a stormwater outfall area in 2017) have likely attenuated or will attenuate over time.

The Site is currently capped with an impermeable asphalt and concrete pavement barrier. This barrier would prevent contact with any residual soil impacts at the Site. Further, spillage of petroleum product on paved surfaces that occurred as part of the July 2013 event was cleaned up in a timely manner. As such, the soil direct contact exposure pathway is currently incomplete. Historical soil analytical results are provided in Appendix C.

6.4.3 Groundwater Ingestion Exposure Pathway

No potable wells exist on-Site and the dissolved groundwater contaminant plume appears to be stable and not migrating. Given that residual groundwater contamination remains at the Site and there are yet to be any restrictions placed on the property involving the installation of a potable well, the groundwater ingestion pathway is still a potential for exposure. However, a draft ERC is included with this report and provides for the restricting of the installation of a potable water well on the Site to address this potential exposure pathway.

6.4.4 Vapor Intrusion Pathway

The potential need for vapor investigation was evaluated using Table 2-C: Prompts for a Petroleum Vapor Intrusion Investigation found in Section 2.3.6.5 of the IDEM July 2022 Risk Based Closure Guide (R2).

No free product has been observed at the Site. Residual soil and groundwater impacts are localized to within the vicinity of the UST system/dispenser islands. No abnormal ambient odors have been noted during on-Site investigative activities.

Borings placed in the vicinity of the UST system (MW-1 and MW-5) show that residual impacts, based upon field screening and PID readings, were encountered at depths of approximately 5-feet bgs or deeper in soil and at 8-feet and below in groundwater. The on-Site building structure is constructed with a slab-on-grade foundation and utilized as a commercial service station convenience store. Properties surrounding the Site are also used for commercial purposes.

While residual soil impacts were identified at an approximate depth of 5-feet bgs, vs the screening depth suggested in Table 2-C of 6-feet bgs, significant attenuation has likely occurred since the release and the vertical separation from the ground surface down to impacted soil has likely

increased over time. Additionally, given the limited extent of soil impacts and the interval of "clean" soil overlying the impacts, significant attenuation is presumed to occur in the interval between the residual impacts and the ground surface or base of the building structure.

Based on the current/future commercial Site and building use, its slab-on-grade construction, and the depth of impacts encountered, the potential for vapor intrusion pathway to be a significant mechanism for contaminant exposure relative to LUST Incident #201307505 appears to be low to negligible at this time. Therefore, no further investigative efforts relative to soil gas are warranted at this time.

7.0 CONCLUSIONS AND NFA REQUEST

Heartland has completed the 1st Quarter 2024 groundwater monitoring event, which consisted of sampling of seven (7) Site monitoring wells. Sample results from this event indicate that impacts from petroleum related VOCs and PAHs are present in groundwater at the Site. Note that this sampling event represents the fourth quarterly monitoring sampling event conducted as part of a long-term monitoring plan being designed to investigate LUST Incident #201307505.

Based upon the findings of this QMR and historical investigation activities performed at the Site, the groundwater contaminant plume associated with LUST Incident #201307505 is stable and primarily confined to the on-Site property. At this time, the groundwater contaminant plume has been sufficiently delineated, and additional investigation is not warranted.

A proposed draft ERC is included in Appendix D for IDEM review. The proposed ERC lists the following restrictions, which are recommended to prevent potential exposure to any residual impacts identified at the Site as part of investigative efforts performed in response to LUST Incident #201307505:

- Shall not use or allow the use or extraction of groundwater at the Real Estate for any purpose, including, but not limited to human or animal consumption, gardening, industrial processes, or agriculture, except that groundwater may be extracted in conjunction with environmental investigation and/or remediation activities and from the existing on-site private drinking water well located on the eastern portion of the Real Estate, and
- Prior to the change in use of the site or construction of new structures to be occupied by persons at the Real Estate (or upon the Affected Area), the current Owner of the Real Estate shall confirm there is no unacceptable exposure risk due to vapor migration in accordance with then-applicable agency guidance, regulation, or law. This may include conducting groundwater, soil, and/or soil-gas sampling for the VOCs or PAHs of concern. The results and analyses of such sampling shall be presented to IDEM in support of the Owner's determination whether an unacceptable vapor exposure risk exists. If the results demonstrate that no such risk currently exists, IDEM will provide its concurrence in writing and grant the Owner a waiver of this restriction for the proposed change in site use and/or new construction. If the results demonstrate that an unacceptable risk to human health exists, then the Owner must submit plans for mitigation for approval by IDEM and must conduct adequate indoor sampling to demonstrate the effectiveness of the approved remedy.

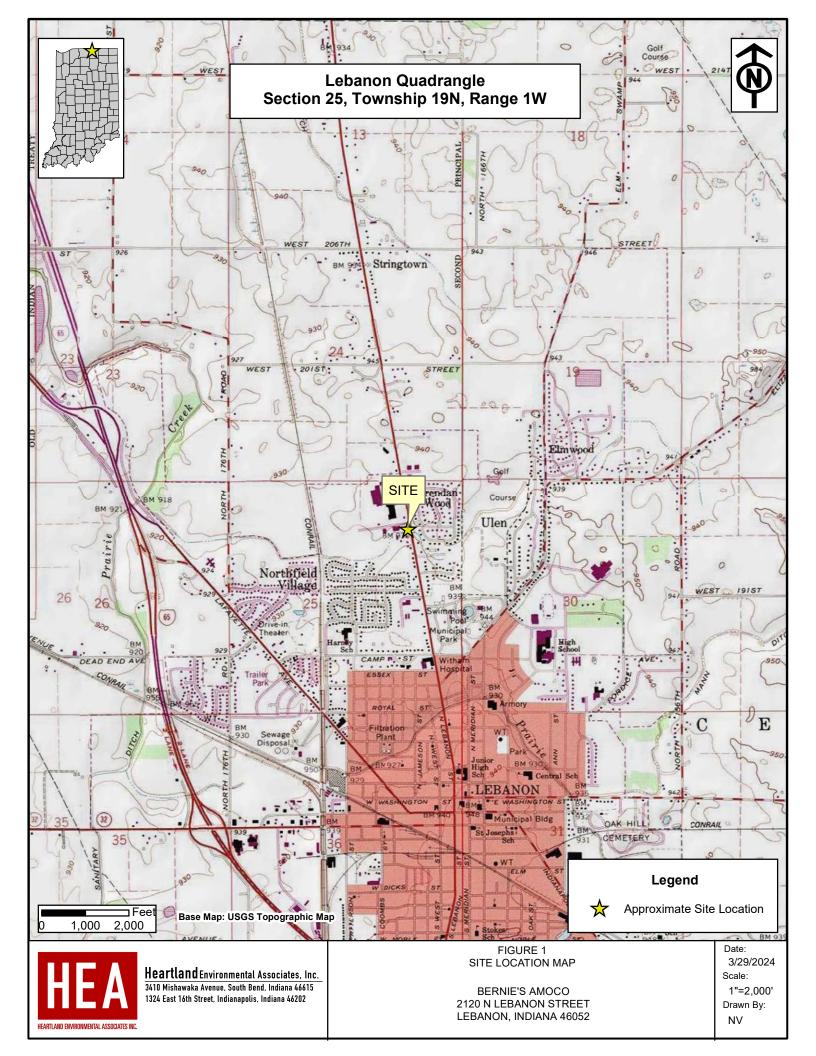
Given the above conclusions, which are reflective of the four (4) quarters of groundwater monitoring events conducted at the Site, coupled with the updated CSM pathway evaluation/exposure assessment, Heartland respectfully requests, on behalf of MBH, that IDEM grant NFA status to LUST Incident #201307505 at the Bernie's Amoco facility (FID #10593). A

uarterly Groundwater Monitoring Report – 1st Quarter 2024 and No Further reet, Lebanon, Indiana 46052; FID #10593, LUST #201307505	Page
opy of the NFA Request Cover Sheet and Report Forma	t form (State Form #56088) is include
the cover to this report.	

8.0 LIMITATIONS

In preparing this report, Heartland has applied generally accepted professional practices and standards and has exercised its professional judgment, skills, and care in a manner consistent with that of other professionals performing similar work under similar conditions. All information, conclusions, and recommendations contained in this report are necessarily governed by Site conditions and the scope of the work. Due to the nature of the work however, Heartland does not assume and specifically disclaims any and all responsibility and/or liability for damages of any kind suffered by any individual or entity and is not responsible for the independent conclusions, opinions, or recommendations made by others regarding this report. No warranties, expressed or implied, are given or made.

<u>Quarterly Groundwater Monitoring Report – 1st Quarter 2024 and No Further Action Request, Street, Lebanon, Indiana 46052; FID #10593, LUST #201307505</u>	Bernie's Amoco, 2	2120 N. Lebanon
Ottoot, Lebanon, malana 4000E, 110 n 10000, LOOT n201001000		
FIGURES		
1.00K20		



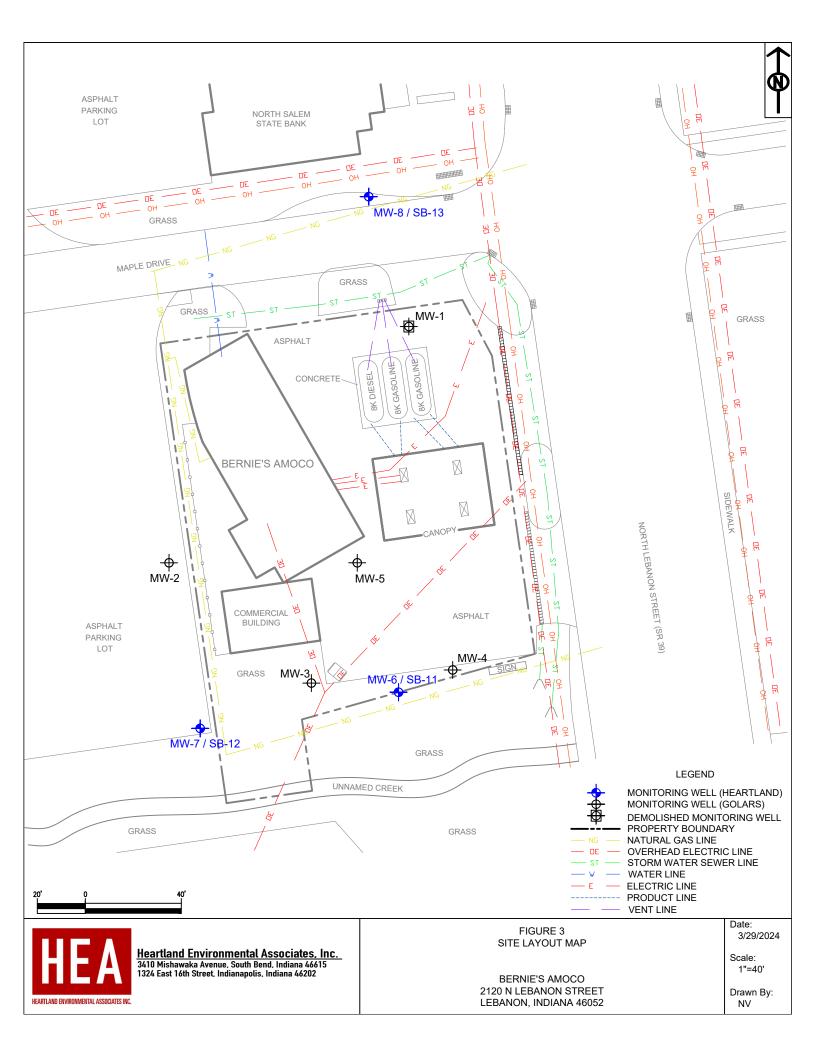


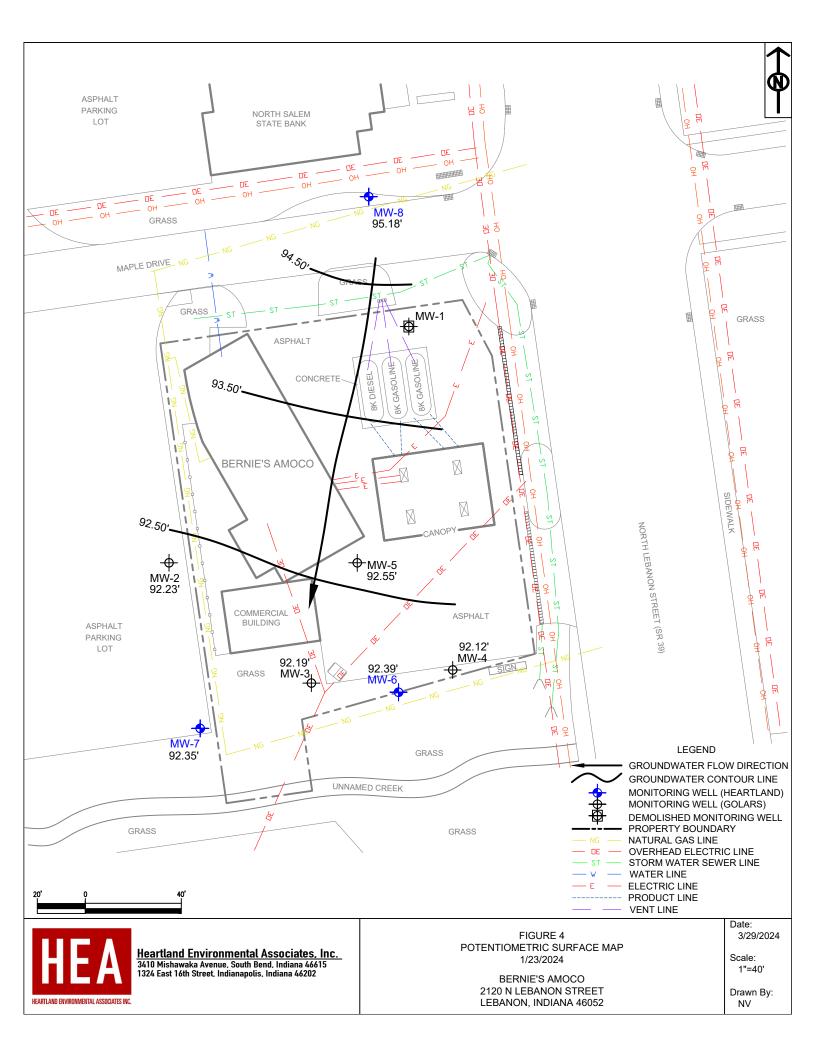
HEATI AND PHYRONMENTAL ASSOCIATES INC.

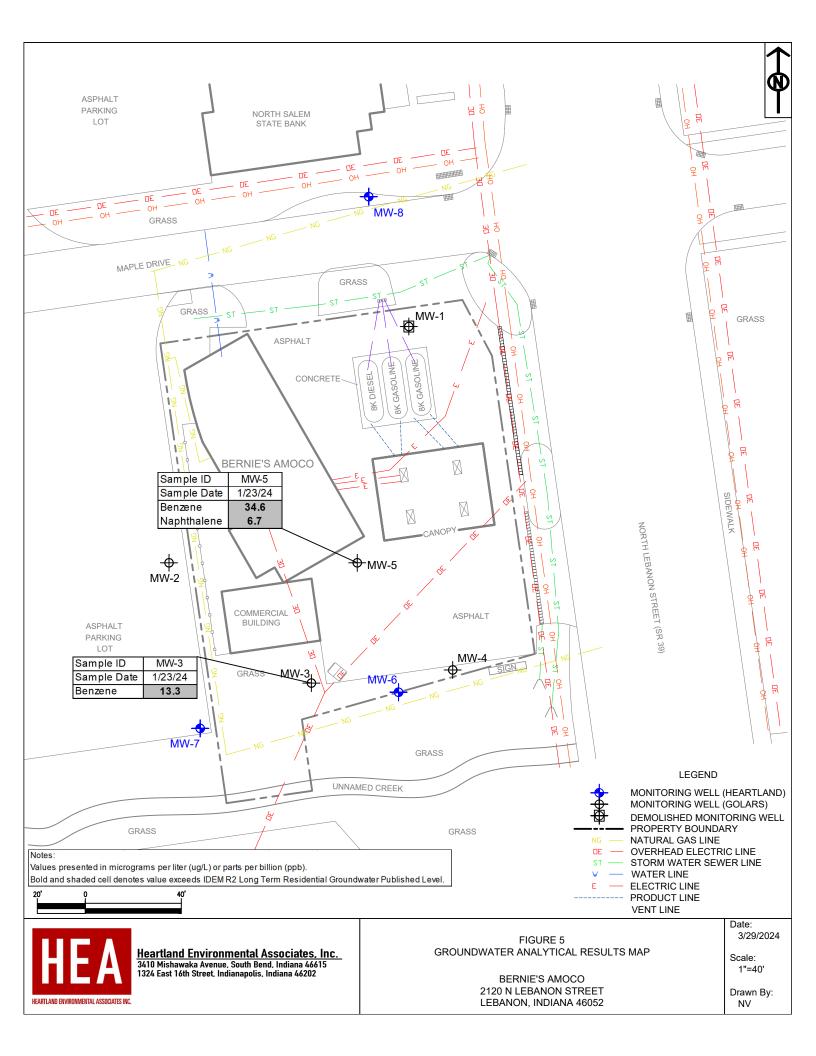
Heartland Environmental Associates, Inc. 3410 Mishawaka Avenue, South Bend, Indiana 46615 1324 East 16th Street, Indianapolis, Indiana 46202

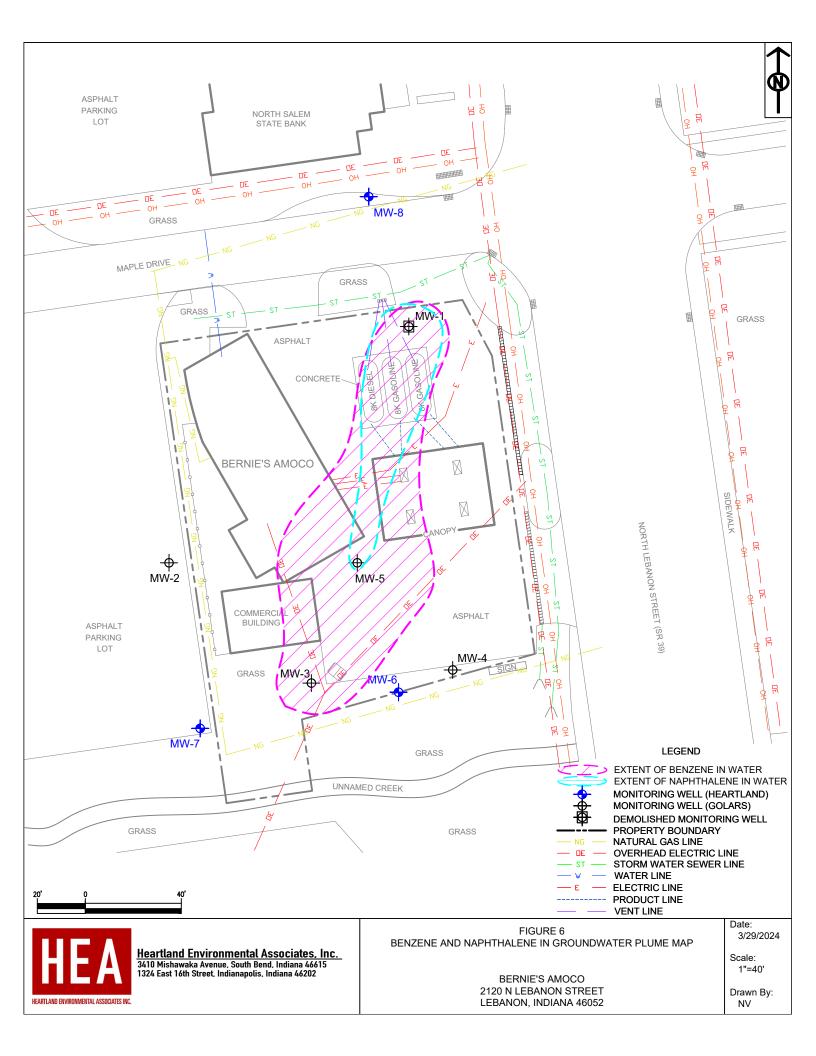
BERNIE'S MARATHON 2120 N LEBANON STREET LEBANON, INDIANA 46052 1"=40'

Drawn By: NV









Quarterly Groundwater Monitoring Report – 1 st Quarter 2024 and No Further Action Request, Bernie's Amoco, 2120 N. Lebanon Street, Lebanon, Indiana 46052; FID #10593, LUST #201307505
TABLES

Table 1								
	Free Product Reovery							
		E	Bernie's Am	осо				
	2120 North Lebanon Street							
		Leba	anon, Indian	a 46052				
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
Total volume to date		No Free Product Observed Currently or Historically						



Table 2 **Current Groundwater Gauging Data Bernie's Amoco** 2120 North Lebanon Street Lebanon, Indiana 46052 Well Identification Number Groundwater Elevation (feet) Depth to Groundwater (ft below TOC) Top of Casing (TOC) Well Screen Length Well Total Depth Depth to LNAPL (ft below TOC) Well Diameter Date Gauged (below TOC) Elevation* MW-1 1/23/2024 Destroyed 2" MW-2 1/23/2024 7.02 14.55 92.23 99.25 10' 1/23/2024 2" MW-3 8.80 14.76 92.19 100.99 10' 2" MW-4 1/23/2024 92.12 100.42 8.30 14.81 10' MW-5 1/23/2024 2" 8.97 14.89 92.55 101.52 10' MW-6 1/23/2024 2" 7.71 92.39 14.57 100.10 10' 1/23/2024 2" 92.35 98.76 10' 6.41 13.66 MW-7 1/23/2024 2" MW-8 1.12 14.68 95.18 96.30 10' Notes: Elevation survey updated on January 18, 2023.



Table 3A

VOCs in Groundwater Analytical Results Bernie's Amoco 2120 North Lebanon Street Lebanon, Indiana 46052

Sample Location	Date Sampled	Benzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropylbenzene	Methyl-tert-butyl ether	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylene (Total)
	blished Levels sidential	5	700	2,000	500	NA	100	700	1,000	60	60	10,000
Groun	ndwater											
MW-1	1/23/2024						Destroyed				•	
MW-2	1/23/2024	<5.0	< 5.0	< 5.0	<5.0	< 5.0	<4.0	< 5.0	<5.0	<5.0	< 5.0	<10
MW-3	1/23/2024	13.3	8.2	6.1	38.5	< 5.0	<4.0	82.4	<5.0	<5.0	< 5.0	<10
MW-4	1/23/2024	<5.0	<5.0	< 5.0	<5.0	<5.0	<4.0	< 5.0	<5.0	<5.0	<5.0	<10
MW-5	1/23/2024	34.6	23.6	20.4	38.4	<5.0	<4.0	87.5	<5.0	<5.0	5.4	<10
MW-6	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
MW-7	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
MW-8	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
DUP (MW6)	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10

Notes: Values presented in micrograms per liter (ug/L) or parts per billion (ppb).

Volatile organic compound (VOC) constituents not listed were identified below laboratory reporting limits.

Published Levels based on Indiana Departement of Environmental Management (IDEM) Risk-based Closure Guide (R2) issued July 8, 2022 and updated March 2024.

IDEM follows USEPA in assuming a total HQ of 1 and a risk level of 10⁻⁵.

NA Analyte not sampled for or Not Applicable.

Bold and shaded cell: denotes value exceeds IDEM R2 Long Term Residential Groundwater Published Level.



Table 3B **PAHs in Groundwater Analytical Results Bernie's Amoco** 2120 North Lebanon Street Lebanon, Indiana 46052 Dibenzo (a,h) anthracene ndeno(1,2,3-cd)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene -Methylnaphthalene Methylnaphthalene Benzo(g,h,i)perylene Benz(a)anthracene Sample Location cenaphthylene Benzo(a)pyrene Sampled Acenaphthene **Phenanthrene** Fluoranthene Naphthalene Date **IDEM R2 Published Levels** for Residential 500 2,000 30 0.2 3 3 300 800 300 3 10 40 100 0.3 Groundwater MW-1 1/23/2024 Destroyed MW-2 1/23/2024 <1.0 <1.0 < 0.10 <0.10 <0.10 <0.10 <0.10 < 0.10 < 0.50 < 0.10 <1.0 <1.0 <0.10 <1.0 <1.0 <1.0 <1.0 <1.0 1/23/2024 <1.0 <1.0 <0.10 <0.10 <0.10 <0.10 < 0.50 <0.10 <1.0 <1.0 <1.0 MW-3 <0.10 < 0.10 <1.0 < 0.10 1.9 1.1 <1.0 <1.0 < 0.50 MW-4 1/23/2024 <1.0 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 <1.0 <1.0 < 0.10 <1.0 <1.0 <1.0 <1.0 <1.0 MW-5 1/23/2024 <1.0 <0.10 < 0.10 < 0.50 <1.0 <1.0 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 <1.0 <1.0 < 0.10 4.8 5.6 6.7 <1.0 MW-6 1/23/2024 <1.0 <1.0 <0.10 <0.10 <0.10 <0.10 < 0.10 <0.10 < 0.50 <0.10 <1.0 <1.0 <0.10 <1.0 <1.0 <1.0 <1.0 <1.0 MW-7 1/23/2024 <1.0 <1.0 <0.10 <1.0 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.50 < 0.10 <1.0 <1.0 < 0.10 <1.0 <1.0 <1.0 <1.0 MW-8 1/23/2024 <1.0 <1.0 < 0.10 <0.10 <0.10 <0.10 < 0.10 < 0.10 < 0.50 <0.10 <1.0 <1.0 < 0.10 <1.0 <1.0 <1.0 <1.0 <1.0 DUP (MW6) 1/23/2024 <1.0 <0.10 <0.10 <0.10 <0.10 <0.10 < 0.10 < 0.50 <0.10 <1.0 <1.0 < 0.10 <1.0 <1.0 <1.0 <1.0 <1.0

Notes: Values presented in micrograms per liter (ug/L) or parts per billion (ppb).

Published Levels based on Indiana Departement of Environmental Management (IDEM) Risk-based Closure Guide (R2)

issued July 8, 2022 and updated March 2024.

IDEM follows USEPA in assuming a total HQ of 1 and a risk level of 10⁻⁵.

Note that lab results for methynaphthalenes and naphthalene may have been reported in both the VOC and PAH scans. If so, the higher of the two results is shown.

* The IDEM R2 does not publish levels for this Polynuclear Aromatic Hydrocarbon (PAH) constituent.

Bold and shaded cell: denotes value exceeds IDEM R2 Long Term Residential Groundwater Published Level.



Quarterly Groundwater Monitoring Report – 1 st Quarter 2024 and No Further Action Request, Bernie's Amoco, 2120 N. Lebanon Street, Lebanon, Indiana 46052; FID #10593, LUST #201307505
APPENDIX A
Groundwater Data Summary Tables

Table 1 **Current and Historical Groundwater Gauging Data Bernie's Amoco** 2120 North Lebanon Street Lebanon, Indiana 46052 Well Identification Number **Groundwater Elevation** Depth to Groundwater (ft below TOC) Top of Casing (TOC) Well Screen Length Well Total Depth Depth to LNAPL (ft below TOC) Well Diameter Date Gauged (below TOC) Elevation* 6/23/2022 2" 10' 5.80 14.63 94.20 100.00 MW-1 3/28/2023 Destroyed 8.17 6/23/2022 14.63 91.08 99.25 3/28/2023 7.99 14.55 91.26 99.25 2" MW-2 7/24/2023 8.34 14.55 90.91 99.25 10' 10/31/2023 14.55 91.15 99.25 8.10 1/23/2024 7.02 14.55 92.23 99.25 14.76 6/23/2022 9.82 91.17 100.99 14.76 3/28/2023 8.81 92.18 100.99 MW-3 7/24/2023 2" 10' 10.03 14.76 90.96 100.99 10/31/2023 9.92 14.76 91.07 100.99 1/23/2024 14.76 100.99 8.80 92.19 6/23/2022 14.81 100.42 8.42 92.00 14.81 100.42 3/28/2023 8.13 92.29 MW-4 7/24/2023 2" 8.72 14.81 91.70 100.42 10' 10/31/2023 100.42 8.42 14.81 92.00 1/23/2024 8.30 100.42 14.81 92.12



Table 1 Current and Historical Groundwater Gauging Data Bernie's Amoco 2120 North Lebanon Street Lebanon, Indiana 46052

Well Identification Number	Date Gauged	Well Diameter	Depth to LNAPL (ft below TOC)	Depth to Groundwater (ft below TOC)	Well Total Depth (below TOC)	Groundwater Elevation (feet)	Top of Casing (TOC) Elevation*	Well Screen Length
	6/23/2022		-	9.41	14.89	92.11	101.52	
	3/28/2023		-	8.46	14.89	93.06	101.52	
MW-5	7/24/2023	2"	-	10.87	14.89	90.65	101.52	10'
	10/31/2023		-	10.56	14.89	90.96	101.52	
	1/23/2024			8.97	14.89	92.55	101.52	
	1/18/2023		-	8.03	14.57	92.07	100.10	
	3/28/2023		-	7.46	14.57	92.64	100.10	
MW-6	7/24/2023	2"	-	9.73	14.57	90.37	100.10	10'
	10/31/2023		-	9.49	14.57	90.61	100.10	
	1/23/2024			7.71	14.57	92.39	100.10	
	1/18/2023		1	7.02	13.66	91.74	98.76	
	3/28/2023		-	7.29	13.66	91.47	98.76	
MW-7	7/24/2023	2"		7.81	13.66	90.95	98.76	10'
	10/31/2023		-	7.18	13.66	91.58	98.76	
	1/23/2024			6.41	13.66	92.35	98.76	
	1/18/2023		-	3.29	14.68	93.01	96.30	
	3/28/2023		-	2.89	14.68	93.41	96.30	
MW-8	7/24/2023	2"	-	4.12	14.68	92.18	96.30	10'
	10/31/2023		-	1.78	14.68	94.52	96.30	
	1/23/2024			1.12	14.68	95.18	96.30	
Notes: Elevation survey updated on January 18, 2023.								



Table 2A Current and Historical VOCs in Groundwater Analytical Results Bernie's Amoco 2120 North Lebanon Street Lebanon, Indiana 46052

			•	1	Ecbanon, n	iulalia 4003				T		
Sample Location	Date Sampled	Benzene	Ethylbenzene	n-Hexane	lsopropylbenzene (Cumene)	p-Isopropylbenzene	Methyl-tert-butyl ether	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylene (Total)
IDEM D2 Duk	lished Levels											
	Il Groundwater	5	700	2,000	500	NA	100	700	1,000	60	60	10,000
SB-1 GW	3/1/2017	<5.0	<5.0	<10.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<10.0
SB-2 GW	3/1/2017	<5.0	<5.0	<10.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<10.0
SB-3 GW	3/1/2017	<5.0	73.5	<10.0	38.4	<1.0	<1.0	93.4	<5.0	113	32.3	95.5
SB-4 GW	4/27/2018	<5.0	<5.0	<10.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<10.0
SB-5 GW	4/27/2018	79	661	180	94.4	3.2	<1.0	173	<5.0	135	109	20.8
SB-6 GW	4/27/2018	<5.0	<5.0	<10.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<10.0
MW-1	5/5/2022	158	517	<10.0	20.5	6.8	<5	43	895	791	131	2410
IVI VV - I	3/28/2023						Destroyed					
	6/23/2022	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<10
	3/28/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MW-2	7/24/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	10/31/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
	6/23/2022	7.94	<5	<10	17.4	<5	<5	35.3	<5	<5	<5	<10
	3/28/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MW-3	7/24/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	10/31/2023	10.5	7.5	<5.0	31.4	61	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	1/23/2024	13.3	8.2	6.1	38.5	<5.0	<4.0	82.4	<5.0	<5.0	<5.0	<10
	6/23/2022	<5	<5	<10	7.82	<5	<5	22.1	<5	<5	<5	<10
	3/28/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MW-4	7/24/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	10/31/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	1/23/2024	<5.0	<5.0	<5.0	< 5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10



Table 2A Current and Historical VOCs in Groundwater Analytical Results Bernie's Amoco 2120 North Lebanon Street Lebanon Indiana 46052

Sample Location	Date Sampled	Benzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropylbenzene	Methyl-tert-butyl ether	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylene (Total)
	olished Levels al Groundwater	5	700	2,000	500	NA	100	700	1,000	60	60	10,000
	6/23/2022	11.1	66.5	10	21.7	<5	<5	50.2	<5	12.1	7.97	<10
	3/28/2023	9.2	36.8	<5.0	15.1	<5.0	<4.0	25.7	<5.0	<5.0	<5.0	<10.0
MW-5	7/24/2023	18.5	23	5.7	26.9	<5.0	<4.0	50	<5.0	<5.0	<5.0	<10
	10/31/2023	22.4	31.6	5.7	33.7	<5.0	<4.0	70.6	<5.0	<5.0	<5.0	<10
	1/23/2024	34.6	23.6	20.4	38.4	<5.0	<4.0	87.5	<5.0	<5.0	5.4	<10
	1/18/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	8.9	<5.0	<5.0	<5.0	<10.0
	3/28/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MW-6	7/24/2023	<5.0	<5.0	<10	27.8	<5.0	<4.0	51.5	<5.0	<5.0	<5.0	<10
	10/31/2023	<5.0	<5.0	<10	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
	1/18/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	3/28/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MW-7	7/24/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	10/31/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
	1/18/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MANA/ O	3/28/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
MW-8	7/24/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	10/31/2023	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10.0
	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10



Table 2A

Current and Historical VOCs in Groundwater Analytical Results

Bernie's Amoco

2120 North Lebanon Street

Lebanon, Indiana 46052

Sample Location	Date Sampled	Benzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropylbenzene	Methyl-tert-butyl ether	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylene (Total)
	lished Levels I Groundwater	5	700	2,000	500	NA	100	700	1,000	60	60	10,000
DUP (MW-6)	1/18/2023	28.3	23.2	<10	22.9	<5.0	<4.0	49.3	<5.0	5.5	<5.0	<10
DUP (MW-6)	3/28/2023	<5.0	<5.0	<10	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
DUP (MW-6)	7/24/2023	<5.0	<5.0	<10	26.4	<5.0	<4.0	48.5	<5.0	<5.0	<5.0	<10
DUP (MW-6)	10/31/2023	<5.0	<5.0	<10	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10
DUP (MW-6)	1/23/2024	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<10

Notes: Values presented in micrograms per liter (ug/L) or parts per billion (ppb).

Volatile organic compound (VOC) constituents not listed were identified below laboratory reporting limits.

Published Levels based on Indiana Departement of Environmental Management (IDEM) Risk-based Closure Guide (R2) issued July 8, 2022 and updated March 2024.

IDEM follows USEPA in assuming a total HQ of 1 and a risk level of 10⁻⁵.

NA Analyte not sampled for or Not Applicable.

Bold and shaded cell: denotes value exceeds IDEM R2 Long Term Residential Groundwater Published Level.



Table 2B Current and Historical PAHs in Groundwater Analytical Results Bernie's Amoco 2120 North Lebanon Street Lebanon, Indiana 46052

								Lebano	n, Indiana	46052									
Sample Location	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	I-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
IDEM R2 Pul	blished Levels							_				_	_		·				
	sidential	500	*	2,000	30	0.2	3	*	3	300	0.3	800	300	3	10	40	1	*	100
	ndwater			_,,,,,															
SB-1 GW	3/1/2017	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.025	<0.10	<0.10	<0.10	<1.0	<1.0
SB-2 GW	3/1/2017	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.025	<0.10	<0.10	<0.10	<1.0	<1.0
SB-3 GW	3/1/2017	<1.0	<1.0	<0.10	<0.10	0.56	0.43	0.62	0.26	<0.50	<0.10	<1.0	<1.0	0.29	17.1	8.7	16.8	<1.0	<1.0
SB-4 GW	4/27/2018	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.025	<0.10	<0.10	<0.10	<1.0	<1.0
SB-5 GW	4/27/2018	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.025	19.4	35.8	151	<1.0	<1.0
SB-6 GW	4/27/2018	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.025	<0.10	<0.10	<0.10	<1.0	<1.0
MW-1	5/5/2022	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.022	7.61	13.9	67.4	<1.0	<1.0
IVI VV - I	3/28/2023									Dest	royed								
	6/23/2022	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.022	<0.10	<0.10	<0.10	<1.0	<1.0
	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
MW-2	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	6/23/2022	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.022	2.08	3.16	1.11	<1.0	<1.0
	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
MW-3	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	1.9	1.1	<1.0	<1.0	<1.0
	6/23/2022	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.022	2.07	1.00	5.4	<1.0	<1.0
	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
MW-4	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	6/23/2022	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.022	4.96	9.1	29.9	<1.0	<1.0
NAVA	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	2.4	1.4	9.2	<1.0	<1.0
MW-5	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	1.4	1.1	5.8	<1.0	<1.0
	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	4.1	4.3	11.9	<1.0	<1.0
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	4.8 2.2	5.6	6.7	<1.0	<1.0
	1/18/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	4.0	<1.0	<1.0	<1.0
MW-6	3/28/2023 7/24/2023	<1.0 <1.0	<1.0 <1.0	<0.10	<0.10 <0.10	<0.10	<0.10 <0.10	<0.10 <0.10	<0.10 <0.10	<0.50 <0.50	<0.10	<1.0 <1.0	<1.0 <1.0	<0.10 <0.10	3.5	<1.0 3.4	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0
141 44 -0	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	3.5	3.4	<1.0	<1.0	<1.0
	1/23/2024										i e								
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0



Table 2B

Current and Historical PAHs in Groundwater Analytical Results Bernie's Amoco

2120 North Lebanon Street Lebanon, Indiana 46052

								Leballoi	i, indiana	40032									
Sample Location	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
IDEM R2 Pub	lished Levels																		
	sidential	500	*	2,000	30	0.2	3	*	3	300	0.3	800	300	3	10	40	1	*	100
Groun	dwater																		
	1/18/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
MW-7	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	1/18/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
MW-8	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
DUP (MW-6)	1/18/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	< 0.50	<0.10	<1.0	<1.0	<0.10	3.8	2.7	7.2	<1.0	<1.0
DUP (MW-6)	3/28/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
DUP (MW-6)	7/24/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	2.6	1.9	<1.0	<1.0	<1.0
DUP (MW-6)	10/31/2023	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0
DUP (MW-6)	1/23/2024	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0

Notes: Values presented in micrograms per liter (ug/L) or parts per billion (ppb).

Published Levels based on Indiana Departement of Environmental Management (IDEM) Risk-based Closure Guide (R2) issued July 8, 2022 and updated March 2024. IDEM follows USEPA in assuming a total HQ of 1 and a risk level of 10⁻⁵.

Note that lab results for methynaphthalenes and naphthalene may have been reported in both the VOC and PAH scans. If so, the higher of the two results is shown.

* The IDEM R2 does not publish levels for this Polynuclear Aromatic Hydrocarbon (PAH) constituent.

Bold and shaded cell: denotes value exceeds IDEM R2 Long Term Residential Groundwater Published Level.



<u>Quarterly Groundwater Monitoring Report – 1st Quarter 2024 and No Further Action Request, Street, Lebanon, Indiana 46052; FID #10593, LUST #201307505</u>	Bernie's Amoco, 2120 N.	<u>Lebanon</u>
Street, Lebanon, Indiana 40032, 11D #10333, LOST #201307303		
APPENDIX B		
Lab Data		

Heartland Environmental Associates, Inc.





February 01, 2024

Sean Hall Heartland Environmental 3410 Mishawaka Avenue South Bend, IN 46615

RE: Project: Bernie's Amoco

Pace Project No.: 50364264

Dear Sean Hall:

Enclosed are the analytical results for sample(s) received by the laboratory on January 25, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Allison Martinez allison.martinez@pacelabs.com (317)228-3118

auarting

Project Manager

Enclosures







CERTIFICATIONS

Project: Bernie's Amoco
Pace Project No.: 50364264

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065 Oklahoma Laboratory #: 9204 Texas Certification #: T104704355 Washington Dept of Ecology #: C1081 Wisconsin Laboratory #: 999788130 USDA Foreign Soil Permit #: 525-23-13-23119 USDA Compliance Agreement #: IN-SL-22-001



SAMPLE SUMMARY

Project: Bernie's Amoco Pace Project No.: 50364264

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50364264001	MW-2	Water	01/23/24 09:24	01/25/24 10:30
50364264002	MW-3	Water	01/23/24 11:49	01/25/24 10:30
50364264003	MW-4	Water	01/23/24 10:36	01/25/24 10:30
50364264004	MW-5	Water	01/23/24 11:05	01/25/24 10:30
50364264005	MW-6	Water	01/23/24 09:56	01/25/24 10:30
50364264006	MW-7	Water	01/23/24 10:14	01/25/24 10:30
50364264007	MW-8	Water	01/23/24 09:07	01/25/24 10:30
50364264008	DUP	Water	01/23/24 08:00	01/25/24 10:30



SAMPLE ANALYTE COUNT

Project: Bernie's Amoco Pace Project No.: 50364264

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50364264001	MW-2	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264002	MW-3	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264003	MW-4	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264004	MW-5	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264005	MW-6	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264006	MW-7	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264007	MW-8	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I
50364264008	DUP	EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	BES	73	PASI-I

PASI-I = Pace Analytical Services - Indianapolis



SUMMARY OF DETECTION

Project: Bernie's Amoco Pace Project No.: 50364264

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
60364264002	MW-3					
EPA 8270 by SIM 40E	1-Methylnaphthalene	1.9	ug/L	1.0	01/29/24 22:01	
EPA 8270 by SIM 40E	2-Methylnaphthalene	1.1	ug/L	1.0	01/29/24 22:01	
EPA 8260	Benzene	13.3	ug/L	5.0	01/29/24 13:52	
EPA 8260	Ethylbenzene	8.2	ug/L	5.0	01/29/24 13:52	
EPA 8260	n-Hexane	6.1	ug/L	5.0	01/29/24 13:52	
EPA 8260	Isopropylbenzene (Cumene)	38.5	ug/L	5.0	01/29/24 13:52	
EPA 8260	n-Propylbenzene	82.4	ug/L	5.0	01/29/24 13:52	
0364264004	MW-5					
EPA 8270 by SIM 40E	1-Methylnaphthalene	4.8	ug/L	1.0	01/29/24 22:22	
EPA 8270 by SIM 40E	2-Methylnaphthalene	5.6	ug/L	1.0	01/29/24 22:22	
EPA 8270 by SIM 40E	Naphthalene	6.7	ug/L	1.0	01/29/24 22:22	
EPA 8260	Benzene	34.6	ug/L	5.0	01/29/24 14:57	
EPA 8260	n-Butylbenzene	6.4	ug/L	5.0	01/29/24 14:57	
EPA 8260	Ethylbenzene	23.6	ug/L	5.0	01/29/24 14:57	
EPA 8260	n-Hexane	20.4	ug/L	5.0	01/29/24 14:57	
EPA 8260	Isopropylbenzene (Cumene)	38.4	ug/L	5.0	01/29/24 14:57	
EPA 8260	Naphthalene	10	ug/L	5.0	01/29/24 14:57	
PA 8260	n-Propylbenzene	87.5	ug/L	5.0	01/29/24 14:57	
EPA 8260	1,3,5-Trimethylbenzene	5.4	ug/L	5.0	01/29/24 14:57	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-2	Lab ID: 50	364264001	Collected: 01/23/2	24 09:24	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical Me	thod: EPA 82	270 by SIM 40E Prep	paration	Method: EPA 351	11		
	Pace Analytic	al Services -	- Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 21:5	0 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 21:5	0 208-96-8	
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 207-08-9	
Chrysene	ND	ug/L	0.50	1	01/29/24 12:13	01/29/24 21:5	0 218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 21:5	0 53-70-3	
Juoranthene	ND	ug/L	1.0	1	01/29/24 12:13			
luorene	ND	ug/L	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
laphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
henanthrene	ND ND	ug/L	1.0	1	01/29/24 12:13			
yrene	ND	ug/L	1.0	1	01/29/24 12:13			
Surrogates	ND	ug/L	1.0	'	01/29/24 12.13	01/23/24 21.3	0 129-00-0	
:-Fluorobiphenyl (S)	85	%.	45-127	1	01/29/24 12:13	01/29/24 21:5	0 321-60-8	
-Terphenyl-d14 (S)	120	%.	75-157	1	01/29/24 12:13			
				•				
260/5030 MSV	Analytical Me Pace Analytic							
	•		·			04/00/04 40 4	0 07 04 4	
Acetone	ND	ug/L	100	1		01/29/24 13:1		
Acrolein	ND	ug/L	50.0	1		01/29/24 13:1		
Acrylonitrile	ND	ug/L	100	1		01/29/24 13:1		
Benzene	ND	ug/L	5.0	1		01/29/24 13:1		
Bromobenzene	ND	ug/L	5.0	1		01/29/24 13:1		
Bromochloromethane	ND	ug/L	5.0	1		01/29/24 13:1		
Bromodichloromethane	ND	ug/L	5.0	1		01/29/24 13:1		
Bromoform	ND	ug/L	5.0	1		01/29/24 13:1		
Bromomethane	ND	ug/L	5.0	1		01/29/24 13:1	9 74-83-9	
P-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 13:1	9 78-93-3	
-Butylbenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 104-51-8	
ec-Butylbenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 135-98-8	
ert-Butylbenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 98-06-6	
Carbon disulfide	ND	ug/L	10.0	1		01/29/24 13:1	9 75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/29/24 13:1	9 56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/29/24 13:1	9 75-00-3	
Chloroform	ND	ug/L	5.0	1		01/29/24 13:1	9 67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/29/24 13:1	9 74-87-3	
-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 13:1		
1-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 13:1		
Dibromochloromethane	ND	ug/L	5.0	1		01/29/24 13:1		



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-2	Lab ID: 503	64264001	Collected: 01/23/2	24 09:24	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260/5030 MSV	Analytical Metl	nod: EPA 82	260					
	Pace Analytica	I Services -	- Indianapolis					
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 13:1	9 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		01/29/24 13:1	9 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 541-73-1	
,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:1	9 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 13:1	9 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 13:1	9 75-71-8	
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 13:1	9 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 13:1	9 107-06-2	
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 13:1	9 75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 13:1		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 13:1		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 13:1		
,3-Dichloropropane	ND	ug/L	5.0	1		01/29/24 13:1		
2,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 13:1		
,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 13:1		
is-1,3-Dichloropropene	ND	ug/L	5.0	1			9 10061-01-5	
ans-1,3-Dichloropropene	ND	ug/L	5.0	1			9 10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/29/24 13:1		
Ethyl methacrylate	ND	ug/L	100	1		01/29/24 13:1		
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		01/29/24 13:1		
-Hexane	ND	ug/L	5.0	1		01/29/24 13:1		
2-Hexanone	ND	ug/L	25.0	1		01/29/24 13:1		
odomethane	ND	ug/L	10.0	1		01/29/24 13:1		L2
sopropylbenzene (Cumene)	ND	ug/L	5.0	1		01/29/24 13:1		LZ
p-Isopropyltoluene	ND	ug/L ug/L	5.0	1		01/29/24 13:1		
Methylene Chloride	ND ND	ug/L ug/L	5.0	1		01/29/24 13:1		
I-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		01/29/24 13:1		
Methyl-tert-butyl ether	ND	ug/L ug/L	4.0	1		01/29/24 13:1		
Naphthalene	ND	_	5.0	1		01/29/24 13:1		
•		ug/L		1				
-Propylbenzene	ND ND	ug/L	5.0 5.0	1		01/29/24 13:1 01/29/24 13:1		
Styrene ,1,1,2-Tetrachloroethane	ND ND	ug/L	5.0	1		01/29/24 13:1		
		ug/L	5.0	1				
,1,2,2-Tetrachloroethane	ND	ug/L				01/29/24 13:1		
etrachloroethene	ND	ug/L	5.0	1		01/29/24 13:1		
oluene	ND	ug/L	5.0	1		01/29/24 13:1		
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:1		L2
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:1		
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 13:1		
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 13:1		
Trichloroethene	ND	ug/L	5.0	1		01/29/24 13:1		
richlorofluoromethane	ND	ug/L	5.0	1		01/29/24 13:1		
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 13:1		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 13:1		
,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 13:1		
/inyl acetate	ND	ug/L	50.0	1		01/29/24 13:1	9 108-05-4	L1



Project: Bernie's Amoco Pace Project No.: 50364264

Sample: MW-2	Lab ID: 50	364264001	Collected: 01/23/2	24 09:24	Received: 0	1/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Me	ethod: EPA 82	260					
	Pace Analytic	cal Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 13:19	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 13:19	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	82-128	1		01/29/24 13:19	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	79-124	1		01/29/24 13:19	460-00-4	
Toluene-d8 (S)	93	%.	73-122	1		01/29/24 13:19	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-3	Lab ID: 503	64264002	Collected: 01/23/2	4 11:49	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical Met	hod: EPA 82	270 by SIM 40E Prep	aration	Method: EPA 35	11		
	Pace Analytica	al Services -	Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:0	1 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:0	1 208-96-8	
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 207-08-9	
Chrysene	ND	ug/L	0.50	1	01/29/24 12:13	01/29/24 22:0	1 218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:0	1 53-70-3	
luoranthene	ND	ug/L	1.0	1	01/29/24 12:13			
luorene	ND	ug/L	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13			
-Methylnaphthalene	1.9	ug/L	1.0	1	01/29/24 12:13			
:-Methylnaphthalene	1.1	ug/L	1.0	1	01/29/24 12:13			
laphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
Phenanthrene	ND	ug/L	1.0	1	01/29/24 12:13			
Pyrene	ND	ug/L	1.0	1	01/29/24 12:13			
Surrogates	ND	ug/L	1.0	•	01/25/24 12.15	01/25/24 22.0	1 125 00 0	
r-Fluorobiphenyl (S)	78	%.	45-127	1	01/29/24 12:13	01/29/24 22:0	1 321-60-8	
o-Terphenyl-d14 (S)	119	%.	75-157	1	01/29/24 12:13			
3260/5030 MSV	Analytical Met	hod: EPA 83	260					
,200,0000 IIIO I	Pace Analytica							
Acetone	ND	ug/L	100	1		01/29/24 13:5	2 67-64-1	
Acrolein	ND	ug/L	50.0	1		01/29/24 13:5		
Acrylonitrile	ND	ug/L	100	1		01/29/24 13:5		
Benzene	13.3	ug/L	5.0	1		01/29/24 13:5		
Bromobenzene	ND	ug/L	5.0	1		01/29/24 13:5		
Bromochloromethane	ND	ug/L	5.0	1		01/29/24 13:5		
Bromodichloromethane	ND	ug/L	5.0	1		01/29/24 13:5		
Bromoform	ND	ug/L	5.0	1		01/29/24 13:5		
Bromomethane	ND	ug/L	5.0	1		01/29/24 13:5		
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 13:5		
-Butylbenzene	ND	ug/L	5.0	1		01/29/24 13:5		
ec-Butylbenzene	ND ND	ug/L ug/L	5.0	1		01/29/24 13:5		
ert-Butylbenzene	ND ND	ug/L ug/L	5.0	1		01/29/24 13:5		
Carbon disulfide	ND ND	ug/L ug/L	10.0	1		01/29/24 13:5		
Carbon distillide	ND ND	_	5.0	1		01/29/24 13:5		
		ug/L		1		01/29/24 13:5:		
Chlorobenzene	ND ND	ug/L	5.0					
Chloroethane	ND	ug/L	5.0	1		01/29/24 13:5		
Chloroform	ND	ug/L	5.0	1		01/29/24 13:5		
Chloromethane	ND	ug/L	5.0	1		01/29/24 13:5		
-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 13:5		
I-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 13:5		
Dibromochloromethane	ND	ug/L	5.0	1		01/29/24 13:5	2 124-48-1	



Project: Bernie's Amoco
Pace Project No : 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-3	Lab ID: 503	64264002	Collected: 01/23/2	24 11:49	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260/5030 MSV	Analytical Meth	hod: EPA 82	260					
	Pace Analytica	al Services -	Indianapolis					
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 13:5	2 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		01/29/24 13:5	2 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:5	2 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:5	2 541-73-1	
,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:5	2 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 13:5	2 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 13:5		
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 13:5		
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 13:5		
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 13:5		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 13:5		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 13:52		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 13:52		
	ND ND	•	5.0	1		01/29/24 13:5		
,3-Dichloropropane		ug/L		1				
,2-Dichloropropane	ND	ug/L	5.0			01/29/24 13:52		
,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 13:52		
is-1,3-Dichloropropene	ND	ug/L	5.0	1		01/29/24 13:52		
ans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/29/24 13:5		
thylbenzene	8.2	ug/L	5.0	1		01/29/24 13:5		
thyl methacrylate	ND	ug/L	100	1		01/29/24 13:5		
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		01/29/24 13:5		
-Hexane	6.1	ug/L	5.0	1		01/29/24 13:5		
-Hexanone	ND	ug/L	25.0	1		01/29/24 13:5		
odomethane	ND	ug/L	10.0	1		01/29/24 13:5	2 74-88-4	L2
sopropylbenzene (Cumene)	38.5	ug/L	5.0	1		01/29/24 13:52	2 98-82-8	
-Isopropyltoluene	ND	ug/L	5.0	1		01/29/24 13:52	2 99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		01/29/24 13:52	2 75-09-2	
-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		01/29/24 13:5	2 108-10-1	
Nethyl-tert-butyl ether	ND	ug/L	4.0	1		01/29/24 13:52	2 1634-04-4	
laphthalene	ND	ug/L	5.0	1		01/29/24 13:52	2 91-20-3	
-Propylbenzene	82.4	ug/L	5.0	1		01/29/24 13:52	2 103-65-1	
Styrene	ND	ug/L	5.0	1		01/29/24 13:5	2 100-42-5	
,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 13:5	2 630-20-6	
,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 13:5	2 79-34-5	
etrachloroethene	ND	ug/L	5.0	1		01/29/24 13:5		
oluene	ND	ug/L	5.0	1		01/29/24 13:52		
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:5		L2
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 13:5		
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 13:5		
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 13:5		
richloroethene	ND ND	•	5.0	1		01/29/24 13:5		
		ug/L				01/29/24 13:5		
richlorofluoromethane	ND	ug/L	5.0	1				
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 13:52		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 13:52		
,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 13:52	2 108-67-8	



Project: Bernie's Amoco
Pace Project No.: 50364264

Sample: MW-3	Lab ID: 50	364264002	Collected: 01/23/2	24 11:49	Received: 0	1/25/24 10:30 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Me	ethod: EPA 82	260					
	Pace Analytic	cal Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 13:52	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 13:52	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99	%.	82-128	1		01/29/24 13:52	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	79-124	1		01/29/24 13:52	2 460-00-4	
Toluene-d8 (S)	95	%.	73-122	1		01/29/24 13:52	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-4	Lab ID: 50	364264003	Collected: 01/23/2	24 10:36	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical Me	thod: EPA 82	270 by SIM 40E Prep	aration	Method: EPA 35	11		
	Pace Analytic	al Services -	- Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:1	1 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13			
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:1	1 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:1	1 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:1	1 50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:1	1 205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:1	1 191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:1	1 207-08-9	
Chrysene	ND	ug/L	0.50	1	01/29/24 12:13			
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13			
Fluoranthene	ND	ug/L	1.0	1	01/29/24 12:13			
Fluorene	ND	ug/L	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
2-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
Naphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
Phenanthrene	ND	ug/L	1.0	1	01/29/24 12:13			
Pyrene	ND	ug/L	1.0	1	01/29/24 12:13			
Surrogates	ND	ug/L	1.0	•	01/20/24 12:10	01/25/24 22:1	1 120 00 0	
2-Fluorobiphenyl (S)	83	%.	45-127	1	01/29/24 12:13	01/29/24 22:1	1 321-60-8	
o-Terphenyl-d14 (S)	120	%.	75-157	1	01/29/24 12:13			
3260/5030 MSV	Analytical Me	thod: FPA 8	260					
7200/0000 MOV	Pace Analytic							
Acetone	ND	ug/L	100	1		01/29/24 14:2	4 67-64-1	
Acrolein	ND	ug/L	50.0	1		01/29/24 14:2		
Acrylonitrile	ND	ug/L	100	1		01/29/24 14:2		
Benzene	ND ND	ug/L ug/L	5.0	1		01/29/24 14:2		
Bromobenzene	ND ND	ug/L ug/L	5.0	1		01/29/24 14:2		
Bromochloromethane	ND ND	•	5.0	1		01/29/24 14:2		
Bromodichloromethane	ND ND	ug/L ug/L	5.0	1		01/29/24 14:2		
Bromoform	ND ND	-	5.0	1		01/29/24 14:2		
Bromomethane	ND ND	ug/L	5.0	1		01/29/24 14:2		
		ug/L						
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 14:2		
-Butylbenzene	ND	ug/L	5.0	1		01/29/24 14:2		
ec-Butylbenzene	ND	ug/L	5.0	1		01/29/24 14:2		
ert-Butylbenzene	ND	ug/L	5.0	1		01/29/24 14:2		
Carbon disulfide	ND	ug/L	10.0	1		01/29/24 14:2		
Carbon tetrachloride	ND	ug/L	5.0	1		01/29/24 14:2		
Chlorobenzene	ND	ug/L	5.0	1		01/29/24 14:2		
Chloroethane	ND	ug/L	5.0	1		01/29/24 14:2		
Chloroform	ND	ug/L	5.0	1		01/29/24 14:2		
Chloromethane	ND	ug/L	5.0	1		01/29/24 14:2		
2-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 14:2		
1-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 14:2		
Dibromochloromethane	ND	ug/L	5.0	1		01/29/24 14:2	4 124-48-1	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-4	Lab ID: 503	64264003	Collected: 01/23/2	24 10:36	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
3260/5030 MSV	Analytical Metl	hod: EPA 82	260					
	Pace Analytica	al Services -	Indianapolis					
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 14:24	4 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		01/29/24 14:24		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:24	4 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:24	4 541-73-1	
,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:24		
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 14:24	4 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 14:24		
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 14:24		
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 14:24		
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 14:24		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 14:24		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 14:24		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 14:24		
,3-Dichloropropane	ND ND	ug/L	5.0	1		01/29/24 14:24		
,3-Dichloropropane	ND ND	ug/L ug/L	5.0	1		01/29/24 14:24		
,1-Dichloropropane	ND	-	5.0	1		01/29/24 14:24		
is-1,3-Dichloropropene	ND ND	ug/L ug/L	5.0	1		01/29/24 14:24		
· ·	ND ND	-	5.0	1		01/29/24 14:24		
ans-1,3-Dichloropropene		ug/L		1		01/29/24 14:24		
thylbenzene	ND	ug/L	5.0					
thyl methacrylate	ND	ug/L	100	1		01/29/24 14:24		
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		01/29/24 14:24		
-Hexane	ND	ug/L	5.0	1		01/29/24 14:24		
-Hexanone	ND	ug/L	25.0	1		01/29/24 14:24		
odomethane	ND	ug/L	10.0	1		01/29/24 14:24		L2
sopropylbenzene (Cumene)	ND	ug/L	5.0	1		01/29/24 14:24		
-Isopropyltoluene	ND	ug/L	5.0	1		01/29/24 14:24		
Methylene Chloride	ND	ug/L	5.0	1		01/29/24 14:24		
-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		01/29/24 14:24		
Methyl-tert-butyl ether	ND	ug/L	4.0	1		01/29/24 14:24		
laphthalene	ND	ug/L	5.0	1		01/29/24 14:24		
-Propylbenzene	ND	ug/L	5.0	1		01/29/24 14:24		
Styrene	ND	ug/L	5.0	1		01/29/24 14:24		
,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 14:24		
,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 14:24	4 79-34-5	
etrachloroethene	ND	ug/L	5.0	1		01/29/24 14:24	4 127-18-4	
oluene	ND	ug/L	5.0	1		01/29/24 14:24	4 108-88-3	
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:24	4 87-61-6	L2
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:24	4 120-82-1	
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 14:24	4 71-55-6	
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 14:24	4 79-00-5	
richloroethene	ND	ug/L	5.0	1		01/29/24 14:24	4 79-01-6	
richlorofluoromethane	ND	ug/L	5.0	1		01/29/24 14:24	4 75-69-4	
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 14:24	4 96-18-4	
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 14:24	4 95-63-6	
,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 14:24	4 108-67-8	
/inyl acetate	ND	ug/L	50.0	1		01/29/24 14:24	4 108-05-4	L1



Project: Bernie's Amoco
Pace Project No.: 50364264

Sample: MW-4	Lab ID:	50364264003	Collected: 01/23/2	24 10:36	Received: 0	1/25/24 10:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical	Method: EPA 82	260					
	Pace Ana	lytical Services	- Indianapolis					
Vinyl chloride	N	D ug/L	2.0	1		01/29/24 14:24	75-01-4	
Xylene (Total)	N	D ug/L	10.0	1		01/29/24 14:24	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	10	3 %.	82-128	1		01/29/24 14:24	1868-53-7	
4-Bromofluorobenzene (S)	9	8 %.	79-124	1		01/29/24 14:24	460-00-4	
Toluene-d8 (S)	9	3 %.	73-122	1		01/29/24 14:24	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-5	Lab ID:	50364264004	Collected: 01/23/	24 11:05	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical N	/lethod: EPA 82	270 by SIM 40E Pre	paration	Method: EPA 35°	11		
	Pace Analy	tical Services -	Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:2	2 83-32-9	
Acenaphthylene	ND	-	1.0	1	01/29/24 12:13	01/29/24 22:2	2 208-96-8	
Anthracene	ND	_	0.10	1	01/29/24 12:13	01/29/24 22:2	2 120-12-7	
Benzo(a)anthracene	ND	_	0.10	1	01/29/24 12:13	01/29/24 22:2	2 56-55-3	
Benzo(a)pyrene	ND	_	0.10	1	01/29/24 12:13	01/29/24 22:2	2 50-32-8	
Benzo(b)fluoranthene	ND	•	0.10	1	01/29/24 12:13	01/29/24 22:2	2 205-99-2	
Benzo(g,h,i)perylene	ND	-	0.10	1	01/29/24 12:13	01/29/24 22:2	2 191-24-2	
Benzo(k)fluoranthene	ND	•	0.10	1	01/29/24 12:13	01/29/24 22:2	2 207-08-9	
Chrysene	ND	_	0.50	1	01/29/24 12:13	01/29/24 22:2	2 218-01-9	
Dibenz(a,h)anthracene	ND		0.10	1	01/29/24 12:13			
Fluoranthene	ND	_	1.0	1	01/29/24 12:13			
Fluorene	ND	0	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	J	0.10	1	01/29/24 12:13			
-Methylnaphthalene	4.8	_	1.0	1	01/29/24 12:13			
-Methylnaphthalene	5.6	-	1.0	1	01/29/24 12:13			
laphthalene	6.7	0	1.0	1	01/29/24 12:13			
henanthrene	ND	J	1.0	1	01/29/24 12:13			
yrene	ND ND	0	1.0	1	01/29/24 12:13			
Surrogates	ND	ug/L	1.0	'	01/29/24 12.13	01/23/24 22.2	2 129-00-0	
:-Fluorobiphenyl (S)	81	%.	45-127	1	01/29/24 12:13	01/29/24 22:2	2 321-60-8	
-Terphenyl-d14 (S)	115		75-157	1	01/29/24 12:13			
				•	0.7207220	0 1/20/2 1 2212		
260/5030 MSV	•	/lethod: EPA 82 tical Services -						
	·		•					
Acetone	ND	J	100	1		01/29/24 14:5		
Acrolein	ND	0	50.0	1		01/29/24 14:5		
Acrylonitrile	ND	J	100	1		01/29/24 14:5	7 107-13-1	
Benzene	34.6	0	5.0	1		01/29/24 14:5	7 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		01/29/24 14:5	7 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		01/29/24 14:5	7 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		01/29/24 14:5	7 75-27-4	
Bromoform	ND	ug/L	5.0	1		01/29/24 14:5	7 75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/29/24 14:5	7 74-83-9	
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 14:5	7 78-93-3	
-Butylbenzene	6.4	ug/L	5.0	1		01/29/24 14:5	7 104-51-8	
ec-Butylbenzene	ND		5.0	1		01/29/24 14:5	7 135-98-8	
ert-Butylbenzene	ND		5.0	1		01/29/24 14:5	7 98-06-6	
arbon disulfide	ND		10.0	1		01/29/24 14:5	7 75-15-0	
Carbon tetrachloride	ND	•	5.0	1		01/29/24 14:5		
Chlorobenzene	ND	0	5.0	1		01/29/24 14:5		
Chloroethane	ND	J	5.0	1		01/29/24 14:5		
Chloroform	ND	J	5.0	1		01/29/24 14:5		
Chloromethane	ND	Ū	5.0	1		01/29/24 14:5		
-Chlorotoluene	ND	Ū	5.0	1		01/29/24 14:5		
-Chlorotoluene	ND ND	Ū	5.0	1		01/29/24 14:5		
	IND	uu/L				U1/43/44 14.3	, 100 -43-4	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-5	Lab ID: 503	64264004	Collected: 01/23/2	24 11:05	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260/5030 MSV	Analytical Metl	nod: EPA 82	260					
	Pace Analytica	al Services -	Indianapolis					
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 14:5	7 106-93-4	
Dibromomethane ,	ND	ug/L	5.0	1		01/29/24 14:5	7 74-95-3	
,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:5	7 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:5		
,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:5	7 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 14:5	7 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 14:5		
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 14:5	7 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 14:5		
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 14:5		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 14:5		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 14:5		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 14:5		
,3-Dichloropropane	ND	ug/L	5.0	1		01/29/24 14:5		
2,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 14:5		
,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 14:5		
is-1,3-Dichloropropene	ND	ug/L	5.0	1			7 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	5.0	1			7 10061-02-6	
Ethylbenzene	23.6	ug/L	5.0	1		01/29/24 14:5		
Ethyl methacrylate	ND	ug/L	100	1		01/29/24 14:5		
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		01/29/24 14:5		
n-Hexane	20.4	ug/L	5.0	1		01/29/24 14:5		
2-Hexanone	ND	ug/L	25.0	1		01/29/24 14:5		
odomethane	ND	ug/L	10.0	1		01/29/24 14:5		L2
sopropylbenzene (Cumene)	38.4	ug/L	5.0	1		01/29/24 14:5		LZ
	ND		5.0	1		01/29/24 14:5		
o-Isopropyltoluene Methylene Chloride	ND ND	ug/L ug/L	5.0	1		01/29/24 14:5		
-	ND ND	•	25.0	1		01/29/24 14:5		
I-Methyl-2-pentanone (MIBK) Methyl-tert-butyl ether	ND ND	ug/L	4.0	1		01/29/24 14:5		
		ug/L		1		01/29/24 14:5		
Naphthalene	10	ug/L	5.0	1				
n-Propylbenzene	87.5 ND	ug/L	5.0	1		01/29/24 14:5 01/29/24 14:5		
Styrene .1.1.2-Tetrachloroethane		ug/L	5.0					
	ND	ug/L	5.0	1		01/29/24 14:5		
,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 14:5		
etrachloroethene	ND	ug/L	5.0	1		01/29/24 14:5		
oluene	ND	ug/L	5.0	1		01/29/24 14:5		
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:5		L2
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 14:5		
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 14:5		
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 14:5		
Frichloroethene	ND	ug/L	5.0	1		01/29/24 14:5		
richlorofluoromethane	ND	ug/L	5.0	1		01/29/24 14:5		
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 14:5		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 14:5		
,3,5-Trimethylbenzene	5.4	ug/L	5.0	1		01/29/24 14:5		
/inyl acetate	ND	ug/L	50.0	1		01/29/24 14:5	7 108-05-4	L1



Project: Bernie's Amoco
Pace Project No.: 50364264

Sample: MW-5	Lab ID: 503	64264004	Collected: 01/23/2	24 11:05	Received: 0	1/25/24 10:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Met	hod: EPA 82	260					
	Pace Analytic	al Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 14:57	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 14:57	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98	%.	82-128	1		01/29/24 14:57	1868-53-7	
4-Bromofluorobenzene (S)	97	%.	79-124	1		01/29/24 14:57	460-00-4	
Toluene-d8 (S)	96	%.	73-122	1		01/29/24 14:57	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-6	Lab ID: 50	364264005	Collected: 01/23/2	24 09:56	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical Me	ethod: EPA 82	270 by SIM 40E Prep	aration	Method: EPA 35	11		
	Pace Analyti	cal Services -	Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:3	3 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:3	3 208-96-8	
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 207-08-9	
Chrysene	ND	ug/L	0.51	1	01/29/24 12:13	01/29/24 22:3	3 218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 53-70-3	
luoranthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:3	3 206-44-0	
luorene	ND	ug/L	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:3	3 193-39-5	
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
laphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
Phenanthrene	ND	ug/L	1.0	1	01/29/24 12:13			
yrene	ND	ug/L	1.0	1	01/29/24 12:13			
Surrogates	ND	ug/L	1.0	'	01/25/24 12.15	01/25/24 22.5	3 123 00 0	
-Fluorobiphenyl (S)	82	%.	45-127	1	01/29/24 12:13	01/29/24 22:3	3 321-60-8	
-Terphenyl-d14 (S)	115	%.	75-157	1	01/29/24 12:13			
260/5030 MSV	Analytical Me	ethod: FPA 8	260					
.=00,000001	•		· Indianapolis					
Acetone	ND	ug/L	100	1		01/29/24 15:3	0 67-64-1	
Acrolein	ND	ug/L	50.0	1		01/29/24 15:3		
Acrylonitrile	ND	ug/L	100	1		01/29/24 15:3		
Benzene	ND	ug/L	5.0	1		01/29/24 15:3		
Bromobenzene	ND	ug/L	5.0	1		01/29/24 15:3		
Promochloromethane	ND	ug/L	5.0	1		01/29/24 15:3		
romodichloromethane	ND	ug/L	5.0	1		01/29/24 15:3		
Bromoform	ND	ug/L	5.0	1		01/29/24 15:3		
Bromomethane	ND	ug/L	5.0	1		01/29/24 15:3		
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 15:3		
-Butylbenzene	ND ND	ug/L	5.0	1		01/29/24 15:3		
ec-Butylbenzene	ND ND		5.0	1		01/29/24 15:3		
ert-Butylbenzene	ND ND	ug/L ug/L	5.0	1		01/29/24 15:3		
Carbon disulfide	ND ND	-	10.0	1		01/29/24 15:3		
	ND ND	ug/L	5.0	1		01/29/24 15:3		
Carbon tetrachloride Chlorobenzene		ug/L						
	ND	ug/L	5.0	1		01/29/24 15:3		
Chloroethane	ND	ug/L	5.0	1		01/29/24 15:3		
Chloroform	ND	ug/L	5.0	1		01/29/24 15:3		
Chloromethane	ND	ug/L	5.0	1		01/29/24 15:3		
2-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 15:3		
-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 15:3		
Dibromochloromethane	ND	ug/L	5.0	1		01/29/24 15:3	0 124-48-1	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-6	Lab ID: 503	64264005	Collected: 01/23/2	24 09:56	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260/5030 MSV	Analytical Met	nod: EPA 82	260					
	Pace Analytica	al Services -	Indianapolis					
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 15:3	0 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		01/29/24 15:3	0 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 15:3	0 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 15:3	0 541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 15:3	0 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 15:3	0 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 15:3	0 75-71-8	
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 15:3	0 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 15:3		
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 15:3		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 15:3		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 15:3		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 15:3		
,3-Dichloropropane	ND	ug/L	5.0	1		01/29/24 15:3		
2,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 15:3		
,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 15:3		
is-1,3-Dichloropropene	ND	ug/L	5.0	1			0 10061-01-5	
ans-1,3-Dichloropropene	ND	ug/L	5.0	1			0 10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/29/24 15:3		
Ethyl methacrylate	ND	ug/L	100	1		01/29/24 15:3		
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		01/29/24 15:3		
-Hexane	ND ND	ug/L	5.0	1		01/29/24 15:3		
-Hexanone	ND ND	ug/L	25.0	1		01/29/24 15:3		
odomethane	ND ND	•	10.0	1		01/29/24 15:3		L2
	ND ND	ug/L	5.0	1		01/29/24 15:3		LZ
sopropylbenzene (Cumene)		ug/L						
o-Isopropyltoluene	ND	ug/L	5.0	1 1		01/29/24 15:3		
Methylene Chloride	ND	ug/L	5.0			01/29/24 15:3		
I-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		01/29/24 15:3		
Methyl-tert-butyl ether	ND	ug/L	4.0	1		01/29/24 15:3		
Naphthalene	ND	ug/L	5.0	1		01/29/24 15:3		
n-Propylbenzene	ND	ug/L	5.0	1		01/29/24 15:3		
Styrene	ND	ug/L	5.0	1		01/29/24 15:3		
,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 15:3		
,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 15:3		
etrachloroethene	ND	ug/L	5.0	1		01/29/24 15:3		
oluene	ND	ug/L	5.0	1		01/29/24 15:3		
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 15:3		L2
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 15:3		
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 15:3		
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 15:3		
richloroethene	ND	ug/L	5.0	1		01/29/24 15:3		
richlorofluoromethane	ND	ug/L	5.0	1		01/29/24 15:3		
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 15:3		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 15:3		
,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 15:3	0 108-67-8	
/inyl acetate	ND	ug/L	50.0	1		01/29/24 15:3	0 108-05-4	L1



Project: Bernie's Amoco Pace Project No.: 50364264

Sample: MW-6	Lab ID: 5	0364264005	Collected: 01/23/2	24 09:56	Received: 0°	1/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical M	lethod: EPA 82	260					
	Pace Analyt	tical Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 15:30	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 15:30	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%.	82-128	1		01/29/24 15:30	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	79-124	1		01/29/24 15:30	460-00-4	
Toluene-d8 (S)	93	%.	73-122	1		01/29/24 15:30	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-7	Lab ID: 503	64264006	Collected: 01/23/	24 10:14	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical Meth	nod: EPA 82	270 by SIM 40E Pre	paration	Method: EPA 351	11		
•	Pace Analytica	l Services -	Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:43	8 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:43	3 208-96-8	
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 207-08-9	
Chrysene	ND	ug/L	0.50	1	01/29/24 12:13	01/29/24 22:43	3 218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:43	3 53-70-3	
luoranthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:43	3 206-44-0	
luorene	ND	ug/L	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
laphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
henanthrene	ND	ug/L	1.0	1	01/29/24 12:13			
yrene	ND	ug/L	1.0	1	01/29/24 12:13			
Surrogates	ND	ug/L	1.0	'	01/25/24 12.15	01/25/24 22.40	125 00 0	
-Fluorobiphenyl (S)	83	%.	45-127	1	01/29/24 12:13	01/29/24 22:43	3 321-60-8	
-Terphenyl-d14 (S)	120	%.	75-157	1	01/29/24 12:13			
260/5030 MSV	Analytical Meth							
	Pace Analytica							
Acetone	ND	ug/L	100	1		01/29/24 19:34	1 67-64-1	
Acrolein	ND	ug/L	50.0	1		01/29/24 19:34	107-02-8	
Acrylonitrile	ND	ug/L	100	1		01/29/24 19:34	1 107-13-1	
senzene	ND	ug/L	5.0	1		01/29/24 19:34	1 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		01/29/24 19:34	1 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		01/29/24 19:34	1 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		01/29/24 19:34	1 75-27-4	
Bromoform	ND	ug/L	5.0	1		01/29/24 19:34	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/29/24 19:34	1 74-83-9	
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 19:34	1 78-93-3	
-Butylbenzene	ND	ug/L	5.0	1		01/29/24 19:34	1 104-51-8	
ec-Butylbenzene	ND	ug/L	5.0	1		01/29/24 19:34		
ert-Butylbenzene	ND	ug/L	5.0	1		01/29/24 19:34	1 98-06-6	
arbon disulfide	ND	ug/L	10.0	1		01/29/24 19:34	75-15-0	
arbon tetrachloride	ND	ug/L	5.0	1		01/29/24 19:34		
Chlorobenzene	ND	ug/L	5.0	1		01/29/24 19:34		
Chloroethane	ND	ug/L	5.0	1		01/29/24 19:34		
Chloroform	ND	ug/L	5.0	1		01/29/24 19:34		
Chloromethane	ND	ug/L	5.0	1		01/29/24 19:34		
	.,,,	-						
	ND	ua/l	5.0	1		()1/29/24 19 3/	1 95-49-8	
-Chlorotoluene -Chlorotoluene	ND ND	ug/L ug/L	5.0 5.0	1 1		01/29/24 19:34 01/29/24 19:34		



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-7	Lab ID: 503	64264006	Collected: 01/23/2	24 10:14	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260/5030 MSV	Analytical Met	nod: EPA 82	260					
	Pace Analytica	al Services -	Indianapolis					
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 19:3	4 106-93-4	
Dibromomethane ,	ND	ug/L	5.0	1		01/29/24 19:3	4 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 19:3	4 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 19:3		
,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 19:3	4 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 19:3	4 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 19:3		
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 19:3	4 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 19:3		
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 19:3		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 19:3		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 19:3		
I,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 19:3		
,3-Dichloropropane	ND	ug/L	5.0	1		01/29/24 19:3		
2,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 19:3		
,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 19:3		
is-1,3-Dichloropropene	ND	ug/L	5.0	1			4 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	5.0	1			4 10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/29/24 19:3		
Ethyl methacrylate	ND	ug/L	100	1		01/29/24 19:3		
lexachloro-1,3-butadiene	ND ND	ug/L	5.0	1		01/29/24 19:3		
n-Hexane	ND	ug/L ug/L	5.0	1		01/29/24 19:3		
2-Hexanone	ND ND	ug/L	25.0	1		01/29/24 19:3		
odomethane	ND ND	•	10.0	1		01/29/24 19:3		
		ug/L						
sopropylbenzene (Cumene)	ND	ug/L	5.0	1		01/29/24 19:3		
o-Isopropyltoluene	ND	ug/L	5.0	1 1		01/29/24 19:3		
Methylene Chloride	ND	ug/L	5.0			01/29/24 19:3		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		01/29/24 19:3		
Methyl-tert-butyl ether	ND	ug/L	4.0	1		01/29/24 19:3		
Naphthalene	ND	ug/L	5.0	1		01/29/24 19:3		
n-Propylbenzene	ND	ug/L	5.0	1		01/29/24 19:3		
Styrene	ND	ug/L	5.0	1		01/29/24 19:3		
,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 19:3		
,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 19:3		
etrachloroethene	ND	ug/L	5.0	1		01/29/24 19:3		
oluene	ND	ug/L	5.0	1		01/29/24 19:3		
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 19:3		
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 19:3		
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 19:3		
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 19:3		
richloroethene	ND	ug/L	5.0	1		01/29/24 19:3		
Trichlorofluoromethane	ND	ug/L	5.0	1		01/29/24 19:3		
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 19:3		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 19:3		
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 19:3		
/inyl acetate	ND	ug/L	50.0	1		01/29/24 19:3	4 108-05-4	L1



Project: Bernie's Amoco Pace Project No.: 50364264

Sample: MW-7	Lab ID: 5	0364264006	Collected: 01/23/2	24 10:14	Received: 0	1/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical M	lethod: EPA 82	260					
	Pace Analyt	ical Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 19:34	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 19:34	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	82-128	1		01/29/24 19:34	1868-53-7	
4-Bromofluorobenzene (S)	95	%.	79-124	1		01/29/24 19:34	460-00-4	
Toluene-d8 (S)	101	%.	73-122	1		01/29/24 19:34	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-8	Lab ID: 503	64264007	Collected: 01/23/24	09:07	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
270 PAH by 3511	Analytical Me	hod: EPA 82	270 by SIM 40E Prepa	aration	Method: EPA 351	11		
	Pace Analytic	al Services -	- Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	1 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	1 208-96-8	
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	1 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	4 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	4 50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	4 205-99-2	
enzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	1 191-24-2	
enzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	4 207-08-9	
Chrysene	ND	ug/L	0.50	1	01/29/24 12:13	01/29/24 22:54	4 218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	4 53-70-3	
luoranthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	1 206-44-0	
luorene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	4 86-73-7	
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 22:54	1 193-39-5	
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	4 90-12-0	
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	4 91-57-6	
aphthalene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	4 91-20-3	
henanthrene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	4 85-01-8	
yrene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 22:54	1 129-00-0	
Surrogates		J						
-Fluorobiphenyl (S)	73	%.	45-127	1	01/29/24 12:13	01/29/24 22:54	4 321-60-8	
-Terphenyl-d14 (S)	107	%.	75-157	1	01/29/24 12:13	01/29/24 22:54	1718-51-0	
260/5030 MSV	Analytical Me	hod: EPA 82	260					
	Pace Analytic	al Services -	- Indianapolis					
cetone	ND	ug/L	100	1		01/29/24 20:56	6 67-64-1	
Acrolein	ND	ug/L	50.0	1		01/29/24 20:56	6 107-02-8	
crylonitrile	ND	ug/L	100	1		01/29/24 20:56	6 107-13-1	
Benzene	ND	ug/L	5.0	1		01/29/24 20:56	6 71-43-2	
romobenzene	ND	ug/L	5.0	1		01/29/24 20:56		
romochloromethane	ND	ug/L	5.0	1		01/29/24 20:56		
romodichloromethane	ND	ug/L	5.0	1		01/29/24 20:56	6 75-27-4	
romoform	ND	ug/L	5.0	1		01/29/24 20:56		
romomethane	ND	ug/L	5.0	1		01/29/24 20:56		R1
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 20:56		
-Butylbenzene	ND	ug/L	5.0	1		01/29/24 20:56		
ec-Butylbenzene	ND	ug/L	5.0	1		01/29/24 20:56		
ert-Butylbenzene	ND	ug/L	5.0	1		01/29/24 20:56		
arbon disulfide	ND	ug/L	10.0	1		01/29/24 20:56		
arbon disamde arbon tetrachloride	ND	ug/L	5.0	1		01/29/24 20:56		
Chlorobenzene	ND ND	ug/L	5.0	1		01/29/24 20:56		
Chloroethane	ND ND	ug/L ug/L	5.0	1		01/29/24 20:56		M0,M
Chloroform	ND ND	ug/L	5.0	1		01/29/24 20:56		1410,141
Chloromethane	ND ND	ug/L ug/L	5.0	1		01/29/24 20:56		
-Chlorotoluene	ND ND	-	5.0 5.0	1		01/29/24 20:56		
		ug/L						
-Chlorotoluene	ND	ug/L	5.0	1		01/29/24 20:56		
Dibromochloromethane	ND	ug/L	5.0	1		01/29/24 20:56	124-48-1	

REPORT OF LABORATORY ANALYSIS

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Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: MW-8	Lab ID: 5	0364264007	Collected: 01/23/2	24 09:07	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
3260/5030 MSV	Analytical M	lethod: EPA 82	260					
	Pace Analyt	ical Services -	Indianapolis					
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 20:50	6 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		01/29/24 20:50	6 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:50	5 541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:50	6 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 20:50	6 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 20:50		
1,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 20:50	6 75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 20:50		
1,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 20:50		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 20:50		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 20:50		
1,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 20:50		
1,3-Dichloropropane	ND	ug/L	5.0	1		01/29/24 20:50		
2,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 20:50		
1,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 20:50		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/29/24 20:50		
rans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/29/24 20:50		
Ethylbenzene	ND	ug/L	5.0	1		01/29/24 20:50		
Ethyl methacrylate	ND	ug/L	100	1		01/29/24 20:50		
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		01/29/24 20:50		
n-Hexane	ND ND	ug/L ug/L	5.0	1		01/29/24 20:50		M1
2-Hexanone	ND	ug/L	25.0	1		01/29/24 20:50		101 1
odomethane	ND ND	ug/L ug/L	10.0	1		01/29/24 20:50		L2,M0
	ND ND	_	5.0	1		01/29/24 20:50		LZ,IVIO
sopropylbenzene (Cumene)	ND ND	ug/L	5.0	1		01/29/24 20:50		
o-Isopropyltoluene	ND ND	ug/L	5.0	1		01/29/24 20:50		
Methylene Chloride	ND ND	ug/L	25.0	1		01/29/24 20:50		
4-Methyl-2-pentanone (MIBK)		ug/L		1				
Methyl-tert-butyl ether	ND	ug/L	4.0			01/29/24 20:50 01/29/24 20:50		
Naphthalene	ND	ug/L	5.0	1				
n-Propylbenzene	ND	ug/L	5.0	1		01/29/24 20:50		
Styrene	ND	ug/L	5.0	1		01/29/24 20:50		
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 20:50		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 20:50		
Tetrachloroethene	ND	ug/L	5.0	1		01/29/24 20:50		
Toluene	ND	ug/L	5.0	1		01/29/24 20:50		
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:50		L2
I,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:50		
I,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 20:50		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 20:50		
Trichloroethene	ND	ug/L	5.0	1		01/29/24 20:50		
Trichlorofluoromethane	ND	ug/L	5.0	1		01/29/24 20:50		
1,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 20:50		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 20:50		
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 20:50	6 108-67-8	
√inyl acetate	ND	ug/L	50.0	1		01/29/24 20:50	6 108-05-4	L1

REPORT OF LABORATORY ANALYSIS

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Project: Bernie's Amoco Pace Project No.: 50364264

Sample: MW-8	Lab ID: 50	0364264007	Collected: 01/23/2	24 09:07	Received: 0°	1/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical M	ethod: EPA 82	260					
	Pace Analyti	cal Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 20:56	5 75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 20:56	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	82-128	1		01/29/24 20:56	1868-53-7	
4-Bromofluorobenzene (S)	96	%.	79-124	1		01/29/24 20:56	6 460-00-4	
Toluene-d8 (S)	93	%.	73-122	1		01/29/24 20:56	2037-26-5	



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: DUP	Lab ID: 5	0364264008	Collected: 01/23/2	4 08:00	Received: 01	/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270 PAH by 3511	Analytical M	1ethod: EPA 82	270 by SIM 40E Prep	aration	Method: EPA 35°	11		
	Pace Analyt	tical Services -	Indianapolis					
Acenaphthene	ND	ug/L	1.0	1	01/29/24 12:13	01/29/24 23:2	6 83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	01/29/24 12:13			
Anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 23:2	6 120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 23:2	6 56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	01/29/24 12:13			
Benzo(b)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13	01/29/24 23:2	6 205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	01/29/24 12:13			
Benzo(k)fluoranthene	ND	ug/L	0.10	1	01/29/24 12:13			
Chrysene	ND	ug/L	0.50	1	01/29/24 12:13			
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	01/29/24 12:13			
Fluoranthene	ND	ug/L	1.0	1	01/29/24 12:13			
luorene	ND	ug/L	1.0	1	01/29/24 12:13			
ndeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	01/29/24 12:13			
-Methylnaphthalene	ND.	ug/L	1.0	1	01/29/24 12:13			
-Methylnaphthalene	ND	ug/L	1.0	1	01/29/24 12:13			
laphthalene	ND ND	ug/L	1.0	1	01/29/24 12:13			
Phenanthrene	ND ND	ug/L ug/L	1.0	1	01/29/24 12:13			
	ND ND	ug/L	1.0	1	01/29/24 12:13			
Pyrene Surrogates	ND	ug/L	1.0	1	01/29/24 12.13	01/29/24 23.2	6 129-00-0	
P-Fluorobiphenyl (S)	76	%.	45-127	1	01/29/24 12:13	01/20/24 23:2	6 321-60-8	
-Terphenyl-d14 (S)	115	%.	75-157	1	01/29/24 12:13			
, ,				'	01/25/24 12:15	01/25/24 25.2	0 1710-31-0	
2260/5030 MSV	•	1ethod: EPA 82						
	Pace Analyt	tical Services -	Indianapolis					
Acetone	ND	ug/L	100	1		01/29/24 20:0	7 67-64-1	
Acrolein	ND	ug/L	50.0	1		01/29/24 20:0	7 107-02-8	
Acrylonitrile	ND	ug/L	100	1		01/29/24 20:0	7 107-13-1	
Benzene	ND	ug/L	5.0	1		01/29/24 20:0	7 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		01/29/24 20:0	7 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		01/29/24 20:0	7 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		01/29/24 20:0	7 75-27-4	
Bromoform	ND	ug/L	5.0	1		01/29/24 20:0	7 75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/29/24 20:0	7 74-83-9	
-Butanone (MEK)	ND	ug/L	25.0	1		01/29/24 20:0	7 78-93-3	
-Butylbenzene	ND	ug/L	5.0	1		01/29/24 20:0	7 104-51-8	
ec-Butylbenzene	ND	ug/L	5.0	1		01/29/24 20:0		
ert-Butylbenzene	ND	ug/L	5.0	1		01/29/24 20:0		
Carbon disulfide	ND	ug/L	10.0	1		01/29/24 20:0		
Carbon tetrachloride	ND	ug/L	5.0	1		01/29/24 20:0		
Chlorobenzene	ND	ug/L	5.0	1		01/29/24 20:0		
Chloroethane	ND	ug/L	5.0	1		01/29/24 20:0		
Chloroform	ND	ug/L	5.0	1		01/29/24 20:0		
Chloromethane	ND	ug/L	5.0	1		01/29/24 20:0		
2-Chlorotoluene	ND ND	ug/L	5.0	1		01/29/24 20:0		
	ND ND	ug/L ug/L	5.0	1		01/29/24 20:0		
1-Chlorotoluene								



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Sample: DUP	Lab ID: 503	64264008	Collected: 01/23/2	24 08:00	Received:	01/25/24 10:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
260/5030 MSV	Analytical Met	hod: EPA 82	260					
	Pace Analytica	al Services -	Indianapolis					
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		01/29/24 20:07	7 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		01/29/24 20:07	7 74-95-3	
,2-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:07	7 95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:07	7 541-73-1	
,4-Dichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:07	7 106-46-7	
ans-1,4-Dichloro-2-butene	ND	ug/L	100	1		01/29/24 20:07	7 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		01/29/24 20:07	7 75-71-8	
,1-Dichloroethane	ND	ug/L	5.0	1		01/29/24 20:07	7 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1		01/29/24 20:07		
,1-Dichloroethene	ND	ug/L	5.0	1		01/29/24 20:07		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 20:07		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/29/24 20:07		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 20:07		
,3-Dichloropropane	ND	ug/L	5.0	1		01/29/24 20:07		
,2-Dichloropropane	ND	ug/L	5.0	1		01/29/24 20:07		
,1-Dichloropropene	ND	ug/L	5.0	1		01/29/24 20:07		
s-1,3-Dichloropropene	ND	ug/L	5.0	1		01/29/24 20:07		
ans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/29/24 20:07		
thylbenzene	ND ND	ug/L	5.0	1		01/29/24 20:07		
thyl methacrylate	ND ND	ug/L	100	1		01/29/24 20:07		
lexachloro-1,3-butadiene	ND ND	ug/L ug/L	5.0	1		01/29/24 20:07		
-Hexane	ND ND	ug/L ug/L	5.0	1		01/29/24 20:07		
-Hexanone	ND ND	ug/L ug/L	25.0	1		01/29/24 20:07		
odomethane	ND ND	•	10.0	1		01/29/24 20:07		
	ND ND	ug/L	5.0	1				
sopropylbenzene (Cumene)	ND ND	ug/L	5.0	1		01/29/24 20:07 01/29/24 20:07		
-Isopropyltoluene	ND ND	ug/L	5.0	1				
Methylene Chloride		ug/L				01/29/24 20:07		
-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		01/29/24 20:07		
Methyl-tert-butyl ether	ND	ug/L	4.0	1		01/29/24 20:07		
laphthalene	ND	ug/L	5.0	1		01/29/24 20:07		
-Propylbenzene	ND	ug/L	5.0	1		01/29/24 20:07		
tyrene	ND	ug/L	5.0	1		01/29/24 20:07		
,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 20:07		
,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/29/24 20:07		
etrachloroethene	ND	ug/L	5.0	1		01/29/24 20:07		
oluene	ND	ug/L	5.0	1		01/29/24 20:07		
,2,3-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:07		
,2,4-Trichlorobenzene	ND	ug/L	5.0	1		01/29/24 20:07		
,1,1-Trichloroethane	ND	ug/L	5.0	1		01/29/24 20:07		
,1,2-Trichloroethane	ND	ug/L	5.0	1		01/29/24 20:07		
richloroethene	ND	ug/L	5.0	1		01/29/24 20:07		
richlorofluoromethane	ND	ug/L	5.0	1		01/29/24 20:07		
,2,3-Trichloropropane	ND	ug/L	5.0	1		01/29/24 20:07		
,2,4-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 20:07		
,3,5-Trimethylbenzene	ND	ug/L	5.0	1		01/29/24 20:07	7 108-67-8	
/inyl acetate	ND	ug/L	50.0	1		01/29/24 20:07	7 108-05-4	L1



Project: Bernie's Amoco Pace Project No.: 50364264

Sample: DUP	Lab ID: 50	0364264008	Collected: 01/23/2	24 08:00	Received: 0	1/25/24 10:30 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Me	ethod: EPA 82	260					
	Pace Analyti	cal Services -	Indianapolis					
Vinyl chloride	ND	ug/L	2.0	1		01/29/24 20:07	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		01/29/24 20:07	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	82-128	1		01/29/24 20:07	1868-53-7	
4-Bromofluorobenzene (S)	95	%.	79-124	1		01/29/24 20:07	460-00-4	
Toluene-d8 (S)	102	%.	73-122	1		01/29/24 20:07	2037-26-5	



QUALITY CONTROL DATA

Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

QC Batch: 773230 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50364264006, 50364264008

METHOD BLANK: 3540079 Matrix: Water

Associated Lab Samples: 50364264006, 50364264008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	 ug/L	ND -	5.0	01/29/24 12:30	
1,1,1-Trichloroethane	ug/L	ND	5.0	01/29/24 12:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	01/29/24 12:30	
1,1,2-Trichloroethane	ug/L	ND	5.0	01/29/24 12:30	
1,1-Dichloroethane	ug/L	ND	5.0	01/29/24 12:30	
1,1-Dichloroethene	ug/L	ND	5.0	01/29/24 12:30	
1,1-Dichloropropene	ug/L	ND	5.0	01/29/24 12:30	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	01/29/24 12:30	
1,2,3-Trichloropropane	ug/L	ND	5.0	01/29/24 12:30	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	01/29/24 12:30	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	01/29/24 12:30	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	01/29/24 12:30	
1,2-Dichlorobenzene	ug/L	ND	5.0	01/29/24 12:30	
1,2-Dichloroethane	ug/L	ND	5.0	01/29/24 12:30	
1,2-Dichloropropane	ug/L	ND	5.0	01/29/24 12:30	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	01/29/24 12:30	
1,3-Dichlorobenzene	ug/L	ND	5.0	01/29/24 12:30	
1,3-Dichloropropane	ug/L	ND	5.0	01/29/24 12:30	
1,4-Dichlorobenzene	ug/L	ND	5.0	01/29/24 12:30	
2,2-Dichloropropane	ug/L	ND	5.0	01/29/24 12:30	
2-Butanone (MEK)	ug/L	ND	25.0	01/29/24 12:30	
2-Chlorotoluene	ug/L	ND	5.0	01/29/24 12:30	
2-Hexanone	ug/L	ND	25.0	01/29/24 12:30	
4-Chlorotoluene	ug/L	ND	5.0	01/29/24 12:30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	01/29/24 12:30	
Acetone	ug/L	ND	100	01/29/24 12:30	
Acrolein	ug/L	ND	50.0	01/29/24 12:30	
Acrylonitrile	ug/L	ND	100	01/29/24 12:30	
Benzene	ug/L	ND	5.0	01/29/24 12:30	
Bromobenzene	ug/L	ND	5.0	01/29/24 12:30	
Bromochloromethane	ug/L	ND	5.0	01/29/24 12:30	
Bromodichloromethane	ug/L	ND	5.0	01/29/24 12:30	
Bromoform	ug/L	ND	5.0	01/29/24 12:30	
Bromomethane	ug/L	ND	5.0	01/29/24 12:30	
Carbon disulfide	ug/L	ND	10.0	01/29/24 12:30	
Carbon tetrachloride	ug/L	ND	5.0	01/29/24 12:30	
Chlorobenzene	ug/L	ND	5.0	01/29/24 12:30	
Chloroethane	ug/L	ND	5.0	01/29/24 12:30	
Chloroform	ug/L	ND	5.0	01/29/24 12:30	
Chloromethane	ug/L	ND	5.0	01/29/24 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

METHOD BLANK: 3540079 Matrix: Water

Associated Lab Samples: 50364264006, 50364264008

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
is-1,2-Dichloroethene		ND	5.0	01/29/24 12:30	
s-1,3-Dichloropropene	ug/L	ND	5.0	01/29/24 12:30	
oromochloromethane	ug/L	ND	5.0	01/29/24 12:30	
romomethane	ug/L	ND	5.0	01/29/24 12:30	
hlorodifluoromethane	ug/L	ND	5.0	01/29/24 12:30	
yl methacrylate	ug/L	ND	100	01/29/24 12:30	
/lbenzene	ug/L	ND	5.0	01/29/24 12:30	
achloro-1,3-butadiene	ug/L	ND	5.0	01/29/24 12:30	
omethane	ug/L	ND	10.0	01/29/24 12:30	
propylbenzene (Cumene)	ug/L	ND	5.0	01/29/24 12:30	
nyl-tert-butyl ether	ug/L	ND	4.0	01/29/24 12:30	
hylene Chloride	ug/L	ND	5.0	01/29/24 12:30	
utylbenzene	ug/L	ND	5.0	01/29/24 12:30	
exane	ug/L	ND	5.0	01/29/24 12:30	
opylbenzene	ug/L	ND	5.0	01/29/24 12:30	
hthalene	ug/L	ND	5.0	01/29/24 12:30	
opropyltoluene	ug/L	ND	5.0	01/29/24 12:30	
Butylbenzene	ug/L	ND	5.0	01/29/24 12:30	
ene	ug/L	ND	5.0	01/29/24 12:30	
Butylbenzene	ug/L	ND	5.0	01/29/24 12:30	
achloroethene	ug/L	ND	5.0	01/29/24 12:30	
ene	ug/L	ND	5.0	01/29/24 12:30	
s-1,2-Dichloroethene	ug/L	ND	5.0	01/29/24 12:30	
s-1,3-Dichloropropene	ug/L	ND	5.0	01/29/24 12:30	
s-1,4-Dichloro-2-butene	ug/L	ND	100	01/29/24 12:30	
hloroethene	ug/L	ND	5.0	01/29/24 12:30	
hlorofluoromethane	ug/L	ND	5.0	01/29/24 12:30	
yl acetate	ug/L	ND	50.0	01/29/24 12:30	
vl chloride	ug/L	ND	2.0	01/29/24 12:30	
ene (Total)	ug/L	ND	10.0	01/29/24 12:30	
romofluorobenzene (S)	%.	93	79-124	01/29/24 12:30	
romofluoromethane (S)	%.	103	82-128	01/29/24 12:30	1d
iene-d8 (S)	%.	101	73-122	01/29/24 12:30	

LABORATORY CONTROL SAMPLE:	3540080					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.3	111	81-130	
1,1,1-Trichloroethane	ug/L	50	57.2	114	76-127	
1,1,2,2-Tetrachloroethane	ug/L	50	46.8	94	70-126	
1,1,2-Trichloroethane	ug/L	50	51.5	103	79-124	
1,1-Dichloroethane	ug/L	50	55.1	110	76-123	
1,1-Dichloroethene	ug/L	50	54.7	109	73-133	
1,1-Dichloropropene	ug/L	50	60.9	122	78-144	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

ABORATORY CONTROL SAMPLE	: 3540080					
_		Spike	LCS	LCS	% Rec	_
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
,2,3-Trichlorobenzene	ug/L	50	45.0	90	72-138	
,2,3-Trichloropropane	ug/L	50	46.3	93	75-121	
,2,4-Trichlorobenzene	ug/L	50	46.3	93	71-138	
,2,4-Trimethylbenzene	ug/L	50	50.5	101	70-127	
,2-Dibromoethane (EDB)	ug/L	50	51.8	104	80-126	
,2-Dichlorobenzene	ug/L	50	48.7	97	79-123	
,2-Dichloroethane	ug/L	50	52.6	105	70-124	
,2-Dichloropropane	ug/L	50	55.2	110	74-128	
,3,5-Trimethylbenzene	ug/L	50	52.1	104	71-124	
,3-Dichlorobenzene	ug/L	50	49.4	99	77-124	
,3-Dichloropropane	ug/L	50	52.2	104	77-126	
,4-Dichlorobenzene	ug/L	50	48.5	97	77-120	
,2-Dichloropropane	ug/L	50	63.9	128	65-136	
-Butanone (MEK)	ug/L	250	271	108	59-134	
-Chlorotoluene	ug/L	50	50.4	101	74-121	
-Hexanone	ug/L	250	294	118	63-134	
-Chlorotoluene	ug/L	50	50.5	101	78-123	
-Methyl-2-pentanone (MIBK)	ug/L	250	303	121	67-133	
cetone	ug/L	250	219	88	32-133	
crolein	ug/L	1000	1140	114	35-166	
crylonitrile	ug/L	250	300	120	69-137	
Benzene	ug/L	50	52.9	106	74-124	
romobenzene	ug/L	50	50.7	101	76-122	
Bromochloromethane	ug/L	50	51.2	102	66-127	
Bromodichloromethane	ug/L	50	57.2	114	80-126	
Bromoform	ug/L	50	51.9	104	75-128	
Bromomethane	ug/L	50	16.7	33	10-183	
Carbon disulfide	ug/L	50	53.1	106	68-123	
Carbon tetrachloride	ug/L	50	58.2	116	78-132	
Chlorobenzene	ug/L	50	50.4	101	77-121	
Chloroethane	ug/L	50	56.9	114	43-140	
Chloroform	ug/L	50	55.0	110	75-118	
Chloromethane	ug/L	50	42.2	84	45-130	
is-1,2-Dichloroethene	ug/L	50	56.5	113	76-125	
is-1,3-Dichloropropene	ug/L	50	61.9	124	76-132	
Dibromochloromethane	ug/L	50	52.9	106	79-130	
Dibromomethane	ug/L	50 50	54.8	110	79-130	
Dichlorodifluoromethane	ug/L	50	45.2	90	10-124	
thyl methacrylate	ug/L	50	64.9J	130	73-137	
thylbenzene	ug/L	50 50	53.3	107	74-125	
lexachloro-1,3-butadiene	ug/L	50	51.3	103	66-141	
odomethane	ug/L	50	6.2J	12	10-160	
sopropylbenzene (Cumene)	ug/L	50	53.6	107	75-126	
Methyl-tert-butyl ether	ug/L ug/L	50 50	55.6 57.2	114	75-126 74-129	
Methylene Chloride	ug/L	50	48.4	97	74-129 77-126	
-	ug/L ug/L	50 50	46.4 55.7	97 111	77-126 72-131	
n-Butylbenzene n-Hexane	ug/L ug/L	50 50	55.7 54.9	110	58-131	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Bernie's Amoco Pace Project No.: 50364264

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LABORATORY CONTROL SAMPLE:	3540080					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits Qualifie	ers
n-Propylbenzene	ug/L		51.5	103	76-127	
Naphthalene	ug/L	50	52.7	105	70-132	
p-Isopropyltoluene	ug/L	50	53.8	108	76-126	
sec-Butylbenzene	ug/L	50	53.2	106	76-129	
Styrene	ug/L	50	53.6	107	81-129	
tert-Butylbenzene	ug/L	50	51.3	103	76-129	
Tetrachloroethene	ug/L	50	55.5	111	73-132	
Toluene	ug/L	50	53.6	107	72-119	
trans-1,2-Dichloroethene	ug/L	50	55.6	111	74-125	
trans-1,3-Dichloropropene	ug/L	50	61.0	122	75-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.8J	104	66-152	
Trichloroethene	ug/L	50	56.3	113	75-127	
Trichlorofluoromethane	ug/L	50	52.1	104	64-136	
Vinyl acetate	ug/L	200	392	196	62-159 L1	
Vinyl chloride	ug/L	50	56.1	112	48-133	
Xylene (Total)	ug/L	150	159	106	73-123	
4-Bromofluorobenzene (S)	%.			100	79-124	
Dibromofluoromethane (S)	%.			101	82-128	
Toluene-d8 (S)	%.			102	73-122	

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Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

QC Batch: 773232 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50364264001, 50364264002, 50364264003, 50364264004, 50364264005, 50364264007

METHOD BLANK: 3540085 Matrix: Water

Associated Lab Samples: 50364264001, 50364264002, 50364264003, 50364264004, 50364264005, 50364264007

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	01/29/24 12:47	
1,1,1-Trichloroethane	ug/L	ND	5.0	01/29/24 12:47	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	01/29/24 12:47	
1,1,2-Trichloroethane	ug/L	ND	5.0	01/29/24 12:47	
1,1-Dichloroethane	ug/L	ND	5.0	01/29/24 12:47	
1,1-Dichloroethene	ug/L	ND	5.0	01/29/24 12:47	
1,1-Dichloropropene	ug/L	ND	5.0	01/29/24 12:47	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	01/29/24 12:47	
1,2,3-Trichloropropane	ug/L	ND	5.0	01/29/24 12:47	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	01/29/24 12:47	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	01/29/24 12:47	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	01/29/24 12:47	
1,2-Dichlorobenzene	ug/L	ND	5.0	01/29/24 12:47	
1,2-Dichloroethane	ug/L	ND	5.0	01/29/24 12:47	
1,2-Dichloropropane	ug/L	ND	5.0	01/29/24 12:47	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	01/29/24 12:47	
1,3-Dichlorobenzene	ug/L	ND	5.0	01/29/24 12:47	
1,3-Dichloropropane	ug/L	ND	5.0	01/29/24 12:47	
1,4-Dichlorobenzene	ug/L	ND	5.0	01/29/24 12:47	
2,2-Dichloropropane	ug/L	ND	5.0	01/29/24 12:47	
2-Butanone (MEK)	ug/L	ND	25.0	01/29/24 12:47	
2-Chlorotoluene	ug/L	ND	5.0	01/29/24 12:47	
2-Hexanone	ug/L	ND	25.0	01/29/24 12:47	
4-Chlorotoluene	ug/L	ND	5.0	01/29/24 12:47	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	01/29/24 12:47	
Acetone	ug/L	ND	100	01/29/24 12:47	
Acrolein	ug/L	ND	50.0	01/29/24 12:47	
Acrylonitrile	ug/L	ND	100	01/29/24 12:47	
Benzene	ug/L	ND	5.0	01/29/24 12:47	
Bromobenzene	ug/L	ND	5.0	01/29/24 12:47	
Bromochloromethane	ug/L	ND	5.0	01/29/24 12:47	
Bromodichloromethane	ug/L	ND	5.0	01/29/24 12:47	
Bromoform	ug/L	ND	5.0	01/29/24 12:47	
Bromomethane	ug/L	ND	5.0	01/29/24 12:47	
Carbon disulfide	ug/L	ND	10.0	01/29/24 12:47	
Carbon tetrachloride	ug/L	ND	5.0	01/29/24 12:47	
Chlorobenzene	ug/L	ND	5.0	01/29/24 12:47	
Chloroethane	ug/L	ND	5.0	01/29/24 12:47	
Chloroform	ug/L	ND	5.0	01/29/24 12:47	
Chloromethane	ug/L	ND	5.0	01/29/24 12:47	

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Project: Bernie's Amoco Pace Project No.: 50364264

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METHOD BLANK: 3540085 Matrix: Water

Associated Lab Samples: 50364264001, 50364264002, 50364264003, 50364264004, 50364264005, 50364264007

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	ND	5.0	01/29/24 12:47	
cis-1,3-Dichloropropene	ug/L	ND	5.0	01/29/24 12:47	
Dibromochloromethane	ug/L	ND	5.0	01/29/24 12:47	
Dibromomethane	ug/L	ND	5.0	01/29/24 12:47	
Dichlorodifluoromethane	ug/L	ND	5.0	01/29/24 12:47	
Ethyl methacrylate	ug/L	ND	100	01/29/24 12:47	
Ethylbenzene	ug/L	ND	5.0	01/29/24 12:47	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	01/29/24 12:47	
Iodomethane	ug/L	ND	10.0	01/29/24 12:47	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	01/29/24 12:47	
Methyl-tert-butyl ether	ug/L	ND	4.0	01/29/24 12:47	
Methylene Chloride	ug/L	ND	5.0	01/29/24 12:47	
n-Butylbenzene	ug/L	ND	5.0	01/29/24 12:47	
n-Hexane	ug/L	ND	5.0	01/29/24 12:47	
n-Propylbenzene	ug/L	ND	5.0	01/29/24 12:47	
Naphthalene	ug/L	ND	5.0	01/29/24 12:47	
p-Isopropyltoluene	ug/L	ND	5.0	01/29/24 12:47	
sec-Butylbenzene	ug/L	ND	5.0	01/29/24 12:47	
Styrene	ug/L	ND	5.0	01/29/24 12:47	
tert-Butylbenzene	ug/L	ND	5.0	01/29/24 12:47	
Tetrachloroethene	ug/L	ND	5.0	01/29/24 12:47	
Toluene	ug/L	ND	5.0	01/29/24 12:47	
trans-1,2-Dichloroethene	ug/L	ND	5.0	01/29/24 12:47	
trans-1,3-Dichloropropene	ug/L	ND	5.0	01/29/24 12:47	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	01/29/24 12:47	
Trichloroethene	ug/L	ND	5.0	01/29/24 12:47	
Trichlorofluoromethane	ug/L	ND	5.0	01/29/24 12:47	
Vinyl acetate	ug/L	ND	50.0	01/29/24 12:47	
Vinyl chloride	ug/L	ND	2.0	01/29/24 12:47	
Xylene (Total)	ug/L	ND	10.0	01/29/24 12:47	
4-Bromofluorobenzene (S)	%.	98	79-124	01/29/24 12:47	
Dibromofluoromethane (S)	%.	102	82-128	01/29/24 12:47	
Toluene-d8 (S)	%.	92	73-122	01/29/24 12:47	

LABORATORY CONTROL SAMPLE:	3540086					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	57.1	114	81-130	
1,1,1-Trichloroethane	ug/L	50	59.0	118	76-127	
1,1,2,2-Tetrachloroethane	ug/L	50	47.8	96	70-126	
1,1,2-Trichloroethane	ug/L	50	55.5	111	79-124	
1,1-Dichloroethane	ug/L	50	56.5	113	76-123	
1,1-Dichloroethene	ug/L	50	58.1	116	73-133	
1,1-Dichloropropene	ug/L	50	63.5	127	78-144	

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LABORATORY CONTROL SAMPLE:	3540086				
		Spike	LCS	LCS	% Rec
Parameter	Units	Conc.	Result	% Rec	Limits Qualific
,2,3-Trichlorobenzene	ug/L	50	33.4	67	72-138 L2
,2,3-Trichloropropane	ug/L	50	49.6	99	75-121
,2,4-Trichlorobenzene	ug/L	50	40.5	81	71-138
,2,4-Trimethylbenzene	ug/L	50	51.2	102	70-127
,2-Dibromoethane (EDB)	ug/L	50	56.0	112	80-126
,2-Dichlorobenzene	ug/L	50	50.4	101	79-123
,2-Dichloroethane	ug/L	50	53.8	108	70-124
,2-Dichloropropane	ug/L	50	56.3	113	74-128
,3,5-Trimethylbenzene	ug/L	50	50.7	101	71-124
,3-Dichlorobenzene	ug/L	50	50.6	101	77-124
,3-Dichloropropane	ug/L	50	55.5	111	77-126
,4-Dichlorobenzene	ug/L	50	49.5	99	77-120
,2-Dichloropropane	ug/L	50	58.1	116	65-136
-Butanone (MEK)	ug/L	250	300	120	59-134
-Chlorotoluene	ug/L	50	49.3	99	74-121
-Hexanone	ug/L	250	308	123	63-134
-Chlorotoluene	ug/L	50	51.0	102	78-123
-Methyl-2-pentanone (MIBK)	ug/L	250	314	125	67-133
cetone	ug/L	250	245	98	32-133
crolein	ug/L	1000	1290	129	35-166
crylonitrile	ug/L	250	317	127	69-137
enzene	ug/L	50	54.3	109	74-124
romobenzene	ug/L	50	49.6	99	76-122
romochloromethane	ug/L	50	52.2	104	66-127
romodichloromethane	ug/L	50	57.4	115	80-126
romoform	ug/L	50	50.7	101	75-128
Bromomethane	ug/L	50	8.8	18	10-183
Carbon disulfide	ug/L	50	54.7	109	68-123
Carbon tetrachloride	ug/L	50	59.3	119	78-132
Chlorobenzene	ug/L	50 50	51.7	103	77-121
Chloroethane	ug/L	50	64.5	129	43-140
Chloroform	ug/L	50	54.2	108	75-118
Chloromethane	ug/L	50	34.6	69	45-130
is-1,2-Dichloroethene	ug/L	50	55.9	112	76-125
is-1,3-Dichloropropene	ug/L	50 50	56.2	112	76-123 76-132
Dibromochloromethane	ug/L	50	56.2	112	79-130
Dibromomethane	ug/L	50 50	58.5	117	79-130 79-124
Dichlorodifluoromethane	ug/L	50 50	45.8	92	10-124
thyl methacrylate	ug/L	50	59.2J	118	73-137
,	-	50 50	54.4		73-137 74-125
thylbenzene lexachloro-1,3-butadiene	ug/L ug/L	50	37.7	109 75	66-141
odomethane	_	50 50	37.7 3.5J	75 7	10-160 L2
	ug/L				
sopropylbenzene (Cumene)	ug/L	50 50	52.7	105	75-126
lethyl-tert-butyl ether	ug/L	50 50	60.8	122	74-129
Methylene Chloride	ug/L	50 50	49.9	100	77-126
-Butylbenzene	ug/L	50	55.3	111	72-131
i-Hexane	ug/L	50	59.7	119	58-131

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ABORATORY CONTROL SAMPLE:	3540086					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Propylbenzene	ug/L	50	50.0	100	76-127	
phthalene	ug/L	50	40.2	80	70-132	
propyltoluene	ug/L	50	52.4	105	76-126	
Butylbenzene	ug/L	50	52.8	106	76-129	
ene	ug/L	50	53.0	106	81-129	
Butylbenzene	ug/L	50	52.0	104	76-129	
achloroethene	ug/L	50	55.2	110	73-132	
ene	ug/L	50	53.2	106	72-119	
-1,2-Dichloroethene	ug/L	50	55.5	111	74-125	
-1,3-Dichloropropene	ug/L	50	56.2	112	75-132	
-1,4-Dichloro-2-butene	ug/L	50	53.2J	106	66-152	
oroethene	ug/L	50	56.9	114	75-127	
lorofluoromethane	ug/L	50	52.5	105	64-136	
l acetate	ug/L	200	355	177	62-159 L	1
l chloride	ug/L	50	56.5	113	48-133	
ne (Total)	ug/L	150	159	106	73-123	
omofluorobenzene (S)	%.			94	79-124	
mofluoromethane (S)	%.			97	82-128	
ene-d8 (S)	%.			98	73-122	

MATRIX SPIKE & MATRIX SF	PIKE DUPLIC	ATE: 3540	087		3540088							
			MS	MSD								
	5	0364264007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	50	50	58.7	59.5	117	119	60-150	1	20	
1,1,1-Trichloroethane	ug/L	ND	50	50	64.3	63.5	129	127	63-138	1	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	49.6	49.7	99	99	58-146	0	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	56.7	56.8	113	114	63-142	0	20	
1,1-Dichloroethane	ug/L	ND	50	50	59.4	58.9	119	118	64-138	1	20	
1,1-Dichloroethene	ug/L	ND	50	50	63.0	62.4	126	125	65-139	1	20	
1,1-Dichloropropene	ug/L	ND	50	50	70.2	68.7	140	137	68-155	2	20	
1,2,3-Trichlorobenzene	ug/L	ND	50	50	33.2	31.3	66	63	32-141	6	20	
1,2,3-Trichloropropane	ug/L	ND	50	50	51.3	51.4	103	103	54-144	0	20	
1,2,4-Trichlorobenzene	ug/L	ND	50	50	42.4	40.6	85	81	31-140	4	20	
1,2,4-Trimethylbenzene	ug/L	ND	50	50	59.4	58.7	119	117	34-144	1	20	
1,2-Dibromoethane (EDB)	ug/L	ND	50	50	56.4	56.1	113	112	64-139	1	20	
1,2-Dichlorobenzene	ug/L	ND	50	50	56.5	56.3	113	113	50-136	0	20	
1,2-Dichloroethane	ug/L	ND	50	50	55.0	54.3	110	109	55-146	1	20	
1,2-Dichloropropane	ug/L	ND	50	50	58.9	57.7	118	115	66-134	2	20	
1,3,5-Trimethylbenzene	ug/L	ND	50	50	58.9	57.8	118	116	29-151	2	20	
1,3-Dichlorobenzene	ug/L	ND	50	50	58.1	57.1	116	114	47-133	2	20	
1,3-Dichloropropane	ug/L	ND	50	50	57.5	57.0	115	114	61-144	1	20	
1,4-Dichlorobenzene	ug/L	ND	50	50	56.9	56.4	114	113	50-131	1	20	
2,2-Dichloropropane	ug/L	ND	50	50	56.3	55.6	113	111	33-146	1	20	
2-Butanone (MEK)	ug/L	ND	250	250	276	271	110	108	45-155	2	20	

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REPORT OF LABORATORY ANALYSIS

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Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

MATRIX SPIKE & MATRIX SP	IKE DUPI	LICATE: 3540			3540088							
			MS	MSD								
		50364264007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
2-Chlorotoluene	ug/L	ND	50	50	56.5	55.8	113	112	43-142	1	20	
2-Hexanone	ug/L	ND	250	250	300	301	120	120	48-157	0	20	
1-Chlorotoluene	ug/L	ND	50	50	58.3	57.4	117	115	47-137	2	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	250	250	309	312	124	125	53-156	1		
Acetone	ug/L	ND	250	250	220	214	88	86	16-162	2		
Acrolein	ug/L	ND	1000	1000	1210	1220	121	122	39-184	1	-	
Acrylonitrile	ug/L	ND	250	250	302	303	121	121	58-140	0	20	
Benzene	ug/L	ND	50	50	57.5	56.8	115	114	65-137	1	20	
Bromobenzene	ug/L	ND	50	50	52.5	52.6	105	105	56-137	0	20	
Bromochloromethane	ug/L	ND	50	50	53.6	53.1	107	106	56-139	1	20	
Bromodichloromethane	ug/L	ND	50	50	59.0	58.0	118	116	61-149	2	20	
Bromoform	ug/L	ND	50	50	51.1	51.7	102	103	51-138	1	20	
Bromomethane	ug/L	ND	50	50	5.5	9.5	11	19	10-169	53	20	R1
Carbon disulfide	ug/L	ND	50	50	60.7	60.3	121	121	55-126	1	20	
Carbon tetrachloride	ug/L	ND	50	50	65.6	64.7	131	129	65-156	1	20	
Chlorobenzene	ug/L	ND	50	50	55.3	54.9	111	110	54-135	1	20	
Chloroethane	ug/L	ND	50	50	74.6	71.6	149	143	46-142	4	20	M1
Chloroform	ug/L	ND	50	50	56.6	55.6	113	111	64-133	2	20	
Chloromethane	ug/L	ND	50	50	44.5	44.3	89	89	30-139	0	20	
cis-1,2-Dichloroethene	ug/L	ND	50	50	58.3	57.3	117	115	59-141	2	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	56.3	56.5	113	113	57-141	0	20	
Dibromochloromethane	ug/L	ND	50	50	57.4	56.9	115	114	59-147	1	20	
Dibromomethane	ug/L	ND	50	50	58.7	57.9	117	116	64-142	1	20	
Dichlorodifluoromethane	ug/L	ND	50	50	51.3	51.0	103	102	10-144	1		
Ethyl methacrylate	ug/L	ND	50	50	59.7J	59.8J	119	120	58-147		20	
Ethylbenzene	ug/L	ND	50	50	60.3	60.6	120	121	50-143	0		
Hexachloro-1,3-butadiene	ug/L	ND	50	50	36.8	35.8	74	72	16-155	3		
odomethane	ug/L	ND	50	50	4.3J	6.1J	9	12	10-154		-	M0
sopropylbenzene Cumene)	ug/L	ND	50	50	58.7	58.5	117	117	36-151	0		
Methyl-tert-butyl ether	ug/L	ND	50	50	60.3	60.3	121	121	66-138	0	20	
Methylene Chloride	ug/L	ND	50	50	51.6	51.1	103	102	53-126	1	20	
n-Butylbenzene	ug/L	ND	50	50	62.4	62.0	125	124	31-142	1	20	
n-Hexane	ug/L	ND	50	50	71.3	70.5	143	141	53-129	1	20	M1
n-Propylbenzene	ug/L	ND	50	50	58.3	57.8	117	116	39-145	1	20	
Naphthalene	ug/L	ND	50	50	40.9	38.2	82	76	51-135	7	20	
- o-Isopropyltoluene	ug/L	ND	50	50	61.3	60.6	123	121	38-145	1	20	
sec-Butylbenzene	ug/L	ND	50	50	61.0	60.2	122	120	33-153	1		
Styrene	ug/L	ND	50	50	55.4	55.5	111	111	57-141	0		
ert-Butylbenzene	ug/L	ND	50	50	60.1	59.5	120	119	45-145	1		
Tetrachloroethene	ug/L	ND	50	50	63.5	63.3	127	127	43-149	0		
Toluene	ug/L	ND	50	50	57.9	58.0	115	115	57-137	0		
rans-1,2-Dichloroethene	ug/L	ND	50	50	59.6	58.3	119	117	63-133	2		
rans-1,3-Dichloropropene	ug/L	ND	50	50	55.6	55.8	111	112	56-140	0		
rans-1,4-Dichloro-2-butene	ug/L	ND	50	50	48.2J	49.7J	96	99	36-169	·	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

MATRIX SPIKE & MATRIX SF	PIKE DUPL	LICATE: 3540	087 MS	MSD	3540088							
_		50364264007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Trichloroethene	ug/L	ND	50	50	62.0	60.4	124	121	52-145	3	20	
Trichlorofluoromethane	ug/L	ND	50	50	58.3	57.6	117	115	52-144	1	20	
Vinyl acetate	ug/L	ND	200	200	351	349	176	175	27-179	0	20	
Vinyl chloride	ug/L	ND	50	50	62.5	62.7	125	125	43-139	0	20	
Xylene (Total)	ug/L	ND	150	150	175	173	117	115	52-137	1	20	
4-Bromofluorobenzene (S)	%.						93	93	79-124			
Dibromofluoromethane (S)	%.						100	98	82-128			
Toluene-d8 (S)	%.						99	101	73-122			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Bernie's Amoco
Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

QC Batch: 773199 Analysis Method: EPA 8270 by SIM 40E

QC Batch Method: EPA 3511 Analysis Description: 8270 Water PAH 40 by SIM MSSV

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50364264001, 50364264002, 50364264003, 50364264004, 50364264005, 50364264006, 50364264007,

50364264008

METHOD BLANK: 3539987 Matrix: Water

Associated Lab Samples: 50364264001, 50364264002, 50364264003, 50364264004, 50364264005, 50364264006, 50364264007,

50364264008

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	1.0	01/29/24 21:29	
2-Methylnaphthalene	ug/L	ND	1.0	01/29/24 21:29	
Acenaphthene	ug/L	ND	1.0	01/29/24 21:29	
Acenaphthylene	ug/L	ND	1.0	01/29/24 21:29	
Anthracene	ug/L	ND	0.10	01/29/24 21:29	
Benzo(a)anthracene	ug/L	ND	0.10	01/29/24 21:29	
Benzo(a)pyrene	ug/L	ND	0.10	01/29/24 21:29	
Benzo(b)fluoranthene	ug/L	ND	0.10	01/29/24 21:29	
Benzo(g,h,i)perylene	ug/L	ND	0.10	01/29/24 21:29	
Benzo(k)fluoranthene	ug/L	ND	0.10	01/29/24 21:29	
Chrysene	ug/L	ND	0.50	01/29/24 21:29	
Dibenz(a,h)anthracene	ug/L	ND	0.10	01/29/24 21:29	
Fluoranthene	ug/L	ND	1.0	01/29/24 21:29	
Fluorene	ug/L	ND	1.0	01/29/24 21:29	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	01/29/24 21:29	
Naphthalene	ug/L	ND	1.0	01/29/24 21:29	
Phenanthrene	ug/L	ND	1.0	01/29/24 21:29	
Pyrene	ug/L	ND	1.0	01/29/24 21:29	
2-Fluorobiphenyl (S)	%.	82	45-127	01/29/24 21:29	
p-Terphenyl-d14 (S)	%.	121	75-157	01/29/24 21:29	

LABORATORY CONTROL SAMPLE:	3539988					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	ug/L		23.8	95	53-120	
2-Methylnaphthalene	ug/L	25	22.0	88	47-113	
Acenaphthene	ug/L	25	23.5	94	62-123	
Acenaphthylene	ug/L	25	25.2	101	57-131	
Anthracene	ug/L	25	21.4	86	49-128	
Benzo(a)anthracene	ug/L	25	25.2	101	77-147	
Benzo(a)pyrene	ug/L	25	24.0	96	68-145	
Benzo(b)fluoranthene	ug/L	25	22.4	90	77-133	
Benzo(g,h,i)perylene	ug/L	25	21.7	87	58-135	
Benzo(k)fluoranthene	ug/L	25	22.7	91	80-143	
Chrysene	ug/L	25	24.7	99	74-136	
Dibenz(a,h)anthracene	ug/L	25	25.7	103	62-147	
Fluoranthene	ug/L	25	29.6	118	88-143	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

LABORATORY CONTROL SAMPLE:	3539988					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Fluorene	ug/L	25	26.4	105	78-132	
ndeno(1,2,3-cd)pyrene	ug/L	25	24.1	97	49-150	
aphthalene	ug/L	25	21.4	86	55-114	
nenanthrene	ug/L	25	24.6	99	77-130	
rene	ug/L	25	24.8	99	66-140	
-Fluorobiphenyl (S)	%.			82	45-127	
Terphenyl-d14 (S)	%.			113	75-157	

MATRIX SPIKE & MATRIX S	PIKE DUPLIC	ATE: 3539	989		3539990							
			MS	MSD								
	50	0364264007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/L	ND	24.9	24.9	23.0	24.2	92	97	41-125	5	20	
2-Methylnaphthalene	ug/L	ND	24.9	24.9	21.2	22.3	85	89	38-113	5	20	
Acenaphthene	ug/L	ND	24.9	24.9	23.7	24.1	95	97	47-128	2	20	
Acenaphthylene	ug/L	ND	24.9	24.9	25.5	25.8	102	104	44-135	1	20	
Anthracene	ug/L	ND	24.9	24.9	21.3	21.6	85	87	49-120	1	20	
Benzo(a)anthracene	ug/L	ND	24.9	24.9	25.4	25.6	102	102	76-143	1	20	
Benzo(a)pyrene	ug/L	ND	24.9	24.9	24.4	24.6	98	99	64-141	1	20	
Benzo(b)fluoranthene	ug/L	ND	24.9	24.9	22.6	22.9	91	92	77-127	1	20	
Benzo(g,h,i)perylene	ug/L	ND	24.9	24.9	22.1	22.2	88	89	53-129	0	20	
Benzo(k)fluoranthene	ug/L	ND	24.9	24.9	23.1	23.4	93	94	77-140	2	20	
Chrysene	ug/L	ND	24.9	24.9	24.9	25.3	100	102	75-129	2	20	
Dibenz(a,h)anthracene	ug/L	ND	24.9	24.9	26.0	26.3	104	105	57-142	1	20	
Fluoranthene	ug/L	ND	24.9	24.9	30.7	30.9	123	124	86-139	1	20	
Fluorene	ug/L	ND	24.9	24.9	27.1	27.2	109	109	64-138	0	20	
Indeno(1,2,3-cd)pyrene	ug/L	ND	24.9	24.9	24.3	24.6	98	99	46-143	1	20	
Naphthalene	ug/L	ND	24.9	24.9	20.7	21.9	83	88	49-112	6	20	
Phenanthrene	ug/L	ND	24.9	24.9	25.3	25.9	101	104	74-128	2	20	
Pyrene	ug/L	ND	24.9	24.9	25.5	25.7	102	103	65-140	1	20	
2-Fluorobiphenyl (S)	%.						83	88	45-127			
p-Terphenyl-d14 (S)	%.						110	115	75-157			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: Bernie's Amoco Pace Project No.: 50364264

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 02/01/2024 01:37 PM

1d	Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample
	volume.

- L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Bernie's Amoco Pace Project No.: 50364264

Date: 02/01/2024 01:37 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50364264001	MW-2	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264002	MW-3	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264003	MW-4	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264004	MW-5	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264005	MW-6	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264006	MW-7	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264007	MW-8	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264008	DUP	EPA 3511	773199	EPA 8270 by SIM 40E	773280
50364264001	MW-2	EPA 8260	773232		
50364264002	MW-3	EPA 8260	773232		
50364264003	MW-4	EPA 8260	773232		
50364264004	MW-5	EPA 8260	773232		
50364264005	MW-6	EPA 8260	773232		
50364264006	MW-7	EPA 8260	773230		
50364264007	MW-8	EPA 8260	773232		
50364264008	DUP	EPA 8260	773230		

Pace

Submitting a sample via this c

WO#:50364264

Y / Analytical Request Document

5036264

L DOCUMENT. All relevant fields must be completed accurately.

and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section A Required Client Information: Of Company: Heartland Environmental Attention: Report 10. Sean Hal Company Name: Heartland Environmental 3410 Mishawaka Ave Copy To: Address: South Bend, IN 46615 Regulatory Agency Pace Quete Email: SHall@heartlandenv.com Purchase Order #: Pace Project Manager: Project Name: Bernie's Amoco allison.martinez@pacelabs.com, State / Location Pace Profile #: 5 DAY TAT Requested Due Date: Project #: Preservatives COLLECTED CODE **Drinking Water** Water WT WW (G=GRAB Waste Water Product SAMPLE ID Soil/Solid SL START END 8270SIM Oll WP AR OT One Character per box. (A-Z, 0-9/, -) VOC by Other Sample Ids must be unique Tissue PAH # 0F DATE TIME DATE MW-2 WTG 1/23/2024 WTG 2 MW-3 1/23/2024 1034 WTG MVV-4 1/23/2024 110 WTG MVV-5 1/23/2024 MW-6 WTG 1/23/2024 101 MW-7 WTG 1/23/2024 MW-8 WTG 1/23/2024 MS/MSD (MW-8) WTG 1/23/2024 WTG 1/23/2024 10 11 13 14 RELINQUISHED BY / AFFILIATION ADDITIONAL COMMENTS TIME ACCEPTED BY / AFFILIATION SAMPLE CONDITIONS 125/24 1000 10190 -25-24 SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents	: BC	1-25	24 1311+			
1. Courier: □FED EX □UPS □CLIENT □PACE				Bubbl	e Bags	
2. Custody Seal on Cooler/Box Present:	No		□ None	☐ Other		
(If yes)Seals Intact: \Box Yes \Box No (leave blank	if no seals					
3. Thermometer: 12345678 ABCD	U F G H		6. Ice Type: Wet 🗆 Blue 🗀 Non	9		
4. Cooler Temperature(s): 0.7/0.7			7. If temp. is over 6°C or under 0°C, was the PN			□ No
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECE				ezing to 6°0	5	
All	discrepand	cies will be	written out in the comments section below.			т
海 上海上海 (1975年)	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		1	All containers needing acid/base preservation have been pH CHECKED ?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCI.			
Short Hold Time Analysis (48 hours or less)? Analysis:		/	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			/
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	,	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):	,	1	Residual Chlorine Check (Total/Amenable/Free Cyanide)			V
Custody Signatures Present?	I		Headspace Wisconsin Sulfide?			~
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		/	Trip Blank Present?		1	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			
COMMENTS: All samples expect DW	o nad	~ ^0	times but IDs / dates present	AC I	-25-7	4

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** Place a RED dot on containers

that are out of conformance **

			MeOH (only)		1	I			AMBER GLASS					PLASTIC				OTHER					Nitric Red		Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc						
COC Line Item	WGFU	WGKU BG1U	DI R	DG9H	VOA VIAL HS >6mm	VG9U	VG9T	AGOU	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	вьзо	BP3N	BP3F	BP3S	BP3B	BP3Z	ССЗН	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1				2		2	_																					WI				
2																												1				
3																												Ш			0	
4	-					1																						П				
5						\vdash																						\Box				
6				产	-	1																						\mathbb{H}				
7				6	-	6		_							-				_								\vdash	4				
8				2		2		-			-												_				\vdash					
9				2		9									-				-								\vdash	W	-			-
10																											-	\dashv	-			
11																												1				

Container Codes

	Glass													
DG9H	40mL HCl amber voa vial	BG1T	glass											
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass											
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass											
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass											
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass											
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass											
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass											
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass											
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass											
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass											
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass											
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass											
CG3H	250mL clear glass HCI	AG3SF	250mL H2SO4 amb glass -field filtered											
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass											
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass											
BG1S	1L H2SO4 clear glass		•											

			Plastic
BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		Missellanseus
BP1Z	1L NaOH, Zn, Ac		Miscellaneous
BP2N	500mL HNO3 plastic	Syring	ge Kit LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
врзв	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL:	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres. FF SO4/OH buffer		

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Quarterly Groundwater Monitoring Report – 1st Quarter 2024 and No Further Action Request, Bernie's Amoco, 2120 N. Lebanon Street, Lebanon, Indiana 46052; FID #10593, LUST #201307505
APPENDIX C
Historical Soil Data Summary Tables

Heartland Environmental Associates, Inc.

Table 1 **VOCs in Soil Analytical Results Bernie's Amoco** 2120 North Lebanon Street Lebanon, Indiana 46052 (Total) **IDEM R2 Published Levels for Commerical Soil IDEM R2 Published Levels for** 100 300 2,000 100 500 100 300 NA 9,000 300 800 200 200 NA NA **Excavation Worker Soil** HISTORICAL SOIL ANALYTICAL RESULTS 1/16/2023 0.0083 <0.0013 0.123 0.0014 0.0014 < 0.0064 0.0037 0.0057 < 0.0064 SB-1 2' - 4' 0.0017 < 0.0064 < 0.0064 0.0107 0.0111 < 0.013 SB-2 3/1/2017 4' - 6' < 0.0065 < 0.0013 < 0.0013 < 0.0064 < 0.0013 < 0.0013 < 0.0013 < 0.0065 < 0.0013 < 0.0065 < 0.0013 < 0.0013 < 0.0065 < 0.0065 < 0.013 SB-3 3/1/2017 8' - 10' < 0.032 4.29 1.59 23.1 1.01 6.36 1.02 < 0.158 20.4 < 0.158 99.3 34.6 45.3 < 0.158 45.3 HA-1 3/1/2017 0' - 2' <0.0068 < 0.0014 < 0.0014 0.025 < 0.0014 < 0.0014 <0.0068 0.002 0.0068 0.0057 0.0018 <0.0068 < 0.0014 <0.0068 < 0.0014 SB-4 4/27/2018 6' - 8' 0.0254 <0.0012 < 0.0012 0.0073 0.124 0.0018 < 0.0012 < 0.0061 0.0019 0.0153 0.0042 < 0.0012 0.0342 <0.0061 0.0342 4/27/2018 SB-4 14' - 16' < 0.0011 < 0.0011 < 0.0011 < 0.0054 0.0246 < 0.0011 < 0.0011 < 0.0054 < 0.0011 < 0.0054 0.0012 <0.0011 < 0.0054 < 0.0054 <0.0108 SB-5 4/27/2018 8' - 10' 0.372 3.93 15.9 10.6 4.15 0.48 < 0.169 8.51 < 0.169 7.3 0.722 1.14 5.35 0.722 < 0.169 SB-5 4/27/2018 10' - 12' 0.38 1.11 0.385 3.92 5.39 2.2 0.133 < 0.159 4.48 < 0.159 4.06 2.3 0.257 <0.159 < 0.317 4/27/2018 14' - 16' 0.0244 < 0.0011 0.0145 <0.0011 SB-5 < 0.0011 <0.0011 < 0.0011 < 0.0055 < 0.0011 <0.0055 <0.0011 < 0.0011 < 0.0055 <0.0055 < 0.0111 4/27/2018 SB-6 6' - 8' < 0.0014 < 0.0014 < 0.0014 < 0.0071 < 0.0143 < 0.0014 < 0.0014 < 0.0071 < 0.0014 < 0.0071 < 0.0014 < 0.0014 < 0.0071 < 0.0061 < 0.0143 SB-6 4/27/2018 14' - 16' < 0.0011 < 0.0011 < 0.0011 < 0.0011 < 0.0054 < 0.0011 < 0.0054 < 0.0011 < 0.0011 < 0.0054 < 0.0108 < 0.0011 < 0.0054 0.0164 < 0.0054 HA-2 7/18/2018 0' - 2' 0.0941 0.0013 0.0014 0.0516 0.245 0.0054 < 0.0012 <0.0058 0.0116 0.0094 0.0119 0.007 0.0929 0.0196 0.112 SB-7 5/3/2022 4' - 6' 0.773 9.42 0.626 51.3 17.3 9.72 0.482 2.13 14 6.12 1.87 1.73 < 0.18 64.7 74.4 SB-7 5/3/2022 14' - 15' < 0.006 <0.006 < 0.006 < 0.006 < 0.006 <0.011 < 0.006 < 0.006 < 0.006 < 0.011 < 0.006 <0.006 < 0.006 < 0.006 < 0.006 SB-8 5/3/2022 2' - 4' < 0.006 < 0.006 < 0.006 < 0.006 < 0.012 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.012 SB-8 5/3/2022 14' - 16' < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.011 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 <0.011 SB-9 5/3/2022 8' -10' 0.0877 0.121 0.0621 0.221 1.54 0.25 <0.007 < 0.007 2.18 < 0.007 < 0.007 < 0.007 0.0253 < 0.007 0.0253 5/3/2022 14' - 16' SB-9 < 0.006 < 0.006 < 0.006 < 0.006 < 0.011 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.011 5/3/2022 **SB-10** 8' - 10' < 0.006 0.0607 0.0673 < 0.006 < 0.013 0.0433 < 0.006 < 0.006 0.172 < 0.006 < 0.006 < 0.006 < 0.006 < 0.006 < 0.013 **SB-10** 5/3/2022 14' - 16' < 0.005 < 0.005 < 0.005 < 0.005 < 0.011 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.011 **CURRENT SOIL ANALYTICAL RESULTS** 1/16/2023 **SB-11** 6' - 8' < 0.23 2.4 1.1 < 0.23 1.0 1.2 < 0.23 < 0.23 6.1 < 0.23 < 0.23 < 0.23 NA NA < 0.45 FD-1** 1/16/2023 6' - 8' < 0.26 1.7 0.74 0.58 0.85 < 0.26 < 0.26 4.1 < 0.26 < 0.26 < 0.26 NA NA < 0.51 < 0.26 **SB-12** 1/16/2023 6' - 8' < 0.0075 < 0.0075 < 0.0075 < 0.0075 < 0.0075 < 0.0075 <0.0075 < 0.0075 < 0.0075 <0.0075 < 0.0075 < 0.0075 NA NA < 0.015 1/16/2023 SB-13 6' - 8' < 0.004 < 0.0040 < 0.0040 < 0.004 < 0.004 < 0.004 < 0.0040 < 0.004 < 0.004 < 0.004 < 0.004 < 0.004 NA NA <0.008

Notes: Values presented in miligrams per kilogram (mg/kg) or parts per million (ppm).

Volatile organic compound (VOC) constituents not listed were identified below laboratory reporting limits.

Published Levels (PLs) based on Indiana Departement of Environmental Management (IDEM) Risk-based Closure Guide (R2) issued July 2022.

IDEM follows USEPA in assuming a total HQ of 1 and a risk level of 10⁻⁵.

Non-detect concentrations encountered exceeding IDEM R2 Published Levels are a result of laboratory dilution methods, and do not necessarily represent chemical impacts.

- * IDEM does not have PLs for VOCs in residential/comemrcial soil because VOCs in exposed soil have short half-lives relative to exposure durations assumed by U.S. EPA's equations.
- ** FD-1: Field Duplicate QA/QC sample FD-1 collected co-located with sample SB-11 (6' 8').

A detection of 0.25 mg/kg of acetone was detected in sample SB-12 (6'-8'); however, this is likely a lab artifact and is well below the R2 Commerical PL of 100,000 mg/kg.

NA Analyte not sampled for or Not Applicable.

Bold and shaded cell: denotes value exceeds IDEM R2 PL for Excavation Worker Soil.



Table 2 PAHs in Soil Analytical Results Bernie's Amoco 2120 North Lebanon Street Lebanon, Indiana 46052

Lebanon, mulana 40032																				
Sample ID	Date Sampled	Sample Depth (feet)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
	Published L esidential So		5,000	*	30,000	20	2	20	*	200	2,000	2	3,000	3,000	20	300	300	30	*	3,000
	Published Lommerical S		50,000	*	100,000	200	20	200	*	2,000	20,000	20	30,000	30,000	200	400	3,000	90	*	20,000
	Published L ation Worke		100,000	*	100,000	10,000	500	10,000	*	100,000	100,000	1,000	70,000	70,000	10,000	400	7,000	3,000	*	50,000
							ŀ	HISTORIC	AL SOIL	ANALYTI	CAL RES	ULTS								
SB-1	1/16/2023	2' - 4'	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0351	<0.0013	0.047	< 0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.047
SB-2	3/1/2017	4' - 6'	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
SB-3	3/1/2017	8' - 10'	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	3.23	6.06	5.49	<0.0013	<0.0013
HA-1	3/1/2017	0' - 2'	0.278	0.202	1.39	14.6	24	35.6	21.8	10.3	24.2	<2.0	51.1	<2.0	19.7	0.214	0.203	0.106	9.74	37.5
SB-4	4/27/2018	6' - 8'	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	< 0.0012	<0.0012	<0.0012	<0.0012	<0.0012	< 0.0012	<0.0012	<0.0012
SB-4	4/27/2018	14' - 16'	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
SB-5	4/27/2018	8' - 10'	0.031	0.038	<0.0014	<0.0014	<0.0014	<0.0014	< 0.0014	<0.0014	< 0.0014	<0.0014	< 0.0014	< 0.0014	<0.0014	4.49	10.2	8.43	0.11	<0.0014
SB-5	4/27/2018	10' - 12'	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	2.44	5.55	7.4	<0.0013	<0.0013
SB-5	4/27/2018	14' - 16'	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
SB-6	4/27/2018	6' - 8'	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
SB-6	4/27/2018	14' - 16'	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
HA-2	7/18/2018		<0.0012					0.0781												
SB-7	5/3/2022	4' - 6'	<0.40	<0.40	<0.40	<0.40	<0.082	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.114	<0.37	<0.40
SB-7	5/3/2022	14' - 15'	<0.37	<0.37	<0.37	<0.37	<0.075	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.075	<0.34	<0.37
SB-8	5/3/2022	2' - 4'	<0.41	<0.41	<0.41	<0.41	<0.083	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.083	<0.37	<0.41
SB-8	5/3/2022	14' - 16'	<0.36	<0.36	<0.36	<0.36	<0.073	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.073	<0.33	<0.36
SB-9	5/3/2022	8' -10'	<0.45	<0.45	<0.45	<0.45	<0.091	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	0.487	0.941	0.567	<0.41	<0.45
SB-9	5/3/2022	14' - 16'	< 0.37	< 0.37	< 0.37	< 0.37	<0.074	<0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	<0.37	< 0.37	<0.074	< 0.33	<0.37



Table 2 PAHs in Soil Analytical Results Bernie's Amoco 2120 North Lebanon Street

Lebanon, Indiana 46052

Sample ID	Date Sampled	Sample Depth (feet)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
IDEM R2 Published Levels for Residential Soil			5,000	*	30,000	20	2	20	*	200	2,000	2	3,000	3,000	20	300	300	30	*	3,000
IDEM R2 Published Levels for Commerical Soil		50,000	*	100,000	200	20	200	*	2,000	20,000	20	30,000	30,000	200	400	3,000	90	*	20,000	
IDEM R2 Published Levels for Excavation Worker Soil		100,000	*	100,000	10,000	500	10,000	*	100,000	100,000	1,000	70,000	70,000	10,000	400	7,000	3,000	*	50,000	
SB-10	5/3/2022	8' - 10'	<0.43	<0.43	<0.43	<0.43	<0.087	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	0.665	0.921	<0.087	<0.39	<0.43
SB-10	5/3/2022	14' - 16'	<0.35	<0.35	<0.35	<0.35	<0.072	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.072	<0.32	<0.35
CURRENT SOIL ANALYTICAL RESULTS																				
SB-11	1/16/2023	6' - 8'	0.011	0.022	0.035	0.048	0.062	0.080	0.047	0.029	0.059	0.015	0.10	0.039	0.043	2.0	4.6	0.12	0.10	0.13
FD-1**	1/16/2023	6' - 8'	0.019	0.027	0.044	0.038	0.043	0.056	0.049	0.023	0.040	0.017	0.074	0.046	0.048	2.0	4.5	0.13	0.15	0.083
SB-12	1/16/2023	6' - 8'	<0.0094	<0.0094	<0.0094	0.017	0.017	0.022	0.012	<0.0094	0.019	<0.0094	0.040	<0.0094	0.011	<0.0094	<0.0094	<0.0094	0.021	0.031
SB-13	1/16/2023	6' - 8'	<0.0056	<0.0056	<0.0056	< 0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056

Notes: Values presented in miligrams per kilogram (mg/kg) or parts per million (ppm).

Published Levels based on Indiana Departement of Environmental Management (IDEM) Risk-based Closure Guide (R2) issued July 2022.

IDEM follows USEPA in assuming a total HQ of 1 and a risk level of 10⁻⁵.

- * The IDEM R2 does not have published levels for this Polynuclear Aromatic Hydrocarbon (PAH) constituent.
- ** 'FD-1: Field Duplicate QA/QC sample FD-1 collected co-located with sample SB-11 (6' 8').

Laboratory results for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene may have also been reported in the VOC scan. The higher result is shown.

Bold cell denotes value exceeds IDEM R2 Published Level for Residential Soil.

Shaded cell denotes value exceeds IDEM R2 Published Level for Commerical Soil.

Undelined cell denotes value exceeds IDEM R2 Published Level for Excavation Worker Soil.



Quarterly Groundwater Monitoring Report – 1 st Quarter 2024 and No Further Action Request, Bernie's Amoco, 2120 N. Lebanon Street, Lebanon, Indiana 46052; FID #10593, LUST #201307505
APPENDIX D
Draft Environmental Restrictive Covenant
Heartland Environmental Associates, Inc.

Environmental Restrictive Covenant

THIS ENVIRONMENTAL RESTRICTIVE COVENANT ("Covenant") is made this Choose an item day of Choose an item, 2024 by Sherry Petroleum Inc. 2120 North Lebanon Street, Lebanon, Indiana 46052 (together with all successors and assignees, collectively "Owner").

WHEREAS: Owner is the fee owner of certain real estate in the County of Boone, Indiana, which is located at 2120 North Lebanon Street, Lebanon, Indiana 46052 and more particularly described in the attached Exhibit "A" ("Real Estate"), which is hereby incorporated and made a part hereof. This Real Estate was acquired by deed on September 4, 2015, and recorded on September 10, 2015, as Deed Record 201500008780, in the Office of the Recorder of Boone County, Indiana. The Real Estate consists of approximately 0.742 acres and has also been identified by the county as parcel identification number[s] 06-10-25-000-207.000-002. The Real Estate, to which the restrictions in this Covenant apply, is depicted on a map attached hereto as Exhibit "B".

WHEREAS: Corrective action was implemented in accordance with IC 13-23 and/or other applicable Indiana law as a result of a release of petroleum relating to the Bernie's Amoco at 2120 North Lebanon Street, Lebanon, Indiana 46052. The incident number assigned by the Indiana Department of Environmental Management ("Department" or "IDEM") for the release is #201307505, and the relevant facility identification number is #10593.

WHEREAS: Certain contaminants of concern ("COCs") remain in the groundwater of the Real Estate following completion of the response actions. The Department has determined that the COCs will not pose an unacceptable risk to human health at the remaining concentrations, provided that the Owner implements and complies with the land use restrictions as required herein. The known COCs remaining are petroleum compounds related to gasoline and/or diesel.

WHEREAS: Environmental investigation reports and other related documents are hereby incorporated by reference and may be examined at the offices of the Department, which is located in the Indiana Government Center North building at 100 N. Senate Avenue, Indianapolis, Indiana. The documents may also be viewed electronically in the Department's Virtual File Cabinet by accessing the Department's website (currently www.in.gov/idem/). The restricted Real Estate is also depicted on IDEM's GIS webviewer (currently https://on.in.gov/ideminteractivemap).

NOW THEREFORE, Owner subjects the Real Estate to the following restrictions and provisions, which shall be binding on the current Owner and all future Owners:

I. RESTRICTIONS

1. Restrictions. The Owner:

(a) Shall not use or allow the use or extraction of groundwater at the Real Estate for any purpose, including, but not limited to human or animal consumption, gardening, industrial processes, or agriculture, except that groundwater may be extracted in

conjunction with environmental investigation and/or remediation activities.

(b) Prior to the change in use of the site or construction of new structures to be occupied by persons at the Real Estate, the current Owner of the Real Estate shall confirm there is no unacceptable exposure risk due to vapor migration in accordance with thenapplicable agency guidance, regulation, or law. This may include conducting groundwater, soil, indoor air and/or soil-gas sampling for volatile organic compounds ("VOCs") or semi-volatile organic compounds ("SVOCs"), with an IDEM approved sampling plan. The results and analyses of such sampling shall be presented to IDEM in support of the Owner's determination whether an unacceptable vapor exposure risk exists. If the results demonstrate that no such risk exists, IDEM will provide its concurrence in writing and grant the Owner a waiver of this restriction for the proposed change in site use and/or new construction. If the results demonstrate that an unacceptable risk to human health exists, then the Owner must submit plans for mitigation for approval by IDEM and must conduct adequate indoor air sampling to demonstrate the effectiveness of the approved remedy.

II. GENERAL PROVISIONS

- 2. Restrictions to Run with the Land. The restrictions and other requirements described in this Covenant shall run with the land and be binding upon, and inure to the benefit of the Owner of the Real Estate and the Owner's successors, assignees, heirs and lessees and their authorized agents, employees, contractors, representatives, agents, lessees, licensees, invitees, guests, or persons acting under their direction or control (hereinafter "Related Parties") and shall continue as a servitude running in perpetuity with the Real Estate. No transfer, mortgage, lease, license, easement, or other conveyance of any interest in or right to occupancy in all or any part of the Real Estate by any person shall affect the restrictions set forth herein. This Covenant is imposed upon the entire Real Estate unless expressly stated as applicable only to a specific portion thereof.
- 3. <u>Binding upon Future Owners.</u> By taking title to an interest in or occupancy of the Real Estate, any subsequent Owner or Related Party agrees to comply with all of the restrictions set forth in paragraph 1 above and with all other terms of this Covenant.
- 4. <u>Access for Department</u>. The Owner shall grant to the Department and its designated representatives the right to enter upon the Real Estate at reasonable times for the purpose of monitoring compliance with this Covenant and ensuring its protectiveness; this right includes the right to take samples and inspect records.
- 5. Written Notice of the Presence of Contamination. Owner agrees to include in any instrument conveying any interest in any portion of the Real Estate, including but not limited to deeds, leases and subleases (excluding mortgages, liens, similar financing interests, and other non-possessory encumbrances), the following notice provision (with blanks to be filled in):

RECORDED IN THE OFFICE OF THE RECORDER OF Boone COUNTY ON _______, 20___, INSTRUMENT NUMBER (or other identifying reference) ______ IN FAVOR OF AND ENFORCEABLE BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

- 6. Notice to Department of the Conveyance of Property. Owner agrees to provide notice to the Department of any conveyance (voluntary or involuntary) of any ownership interest in the Real Estate (excluding mortgages, liens, similar financing interests, and other non-possessory encumbrances). Owner must provide the Department with the notice within thirty (30) days of the conveyance and: (a) include a certified copy of the instrument conveying any interest in any portion of the Real Estate, and (b) if it has been recorded, its recording reference, and (c) the name and business address of the transferee.
- 7. <u>Indiana Law</u>. This Covenant shall be governed by, and shall be construed and enforced according to, the laws of the State of Indiana.

III. ENFORCEMENT

8. Enforcement. Pursuant to IC 13-14-2-6 and other applicable law, the Department may proceed in court by appropriate action to enforce this Covenant. Damages alone are insufficient to compensate IDEM if any owner of the Real Estate or its Related Parties breach this Covenant or otherwise default hereunder. As a result, if any owner of the Real Estate, or any owner's Related Parties, breach this Covenant or otherwise default hereunder, IDEM shall have the right to request specific performance and/or immediate injunctive relief to enforce this Covenant in addition to any other remedies it may have at law or at equity. Owner agrees that the provisions of this Covenant are enforceable and agrees not to challenge the provisions or the appropriate court's jurisdiction.

IV. TERM, MODIFICATION AND TERMINATION

- 9. <u>Term.</u> The restrictions shall apply until the Department determines that the contaminants of concern no longer present an unacceptable risk to the public health, safety, or welfare, or to the environment.
- 10. Modification and Termination. This Covenant shall not be amended, modified, or terminated without the Department's prior written approval. Within thirty (30) days of executing an amendment, modification, or termination of the Covenant approved by IDEM, Owner shall record such amendment, modification, or termination with the Office of the Recorder of Boone County and within thirty (30) days after recording, provide a true copy of the recorded amendment, modification, or termination to the Department. In accordance with 329 IAC 1-2-7 and IC 13-14-2-9(d), the applicant shall reimburse the department for the administrative and personnel expense incurred by the department in evaluating a proposed modification or termination of a restrictive covenant under this rule.

V. MISCELLANEOUS

11. Waiver. No failure on the part of the Department at any time to require performance by

any person of any term of this Covenant shall be taken or held to be a waiver of such term or in any way affect the Department's right to enforce such term, and no waiver on the part of the Department of any term hereof shall be taken or held to be a waiver of any other term hereof or the breach thereof.

- 12. <u>Conflict of and Compliance with Laws</u>. If any provision of this Covenant is also the subject of any law or regulation established by any federal, state, or local government, the strictest standard or requirement shall apply. Compliance with this Covenant does not relieve the Owner of its obligation to comply with any other applicable laws.
- 13. Change in Law, Policy or Regulation. The parties intend that this Covenant shall not be rendered unenforceable if Indiana's laws, regulations, guidance, or remediation policies (including those concerning environmental restrictive covenants, or institutional or engineering controls) change as to form or content. If necessary to enforce this Covenant, the parties agree to amend this Covenant to conform to any such change. All statutory references include any successor provisions.
- 14. <u>Notices</u>. Any notice, demand, request, consent, approval or communication that either party desires or is required to give to the other pursuant to this Covenant shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Owner: Sherry Petroleum Inc. 2120 North Lebanon Street Lebanon, Indiana 46052

To Department: IDEM, Office of Land Quality 100 N. Senate Avenue IGCN 1101 Indianapolis, IN 46204-2251 Attn: Institutional Controls Group

An Owner may change its address or the individual to whose attention a notice is to be sent by giving written notice via certified mail.

- 15. <u>Severability</u>. If any portion of this Covenant or other term set forth herein is determined by a court of competent jurisdiction to be invalid for any reason, the surviving portions or terms of this Covenant shall remain in full force and effect as if such portion found invalid had not been included herein.
- 16. <u>Authority to Execute and Record</u>. The undersigned person executing this Covenant represents that he or she is the current fee Owner of the Real Estate or is the authorized representative of the Owner, and further represents and certifies that he or she is duly authorized and fully empowered to execute and record, or have recorded, this Covenant.

Owner hereby attests to the accuracy of the s	statements in this de	ocument and all attachments.
IN WITNESS WHEREOF, Sherry Petroleu above has caused this Environmental Restrice, 20		
Sherry	Petroleum Inc.	
	_	Printed Name of Signatory
STATE OF)		
Before me, the undersigned, a Notary		of the Owner,
Witness my hand and Notarial Seal th	his day of	, 20
		, Notary Public
My Commission Expires:	Residing in	County,
This instrument prepared by: Sean E. Hall, 3410 Mishawaka Avenue, Sou	th Bend, Indiana 46	5615
I affirm, under the penalties for perjury, that I has number in this document, unless required by law:	ve taken reasonable c	are to redact each Social Security

Sean E. Hall, 3410 Mishawaka Avenue, South Bend, Indiana 46615

EXHIBIT A LEGAL DESCRIPTION OF REAL ESTATE



PG1 OF

201500008780
Filed for Record in
BOONE COUNTY, INDIANA
NICOLE K.(NIKKI) BALDWIN, RECORDER
09-10-2015 At 02:49 pm.
need 20.00

2

QUITCLAIM DEED

Parcel No. 06-10-25-000-207.000-002

SHERRY PETROLEUM INC., an Indiana corporation, formed on March 14, 2013, and voluntarily dissolved on February 27, 2015, RELEASES AND QUITCLAIMS UNTO SHERRY PETROLEUM INC., an Indiana corporation, formed on July 2, 2015 ("Grantee"), in consideration of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration, the

	nd sufficiency of which is hereb	by acknowledged, real estate located in Boone County, Indiana, more particularly described as
	SUBJECT to all easements, res	Lebanon Street, Lebanon, Indiana 46052. Strictions, and limitations of record, as well as all applicable zoning ordinances. due and payable in
action		d delivered by Grantor to Grantee in accordance with Ind. Code § 23-1-45-5, as a necessary s and affairs and to prevent commencement of a proceeding against the Grantor.
DATEI	September 4 , 2015.	SHERRY PETROLEUM INC., formed on March 14, 2013, and voluntarily dissolved on February 27, 2015 By: Karamjeet S. Mann Its: President Printed Print
STATE	OF INDIANA)	
COUNT	Y OF <u>Ge</u>) SS	:
the Pres	ident of SHERRY PETROLE edged the execution of the above	and for said County and State, this 4 th day of September, 2015, appeared Karamjeet S. Mann, UM INC., formed on March 14, 2013, and voluntarily dissolved on February 27, 2015, who we and foregoing Quitclaim Deed. I have, in witness thereof, subscribed my name and affixed
•	nmission Expires Kathleen	A. McMaken, Notary Public - Yes Sm
Resider	t of: Allen	Courity, State of Indiana NOTARY PUBLIC
Street, F	ort Wayne, Indiana 46802; Tele	PISSION FACES PROJECT #17362-71), Attorney at Law, Haller & Colvin, P.C., 444 East Main ephone: (260) 426-0444; Fax: (260) 422-0274. I affirm, under the penalties for perjury, that I h Social Security Number in this document, unless required by Law. /s/ Jeffrey B. Harding
Mail tay	bills to:	Grantee mailing address:
	o N Lebanon	2120 N Lebanan
	eron IN 1252	Lebanon DV 42652 M:\Docs\Clients\14639\051\00426971.WPD
{14639/05	51/00426971-2JB}	DULY ENTERED FOR TAXATION 9-10-2015 Deanna Willhard SUBJECT TO FINAL ACCEPTANCE AUDITOR, BOONE COUNTY

2

EXHIBIT "A"

A part of the Northeast Quarter of Section 25, Township 19 North, Range 1 West of the Second Principal Meridian, more particularly described as follows.

Commencing at the Norwest corner of the aforesaid Northeast Quarter Section; running thence East along and with the North line thereof 866.20 feet; thence Southeastwardly deflecting right 79 degrees 25 minutes a distance of 1092.39 feet; thence Eastwardly deflecting left 90 degrees a distance f 265.85 feet to a point of the beginning; thence Southwardly deflecting right 90 degrees a distance of 194.88 feet to a point in the center line of Small Reynolds Ditch; thence Eastwardly deflecting left 90 degrees a distance of 185.19 feet, more or less, to a point in the center line of Indiana State Highway No. 39; thence Northwardly along the center line of aforesaid Indiana State Highway No. 39 a distance of 194.88 feet; thence Westwardly deflecting left 90 degrees a distance of 185.19 feet, more or less, to the point of beginning, containing 0.83 acres, more or less.

EXCEPTING THEREFROM: A part of the Northwest Quarter of Section 25, Township 19 North, Range 1 West, Boone County, Indiana, described as follows:

Commencing at a concrete monument found at the Southeast Corner of said Quarter Section; thence North 89 degrees 00 minutes 25 seconds West (assumed bearing) 870.09 feet along the South line of said Quarter Section to the centerline of S.R. 39; thence North 9 degrees 54 minutes 00 seconds West 1,490.16 feet along said centerline to the centerline of Small Reynolds Ditch; thence 80 degrees 06 minutes 00 seconds West 48.64 feet along said centerline to the Western boundary of said S.R. 39 and the POINT OF BEGINNING of this description; thence continuing South 80 degrees 06 minutes 00 seconds West 86.36 feet along said centerline to an iron pin set; thence North 9 degrees 54 minutes 00 seconds West 37.10 feet to an iron pin set; thence North 80 degrees 06 minutes 00 seconds East 84.00 feet to an iron pin set; thence North 9 degrees 54 minutes 00 seconds West 15.08 feet to an iron pin set; thence northwesterly 130.05 feet along an arc to the right and having a radius of 49,873.42 feet and subtended by a long chord having a bearing of North 9 degrees 49 minutes 31 seconds West and a length of 130.05 feet to an iron pin set; thence North 27 degrees 18 minutes 20 seconds West 13.26 feet to an iron pin set on the Southern boundary of Maple Drive; thence North 80 degrees 06 minutes 00 seconds East 10.00 feet along the boundary of said Maple Drive to the Western boundary of said S.R. 39; thence along the boundary of said S.R. 39 Southeasterly 42.69 feet along an arc to the left and having a radius of 49,867.42 feet and subtended by a long chord having a bearing of South 9 degrees 45 minutes 38 seconds East and a length of 42.69 feet; thence South 6 degrees 58 minutes 58 seconds East 100.22 feet along said boundary; thence South 11 degrees 23 minutes 52 seconds East 52.12 feet along said boundary to the POINT OF BEGINNING and containing 0.088 acres, more or less.

For information purposes only, the property address is purported to be: 2120 N Lebanon Street, Lebanon, IN 46052

{14639/051/00426971-2JB}

EXHIBIT B

SITE MAP

