

March 8, 2022

New Mexico Oil Conservation Division Energy Minerals and Natural Resources Division 1220 South Saint Francis Drive Santa Fe, New Mexico 87505

Subject: 2021 Annual Report

Former Giant Bloomfield Refinery

NMOCD Discharge Permit Number: GW-40

Western Refining Southwest, LLC San Juan County, New Mexico

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of Western Refining Southwest, LLC (Western, an affiliate of Marathon Petroleum Company LP), has prepared this report detailing activities completed from January 2021 through December 2021 at the former Giant Bloomfield Refinery (Site), Discharge Permit number GW-40, in San Juan County, New Mexico.

#### SITE DESCRIPTION AND HISTORY

The Giant Bloomfield Refinery Site is a former refinery currently owned by Western. It is located on the northeast corner of United States Highway 64 and County Road 3500, approximately 5 miles west of Bloomfield, New Mexico, in the southwest quarter of Section 22 and the northwest quarter of Section 27, Township 29 North, Range 12 West in San Juan County, New Mexico (Figure 1). The former refinery, under ownership of Giant Industries (Giant), produced leaded and unleaded gasoline, diesel, kerosene, and other refined petroleum products from 1974 to 1982 and has been inactive since closure in 1982.

In April 1985, a breach in a lagoon dike on the former Lee Acres Landfill property (located north-adjacent to the Site), which had been retaining liquids in the lagoons, released liquid wastes into an arroyo west of the Site. The arroyo drains south toward the Lee Acres Subdivision (located south-adjacent to the Site), where the New Mexico Oil Conservation Division (NMOCD) and the New Mexico Environment Department (NMED) identified impacted groundwater in domestic water wells in 1986. In response, the NMOCD required Giant to investigate petroleum hydrocarbon impacts to groundwater downgradient of the refinery. NMED also conducted a separate investigation to identify potential impacts from the landfill. The investigations identified two separate plumes of impacted groundwater that commingled across the Site and flowed downgradient into the Lee Acres Subdivision. Groundwater contaminants detected in the refinery plume included phase-separated hydrocarbon (PSH) and dissolved-phase petroleum hydrocarbons. Groundwater contaminants associated with the Lee Acres Landfill included total dissolved solids (TDS), chloride, sulfate, metals, and volatile organic compounds (VOCs).

Detailed information regarding Site history, historical remediation efforts, and historical groundwater monitoring results are presented in WSP's *Stage 2 Abatement Plan* dated May 18, 2021. The WSP *Stage 2 Abatement Plan* has not yet been approved by the NMOCD. Pursuant to Discharge Permit GW-40 (dated January 6, 2021), this report details interim Site activities performed in 2021. A summary of field activities not presented in WSP's *Stage 2 Abatement Plan* (dated May 18, 2021) are presented below.

#### 2021 GROUNDWATER MONITORING ACTIVITIES

During 2021, no groundwater was recovered from on-Site wells, treated, and/or discharged into the infiltration gallery; however, WSP has continued to conduct groundwater monitoring and PSH recovery activities from all viable on-Site wells Site until the NMOCD approves WSP's *Stage 2 Abatement Plan*.

WSP USA 848 EAST 2ND AVENUE DURANGO CO 81301Tel.: 970-385-1096 wsp.com



#### **GROUNDWATER GAUGING**

Gauging events were conducted by WSP in January, August, and October of 2021 using a Keck oil-water interface probe. The interface probe was decontaminated with Alconox<sup>TM</sup> soap and rinsed with distilled water before each measurement. Depth-to-water and depth-to-PSH measurements were used to calculate groundwater elevations at the Site to determine direction and gradient of flow. Attached Table 1 presents well construction information for all on-Site monitoring wells. Measurements and calculated groundwater elevations above mean sea level (amsl) for each sampling event are presented in Table 2. Plots of static groundwater elevation and PSH versus time are presented in Graphs 1 and 2 for wells containing PSH (GBR-7 and GBR-22). Groundwater potentiometric surface maps and inferred groundwater flow directions for each event are also shown in Figures 2 through 4. Inferred groundwater flow at the Site is to the south.

#### OCTOBER 2021 UPGRADIENT BLM SPLIT SAMPLING AND RESULTS

WSP was present and collected split groundwater samples during a Bureau of Land Management (BLM) groundwater sampling event conducted in October 2021. Specifically, as part of their effort to assess residual manganese concentrations related to the Lee Acres Landfill Superfund site, the BLM collected groundwater samples from several Site wells located hydrologically downgradient of the Lee Acres Landfill. WSP was present during the sampling event and collected split samples from the following wells: GBR-17, GBR-32, GBR-48, and GBR-50. Samples were collected using low-flow purging and sampling methods. Specifically, groundwater was purged using a stainless-steel, impellor-driven submersible pump connected to a low-flow controller. Following well purging, groundwater samples were placed directly into laboratory-provided vials and labeled with the date and time of collection, well designation, project name, sample collector's name, and parameters to be analyzed. They were immediately sealed with zero headspace and packed on ice to preserve samples.

Samples were submitted to Hall Environmental Analysis Laboratory for analysis of VOCs by Environmental Protection Agency (EPA) Method 8260B, total and dissolved metals by EPA Method 6010B, anions by EPA Method 300.0, sulfide by Method SM 4500S2-H, dissolved organic carbon by Method SM 5310B, and TDS by Method SM 2540C. Analytical results, including Site historical results, are summarized on Tables 3, 4, and 5, with laboratory reports attached as Enclosure A.

Because only upgradient wells GBR-17, GBR-32, GBR-48, and GBR-50 were sampled, iso-concentration maps were not developed for the constituents of concern for this sampling event. Once the *Stage 2 Abatement Plan* is approved, iso-concentration maps will be developed for the Site constituents of concern.

WSP appreciates the opportunity to provide this report to you. If you have any questions or comments regarding this report, do not hesitate to contact Stuart Hyde at (970) 385-1096 or at stuart.hyde@wsp.com, or Kateri Luka or at kaluka@marathonpetroleum.com.

Kind regards,

Stuart Hyde, L.G. Senior Geologist

Daniel Moir, P.G. Sr. Lead Consultant, Geologist

cc: Kateri Luka, Marathon Petroleum Company LP

#### Attachments:

Figure 1: Site Location Map

Figure 2: Groundwater Potentiometric Surface Map (January 2021)

Figure 3: Groundwater Potentiometric Surface Map (August 2021)

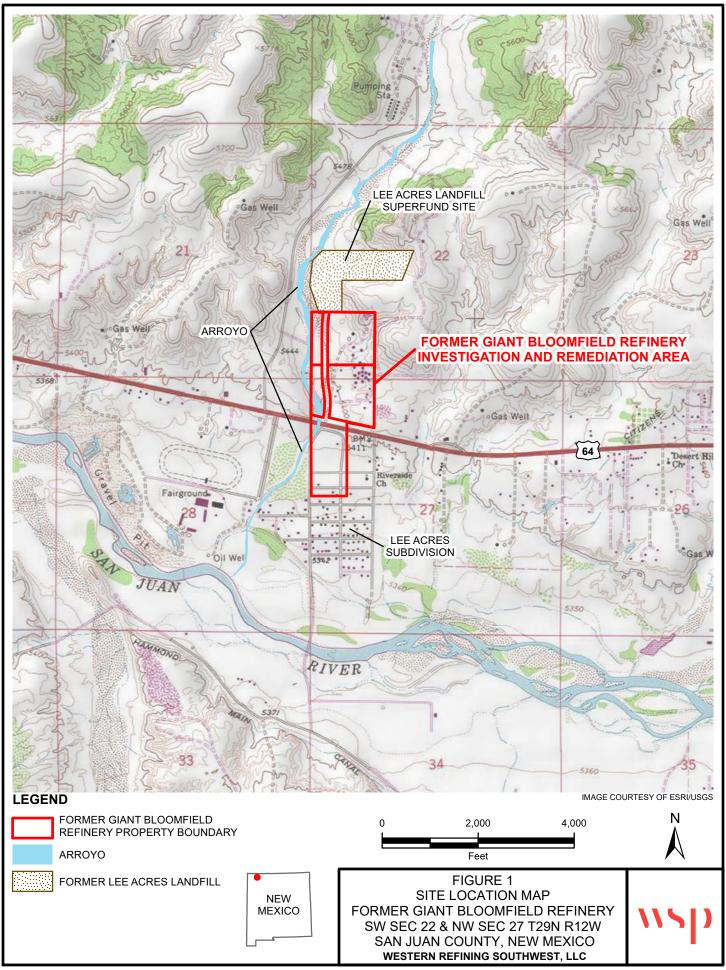
Figure 4: Groundwater Potentiometric Surface Map (October 2021)

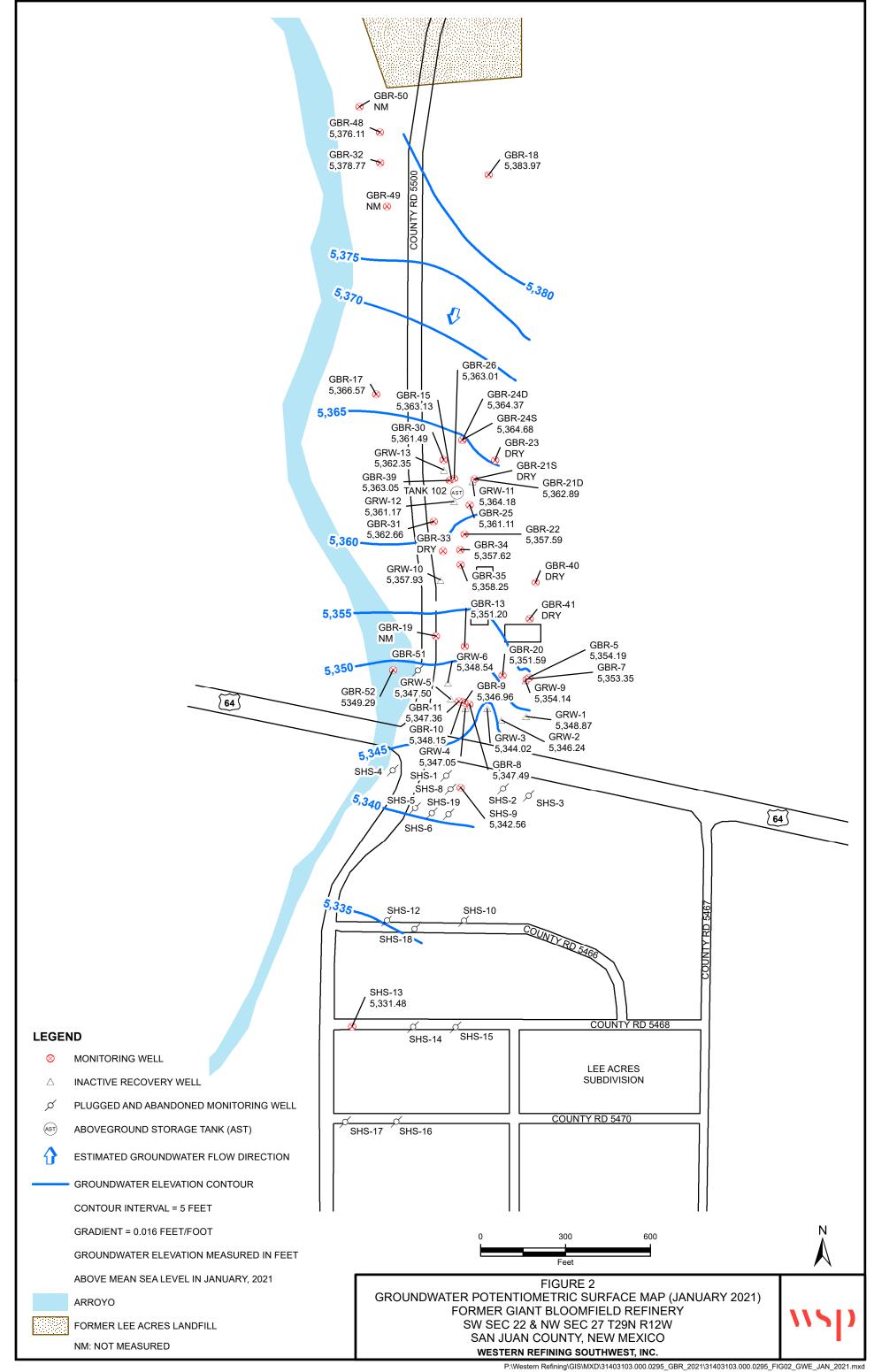


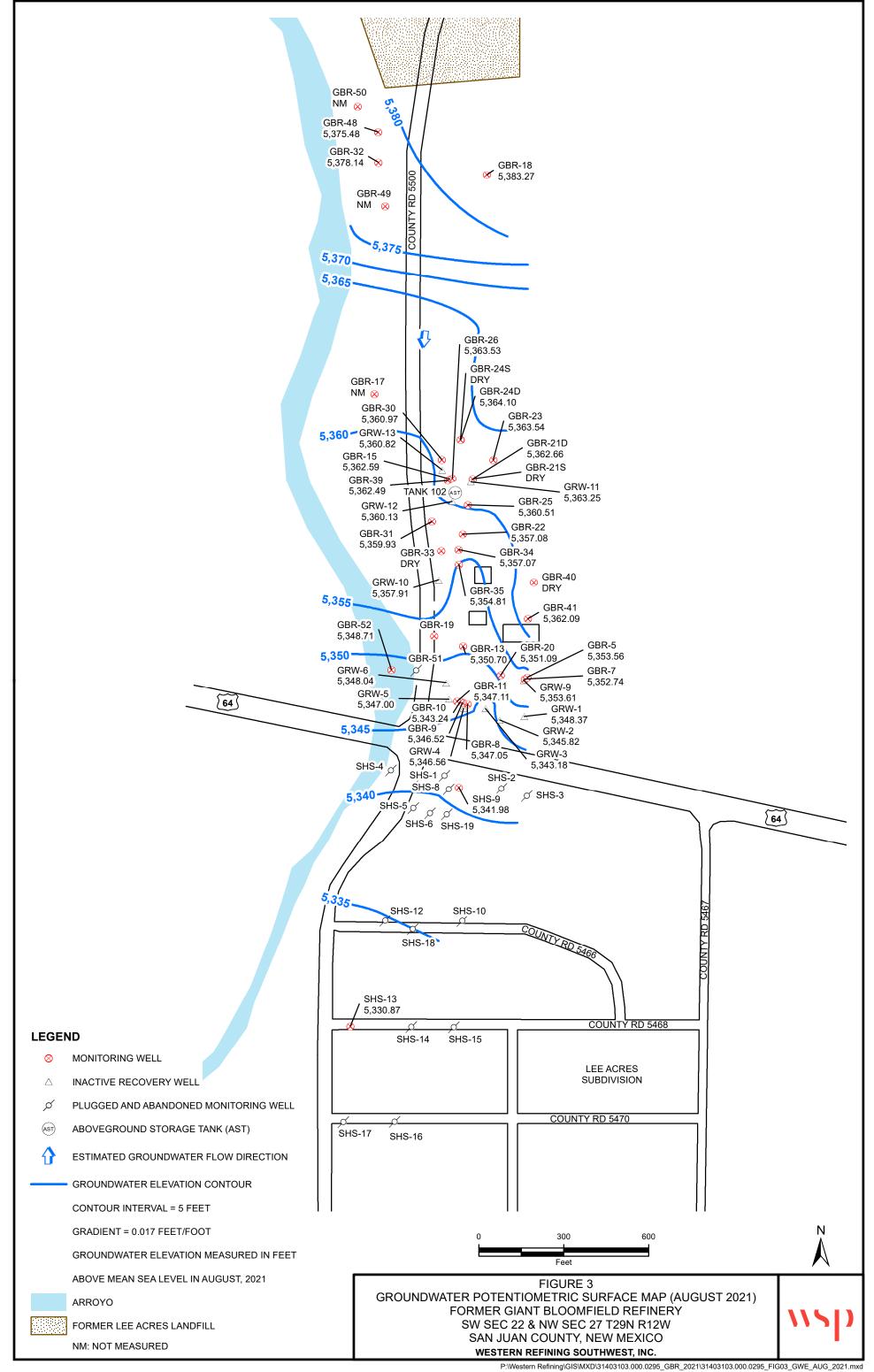
- Table 1: Well Construction Information
- Table 2: Groundwater Elevations and Thickness of Phase-Separated Hydrocarbons
- Table 3: Groundwater Analytical Results Volatile Organic Compounds
- Table 4: Groundwater Analytical Results Metals
- Table 5: Groundwater Analytical Results General Chemistry Parameters
- Graph 1: GBR-7 Groundwater Elevations vs PSH Graph 2: GBR-22 Groundwater Elevations vs PSH

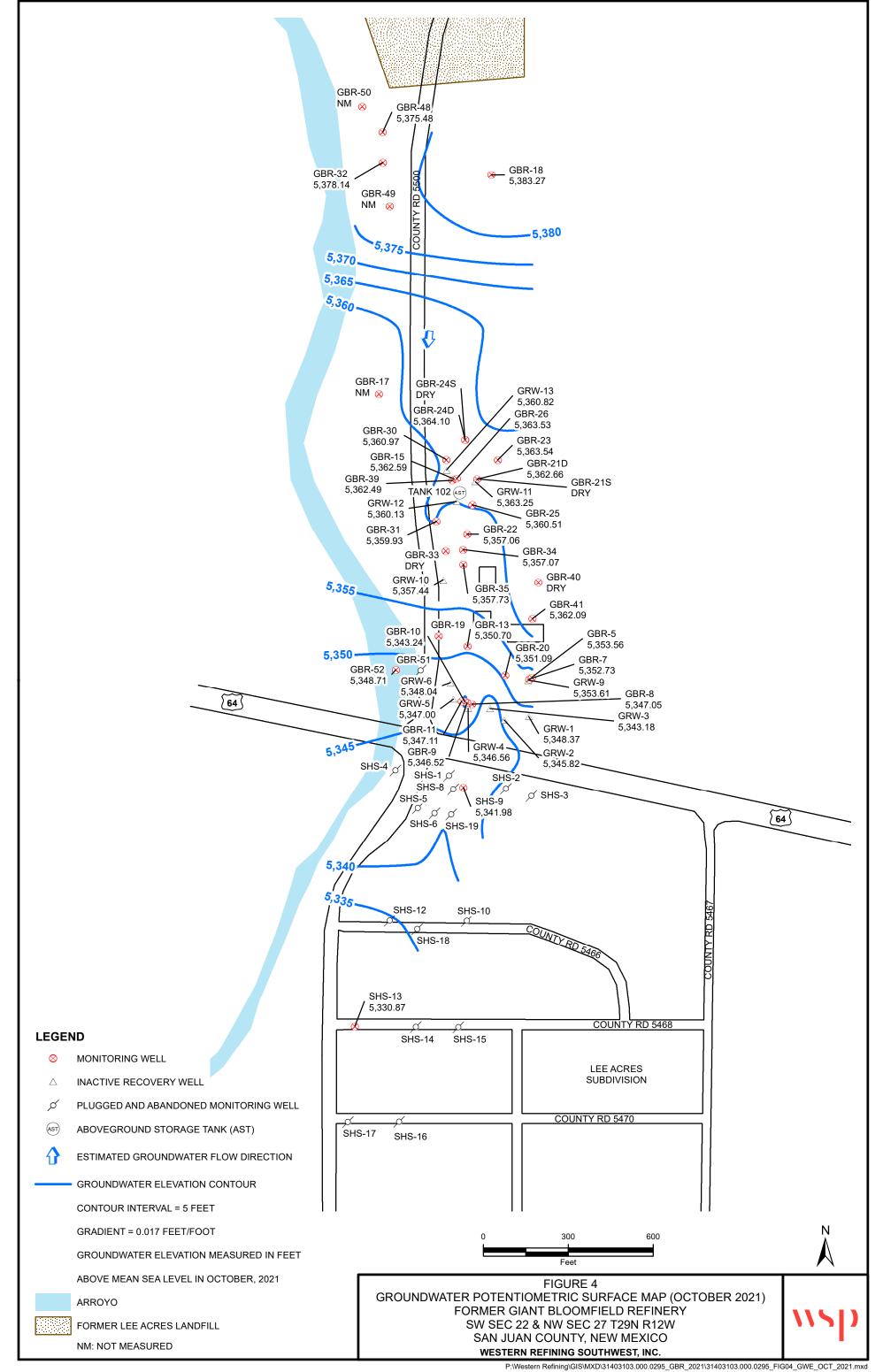
Enclosure A: Laboratory Analytical Reports

## **FIGURES**









TABLES

Received by OCD: 10/3/2023 10:46:03 AM

Page 10 of 70

## TABLE 1 WELL CONSTRUCTION INFORMATION

#### FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	Screened Interval (feet BTOC)	Screen Placement (lithology)	Well Diameter (inches)
GRW-1 / GBR-38	5,394.30	72.59	27 - 67	sand/sandstone	6
GRW-1 / GBR-38	5,391.28	66.11	37 - 52	sand	6
GRW-3 / GBR-29	5,388.77	60.90	25 - 65	sand/sandstone	6
GRW-4 / GBR-43	5,390.02	66.30	35 - 50	sand	6
GRW-5 / GBR-37	5,390.56	75.44	26 - 66	sand/sandstone	6
GRW-6 / GBR-44	5,390.81	63.11	33 - 48	sand	6
GRW-9 / GBR-6	5,395.70	54.90	20 - 60	sand/sandstone	6
GRW-10 / GBR-36	5,395.02	66.02	25 - 65	sand/clay/gravel	6
GRW-11 / GBR-27	5,397.85	55.60	22 - 62	sand/shale/sandstone	5
GRW-12 / GBR-28	5,397.24	51.76	24 - 64	sand/clay/sandstone	6
GRW-13 / GBR-14	5,396.90	70.86	20 - 60	sand/gravel	6
GBR-5*	5,395.07	46.88	32 - 52	sandstone	2
GBR-7	5,395.85	50.56	32 - 42	sand	2
GBR-8	5,390.50	49.26	38 - 53	sand	2
GBR-9	5,389.92	67.28	50 - 60	silt/shale	2
GBR-10	5,390.57	47.50	29 - 39	sand	2
GBR-11	5,389.43	51.20	40 - 50	sand	2
GBR-13*	5,393.04	45.40	32 - 42	sandstone	2
GBR-15 GBR-17	5,397.99 5,402.69	58.33 50.25	45 - 55 31 - 51	clay sand	2 2
GBR-18*	5,421.68	47.87	35 - 45	siltstone/sandstone	2
GBR-20*	5,393.47	44.60	27 - 37	sandstone	2
GBR-21D*	5,400.19	48.64	33 - 38	shale	2
GBR-21S*	5,400.65	34.85	17 - 32	shale	2
GBR-22*	5,395.91	45.85	32 - 42	sandstone	2
GBR-23 (1)*	5,403.72	41.75	24 - 34	sandstone	2
GBR-24D*	5,396.77	51.44	33 - 43	sandstone	2
GBR-24S*	5,396.08	33.50	23 - 33	sandstone	2
GBR-25*	5,397.03	50.27	33 - 43	sandstone	2
GBR-26	5,396.72	42.54	25 - 35	sand	2
GBR-30	5,395.59	41.44	25 - 40	sand/clay	2
GBR-31	5,396.58	43.50	25 - 40	clay/gravel	2
GBR-32*	5,414.86	47.90	25 - 40	sandstone	2
GBR-33	5,396.28	45.77	27 - 43	clay/sand	2
GBR-34	5,394.00	46.70	27 - 43	sand/sandstone	2
GBR-35	5,393.66	41.62	25 - 41	sand/sandstone	2
GBR-39	5,397.55	41.39	25 - 35	sand	2
GBR-40	5,400.76	39.40	26 - 36	sand	2 2
GBR-41 GBR-48	5,396.35 5,413.90	34.34 43.76	22 - 32 28 - 38	sand	2
GBR-49	(2)	40.26	26 - 36	sand/gravel sand	2
GBR-50	(2)	40.63	27 - 37	sand	2
GBR-52 / GRW-8	5,387.74	54.59	30 - 45	sand	6
SHS-9	5,380.79	46.27	35 - 45	clay	4
SHS-13	5,367.81	47.51	27 - 42	sand	4
	Well	s Plugged and Aban			
GBR-19 (3)	5,393.83	46.23	-	-	-
GBR-51 / GRW -7	5,389.68	57.07		-	
SHS-1	5,383.54	50.40	-	-	-
SHS-2	5,381.66	44.56	-	-	-
SHS-3	5,383.33	-	-	-	-
SHS-4	5,383.62	52.16	-	-	-
SHS-5	5,378.36	47.85	-	-	-
SHS-6	5,378.17	52.78	-	-	-
SHS-8	5,380.25	50.92	-	-	-
SHS-10 SHS-12	5,373.80 5,373.94	45.80 52.41	-	-	-
SHS-12 SHS-14	5,367.07	52.41	-	-	-
SHS-15	5,366.21	47.78	-	-	-
SHS-16	5,362.58	42.20	-		-
SHS-17	5,364.35	46.21	_	_	_
SHS-18	5,373.64	47.36	-	-	-
SHS-19	5,378.89	52.40	-	-	-
	1	1	I		

#### **Notes:**

- (1) Well hit by a vehicle May 2014
- (2) Top-of-casing elevation is unknown
- (3) Well was paved over in June 2010
- \* asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer BTOC below top of casing
- D designates that the well screen is deep
- P&A plugged and abandoned
- S designates that the well screen is shallow
- GBR-1, GBR-2, GBR-3, GBR-4, GBR-12, GBR-16, GBR-45, GBR-46, and GBR-47 not completed as wells

Received by OCD: 10/3/2023 10:46:03 AM Page 11 of 70

## TABLE 2 GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE-SEPARATED HYDROCARBONS

#### FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

				Januar	y 2021			Augus	st 2021			Octob	er 2021	
Well Number	Wellhead Elevation (feet)	Total Depth (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)
GRW-1 / GBR-38	5,394.30	72.59	45.43	-	1	5,348.87	45.93			5348.37	45.93	1	-	5,348.37
GRW-2 / GBR-42	5,391.28	66.11	45.04	-	1	5,346.24	45.46			5345.82	45.46	1	-	5,345.82
GRW-3 / GBR-29	5,388.77	60.90	44.75	-	ı	5,344.02	45.59			5343.18	45.59	ı	-	5,343.18
GRW-4 / GBR-43	5,390.02	66.30	42.97	-	1	5,347.05	43.46			5346.56	43.46	1	-	5,346.56
GRW-5 / GBR-37	5,390.56	75.44	43.06	-	1	5,347.50	43.56			5347.00	43.56	1	-	5,347.00
<b>GRW-6 / GBR-44</b>	5,390.81	63.11	42.27	-	1	5,348.54	42.77			5348.04	42.77	1	-	5,348.04
GRW-9 / GBR-6	5,395.70	54.90	41.56	-	1	5,354.14	42.09			5353.61	42.09	1	-	5,353.61
GRW-10 / GBR-36	5,395.02	66.02	37.09	1	1	5,357.93	37.11			5357.91	37.58	1	-	5,357.44
GRW-11 / GBR-27	5,397.85	55.60	33.67	-	-	5,364.18	34.60			5363.25	34.60	-	-	5,363.25
GRW-12 / GBR-28	5,397.24	51.76	36.07	-	-	5,361.17	37.11			5360.13	37.11	-	-	5,360.13
GRW-13 / GBR-14	5,396.90	70.86	34.55	-	-	5,362.35	36.08			5360.82	36.08	-	-	5,360.82
GBR-5	5,395.07	46.88	40.88	-	-	5,354.19	41.51			5353.56	41.51	-	-	5,353.56
GBR-7	5,395.85	50.56	42.59	42.48	0.11	5,353.35	43.12	43.13	0.01	5,352.74	43.13	43.12	0.01	5,352.73
GBR-8	5,390.50	49.26	43.01			5,347.49	43.45			5347.05	43.45	-	-	5,347.05
GBR-9	5,389.92	67.28	42.96	-	-	5,346.96	43.40			5346.52	43.40	-	-	5,346.52
GBR-10	5,390.57	47.50	42.42	-	-	5,348.15	47.33			5343.24	47.33	-	-	5,343.24
GBR-11	5,389.43	51.20	42.07	-	-	5,347.36	42.32			5347.11	42.32	-	-	5,347.11
GBR-13	5,393.04	45.40	41.84	-	-	5,351.20	42.34			5350.70	42.34	-	-	5,350.70
GBR-15	5,397.99	58.33	34.86	-	-	5,363.13	35.40			5362.59	35.40	-	-	5,362.59
GBR-17	5,402.69	50.25	36.12	-	-	5,366.57		Obstr	ructed	•		Obstr	ructed	,
GBR-18	5,421.68	47.87	37.71	-	-	5,383.97	38.41			5383.27	38.41	-	-	5,383.27
GBR-20	5,393.47	44.60	41.88	-	-	5,351.59	42.38			5351.09	42.38	-	-	5,351.09
GBR-21D	5,400.19	48.64	37.30	-	-	5,362.89	37.53			5362.66	37.53	-	-	5,362.66
GBR-21S	5,400.65	34.85		D	ry	,		D	ry			D	ry	,
GBR-22	5,395.91	45.85	38.40	38.30	0.10	5,357.59	38.85	38.87	0.02	5,357.08	38.87	38.85	0.02	5,357.06
GBR-23	5,403.72	41.75		D	ry		40.18			5363.54	40.18	-	-	5,363.54
GBR-24D	5,396.77	51.44	32.40	-	-	5,364.37	32.67			5364.10	32.67	-	-	5,364.10
GBR-24S	5,396.08	33.50	31.40	-	-	5,364.68		D	ry	•		D	ry	,
GBR-25	5,397.03	50.27	35.92	-	-	5,361.11	36.52			5360.51	36.52	-	-	5,360.51
GBR-26	5,396.72	42.54	33.71	-	-	5,363.01	33.19			5363.53	33.19	-	-	5,363.53
GBR-30	5,395.59	41.44	34.10	-	-	5,361.49	34.62			5360.97	34.62	-	-	5,360.97
GBR-31	5,396.58	43.50	33.92			5,362.66	36.65			5359.93	36.65	-	-	5,359.93
GBR-32	5,414.86	47.90	36.09	-	-	5,378.77	36.72			5378.14	36.72	-	-	5,378.14
GBR-33	5,396.28	45.77		D	ry			D	ry	-		D	ry	
GBR-34	5,394.00	46.70	36.38	-	-	5,357.62	36.93			5357.07	36.93	-	_	5,357.07
GBR-35	5,393.66	41.62	35.41	-	-	5,358.25	38.85			5354.81	35.93	-	-	5,357.73
GBR-39	5,397.55	41.39	34.50	-	-	5,363.05	35.06			5362.49	35.06	-	-	5,362.49
GBR-40	5,400.76	39.40		D	ry			D	ry	-		D	ry	
GBR-41	5,396.35	34.34		D	•		34.26			5362.09	34.26	-	-	5,362.09
GBR-48	5,413.90	43.76	37.79	-	-	5,376.11	38.42			5375.48	38.42	-	-	5,375.48
GBR-49	(1)	40.26		Obstr	ructed	•	34.85			-	34.85	-	-	-
GBR-50	(1)	40.63	33.50	-	_	-	34.13			-	34.13	-	-	-
GBR-52 / GRW-8	5,387.74	54.59	38.45	-	-	5,349.29	39.03			5348.71	39.03	-	-	5,348.71
SHS-9	5,380.79	46.27	38.23			5,342.56	38.81			5341.98	38.81	-	-	5,341.98
SHS-13	5,367.81	47.51	36.33	-	-	5,331.48	36.94			5330.87	36.94	-	-	5,330.87
DIID-IU	0,007.01	17.51	20.00			2,221110	50.74			3330.07	2017 1		1	2,220.07

#### **Notes:**

amsl - above mean sea level

BTOC - below top of casing

D - designates that the well screen is deep

GWEL - groundwater elevation

PSH - phase-separated hydrocarbon

S - designates that the well screen is shallow

## TABLE 3 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

										//							//			//										500	//		<del>//</del>
							atter of	THE STERE	ndene.	(EDC	(H)B)		) este				thate					/.%							inene dist	13.1 Mete	Jaropropi	are arrane	/ ,
Wellin	Tighe Date	Jen <sup>e</sup>		ķ / j	theritene are	S. Idal 19	A Lett Hotel	ithe thy the it. Stiff	nethylber die	intercentant di	diction of the little states	alene al	Shadhitale Self	Nhahhhale tone	nuth	Dentene mo	dichlorome inc	ight indi	je thane	and the state	disulfide hon	etrachlorie no	DENIENE MEN	thing the state of	John Jarob	the thank into	and the field in the field of t	ightere 12	id Horoett 1,3.6	dichloropie dite	kattar zeitir ratif	acilioranic conor	nethate dichlor
Unit	Şatı	ης/L	ηg/L	eghts μg/L	μg/L	ης/L	μg/L	μg/L	μg/L	μg/L	ηαΩ. μg/L	γ.π. μg/L	γ <sub>z</sub> ritt μg/L	μg/L	μg/L	γ <sup>rOI</sup> μg/L	γητΟΙ. μg/L	ης/L	γ <sup>jαν</sup> μg/L	cait <sup>t</sup> μg/L	cattl μg/L	jhlo μg/L	inl0 μg/L	inl() μg/L	ghito μg/L	γ <sup>CUV</sup> μg/L	μg/L	స్ట్ర్ μg/L	స్ట్ల్ μg/L	μg/L	įjΩt μg/L	β <sup>lth</sup> μg/L	μg/L
NMWQCC Standard EPA Regional Screening I	aval (1)	5 4.55	1,000 1,100	700 15	620 193	100 143	NE 55.7	NE 60.3	5 1.71	0.05 0.0747	1.17	combined 30	35.9	NE 14,100	NE 62.2	NE 1.34	NE 32.9	NE 7.55	NE 5,570	NE 811	5 4.55	NE 77.7	NE NE	100 2.21	NE 188	NE 237	NE 250	70 36.1	NE 4.71	NE 0.00334	NE 8.71	NE 8.34	600 304
	r Background Concentration (2)	NE NE	NE NE	NE NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE NE	NE NE	NE	NE	NE NE	NE NE	NE
Lee Acres Regional Backg Lee Acres RI/ROD Remed		NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE 70	NE NE	NE NE	NE NE	NE NE	NE NE
GBR Background Concent	trations (5)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
GRW-1/GBR-38	Jun-88 Mar-21	nd <1.0	nd <1.0	nd <1.0	nd <1.5	<1.0	<1.0	<1.0	nd <1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
GRW-2/GBR-42	Sep-89 Feb-21	0.26 <1.0	nd <1.0	1.6 <1.0	0.23 <1.5	<1.0	<1.0	<1.0	<b>0.36</b> <1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	<1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
	Jun-86 Jun-88	3,818 3,500	<b>3,338</b> 320	nd <b>800</b>	5,210 1,880				nd nd							nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd	nd nd			nd nd	nd nd		nd nd		nd nd
	Jan-00	16	nd	45	0.60	nd			nd	nd						nd	0.50	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GRW-3/GBR-29	Jan-05 Jan-10	nd <1.0	nd <1.0	nd <1.0	nd <1.5	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <1.0	10	10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd	<1.0	<1.0	<1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
	Aug-15 Nov-19	<1.0 <1.0	<1.0	<1.0 <1.0	<1.5 <1.5	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<4.0 <2.0	<4.0 <2.0	<10 <10	<1.0	<1.0 <1.0	<1.0 <1.0	<3.0 <3.0	<10 <10	<10 <10	<1.0	<1.0 <1.0	<2.0 <2.0	<1.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<1.0 <1.0	<1.0 <1.0	<1.0
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
GRW-4/GBR-43	Sep-89 Feb-21	<b>950</b> <5.0	nd <5.0	200 <5.0	200 <7.5	<5.0	<5.0	<5.0	nd <5.0	<5.0	<10	<20	<20	 <50	<5.0	nd <5.0	nd <5.0	nd <15	 <50	 <50	nd <5.0	nd <5.0	nd <10	nd <5.0	nd <15	<5.0	<5.0	<5.0	nd <5.0	<10	nd <5.0	<5.0	nd <5.0
GRW-5/ GBR-37	Jun-88 Feb-21	68	2.0	61	43			<1.0	4.0 <1.0		<2.0	<4.0	 <4.0	23		nd	nd	nd <3.0	 <10		nd	nd	nd <2.0	nd	nd <3.0	<1.0	<1.0	7.0	nd <1.0		nd		nd <1.0
	Jun-88	<1.0 <b>10</b>	<1.0 0.70	<1.0	<1.5 nd	<1.0	<1.0	<1.0	2.4	<1.0	<2.0	<4.0 	<4.0		<1.0	<1.0	<1.0	nd		<10	<1.0	<1.0	nd	<1.0	nd	<1.0	<1.0	<1.0	nd	<2.0	<1.0	<1.0	nd
	Jan-00 Jan-05	nd nd	nd	nd	nd nd	nd			0.50	nd						nd	nd	nd			nd	nd	nd nd	nd nd	nd nd			nd	nd		nd		nd
GRW-6/GBR-44	Jan-10	<1.0	nd <1.0	nd <1.0	<1.5	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <1.0	<10	<10	nd <1.0	nd <1.0	<2.0	<1.0	IId	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Aug-15 Nov-19	<1.0 <1.0	<1.0	<1.0	<1.5 <1.5	<1.0	<1.0	<1.0 <1.0	<1.0	<1.0	<2.0	<4.0 <2.0	<4.0 <2.0	<10 <10	<1.0	<1.0	<1.0	<3.0 <3.0	<10 <10	<10 <10	<1.0	<1.0	<2.0 <2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
GRW-9/GBR-6	Nov-86 Dec-88	70 740	nd nd	nd <b>25,000</b>	1,240 31,000				3.0							nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd	nd nd			nd 	nd nd		nd nd		nd nd
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
GRW-10/GBR-36	Jun-88 Feb-21	<b>15</b> <1.0	nd <1.0	nd <1.0	13 <1.5	<1.0	<1.0	<1.0	3.5 <1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	<b>80</b> <1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
GRW-11/GBR-27	Jun-86 Feb-21	<b>410</b> <1.0	120 <1.0	nd <1.0	506 <1.5	<1.0	<1.0	<1.0	nd <1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
	May-86	319	143	nd	224																												
GRW-12/GBR-28	Jun-88 Feb-21	<b>1,060</b> <1.0	nd <1.0	nd <1.0	270 <1.5	<1.0	<1.0	<1.0	nd <1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd 1.2
	Nov-86	nd	nd	nd	nd				2.5							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GRW-13/GBR-14	Dec-88 Jan-95	nd nd	nd nd	nd nd	nd nd				3.4 <b>5.4</b>	0.70						nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd	nd nd			nd nd	nd nd		nd nd		nd nd
	Jan-00 Feb-21	nd <1.0	nd <1.0	nd <1.0	nd <1.5	nd <1.0	<1.0	<1.0	3.0 <1.0	nd <1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	 <10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
GBR-5*	Jun-86	530	200	1,000	4,600				nd							nd	nd	nd	<b>\10</b>	110	nd	nd	nd	nd	nd	1.0	<b>\1.0</b>	nd	nd	~2.0	nd	V1.0	nd
GBK-5*	Feb-21 Nov-86	<5.0 <b>21</b>	<5.0	<5.0	<7.5 29	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<20	<20	<50	<5.0	<5.0	<5.0	<15	<50	<50	<5.0	<5.0	<10	<5.0	<15 nd	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0
GBR-7	Jan-21 (Not Sampled, PSH)																																
	Oct-86 Dec-88	2,670 570	<b>1,460</b> 470	1,890 1,800	6,980 9,000				nd nd							nd	nd	nd			nd	nd	nd	nd	nd				nd		nd		nd
GBR-8	Aug-15 Feb-21	<5.0 <1.0	<5.0 <1.0	<5.0 <1.0	<7.5 <1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	39	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Nov-86	49	nd	nd	2.0	<1.0	<1.0	<1.0	6.0	<1.0			<4.0 		<1.0	nd	nd	nd			nd	nd	nd	nd	nd	<1.0	<1.0	nd	nd		nd	<1.0	nd nd
GBR-9	Aug-88 Feb-21	nd <1.0	nd <1.0	nd <1.0	nd <1.5	<1.0	<1.0	<1.0	<b>5.1</b> <1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <2.0	nd <3.0	<1.0	<1.0	<1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
GBR-10	Nov-86 Jan-21 (Obstructed)	9,500	1,100	670	3,130				150							nd 	nd 	nd 			nd 	nd 	nd 	nd 	nd 			nd 	nd 		nd 		nd 
	Jun-86	4,600	3,100	960	1,780				140							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GBR-11	Aug-15 Feb-21	1.7 <b>11</b>	<1.0 <5.0	1.1 8.5	<1.5 15	 <5.0	6.8	<5.0	<5.0	<5.0	<10	<20	 <20	 <50	<5.0	<5.0	<5.0	 <15	 <50	 <50	<5.0	<5.0	<10	<5.0	 <15	<5.0	<5.0	 <5.0	<5.0	 <10	<5.0	<5.0	<5.0
	Jun-86	1,300	12	130	731				58							nd	nd	nd			nd	nd	nd	nd	nd				nd		nd		nd
GBR-13*	Dec-88 Feb-21	<b>390</b> <1.0	78 <1.0	330 <1.0	<b>1,530</b> <1.5	<1.0	<1.0	<1.0	<b>9.0</b> <1.0	<1.0	<2.0	<2.0	<2.0	 <10	<1.0	nd <1.0	nd <1.0	nd <3.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd <3.0	<1.0	<1.0	<1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
	1 00-21	\1.U	\1.U	<1.U	<1.J	<1.0	V1.U	\1.U	V1.U	\1.U	\Z.U	\\\\U	\\\\ \L.U	<b>\10</b>	\1.U	\1.U	\1.U	\J.U	<u></u>	<10	\1.U	\1.U	\\\\ \L.U	\1.U	\J.U	\1.U	\1.U	V1.U	\1.U	\\\\\\	V1.U	\1.U	

## TABLE 5 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

	a Date		Jorde Reference	Jordhentene	ititudungtatu	a Jarge Hare	Jorgen Line Line Line Line Line Line Line Li	John Market Barre	Jord Hot Bridge	north Opine	and the state of t	manutatiene	, me	ilheitele	oo yudugene	- La Restatione	se dhoide	e processe	IBERTEIRE /	Istocraterae		itheritere set	achdroethane .	atraction restrate	ochere Rick	A distribute there extends	Trainer 1, 2, 17 (E)	chlordrentene	chlorotentene	interestrate	Chiorogettane	ettere (ICE)	Studente trans	indreptopage locide
Walto	Sample	1,3-dic	1, Adic	dichlor	1,1,0	J.J.dif	1,2,41	1,3.dic	2.2.dict	1,1,dic	hexach	2 hexa	isopior	A.isoti	Amethy	nethyl	n.hutyl	n-propi	sectivity.	Stylene	let this		1775	ketrachile.	trans-1	trans.1	13/3/10	13/4/2	1,1,1,17	1,1,7,11	tichlor	tichlore	1234	inyl dir
Unit	·	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
NMWQCC Standard	171)	NE NE	75	NE	25	7	5	NE	NE NE	NE	NE	NE	NE 451	NE NE	NE 6,260	5	NE 1.000	NE C5.C	NE 2,010	100	NE	NE 5.74	10 0.757	5	100	NE	NE	70	200	5 0.415	5	NE 5.160	NE 0.00749	0.188
EPA Regional Screening Le	Background Concentration (2)	NE NE	4.82 NE	197 NE	27.5 NE	285 NE	8.25 NE	369 NE	NE NE	NE NE	1.39 NE	38.0 NE	451 NE	NE NE	0,260 NE	107 NE	1,000 NE	656 NE	2,010 NE	1,210 NE	691 NE	5.74 NE	0.757 NE	40.6 NE	67.8 NE	369 NE	7.04 NE	3.99 NE	8,010 NE	0.415 NE	2.83 NE	5,160 NE	0.00749 NE	0.188 NE
Lee Acres Regional Backgro		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres RI/ROD Remedia		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.0	100	NE	NE	NE	NE	NE	5.0	NE	NE	1.0
GBR Background Concentra	rations (5)  Jun-88	NE nd	NE nd	NE nd	NE nd	NE nd	NE nd	NE	NE 	NE	NE 	NE 	NE 	NE 	NE	NE nd	NE	NE	NE 	NE	NE	NE 	NE nd	NE nd	NE nd	NE nd	NE	NE 	NE nd	NE nd	NE nd	NE nd	NE	NE nd
GRW-1/GBR-38	Mar-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	1.8	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
GRW-2/GBR-42	Sep-89 Feb-21	nd <1.0	nd <1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<3.0	<1.0	<1.0	<1.0	1.6	<1.0	nd <2.0	nd <1.0	<1.0	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	1.4 <1.0	<2.0	nd <1.0
	Jun-86 Jun-88	nd nd	nd nd	nd nd	nd	nd nd	nd nd									nd nd							nd nd	nd	nd	nd			nd nd	nd	nd nd	nd		nd nd
	Jan-00	nd	nd		nd nd	nd	nd									3.8							nd	nd nd	nd nd	nd nd			nd	nd	nd	nd nd		nd
GRW-3/GBR-29	Jan-05	nd	nd		nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
G11.11 67 62.11 25	Jan-10 Aug-15	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<1.0	<1.0	<2.0 <2.0	<1.0 <1.0	<1.0 <1.0	<10 <10	<1.0 <1.0	<1.0 <1.0	<10 <10	<3.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<2.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<2.0 <2.0	<1.0
	Nov-19 Feb-21	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0	<2.0 <2.0	<1.0	<1.0 <1.0	<10 <10	<1.0 <1.0	<1.0	<10 <10	<3.0	<3.0 <3.0	<1.0	<1.0 <1.0	<1.0	2.7	<1.0	<2.0 <2.0	<1.0	<1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<2.0 <2.0	<1.0
ODW WORD IT	Sep-89	nd	nd		nd	nd	nd									nd							nd	nd		nd			71	nd	nd	1.4		nd
GRW-4/GBR-43	Feb-21	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<5.0	<5.0	<50	<15	<15	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0
GRW-5/ GBR-37	Jun-88 Feb-21	nd <1.0	nd <1.0	nd <1.0	2.5 <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	nd <2.0	2.3 <1.0	nd <1.0	nd <1.0	<1.0	<1.0	1.5 <1.0	nd <1.0	2.4 <1.0	nd <1.0	<2.0	nd <1.0
	Jun-88	nd	nd	nd	5.5	nd	nd									nd							nd	6.7	nd	nd			5.5	nd	3.6	nd		nd
	Jan-00	nd	nd		nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GRW-6/GBR-44	Jan-05 Jan-10	nd <1.0	nd <1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nd <2.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	<2.0	nd <1.0
	Aug-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	Nov-19 Feb-21	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<1.0	<2.0 <2.0	<1.0	<1.0 <1.0	<10 <10	<1.0 <1.0	<1.0 <1.0	<10 <10	<3.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<2.0	<1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<2.0	<1.0
	Nov-86	nd	nd	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GRW-9/GBR-6	Dec-88 Feb-21	nd <1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<3.0	<1.0	<1.0	<1.0	2.0	<1.0	nd <2.0	0.60 <1.0	nd <1.0	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	<2.0	nd <1.0
	Jun-88	nd	nd	nd	9.6	nd	nd									nd							nd	17	nd	nd			10	nd	10	nd		nd
GRW-10/GBR-36	Feb-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
GRW-11/GBR-27	Jun-86	nd	nd	nd	nd	nd	nd	.1.0	2.0	.1.0	.1.0	:10	.1.0	.1.0	.10	nd	2.0	.1.0	.1.0	.1.0	.1.0	.1.0	nd	nd	nd	nd	.1.0	.1.0	nd	nd	nd	nd	2.0	nd
	Feb-21 May-86	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
GRW-12/GBR-28	Jun-88	nd	nd	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
	Feb-21 Nov-86	<1.0 nd	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	1.7	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 nd	<2.0	<1.0
	Dec-88	nd	nd	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GRW-13/GBR-14	Jan-95 Jan-00	nd	nd		nd		nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
	Jan-00 Feb-21	nd <1.0	nd <1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<3.0	<1.0	<1.0	<1.0	2.0	<1.0	nd <2.0	nd <1.0	nd <1.0	<1.0	<1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	<2.0	nd <1.0
GBR-5*	Jun-86	nd	nd	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBK-5	Feb-21 Nov-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<5.0	<5.0	<50	<15	<15	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 nd	<10	<5.0
GBR-7	Jan-21 (Not Sampled, PSH)																																	
	Oct-86  Dec-88	nd	nd	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBR-8	Aug-15																																	
	Feb-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
GBR-9	Nov-86 Aug-88	nd nd	nd nd	nd nd	3.3	nd 0.60	nd nd									nd nd							nd nd	nd 0.90	nd 	nd nd			nd 1.3	nd nd	nd 2.5	nd nd		nd nd
ODK-7	Feb-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
GBR-10	Nov-86  Jan-21 (Obstructed)	nd 	nd 	nd 	nd 	nd 	nd 									nd 							nd 	nd 	nd 	nd 			nd 	nd 	nd 	nd 		nd 
	Jun-86	nd	nd	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBR-11	Aug-15																																	
	Feb-21	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<5.0	<5.0	<50	<15	<15	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0
GBR-13*	Jun-86 Dec-88	nd nd	nd nd	nd nd	25 5.2	nd nd	nd nd									nd 1.6							nd nd	nd nd	10 14	nd nd			23 1.8	nd nd	nd 4.8	nd 0.60		nd nd
ODK-13.	Feb-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
<u> </u>		T	1	T	ľ	1			I		I		I	Γ	1		I		T	T		<del> </del>					T	T	T					

Received by OCD: 10/3/2023 10:46:03 AM

## TABLE 3 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

Walth	Samte Date	Senten	ę <sub>kille</sub> nt	\$ SHIPE	Interior Schede		Learning officer Conf.	THE MATTER REPORT OF THE PARTY	The this the river is a factor of the last	Haraethake EdiC	generature (E) Bi	jere <sub>1, Ire</sub> it	Shahada kare	Junghindene Juccom	s brond	gentene hanna	ichtende trace	duti facatada	petitive 2. Interior	tothe cultural	isellide galten	e trachique dingrape	Hate Shirteeth	age differentia	siti dikece	netrare 2.charc	nothers Actions	diverse is start of	stellurge these cirk	dichloropopene	nor de libration de la companya de l	Jordan Branch Br	Stage 2. Like Mori
Unit		μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
NMWQCC Standard		5	1,000	700	620	100	NE	NE	5	0.05		combined 30	)	NE	NE	NE	NE	NE	NE	NE	5	NE	NE	100	NE	NE	NE	70	NE	NE	NE		600
EPA Regional Screening L	evel (1)	4.55	1,100	15	193	143	55.7	60.3	1.71	0.0747	1.17	11.4	35.9	14,100	62.2	1.34	32.9	7.55	5,570	811	4.55	77.7	NE	2.21	188	237	250	36.1	4.71	0.00334	8.71		304
	Background Concentration (2)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres Regional Backgr		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE To	NE	NE	NE	NE	NE
Lee Acres RI/ROD Remedi	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	70 NE	NE NE	NE NE	NE NE	NE NE	NE NE
GBR Background Concentr	Oct-86	334	52	209	772	NE			78					INE		nd	nd			INE	nd	NE	nd	nd	nd	NL	INE.	INL:	nd	NE	nd	NE	NL
	Dec-88	nd	nd	1.30	2.5				nd							nd	nd	nd			nd	nd	nd	nd	nd				nd		nd		nd
GBR-15	Jan-95	nd	nd	nd	1.2				9.8	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		0.70
	Jan-00	nd	nd	0.70	nd	nd			3.10	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		1.0
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Jun-86	nd	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
	Dec-88  Jan-95	nd	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	nd	nd				nd		nd		nd
	Dec-00	nd nd	nd nd	nd nd	nd nd	nd			nd nd	nd nd						nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd	nd nd			nd nd	nd nd		nd nd		nd
CDD 15	Dec-05	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd	nd	nd				nd		nd		nd
GBR-17	Jan-10	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<2.0	<1.0		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0		<1.0
	Nov-19 Jan-21	<1.0	<1.0 <1.0	<1.0	<1.5 <1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<2.0	<2.0 <4.0	<10	<1.0 <1.0	<1.0	<1.0	<3.0 <3.0	<10	<10 <10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0 <1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<1.0	<1.0	<1.0
	Oct-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0			<1.0
	Jun-86	50	11	nd	nd				nd							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GBR-18*	Jul-94	< 0.5	< 0.5	< 0.5	< 0.5	<2.5			< 0.5	< 0.2						< 0.2	< 0.5	<1.0			< 0.2	< 0.5	< 0.5	< 0.5	<1.0			< 0.2					< 0.5
	Mar-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Jun-86	4.0	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GBR-20*	Aug-15 Feb-21	<2.0 <b>14</b>	<2.0 <5.0	<2.0 120	<3.0 <7.5	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<20	<20	<50	<5.0	<5.0	<5.0	<15	<50	<50	<5.0	<5.0	<10	<5.0	<15	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0
GBR-21S*	Jan-21 (Dry)																																
GDR-215	May-88	nd	22	2.0	234																												
GBR-21D*	Aug-15	<2.0	<2.0	<2.0	<3.0																												
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	May-86	nd	nd	nd	nd																												
GBR-22*	Aug-15  Jan-21 (Not Sampled, PSH)	1.7	<2.0	16	6.3																												
~	Jan-21 (Dry or Obstructed)																																
GBR-23*																																	
GBR-24S*	Nov-86  Jan-21 (Obstructed)	580	200	300	495				60																								nd
	Nov-86	230	5.0	180	nd				69																								nd
	Jun-88	63	11	73	40				55							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
	Jan-95	0.60	nd	2.3	0.80				11	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
	Jan-00	6.6	nd	nd	nd	nd			19	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GBR-24D*	Jan-05 Jan-10	0.60 <1.0	nd	0.90	nd	nd	2.5	 <1.0	18	nd		9.0	7.4		 <1.0	nd	nd <1.0	nd		 <10	nd	nd	nd	nd	nd				nd		nd		0.80
	Aug-15	<1.0	<1.0 <1.0	<1.0	<1.5 <1.5	<1.0	3.5 <1.0	<1.0	<1.0	<1.0	<2.0 <2.0	8.0 <4.0	<4.0	<10	<1.0 <1.0	<1.0	<1.0	<1.0	<10	<10 <10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<1.0		<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	1.6	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0		<1.0
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	1.3	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	May-86	nd	nd	nd	nd																												
GBR-25*	Aug-15 Feb-21	<5.0 <5.0	<5.0 <5.0	15 <5.0	<7.5 <7.5	<5.0	6.7	<5.0	<5.0	<5.0	<10	<20	<20	<50	<5.0	<5.0	<5.0	<15	<50	<50	<5.0	<5.0	<10	<5.0	<15	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0
	Oct-86	5,280	119	54	1,140	<5.0		<5.0	66	<5.0	<10	<20	<20	<50	<5.0	<5.0	<5.0				<5.0		nd	<5.0	nd	<5.0	<5.0	<5.0	nd	\1U	nd	\J.U	\J.U
GBR-26	Aug-15	<2.0	<2.0	<2.0	<3.0																												
	Jan-21 (No Recovery)																																
	Dec-86	nd	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
	Jun-88	nd	nd	nd	20				0.98							nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
	Jan-95 Jan-00	nd	nd	nd	nd				nd 	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GBR-30	Jan-00 Jan-10	nd <1.0	nd <1.0	nd <1.0	nd <1.5	nd <1.0	<1.0	<1.0	<1.0	nd <1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <1.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd 	<1.0	<1.0	0.60 <1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
	Aug-15	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0			<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0			<1.0
	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Nov-86	nd	nd	nd	nd				nd							10	nd	nd			nd	nd	nd	nd	nd			23	nd		nd		nd
	Jun-88 Jan-95	nd nd	nd nd	nd nd	nd nd				nd nd	nd						nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd	nd nd			nd 0.70	nd nd		nd nd		nd nd
	Jan-00	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd	nd	nd			2.1	nd		nd		nd
GBR-31	Jan-10	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<2.0	<1.0		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0			<1.0
	Nov-19 Jan-21	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.5 <1.5	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<2.0 <4.0	<2.0 <4.0	<10	<1.0 <1.0	<1.0	<1.0 <1.0	<3.0 <3.0	<10 <10	<10 <10	<1.0	<1.0 <1.0	<2.0 <2.0	<1.0 <1.0	<3.0	<1.0 <1.0	<1.0	<1.0	<1.0	<2.0 <2.0			<1.0
	<u> </u>	1	l	1			+ · · · · ·						t		t							· · · · ·											

## TABLE 5 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

WellID	Sample Date	1,3diel	identification of the state of	Lithordreentente dichter	diffundante state	chloroetique 1,1,de	Jungaliere L.J.	SEE LEIGHTOPEOPERE	hidropropage 2.2 diet	Horotopague 1, Litel	Horotopene kerach	and the delivery of the said	Jagge Jagged	Dille Refer & Arison	indy difference Armedia	A. J. Johnson	Jere ditoride	Religion Inthesis	Jacobs Sec. Phil	Shortene Ashrene	ighthur?	Bentene 11.1.1.2.4	eetradhoroethare	trachteroethare letrachte	noeltene RCE	2. dichloreettene the	inter 12 Talki	Litherdrendendenke k	Litherder Reve	individualistic land	n digital digi	Redden (Lichlor)	Mundane Mark	Marchante Amin's Mariate
Unit		μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L		μg/L
NMWQCC Standard EPA Regional Screening	Laval (1)	NE NE	75 4.82	NE 197	25 27.5	285	5 8.25	NE 369	NE NE	NE NE	NE 1.39	NE 38.0	NE 451	NE NE	NE 6,260	5 107	NE 1,000	NE 656	NE 2,010	100 1,210	NE 691	NE 5.74	10 0.757	5 40.6	100 67.8	NE 369	NE 7.04	70 3.99	200 8,010	0.415	2.83	NE 5,160	NE 0.00749	0.188
	er Background Concentration (2)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres Regional Back		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres RI/ROD Reme		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.0	100	NE	NE	NE	NE	NE	5.0	NE	NE	1.0
GBR Background Concer		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Oct-86  Dec-88	nd	nd	nd nd	nd nd	nd nd	nd nd									nd nd							nd nd	nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd		nd nd
GBR-15	Jan-95 Jan-00	nd nd	nd nd		nd nd	nd	nd nd									nd nd							nd nd	nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd		nd nd
	Feb-21 Jun-86	<1.0 nd	<1.0 nd	<1.0 nd	<1.0	<1.0	<1.0 nd	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0 nd	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0 nd	<1.0	<1.0 nd	<1.0 nd	<1.0	<1.0	<1.0	<1.0 nd	<1.0 1.0	<1.0 nd	<2.0	<1.0
	Dec-88 Jan-95	nd nd	nd nd	nd 	nd nd	nd	nd nd									nd nd							nd nd	nd nd	nd nd	nd nd			3.1 nd	nd nd	nd nd	nd nd		nd nd
GBR-17	Dec-00 Dec-05	nd nd	nd nd		nd nd	nd nd	nd nd									nd nd							nd nd	nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd		nd nd
	Jan-10 Aug-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	Nov-19  Jan-21  Oct-21	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<2.0 <2.0 <2.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<10 <10 <10	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<10 <10 <10	<3.0 <3.0 <3.0	<3.0 <3.0 <3.0	<1.0 <3.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<2.0 <2.0 <2.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<2.0 <2.0 <2.0	<1.0 <1.0 <1.0
CDD 10%	Jun-86 Jul-94	nd	nd <0.5	nd	nd	nd	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBR-18*	Mar-21	<0.5	<1.0	<1.0	<0.2	<0.2	<0.2	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<2.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<2.0	<0.5
GBR-20*	Jun-86 Aug-15	nd 	nd 	nd 	nd 	nd 	nd 									nd 							nd 	nd 	nd 	nd 			nd 	nd 	nd 	nd 		nd 
GBR-21S*	Feb-21  Jan-21 (Dry)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	24	<5.0	<50	<15	<15	19	6.4	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0
	May-88																																	
GBR-21D*	Aug-15 Feb-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	1.3	<1.0	<10	<3.0	<3.0	<1.0	1.6	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
GBR-22*	May-86 Aug-15																																	
UBR-221	Jan-21 (Not Sampled, PSH)																																	
GBR-23*	Jan-21 (Dry or Obstructed)																																	
GBR-24S*	Nov-86 Jan-21 (Obstructed)																							nd 										
	Nov-86 Jun-88	1.3	 nd	nd	nd	nd	nd									nd							nd	nd 0.69	nd	 nd			 nd	nd	 nd	nd		nd
	Jan-95 Jan-00	nd	nd		nd	n d	nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBR-24D*	Jan-05	nd nd	nd nd		nd 0.50	nd nd	nd nd									nd nd							nd nd	nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd		nd
	Jan-10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	Aug-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	Nov-19 Feb-21	<1.0	<1.0 <1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<1.0	<1.0	<10 <10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 <1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<1.0
	May-86																																	
GBR-25*	Aug-15 Feb-21	<5.0	<5.0	 <5.0	 <5.0	<5.0	<5.0	 <5.0	<10	<5.0	<5.0	<50	6.8	<5.0	 <50	<15	 <15	8.5	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	 <5.0	<10	<5.0
GBR-26	Oct-86 Aug-15			nd 	nd 	nd 	nd 									nd 							nd 	nd 	nd 	nd 			nd 	nd 	nd 			nd 
	Jan-21 (No Recovery)																																	
	Dec-86 Jun-88	nd nd	nd nd	nd nd	nd nd	nd nd	nd nd									nd nd							nd nd	nd 0.61	nd 1.0	nd nd			nd nd	nd nd	nd 0.52	nd nd		nd nd
	Jan-95	nd	nd		nd		nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBR-30	Jan-00 Jan-10	nd <1.0	nd∙ <1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nd <2.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	<2.0	nd <1.0
	Aug-15 Nov-19	<1.0	<1.0	<1.0	<1.0 <1.0	<1.0	<1.0	<1.0	<2.0 <2.0 <2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0 <1.0 <1.0	<2.0 <2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 <1.0 <1.0	<1.0	<2.0	<1.0
	Feb-21 Nov-86	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0 <b>16</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 <b>12</b>	<1.0		<1.0
	Jun-88	nd	nd	nd	4.6	nd	nd									nd							nd	5.0	53	nd			1.8	nd	7.6	nd		nd
	Jan-95	nd	nd		nd		nd									nd							nd	nd	nd	nd			nd	nd	nd	nd		nd
GBR-31	Jan-00 Jan-10	nd <1.0	nd <1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nd <2.0	<1.0	nd <1.0	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	0.60 <1.0	nd <1.0	<2.0	nd <1.0
	Aug-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<u> </u>	<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>-</b>	<1.0
	Jan-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0

#### TABLE 3 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

#### FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

WellD	Sample Date	bente	je jedher	is single	sextene spen	gest, total rice trick	Just Hatty Letter Co.	ATTAEL 1,3,5,41	jpentylbentene	horostrate teld.	gardentare et dis	d denk ruel	nytrophitalene	splinghildere acetor	\$ Jacotto	gentlerie Intentio	dichlorone thave	grit kranas	Restrate Justin	ing Capton	disellide calon	etrachicide chirche	nuene dinanci	hare differen	Later Shaper	nething Zehlard	ighters Achters	Johnene eight, 2	dichloraethere dis	, dichloropopopoe	gang Zaharapapa	je gethorongetrone gibronor	nretune 1,2,dicht
Unit		μg/L -	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
NMWQCC Standard	1.4	5	1,000	700	620	100	NE	NE CO.2	5	0.05		combined 30	1	NE 14.100	NE	NE	NE	NE	NE 5.570	NE 011	5	NE	NE	100	NE	NE 227	NE	70	NE	NE 0.00224	NE 0.71	NE 0.24	600
EPA Regional Screening Le	Background Concentration (2)	4.55 NE	1,100 NE	15 NE	193 NE	143 NE	55.7 NE	60.3 NE	1.71 NE	0.0747 NE	1.17 NE	11.4 NE	35.9 NE	14,100 NE	62.2 NE	1.34 NE	32.9 NE	7.55 NE	5,570 NE	811 NE	4.55 NE	77.7 NE	NE NE	2.21 NE	188 NE	237 NE	250 NE	36.1 NE	4.71 NE	0.00334 NE	8.71 NE	8.34 NE	304 NE
Lee Acres Regional Backgr		NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE	NE NE	NE NE	NE	NE	NE	NE NE	NE	NE	NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE	NE NE
Lee Acres RI/ROD Remedia		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	70	NE	NE	NE	NE	NE
GBR Background Concentr	rations (5)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Aug-88	nd	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	3.9	nd			97	nd		nd		nd
	Jan-95	0.80	nd	nd	nd				nd	nd						nd	nd	nd			nd	nd	nd	1.4	nd			120	nd		nd		nd
	Dec-00 Dec-05	nd nd	nd nd	nd nd	nd nd	nd nd			nd nd	nd nd						nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	1.6 nd	nd nd			10	0.30 nd		nd nd		nd nd
GBR-32*	Jan 2010	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<2.0	<1.0		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Jan-21 Oct-21	<1.0 <1.0	<1.0	<1.0 <1.0	<1.5 <1.5	<1.0	<1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<4.0 <4.0	<4.0 <4.0	<10 <10	<1.0	<1.0	<1.0	<3.0 <3.0	<10 <10	<10 <10	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<1.0 <1.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<2.0 <2.0	<1.0 <1.0	<1.0	<1.0
	Sep-89	nd	nd	7.9	17	<1.0	<1.0	\1.U	0.97	\1.U	<2.0	<4.0	\ <del>+.</del> U	<10	<1.0	nd	nd	v3.0	<u></u>	~10	<1.0	nd	v2.0	nd	nd	~1.0	\1.U	~1.0	nd	~2.0	nd	\1.U	nd
GBR-33	Jan-21 (Dry or Obstructed)																																
	Aug-15	5.2	<5.0	51	49																												
GBR-34	Feb-21	<1.0	<1.0	1.7	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	27	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
GBR-35	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
GBR-39	Feb-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	1.2	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
GBR-40	Jun-88 Jan-21 (Dry)	nd 	nd 	1.8	nd 				nd 							nd 	nd 	nd 			nd 	nd 	nd 	nd 	nd 			nd 	nd 		nd 		nd 
GBR-41	Jun-88 Jan-21 (Dry)	25	16	474	224				nd							nd	nd	nd			nd	nd	nd 	nd 	nd			nd 	nd		nd		nd 
	Nov-88	nd	nd	nd	nd				nd									nd				180	nd	nd				nd		+	nd		nd
	Jan-95	nd	nd	nd	nd				nd	nd						nd	nd	nd			nd	nd	nd	1.4	nd			54	nd		nd		nd
	Dec-00	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd	3.2	nd			15	nd		nd		nd
	Dec-05	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd	nd	nd				nd		nd		nd
GBR-48	Jan-10	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<2.0	<1.0		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Aug-15 Nov-19	<2.0 <1.0	<2.0	<2.0	<3.0 <1.5	<2.0 <1.0	<2.0 <1.0	<2.0	<2.0	<2.0 <1.0	<4.0 <2.0	<8.0 <2.0	<8.0 <2.0	<20 <10	<2.0 <1.0	<2.0	<2.0	<6.0 <3.0	<20 <10	<20 <10	<2.0 <1.0	<2.0 <1.0	<4.0 <2.0	<2.0	<6.0 <3.0	<2.0 <1.0	<2.0	<2.0	<2.0 <1.0	<4.0 <2.0	<2.0 <1.0	<2.0	<2.0 <1.0
	Jan-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Oct-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Nov-88	nd	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	6.9	nd			nd	nd		nd		nd
	Jan-95	nd	nd	nd	nd				nd	nd						nd	nd	nd			nd	nd	nd	1.2	nd			79	nd		nd		nd
	Dec-00	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd	1.2	nd			13	0.40		nd		nd
GBR-49	Dec-05  Jan-10	nd <1.0	nd <1.0	nd <1.0	nd <1.5	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	<2.0	<4.0	<4.0	<10	<1.0	nd <1.0	nd <1.0	nd <1.0	<10	<10	nd <1.0	nd <1.0	nd <2.0	nd <1.0	nd 	<1.0	<1.0	<1.0	nd <1.0	<2.0	nd <1.0	<1.0	nd <1.0
	Aug-15	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Jan-21 (Obstructed)																																
	Nov-88	0.80	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	0.20	nd			nd	nd		nd		nd
	Jan-95 Dec-00	nd nd	nd nd	nd nd	nd nd	nd			nd nd	nd nd						nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd	nd nd			0.20	nd nd		nd nd		nd nd
	Dec-05	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd nd	nd	nd				nd		nd		nd
GBR-50	Jan-10	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	11	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<2.0	<1.0		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Jan-21 Oct-21	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.5 <1.5	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<2.0 <2.0	<4.0 <2.0	<4.0 <2.0	10 <10	<1.0 <1.0	<1.0	<1.0	<3.0 <3.0	<10 <10	<10 <10	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<1.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<2.0 <2.0	<1.0 <1.0	<1.0 <1.0	<1.0
	Nov-88	0.80	nd	nd	nd				nd							nd	nd	nd			nd	nd	nd	0.70	nd				nd		nd		nd
	Jan-95	nd	nd	nd	nd				nd	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
	Jan-00	nd	nd	nd	nd	nd			nd	nd						nd	nd	nd			nd	nd	nd	nd	nd			nd	nd		nd		nd
GBR-52/GRW-8	Jan-05	nd	nd	nd	nd	nd				nd						nd	nd	nd	4.0		nd	nd	nd	nd	nd			4 0	nd		nd		nd
	Jan-10 Aug-15	<1.0	<1.0	<1.0 <1.0	<1.5 <1.5	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0	<1.0 <1.0	<2.0 <2.0	<4.0 <4.0	<4.0 <4.0	<10 <10	<1.0	<1.0	<1.0 <1.0	<1.0	<10	<10	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0 <2.0	<1.0 <1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	Jan-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
SHS-9	Aug-15	<5.0	<5.0	21	<7.5																												
	Jan-21	<1.0	<1.0	5.1	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
SHS-13	Jan-21	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<10	<1.0	<1.0	<1.0	<3.0	<10	<10	<1.0	<1.0	<2.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0

- (1) EPA Regional Screening Level for tap water using hazard quotient of 1.0 (non-carcinogens) and cancer risk of 1 in 100,000 exposed persons (carcinogens)
- (2) "Background" Concentration Proposed in Lee Acres DRAFT Remedial Investigation Report Prepared for the US Bureau of Land Management (dated February 1992) (3) - Regional Background Concentrations Established in Document Titled Hydrogeology and Water Resources of San Juan Basin, New Mexico, Stone et al., dated 1983
- (4) Contaminant Concentrations Established as the "Remedial Goals" or "Background" Concentrations for the Lee Acres Superfund Site. Based on the Lee Acres DRAFT Remedial Investigation Report and Record of Decision (dated May 2004).
- (5) Background Threshold Value Established for the Former Giant Bloomfield Refinery
- \* asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer
- --- not tested
- μg/L micrograms per liter
- mg/L milligrams per liter NE not established
- NMWQCC New Mexico Water Quality Control Commission
- PSH phase separated hydrocarbons USEPA - United States Environmental Protection Agency
- BOLD bold and highlighted cells indicates concentration exceeds the NMWQCC standard, where NMWQCC are not established, concentrations compared to EPA regional screening levels

WSP

#### TABLE 5 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

#### FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

State   Stat		,,,,	/	o produce /	a tutente /	AL DIE RETURNE	inge	itease d.i.Jd	(E) Judgale	, grate	, toppage		, indicate		Jeře /	Jene /	antanone .	Jaide						ituresture	idingestrate	nere acti	illergettere	Hales 1, 2, 17 CE	ABERTAERE	neevene	Seltente /	Restante	R. (India)	or the state	Arthure /
Part		Sample Dav	NE	75	NE	25	7	5	NE	NE	NE	NE	NE	NE	NE	NE	5	NE	NE	NE	100	NE	NE	10	5	100	NE	NE	70	200	5	5	NE	NE NE	μg/L  2  0.188
**************************************	Lee Acres Alluvial Aquifer E Lee Acres Regional Backgro	Background Concentration (2) ound Concentration (3)	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE	NE NE 1.0									
**************************************	GBR Background Concentra	ations (5)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE									
Mathematical Region	-				nd		nd	nd																nd	24	nd						1			nd
	CDD 22*	Dec-00 Dec-05	nd nd	nd nd		1.1 nd	nd	nd nd									nd nd							nd nd	nd	nd nd	nd nd			nd nd	nd nd	2.1 nd	nd nd		nd nd nd
Mathematical Column	GBR-32**	Aug-15 Nov-19	<1.0 <1.0	<2.0 <2.0	<1.0 <1.0	<1.0 <1.0	<10 <10	<1.0 <1.0	<1.0 <1.0	<10 <10	<3.0 <3.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	1.2	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <	<1.0 <1.0 <1.0 <1.0						
Part	-																									+								+	<1.0
Mart	GBR-33	Jan-21 (Dry or Obstructed)																						nd 											nd 
Second   S	GBR-34						<1.0		<1.0	<2.0										<1.0	<1.0		<1.0	<2.0		<1.0	<1.0							<2.0	<1.0
Miles   Mile	GRR-35						4.0	4.0	<1.0	<2.0										<1.0							<1.0					<1.0	<1.0	<2.0	<1.0
Signal   S									<1.0	<2.0										<1.0							<1.0					<1.0	<1.0	<2.0	<1.0
Civil   Civi							nd 																	nd 		nd 	110								nd 
No.   1	GBR-41	Jan-21 (Dry)																						nd 		nd 									nd 
Mile	-	Jan-95 Dec-00	nd nd	nd nd		0.30 0.50	nd	nd nd									nd nd							nd nd	<b>601</b> 3.3		nd nd			nd nd	nd nd	3.6 2.6	nd 0.40		nd nd nd
March   Marc	GBR-48	Jan-10 Aug-15	<1.0 <2.0	<1.0 <2.0	<1.0 <2.0	<1.0 <2.0	<1.0	<1.0 <2.0	<1.0	<2.0 <4.0	<1.0 <2.0	<1.0 <2.0	<10 <20	<1.0 <2.0	<1.0 <2.0	<10 <20	<3.0 <6.0	<1.0 <6.0	<1.0 <2.0	<1.0	<1.0	<1.0	<1.0	<2.0	1.3 <2.0	<2.0	<1.0	<1.0	<1.0	<1.0 <2.0	<1.0 <2.0	<1.0 <2.0	<1.0	<2.0 <	<1.0 <2.0 <1.0
18		Jan-21 Oct-21	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0	<2.0 <2.0	<1.0 <1.0	<1.0 <1.0	<10 <10	<1.0 <1.0	<1.0 <1.0	<10 <10	<3.0 <3.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0	<1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 < <2.0 <	<1.0 <1.0
Min	-	Jan-95 Dec-00	nd nd	nd nd		0.40	nd	nd nd									nd nd								nd 4.0	nd nd	nd			nd nd	nd nd	4.2 2.3	nd nd		nd nd nd
Miss	GBR-49	Jan-10 Aug-15	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0	<2.0 <2.0	<1.0	<1.0 <1.0	<10 <10	<1.0	<1.0 <1.0	<10 <10	<3.0 <3.0	<1.0 <3.0	<1.0 <1.0	<1.0	<1.0	<1.0	<1.0	<2.0	1.6 <1.0	<1.0	<1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <	<1.0 <1.0 <1.0
Sign		Nov-88	nd	nd	nd	0.70		nd									0.30							nd	0.70		nd			0.60	nd	0.20	nd		nd
May	GBR-50	Dec-00 Dec-05	nd nd	nd nd		nd nd	nd	nd nd	  <1.0								nd nd							nd nd	nd nd	nd nd nd <1.0	nd nd			nd nd	nd nd	nd nd	nd nd		nd nd nd <1.0
No-88   Nd   Nd   Nd   Nd   Nd   Nd   Nd	-	Aug-15 Nov-19 Jan-21	<1.0 <1.0 <1.0	<2.0 <2.0 <2.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<10 <10 <10	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<10 <10 <10	<3.0 <3.0 <3.0	<3.0 <3.0 <3.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<2.0 <2.0 <2.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 < 3.0 <	<1.0 <1.0 <1.0						
BBR-52GRW-8    Jan-05   Ind		Nov-88 Jan-95	nd nd	nd nd	nd 	nd nd	nd 	nd nd									nd nd							nd nd	nd nd	nd nd	nd nd			nd nd	nd nd	nd nd	nd nd		nd nd
Nov-19	GBR-52/GRW-8	Jan-05 Jan-10	nd <1.0	nd <1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0	<1.0	<10	nd <3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nd <2.0	nd <1.0	nd <1.0	nd <1.0	<1.0	<1.0	nd <1.0	nd <1.0	nd <1.0	nd <1.0	<2.0	nd nd <1.0 <1.0
SHS-9 Jan-21 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0		Nov-19 Jan-21	<1.0 <1.0	<2.0 <2.0	<1.0 <1.0	<1.0 <1.0	<10 <10	<1.0 <1.0	<1.0 <1.0	<10 <10	<3.0 <3.0	<3.0 <3.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 < <2.0 <	<1.0						
	SHS-9		1																																<1.0
SHS-13 Jan-21 <1.0   41	SHS-13	Jan-21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0

- (1) EPA Regional Screening Level for tap water using hazard quotient of 1.0 (non-carcinogens) and cancer risk of 1 in 100,000 exposed persons (carcinogens) (2) "Background" Concentration Proposed in Lee Acres DRAFT Remedial Investigation Report Prepared for the US Bureau of Land Management (dated February 1992)
- (3) Regional Background Concentrations Established in Document Titled Hydrogeology and Water Resources of San Juan Basin, New Mexico, Stone et al., dated 1983
- (4) Contaminant Concentrations Established as the "Remedial Goals" or "Background" Concentrations for the Lee Acres Superfund Site. Based on the Lee Acres DRAFT Remedial Investigation Report and Record of Decision (dated May 2004).
- (5) Background Threshold Value Established for the Former Giant Bloomfield Refinery
- \* asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer
- --- not tested
- μg/L micrograms per liter mg/L milligrams per liter NE not established
- NMWQCC New Mexico Water Quality Control Commission
- PSH phase separated hydrocarbons
- USEPA United States Environmental Protection Agency
- BOLD bold and highlighted cells indicates concentration exceeds the NMWQCC standard, where NMWQCC are not established, concentrations compared to EPA regional screening levels

Released to Imaging: 10/3/2023 10:47:26 AM

Page 18 of 70

# TABLE 4 GROUNDWATER ANALYTICAL RESULTS - METALS

																					rall /							
Kellin	ningle Date	1	Metals	iun		jiuri ligiur	n min	III (tat		ngar		\$ \\$	anium		lituri	Street IN	ziic /	iun	adjust light	n mint	, tal		ngares	\$ /	aitim	<i></i>	litur	> /
THE THE	Satr	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	mg/L	mg/L	mg/L	mg/L	ghre mg/L	-jr <sup>ol</sup> r mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/	Arge / mg/	/L mg/I	mg/L	mg/L	·jroli· mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
NMWQCC Standard			0.1	2	0.004	0.005	0.05	1	0.015	0.2	0.002	0.2	0.05	0.05	0.002	0.1		2 0.004		0.05	1	0.015	0.2	0.2	0.05	0.05	0.002	1
EPA Regional Screening Le	evel (1)	0.	.000517	3.77	0.0246	0.0092	22.5	14	0.015	0.434	0.000626	0.392	0.0998	0.0941	0.0002	0.000				22.5	14	0.015	0.434	0.392	0.0998	0.0941	0.0002	1
Lee Acres Alluvial Aquifer	Background Concentration (2)		nd	nd	nd	nd	0.0144 - 0.113			0.0161 - 0.423		nd	0.008 - 0.0095	1		nd			nd	0.0144 - 0.113	nd - 1.48		0.0161 - 0.423	nd	0.008 - 0.0095			1
Lee Acres Regional Backgr			NE 0.05	0 - 3.4	NE NE	0.001 - 0.018	0.001 - 0.060 0.113	0.010 - 16	0 - 0.055	0 - 2.6 0.346	NE 0.002	NE 0.20	0.002 - 0.04	NE 0.05	NE NE	0.0				0.001 - 0.060	0.010 - 16	0 - 0.055	0 - 2.6 0.346	NE 0.20	0.002 - 0.04 0.010	0.05	NE NE	1
Lee Acres RI/ROD Remedi GBR Background Concentr			NE	NE	NE NE	NE	1.29	97.8	NE	5.28	NE	NE	NE	NE	NE NE	NI				1.29	97.8	NE	5.28	NE	NE	NE	NE NE	1
GRW-1/GBR-38	Jun-88																											1
GRW-1/GBR-38	Mar-21	(	0.0020	0.014	<0.0010	< 0.00050	< 0.0060	0.86	0.0011	2.9	<0.00020	0.012	0.0024	< 0.00050	<0.00025													1
GRW-2/GBR-42	Sep-89 Feb-21		0.023	0.066	<0.0010	<0.00050	0.018	22	<0.00050	3.3	<0.00020	0.26	<0.0010	<0.00050	<0.00025													1
	Jun-86				<0.0010 	<0.00030	0.016		~0.00030 				<0.0010	~0.00030 	<0.00023													1
	Jun-88																											1
	Jan-00																											1
GRW-3/GBR-29	Jan-05 Jan-10											6.8																1
	Aug-15							0.89		0.69																		1
	Nov-19		0.0012					2.3		1.4							-	-										1
	Feb-21 Sep-89		0.0013	0.21	<0.0010	<0.00050	<0.0060	3.8	<0.00050	1.8	<0.00020	0.0074	<0.0010	<0.00050	<0.00025													1
GRW-4/GBR-43	Feb-21	(	0.0028	0.024	<0.0010	-	0.013	3.3	0.00098	4.4	<0.00020	0.016	<0.0010	<0.00050	<0.00025													1
CDW 5/ CDD 45	Jun-88																											1
GRW-5/ GBR-37	Feb-21	(	0.0028	0.048	< 0.0010	< 0.00050	< 0.0060	1.8	0.0015	5.7	<0.00020	0.015	< 0.0010	< 0.00050	<0.00025													1
	Jun-88 Jan-00																											1
	Jan-05											1.80																1
GRW-6/GBR-44	Jan-10																											1
	Aug-15 Nov-19							15 8.0		18 5.9							-											1
	Feb-21	<	<0.0010	0.025	<0.0010	-	<0.0060	1.6	<0.00050	2.1	<0.00020	0.0058	< 0.0010	<0.00050	<0.00025													1
	Nov-86																											1
GRW-9/GBR-6	Dec-88																											1
	Feb-21 Jun-88	<	<0.0010	0.034	<0.0010		<0.0060	1.9	<0.00050	0.53	<0.00020	0.0027	<0.0010	< 0.00050	<0.00025			+										1
GRW-10/GBR-36	Feb-21	<	<0.0010	0.017	<0.0010	<0.00050	<0.0060	1.8	0.0015	1.0	<0.00020	0.00	<0.0010	<0.00050	<0.00025													1
GRW-11/GBR-27	Jun-86																											1
GRW-11/GBR-2/	Feb-21	<	<0.0010	0.017	< 0.0010	< 0.00050	< 0.0060	5.9	0.0024	2.4	<0.00020	0.0012	0.0020	< 0.00050	<0.00025													1
GRW-12/GBR-28	May-86 Jun-88																-											1
GRW-12/GBR-28	Feb-21		0.014	0.087	< 0.0010		<0.0060	14	0.0012	0.47	<0.00020	0.0070	< 0.0010	<0.00050	<0.00025		-											1
	Nov-86																											1
an	Dec-88																											1
GRW-13/GBR-14	Jan-95 Jan-00																											1
	Feb-21	<	< 0.0010	0.0082	< 0.0010	< 0.00050	< 0.0060	0.32	0.00059	1.1	<0.00020	0.015	0.017	< 0.00050	<0.00025													1
GBR-5*	Jun-86																											1
GDA-U	Feb-21		0.0043	0.012	<0.0010	+	0.054	4.5	0.0063	4.4	<0.00020	0.0049	0.0026	< 0.00050	<0.00025			+										
GBR-7	Nov-86  Jan-21 (Not Sampled, PSH)																											
	Oct-86																											
GBR-8	Dec-88																											
GDR-0	Aug-15 Feb-21		0.062	0.35	<0.0010	<0.00050	<0.0060	52	0.038	3.6	<0.00020	0.018	0.0027	<0.00050	<0.00025													
	Nov-86			0.55	<0.0010	<0.00030	<0.0060		0.038	3.0	<0.00020	0.018	0.0027	<0.00050	<0.00025													1
GBR-9	Aug-88																											
	Feb-21	(	0.0026	0.018	< 0.0010	< 0.00050	< 0.0060	1.6	0.00063	0.43	< 0.00020	0.016	< 0.0010	< 0.00050	<0.00025													1

Page 19 of 70

# TABLE 4 GROUNDWATER ANALYTICAL RESULTS - METALS

														/												
										/ /														/		
																	/ /									
													/ /						/ /						/ /	
							ر اله	/ /			/ /	/ /				/ /	/ /			,a) /	/					
	1. Date	Stale		,			in that			,ş. /	. /				2 Her			» / »		Char			ş /			
Walth	annie	al Me	iic /	IIII	Tylini. dri	in the state of th		1	angar	il sicul	. Ne	, Jenium	, wei	allium	is solid	rith	· / with	drinir	or Orbitis		J ad	angane	· Net	Jerium.	, wet	alliur
TT ::		ma/I	700 ma/I		50° Cde	- dir	·jt <sup>O</sup>	wa/I	ma/I	ma/I	ma/I	\$ <sup>r</sup>	\$II	mo/I	Or May	mo/I			oli.	·jt <sup>O</sup>	ma/I	ma/I	mg/L		्रेंग कार्य	ma/I
Unit		mg/L 0.1	mg/L	0.00		mg/L 0.05	mg/L	mg/L 0.015	mg/L 0.2	mg/L 0.002	mg/L 0.2	mg/L 0.05	mg/L 0.05	mg/L 0.002	mg/L 0.1	mg/L	mg/L 0.004	mg/L 0.005	mg/L 0.05	mg/L	mg/L 0.015	mg/L 0.2	0.2	mg/L 0.05	mg/L 0.05	mg/L 0.002
NMWQCC Standard	1(1)	0.000517	7 3.77	0.024		22.5	1.4	0.015	0.2	0.002	0.392	0.03	0.03	0.002	0.000517	3.77	0.004	0.003	22.5	14	0.015	0.2	0.392	0.0998	0.03	0.002
EPA Regional Screening Le		nd	nd	nd		0.0144 - 0.113	3 nd - 1.48	_	0.434	_	nd	0.0998		0.0002 NE	nd	nd	nd		0.0144 - 0.113	nd - 1.48	nd	0.434	+	0.0998		
	Background Concentration (2)	NE	0 - 3.4					0 - 0.055	0 - 2.6	NE	NE	0.003 - 0.0033	NE	NE NE	NE	0 - 3.4	NE NE	0.001 - 0.018	0.001 - 0.060	0.010 - 16		0.0101 - 0.423	NE NE	0.003 - 0.0033	NE	NE NE
Lee Acres Regional Backgr Lee Acres RI/ROD Remedi		0.05	1.0	NE		0.113	16	0.050	0.346	0.002	0.20	0.002 - 0.04	0.05	NE NE	0.05	1.0	NE NE	0.010	0.113	16	0.050	0.346	0.20	0.002 - 0.04	0.05	NE NE
GBR Background Concentr	` '	NE	NE	NE		1.29	97.8	NE	5.28	NE	NE	NE	NE	NE NE	NE	NE	NE	NE	1.29	97.8	NE	5.28	NE	NE	NE	NE
OBK Background Concent	Nov-86																									
GBR-10	Jan-21 (Obstructed)																									
	Jun-86										+			+ +												
GBR-11	Aug-15																									
GDK-11	Feb-21	0.0015	0.15	<0.00			44	0.0018	0.93	<0.00020	0.0061	<0.0010	<0.00050	<0.00025												
	Jun-86																									
GBR-13*	Dec-88																									
ODK-13	Feb-21	0.0018	0.042				3.1	0.0048	4.7	<0.00020	0.011	< 0.0050	< 0.00050	<0.00025												
	Oct-86																									
	Dec-88																									
GBR-15	Jan-95																									
	Jan-00																									
	Feb-21	< 0.0010	0.014	< 0.00	10 <0.00050	< 0.0060	0.59	0.00067	0.48	< 0.00020	0.0030	< 0.0010	< 0.00050	< 0.00025												
	Jun-86	0.01	nd	nd	nd	nd	nd	nd	nd	nd	0.10		nd													
	Dec-88																									
	Jan-95																									
	Dec-00																									
	Dec-05										4.4															
GBR-17	Jan-10																									
	Aug-15						3.60		<0.0020																	
	Nov-19 Jan-21	<0.0010	0.014	<0.00		0.011	0.79	0.00064	3.80 0.014	<0.00020	0.0056	0.0030	<0.00050	<0.00025												
	Apr-21	< 0.0010					<0.050	<0.00050	+	<0.00020	0.0030	0.0030	<0.00050	<0.00025	<0.0010		<0.0010	<0.00050	0.002	<0.020	<0.00050	<0.0020	<0.0010	0.0032	<0.0050	<0.00050
	Oct-21						0.21								< 0.020	0.0089 J	< 0.0030	< 0.0020	< 0.0060	< 0.020	< 0.020	0.005 J	< 0.010	< 0.050	0.0098	< 0.050
	Jun-86		nd	nd	nd	nd	nd	nd	nd		nd		nd													
GBR-18*	Jul-94																									
	Mar-21	< 0.0050	0.040	< 0.00	50 <0.0025	0.013	68	0.031	0.25	< 0.00020	0.020	< 0.0050	< 0.0025	< 0.0012												
	Jun-86																									
GBR-20*	Aug-15																									
	Feb-21	0.0026	0.23	<0.00	10 <0.00050	< 0.0060	22	0.0034	0.53	< 0.00020	0.0073	< 0.0010	< 0.00050	< 0.00025												
GBR-21S*	Jan-21 (Dry)																									
	May-88																									
GBR-21D*	Aug-15																									
	Feb-21	< 0.0010	0.27	< 0.00	10 <0.00050	< 0.0060	0.97	0.0022	0.33	< 0.00020	0.014	< 0.0010	< 0.00050	< 0.00025												
	May-86																									
GBR-22*	Aug-15																									
	Jan-21 (Not Sampled, PSH)																									
GBR-23*	Jan-21 (Dry or Obstructed)																									
CDD A4C*	Nov-86	nd	0.10	nd	nd	nd	nd	nd	43		0.60		nd													
GBR-24S*	Jan-21 (Obstructed)																									
	Nov-86	nd	0.10	nd	nd	nd	nd	nd	43		0.60		nd													
	Jun-88																									
	Jan-95																									
	Jan-00																									
GBR-24D*	Jan-05										9.2															
	Jan-10								1.0																	
	Aug-15						11		1.8																	
	Nov-19 Feb-21	<0.0010	0.016	<0.00		<0.0060	8.3 0.46	0.0010	0.9	<0.00020	0.0037	<0.0010	<0.00050	<0.00025												
1	100-21	\U.UU1U	0.010	<0.00	<0.00030	<0.0000	0.40	0.0010	1 0.9	\U.UUU2U	0.003/	<0.0010	<0.00030	\U.UUU23												

Page 20 of 70

# TABLE 4 GROUNDWATER ANALYTICAL RESULTS - METALS

		/																											<del></del>
	/ /						/ /	/			/ /			/ /	/						/ /	/			/ ,	/ /	/ /	· /	
					/ /	/ /													/ /					/ /					,
														/ /							/ /						/ /		
	, se			/ /	/ /	/ /		"Otall	/ /	/ /		/	/ /				Jain's/	/	/ /			otal)	/ /	/ /		/ /			
(all D	style Dis		Metals	inti		iniur iniur	n miur			nggure	şe / schi		, anium		Titul	in /	hed herou	inti	n aliti	in Initer	, miur			nguté	ş° /	, anium		ilitin	
Unit	Şar	\ \(\zeta_0^{\delta_0}\)	ng/L	mg/L	mg/L	ciadr mg/L	mg/L	·yotr mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	şil <sup>ye</sup> mg/L	that mg/L	\ \disp\	ng/L	mg/L	mg/L	mg/L	mg/L	·ycotr mg/L	mg/L	mg/L	ritch mg/L	mg/L	şil <sup>xe</sup> mg/L	mg/L	
NMWQCC Standard			0.1	2	0.004	0.005	0.05	1	0.015	0.2	0.002	0.2	0.05	0.05	0.002		0.1	2	0.004	0.005	0.05	1	0.015	0.2	0.2	0.05	0.05	0.002	
EPA Regional Screening Le		C	0.000517	3.77	0.0246	0.0092	22.5	14	0.015	0.434	0.000626	0.392	0.0998	0.0941	0.0002	(	0.000517	3.77	0.0246	0.0092	22.5	14	0.015	0.434	0.392	0.0998	0.0941	0.0002 9 NE	
Lee Acres Alluvial Aquifer Lee Acres Regional Backgr	Background Concentration (2)		nd NE	nd 0 - 3.4	nd NE	0.001 - 0.018	0.0144 - 0.113 0.001 - 0.060	nd - 1.48 0.010 - 16	nd 0 - 0.055	0.0161 - 0.423	nd NE	nd NE	0.008 - 0.0095 0.002 - 0.04	0.0273 - 0.0309 NE	NE NE		nd NE	nd 0 - 3.4	nd NE	nd 0.001 - 0.018	0.0144 - 0.113 0.001 - 0.060	nd - 1.48 0.010 - 16		0.0161 - 0.423 0 - 2.6	nd NE	0.008 - 0.0095	0.0273 - 0.0309 NE	9 NE NE	
Lee Acres RI/ROD Remedi			0.05	1.0	NE	0.010	0.113	16	0.050	0.346	0.002	0.20	0.010	0.05	NE		0.05	1.0	NE	0.010	0.113	16	0.050	0.346	0.20	0.010	0.05	NE	
GBR Background Concentr	rations (5) May-86		NE 	NE 	NE 	NE 	1.29	97.8	NE 	5.28	NE	NE 	NE 	NE 	NE 		NE 	NE 	NE 	NE 	1.29	97.8	NE 	5.28	NE 	NE 	NE 	NE	
GBR-25*	Aug-15																												
	Feb-21		0.014	0.48	<0.0010	<0.00050	<0.0060	26	0.028	2.7	<0.00020	0.0075	0.0031	<0.00050	<0.00025														
GBR-26	Oct-86 Aug-15																												
	Jan-21 (No Recovery)																												
	Dec-86 Jun-88		nd 	nd 	nd 	0.19	nd 	nd 	nd 	2.2		nd 		nd 															
	Jan-95																												
GBR-30	Jan-00 Jan-10																												
	Aug-15							7.6		0.50																			
	Nov-19 Feb-21		0.0051	0.33	0.0010	<0.00050	0.014	43 23	0.015	4.2 0.75	<0.00020	0.027	0.013	<0.00050	<0.00025														
	Nov-86																												
	Jun-88																												
GDD 44	Jan-95 Jan-00																												
GBR-31	Jan-10																												
	Aug-15 Nov-19							2.4		0.45 2.7																			
	Jan-21		< 0.0010	0.057	< 0.0010	< 0.00050	<0.0060	2.1	0.0056	0.23	<0.00020	0.0056	0.0063	< 0.00050	< 0.00025														
	Aug-88 Jan-95																												
	Dec-00																												
	Dec-05 Jan 2010											9.00																	
GBR-32*	Aug-15		< 0.0050	0.011	< 0.0020	< 0.0020	0.020	0.26	<0.00050	0.56	<0.00020	0.30	0.020	< 0.0050	<0.00050														
	Nov-19 Jan-21		<0.0010 0.0013	0.034	<0.010	<0.010 <0.00050	0.10	3.6 8.30	0.0012	2.10	<0.00020 <0.00020	0.07 0.061	0.0029 0.0044	<0.025 <0.00050	<0.00050 <0.00025														
	Apr-21 Oct-21		0.0013	0.054	< 0.0010	< 0.00050	0.13	6.00	0.0025	2.0	<0.00020	0.059	0.0025	< 0.00050	< 0.00025		<0.0010	0.012 0.0085 J	<0.0010	<00050 <0.0020	<0.0010 <0.0060	<0.020 <0.020	<0.00050 <0.020	1.4 0.74	0.034 0.026	0.0014 <0.050	<0.0050 0.0110	<0.00050	
	Sep-89							1.30										0.0063 J			<0.0000				0.020		0.0110		
GBR-33	Jan-21 (Dry or Obstructed)																												
GBR-34	Aug-15 Feb-21		0.023	1.80	<0.0010	<0.00050	<0.0060	20	0.0064	2.1	<0.00020	0.015	<0.0010	<0.00050	<0.00025														
GBR-35	Feb-21		0.012	2.7	<0.0010	0.0023	<0.0060	26	0.032	1.8	<0.00020	0.015	<0.0010	<0.00050	<0.00025														
GBR-39	Feb-21		< 0.0010	0.091	< 0.0010	< 0.00050	0.043	6.9	0.0022	0.19	< 0.00020	0.030	< 0.0010	< 0.00050	0.00045														
GBR-40	Jun-88 Jan-21 (Dry)																												
	Jun-88																												
GBR-41	Jan-21 (Dry)																												
	Nov-88 Jan-95																												
	Dec-00																												
	Dec-05 Jan-10											10.0																	
GBR-48	Aug-15		<0.050	0.67	0.011	<0.0020	0.95	170	0.11	6.40	0.00046	0.28	0.089	<0.0050	0.0023														
	Nov-19 Jan-21		0.0076 0.0050	0.31 0.20	0.0038 0.00200	<0.0020 <0.00050	0.23 0.050	48 29	0.031 0.016	1.80 0.67	<0.00020	0.10 0.068	0.018 0.02	<0.0050 <0.00050	0.0005 0.00038														
	Apr-21		0.0028	0.12	< 0.0010	<0.00050	0.042	17	0.0082	0.38	<0.00020	0.058	0.015	< 0.00050	< 0.00025		< 0.0010	0.012	< 0.0010	< 0.00050	0.0016	< 0.020	< 0.00050	< 0.0020	0.041	0.012	< 0.0050	< 0.00050	
	Oct-21							260									< 0.020	0.011 J	< 0.0030	< 0.0020	< 0.0060	0.3400	< 0.020	0.005	0.029	< 0.050	0.009	< 0.050	

#### TABLE 4 GROUNDWATER ANALYTICAL RESULTS - METALS

#### FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

		,												/	/												
						/ /	/			/ /			/ /		/	/ ,			/ /	/			/ /	/ /			′ /
					/ /													/ /									
													/ ,												/ /		
			/ /	/ /	/ /		,al) /	/ /	/ /		/ /				1.215		/ /	/ /		(a)	/ /						′ /
MID	the Date	Meids			ndr indi	n iur	I (tale		arte	ş / <u>.</u>	s /	, III						intil in	in int	, date		attess		in		177	
Well	Sant	Cotal status	batiui	, ASTAIL	cadmir	chroni	·iron	Jead	mange	Inercit	ritche	3dente	şilver	tratitu	Signal Mag	Dat Dat	Juli Deri	,i. cadrii	dhroiti	·iron	Jead	Trange	jidke	selenti	şilver	inaliti	
Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
NMWQCC Standard EPA Regional Screening Le	aval (1)	0.1	3.77	0.004	0.005	0.05	14	0.015	0.2	0.002 0.000626	0.2	0.05	0.05 0.0941	0.002	0.1	7 3.77	0.004	0.005	0.05	14	0.015 0.015	0.2	0.2	0.05	0.05	0.002	
	Background Concentration (2)	nd	nd	nd	nd	0.0144 - 0.113	+	nd	0.0161 - 0.423	nd	nd	0.008 - 0.0095			nd	nd	nd	nd	0.0144 - 0.113	nd - 1.48	nd	0.0161 - 0.423	nd	-	0.0273 - 0.0309		
Lee Acres Regional Backgro		NE	0 - 3.4	NE	0.001 - 0.018	0.001 - 0.060	0.010 - 16	0 - 0.055	0 - 2.6	NE	NE	0.002 - 0.04	NE	NE	NE	0 - 3.4	NE	0.001 - 0.018	8 0.001 - 0.060	0.010 - 16	0 - 0.055	0 - 2.6	NE	0.002 - 0.04	NE	NE	
Lee Acres RI/ROD Remedia	al Goals (4)	0.05	1.0	NE	0.010	0.113	16	0.050	0.346	0.002	0.20	0.010	0.05	NE	0.05	1.0	NE	0.010	0.113	16	0.050	0.346	0.20	0.010	0.05	NE	
GBR Background Concentra	ations (5)	NE	NE	NE	NE	1.29	97.8	NE	5.28	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.29	97.8	NE	5.28	NE	NE	NE	NE	
	Nov-88																										
	Jan-95 Dec-00																										
	Dec-00 Dec-05										<20																
GBR-49	Jan-10																										
	Aug-15	0.0057	0.058	<0.0020	< 0.0020	0.38	7.1	0.0038	0.54	<0.00020	0.11	0.0069	< 0.0050	< 0.00050													
	Nov-19	< 0.0010	0.021	< 0.0020	< 0.0020	0.10	1.4	0.00083	0.87	< 0.00020	0.12	0.0011	0.0063	< 0.00050													
	Jan-21 (Obstructed)																										
	Nov-88																										
	Jan-95																										
	Dec-00																										
	Dec-05										10																
GBR-50	Jan-10 Aug-15	<0.0050	0.024	<0.0020	<0.0020	0.073	2.2	0.0013	0.19	<0.00020	0.04	0.0089	<0.0050	<0.00050													
	Nov-19	<0.0010	0.024	<0.0020	<0.0020	0.073	2.2	0.0013	0.19	<0.00020	0.04	0.0083	0.0079	<0.00050													
	Jan-21	<0.0010	0.012	<0.0010	<0.00050	0.035	2.5	0.0068	0.16	<0.00020	0.013	0.010	< 0.00050	<0.00025													
	Apr-21	< 0.0010	0.009	< 0.0010	< 0.00050	0.002	0.06	< 0.00050	0.02	< 0.00020	0.001	0.011	< 0.00050	< 0.00025	< 0.0010	_	< 0.0010	< 0.00050	0.001	< 0.020	< 0.00050	0.01	< 0.0010	0.011	< 0.0050	< 0.00050	
	Oct-21						0.59								< 0.020	0.0088	J <0.0030	< 0.0020	0.009	0.220	< 0.020	0.06	0.05	< 0.050	0.013	< 0.050	
	Nov-88																										
	Jan-95																										
	Jan-00 Jan-05										2.0																
GBR-52/GRW-8	Jan-10																										
	Aug-15						8.20		0.15																		
	Nov-19						1.40		0.026																		
	Jan-21	< 0.0010	0.016	< 0.0010	< 0.00050	< 0.0060	0.32	< 0.00050	0.0094	< 0.00020	< 0.0010	0.0052	< 0.00050	< 0.00025													
SHS-9	Aug-15																										
SNS-9	Jan-21	< 0.0010	0.62	<0.0010	< 0.00050	<0.0060	1.4	0.0032	0.22	<0.00020	0.011	< 0.0010	< 0.00050	< 0.00025													
SHS-13	Jan-21	0.0018	0.083	< 0.0010	< 0.00050	< 0.0060	0.26	< 0.00050	3.7	< 0.00020	0.010	< 0.0010	< 0.00050	< 0.0025													

#### **Notes:**

- (1) EPA Regional Screening Level for tap water using hazard quotient of 1.0 (non-carcinogens) and cancer risk of 1 in 100,000 exposed persons (carcinogens)
- (2) "Background" Concentration Proposed in Lee Acres DRAFT Remedial Investigation Report Prepared for the US Bureau of Land Management (dated February 1992) (3) - Regional Background Concentrations Established in Document Titled Hydrogeology and Water Resources of San Juan Basin, New Mexico, Stone et al., dated 1983
- (4) Contaminant Concentrations Established as the "Remedial Goals" or "Background" Concentrations for the Lee Acres Superfund Site. Based on the Lee Acres DRAFT Remedial Investigation Report and Record of Decision (dated May 2004).
- (5) Background Threshold Value Established for the Former Giant Bloomfield Refinery
- \* asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer
- --- not tested mg/L - milligrams per liter
- NE not established
- NMWQCC New Mexico Water Quality Control Commission PSH phase separated hydrocarbons
- USEPA United States Environmental Protection Agency
- J Analyte detected below quantitation limits

BOLD - bold and highlighted cells indicates concentration exceeds the greater of GBR background concentrations or NMWQCC standards; where NMWQCC standards are not established, concentrations compared to EPA regional screening

Received by OCD: 10/3/2023 10:46:03 AM

TABLE 5
GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY PARAMETERS

# FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

							/		$\overline{}$		
				/ /	/ /				/	/	/ /
						/ ,					
	ate				ite as T	30 g	60,				,ed solid:
Walth	Sample Date	dhoride	Thronid	ş , ie× <sup>5</sup>	ititue as A	ilitie as	şodium	. , sate	ide.	1 dies	oned splids lissopped of
	Şair			nitro	ritte mad					yotar ma/I	dis <sup>55</sup>
Unit NMWQCC Standard		mg/L 250	mg/L 1.6	mg/L NE	mg/L 10.0	mg/L 1.0	mg/L NE	mg/L 600	mg/L NE	mg/L 1,000	mg/L NE
EPA Regional Screening Le	evel (1)	NE	0.799	NE	32	2.0	NE	NE	NE	NE	NE
•	Background Concentration (2)	6.4 - 404	NE	1.2 - 4.9	NE	NE	NE	420 - 2,120	NE	760 - 3,600	NE
Lee Acres Regional Backgro Lee Acres RI/ROD Remedia		2 - 34,000 34,000	NE NE	0.10 - 1,640	NE NE	NE NE	NE NE	1.9 - 14,000	NE NE	NE 10,000	NE NE
GBR Background Concentra		560	NE NE	NE	NE NE	NE NE	NE NE	2,800	NE NE	4,599	NE NE
GRW-1/GBR-38	Jun-88										
GRW 1/ GBR 30	Mar-21	40	0.85	<0.50				2,100		3,540	
GRW-2/GBR-42	Sep-89 Feb-21	100	0.59	<0.50	<0.50	<0.50		660		1,880	
	Jun-86										
	Jun-88	140						1.45		1.540	
	Jan-00 Jan-05	148 36						2,000		1,540 3,300	
GRW-3/GBR-29	Jan-10										
	Aug-15	38	0.95	<0.10				1,900		3,320	
	Nov-19 Feb-21	100 110	<0.50	<0.50 <0.50				450 440		1,990 1,860	
GDW 1/GDD 16	Sep-89										
GRW-4/GBR-43	Feb-21	120	1.10	< 0.50				1,300		2,790	
GRW-5/ GBR-37	Jun-88	0.1	1.0	0.50			2.700	1.500	2.700	2.700	2.700
	Feb-21 Jun-88	91	1.0	<0.50			2,790	1,500	2,790	2,790	2,790
	Jan-88 Jan-00	162						395		1,680	
	Jan-05	96						440		1,600	
GRW-6/GBR-44	Jan-10		0.55					1 400		2 220	
	Aug-15 Nov-19	88 94	0.55	<1.0 <0.50				1,400 1,200		3,220 2,470	
	Feb-21	97	0.93	< 0.50				1,500		2,570	
	Nov-86										
GRW-9/GBR-6	Dec-88 Feb-21	59	<0.50	<0.50				1,900		3,260	
	Jun-88										
GRW-10/GBR-36	Feb-21	51	1.1	< 0.50				2,200		3,460	
GRW-11/GBR-27	Jun-86										
GRW 11/GBR 2/	Feb-21	29	1.3	<0.50				2,400		3,880	
GRW-12/GBR-28	May-86 Jun-88										
GRW-12/GBR-20	Feb-21	230	0.74	< 0.50				500		1,880	
	Nov-86										
CDW 12/CDD 14	Dec-88  Jan-95										
GRW-13/GBR-14	Jan-00	264						1,640		510	
	Feb-21	220	0.85	1.3				1,900		3,340	
GBR-5*	Jun-86							1 700		2 200	
	Feb-21 Nov-86	89	<0.50	<0.50				1,700		3,290	
GBR-7	Jan-21 (Not Sampled, PSH)										
	Oct-86										
GBR-8	Dec-88										
-	Aug-15 Feb-21	86 100	0.59	<0.50				1,300		2,430	
	Nov-86										
GBR-9	Aug-88										
	Feb-21	110	0.88	<0.50				1,200		2,520	
GBR-10	Nov-86  Jan-21 (Obstructed)										
	Jun-86										
GBR-11	Aug-15	95									
	Feb-21	110	< 0.50	< 0.50				960		1,890	
ODD 12*	Jun-86 Dec-88										
GBR-13*	Feb-21	110	1.1	<0.50				1,200		2,380	
	Oct-86										
	Dec-88										
GBR-15	Jan-95 Jan-00	313						1,210		2,910	
	Feb-21	92	0.94	<0.10				2,000		3,460	
		1				1		<u> </u>		<b>I</b>	

WSP

Received by OCD: 10/3/2023 10:46:03 AM

Page 23 of 70

TABLE 5
GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY PARAMETERS

# FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

						/	<del></del>		<del></del>	<del></del>	$\overline{}$
					/ /		/		/ /		
			/	ş jihrate×ii	* /	/ /	/			/ /	onwork solide's disself
	Sample Date				ititate as T	ilitie (a	70 y				odred solids dissol
Wall	<sup>2</sup> ample	dhoride	Budid	itrate×1	itrate	itite	şodium	Sulfate	sulfide	atal diss	, issoli
it	<u> </u>	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWQCC Standard		250	1.6	NE	10.0	1.0	NE	600	NE	1,000	NE
PA Regional Screening Le	evel (1)	NE	0.799	NE	32	2.0	NE	NE	NE	NE	NE
e Acres Alluvial Aquifer	Background Concentration (2)	6.4 - 404	NE	1.2 - 4.9	NE	NE	NE	420 - 2,120	NE	760 - 3,600	NE
e Acres Regional Backgro	ound Concentration (3)	2 - 34,000	NE	0.10 - 1,640	NE	NE	NE	1.9 - 14,000	NE	NE	NE
e Acres RI/ROD Remedia		34,000	NE	10	NE	NE	NE	14,000	NE	10,000	NE
BR Background Concentr	rations (5)  Jun-86	560	NE	NE	NE	NE	NE	2,800	NE	4,599	NE
	Jun-86 Dec-88	<b>1,005</b> 370						1,202 2,270		4,355 3,996	
	Jan-95										
	Dec-00	4.0						1,060		1,930	
CDD 17	Dec-05	48						1,000		2,200	
GBR-17	Jan-10 Aug-15	43	0.68	5.8				1,100		1,960	
	Nov-19	55	<0.50	5.2				1,200		2,150	
	Jan-21	52	0.57	5.5				1,300		2,220	
	Apr-21 Oct-21	59 58	0.33	7.1 6.6	7.1 6.6	<0.10 <0.10	230	1,300 1,600	<0.050 <0.050	2,330 2,300	<1.0 0.94 J
	Jun-86	262	0.49			<0.10	230	3,141	<0.030	4,935	0.94 J
GBR-18*	Jul-94										
	Mar-21	43	< 0.50	1.8				190		5,100	
GBR-20*	Jun-86										
	Aug-15	96	0.66					250		1.050	
CDD 210#	Feb-21  Jan-21 (Dry)	89	0.66	< 0.50				250		1,850	
GBR-21S*											
GBR-21D*	May-88 Aug-15	330									
	Feb-21	310	0.66	< 0.50				780		2,220	
	May-86										
GBR-22*	Aug-15	470									
	Jan-21 (Not Sampled, PSH)										
GBR-23*	Jan-21 (Dry or Obstructed)										
GBR-24S*	Nov-86 Jan-21 (Obstructed)	618						943		2,826	
	Nov-86	618						943		2,826	
	Jun-88	630						1,640		3,487	
	Jan-95										
	Jan-00	610						1,380		3,550	
GBR-24D*	Jan-05 Jan-10	310						1,900		3,400	
	Aug-15	160	0.96	0.23				2,100		3,380	
	Nov-19	170	0.58	<1.0				2,100		3,420	
	Feb-21	200	0.52	<0.10				2,100		3,360	
	May-86										
GBR-25*	Aug-15 Feb-21	520 390	0.77	<0.50				660		2,480	
	Oct-86	390		<0.30						2,480	
GBR-26	Aug-15	170									
-	Jan-21 (No Recovery)										
	Dec-86	133						389		1,308	
	Jun-88	370						2,270		3,996	
	Jan-95 Jan-00	310						1,460		3,140	
GBR-30	Jan-10							1,400		3,140	
	Aug-15	310	0.59	5.2				1,600		3,020	
	Nov-19	280	< 0.50	1.4				1,700		3,040	
	Feb-21	220	0.42	0.95				1,900		3,150	
	Nov-86 Jun-88										
	Jun-88 Jan-95										
CDD 31	Jan-00	181						1,560		3,030	
GBR-31	Jan-10										
	Aug-15 Nov-19	250	0.63	2.6				1,700 1,600		3,170 3,220	
	NOV-19	290	< 0.50	< 0.50						. 3 / /[]	

WSP

Received by OCD: 10/3/2023 10:46:03 AM

TABLE 5
GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY PARAMETERS

# FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

										$\overline{}$	
					/ /		/	/ /	/ /	/	/ ,
			/		ititae as A				,	/ /	solved solids lissolve
	Sample Date				ntite as I introde (a)	ititie (a	HO 2				salved solly disselve
Wellin	Cample	dhioride	Throid	itrate×	rittate	ittite	SOLITH	Sulfate	sulfide	्त्रस्त्री वींड	itssolve
Jnit	7 3	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWQCC Standard		250	1.6	NE	10.0	1.0	NE	600	NE	1,000	NE
PA Regional Screening Le		NE	0.799	NE	32	2.0	NE	NE	NE	NE	NE
•	Background Concentration (2)	6.4 - 404	NE NE	1.2 - 4.9 0.10 - 1,640	NE NE	NE NE	NE NE	420 - 2,120 1.9 - 14,000	NE NE	760 - 3,600 NE	NE NE
ee Acres Regional Backgro ee Acres RI/ROD Remedia		34,000	NE NE	10	NE NE	NE NE	NE NE	14,000	NE NE	10,000	NE NE
BR Background Concentra		560	NE	NE	NE	NE	NE	2,800	NE	4,599	NE
	Aug-88	588						1,830		4,400	
	Jan-95 Dec-00	569 735						1,770 2,190		3,830 <b>4,840</b>	
	Dec-05	520						1,700		4,400	
GBR-32*	Jan 2010										
<b></b>	Aug-15 Nov-19	370 190	0.49 <0.50	3.1 <1.0				2,000 1,700		3,830 3,200	
	Jan-21	170	0.37	<1.0				1,700		3,200	
	Apr-21	160	< 0.50	1.6	1.6	<0.50		1,800	<0.050	3,240	2
	Oct-21	170	0.24	3.7	3.7	<0.10	450	2,400	<0.050	3,430	1.0 J
GBR-33	Sep-89  Jan-21 (Dry or Obstructed)										
	Aug-15	280									
GBR-34	Feb-21	270	0.86	< 0.50				49		1,440	
GBR-35	Feb-21	250	0.92	< 0.50				10		1,230	
GBR-39	Feb-21	160	0.54	< 0.50				1,000		1,860	
GBR-40	Jun-88										
	Jan-21 (Dry)  Jun-88										
GBR-41	Jun-88 Jan-21 (Dry)										
	Nov-88	1,300	4.7	8.0				1,900		5,900	
	Jan-95	708						1,940		4,740	
	Dec-00	1,200						1,990		5,340	
	Dec-05 Jan-10	420						1,300		3,400	
GBR-48	Aug-15	370	0.45	7.3				2,100		3,730	
	Nov-19	270	<0.50	1.9				2,000		3,450	
	Jan-21 Apr-21	290 290	0.39 <0.50	2.1	2.8	<0.50		2,100 1,700	<0.050	3,720 3,410	1.6
	Oct-21	290	0	3.2	3.2	< 0.10	600	2,600	< 0.050	3,430	2.0
	Nov-88	790	3.6	5.1				1,800			
	Jan-95 Dec-00	225 426						1,530 1,910		3,100 3,800	
GDD 40	Dec-05	530						1,900		4,900	
GBR-49	Jan-10										
	Aug-15 Nov-19	180 97	0.62 <0.50	<0.10				1,500 1,500		2,840 2,710	
	Jan-21 (Obstructed)										
	Nov-88	110	2.3	1.8				1,300			
	Jan-95	39						1,940		2,690	
	Dec-00 Dec-05	4.0 51						1,540 1,300		2,580 2,700	
CDD 50	Jan-10										
GBR-50	Aug-15	44	0.83	5.0				1,700		2,760	
	Nov-19 Jan-21	69 60	<0.50 0.56	6.9 2.4				1,700 2,100		2,910 3,100	
	Apr-21	68	0.36	8.9	8.9	<0.10		1,800	< 0.050	3,100	<1.0
	Oct-21	70	0	9.6	9.6	< 0.10	370	2,400	< 0.050	3,220	3.1
	Nov-88										
	Jan-95 Jan-00	96						1,500		2,700	
CDD 52/CDW 9	Jan-05	67						1,700		2,800	
GBR-52/GRW-8	Jan-10										
									-		
	Aug-15 Nov-19	65 60	0.71 <0.50	5.7 6.9				1,400 1,500		2,840 2,600	

WSP 3 of 4

Received by OCD: 10/3/2023 10:46:03 AM

Page 25 of 70

## TABLE 5 GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY PARAMETERS

# FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO

Walth	Sample Date	dikiride	lituridi	intrate×i	ilitae as	, MO 3 little (de	40 2 galiun	gulfate	gulfuke	lukul diss	ontred solids litesolite	ad oreginic outloor
Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
NMWQCC Standard		250	1.6	NE	10.0	1.0	NE	600	NE	1,000	NE	i
EPA Regional Screening Lev	vel (1)	NE	0.799	NE	32	2.0	NE	NE	NE	NE	NE	i
Lee Acres Alluvial Aquifer I	Background Concentration (2)	6.4 - 404	NE	1.2 - 4.9	NE	NE	NE	420 - 2,120	NE	760 - 3,600	NE	i
Lee Acres Regional Backgro	ound Concentration (3)	2 - 34,000	NE	0.10 - 1,640	NE	NE	NE	1.9 - 14,000	NE	NE	NE	
Lee Acres RI/ROD Remedia	l Goals (4)	34,000	NE	10	NE	NE	NE	14,000	NE	10,000	NE	
GBR Background Concentra	ations (5)	560	NE	NE	NE	NE	NE	2,800	NE	4,599	NE	
	Aug-15	96										
SHS-9	Jan-21	130	0.74	<1.0				26		1,540		
SHS-13	Jan-21	330	0.65	1.6				360		1,690		1

#### Notog

- (1) EPA Regional Screening Level for tap water using hazard quotient of 1.0 (non-carcinogens) and cancer risk of 1 in 100,000 exposed persons (carcinogens)
- (2) "Background" Concentration Proposed in Lee Acres DRAFT Remedial Investigation Report Prepared for the US Bureau of Land Management (dated February 1992)
- (3) Regional Background Concentrations Established in Document Titled Hydrogeology and Water Resources of San Juan Basin, New Mexico, Stone et al., dated 1983
- (4) Contaminant Concentrations Established as the "Remedial Goals" or "Background" Concentrations for the Lee Acres Superfund Site. Based on the Lee Acres DRAFT Remedial Investigation Report and Record of Decision (dated May 2004).
- (5) Background Threshold Value Established for the Former Giant Bloomfield Refinery
- \* asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer
- --- not tested

mg/L - milligrams per liter

NE - not established

NMWQCC - New Mexico Water Quality Control Commission

PSH - phase separated hydrocarbons

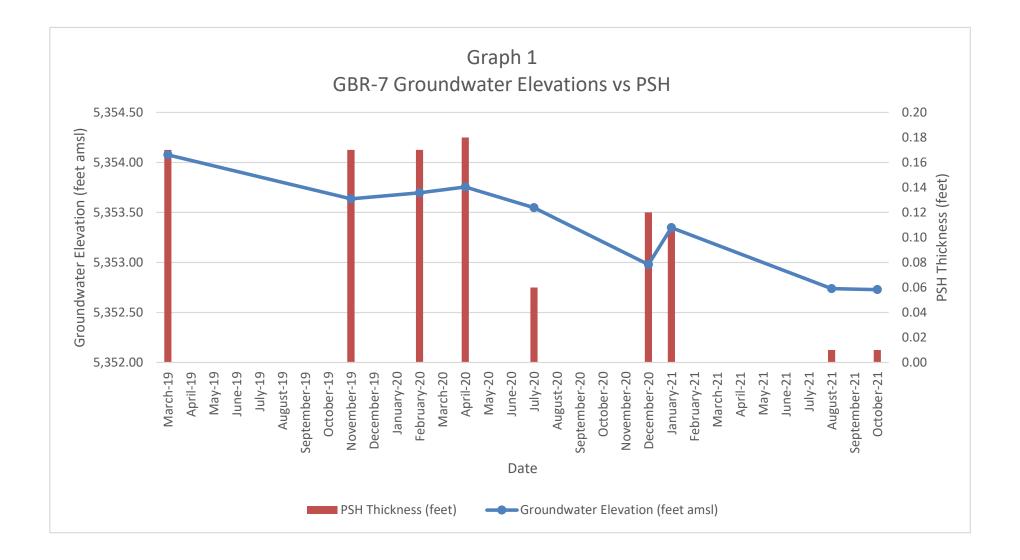
USEPA - United States Environmental Protection Agency

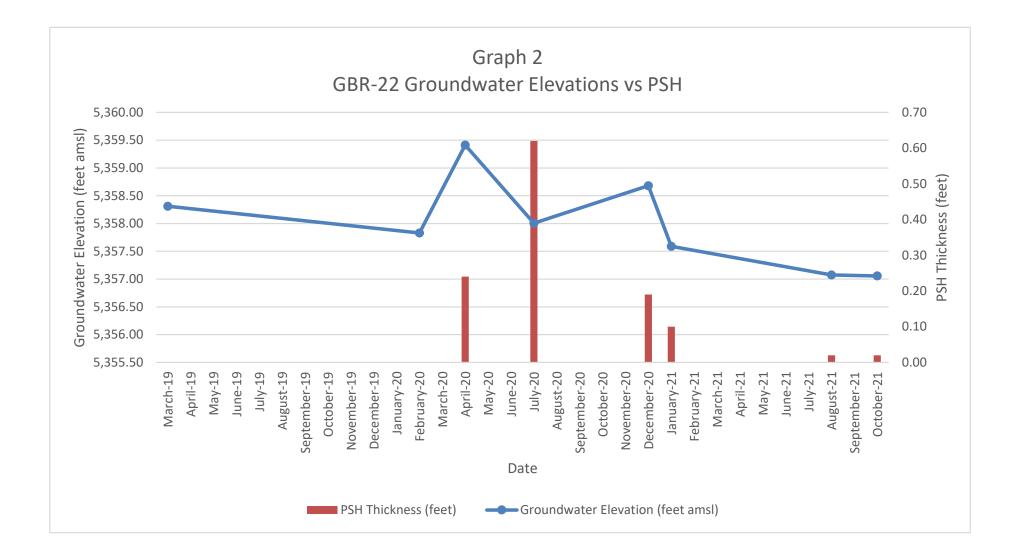
**BOLD** - bold and highlighted cells indicates concentration exceeds the greater of GBR background concentrations or NMWQCC standards; where NMWQCC standards are not established, concentrations compared to EPA regional screening levels

J - Analyte detected below quantitation limits

WSP 4 of 4

### **GRAPHS**





## ENCLOSURE A – LABORATORY ANALYTICAL REPORTS



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

December 16, 2021

Kateri Luka

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Giant Bloomfield Refinery OrderNo.: 2110335

#### Dear Kateri Luka:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/6/2021 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 29, 2021.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **2110335** 

Date Reported: 12/16/2021

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-17

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 10:05:00 AM

Lab ID: 2110335-001 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM 4500S2-H: SULFIDE						Analyst	: PAC
Sulfide	ND	0.0500		mg/L	1	10/11/2021 6:41:00 PM	R82474
SM 5310B: DOC						Analyst	: SMS
Organic Carbon, Dissolved	0.94	1.0	J	mg/L	1	10/12/2021 4:23:28 AM	
SM2540C MOD: TOTAL DISSOLVED SOLIDS	0.0 .		Ū		•		
	0000	40.0	*5		,	Analyst	
Total Dissolved Solids	2300	40.0	*D	mg/L	1	10/13/2021 11:06:00 AI	
EPA METHOD 6010B: DISSOLVED METALS						Analyst	: JLF
Arsenic	ND	0.020		mg/L	1	10/19/2021 6:57:47 PM	B82212
Barium	0.0089	0.020	J	mg/L	1	10/19/2021 6:57:47 PM	
Beryllium	ND	0.0030		mg/L	1	11/10/2021 1:50:16 PM	
Cadmium	ND	0.0020		mg/L	1	10/19/2021 6:57:47 PM	
Chromium	ND	0.0060		mg/L	1	10/19/2021 6:57:47 PM	-
Iron	ND	0.020		mg/L	1	10/19/2021 6:57:47 PM	
Lead	ND	0.020		mg/L	1	10/19/2021 6:57:47 PM	-
Manganese	0.00050	0.0020	J	mg/L	1	10/19/2021 6:57:47 PM	
Nickel	ND	0.010		mg/L	1	11/10/2021 1:50:16 PM	
Selenium	ND	0.050		mg/L	1	11/16/2021 4:32:24 PM	R82894
Silver	0.0098	0.0050		mg/L	1	10/19/2021 6:57:47 PM	B82212
Sodium	230	5.0		mg/L	5	10/19/2021 7:00:56 PM	B82212
Thallium	ND	0.050		mg/L	1	11/10/2021 1:50:16 PM	A82772
Zinc	0.014	0.020	J	mg/L	1	10/19/2021 6:57:47 PM	B82212
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst	: JLF
Iron	0.21	0.050		mg/L	1	10/13/2021 6:17:54 PM	63130
EPA METHOD 8260B: VOLATILES						Analyst	CCM
Benzene	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
Toluene	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
Ethylbenzene	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
Methyl tert-butyl ether (MTBE)	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
1,2,4-Trimethylbenzene	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
1,3,5-Trimethylbenzene	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
1,2-Dichloroethane (EDC)	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
1,2-Dibromoethane (EDB)	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
Naphthalene	ND	2.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
1-Methylnaphthalene	ND	4.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
2-Methylnaphthalene	ND	4.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
Acetone	ND	10		μg/L	1	10/13/2021 2:50:00 PM	A82008
Bromobenzene	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008
Bromodichloromethane	ND	1.0		μg/L	1	10/13/2021 2:50:00 PM	A82008

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 25

Lab Order 2110335

Date Reported: 12/16/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GBR-17

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 10:05:00 AM

Lab ID: 2110335-001 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Result **RL Oual Units DF** Date Analyzed Analyses **Batch EPA METHOD 8260B: VOLATILES** Analyst: CCM 10/13/2021 2:50:00 PM A82008 ND Bromoform 1.0 μg/L 1 Bromomethane ND 3.0 μg/L 10/13/2021 2:50:00 PM A82008 2-Butanone ND 10 μg/L 1 10/13/2021 2:50:00 PM A82008 10 Carbon disulfide ND μg/L 1 10/13/2021 2:50:00 PM A82008 Carbon Tetrachloride ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 Chlorobenzene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 ND Chloroethane 2.0 μg/L 1 10/13/2021 2:50:00 PM A82008 Chloroform ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 Chloromethane ND 3.0 µg/L 1 10/13/2021 2:50:00 PM A82008 2-Chlorotoluene ND 1.0 10/13/2021 2:50:00 PM A82008 μg/L 1 4-Chlorotoluene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 cis-1.2-DCE ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 cis-1,3-Dichloropropene ND 1.0 10/13/2021 2:50:00 PM A82008 μg/L NΠ 2 0 10/13/2021 2:50:00 PM A82008 1,2-Dibromo-3-chloropropane μg/L 1 Dibromochloromethane ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 Dibromomethane ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 1,2-Dichlorobenzene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 1,3-Dichlorobenzene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 ND 10/13/2021 2:50:00 PM A82008 1 4-Dichlorobenzene 1 0 μg/L 1 Dichlorodifluoromethane ND 1.0 µg/L 1 10/13/2021 2:50:00 PM A82008 ND 1,1-Dichloroethane 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 ND 10/13/2021 2:50:00 PM A82008 1,1-Dichloroethene 1.0 μg/L ND 1,2-Dichloropropane 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 1,3-Dichloropropane ND 1.0 μg/L 10/13/2021 2:50:00 PM A82008 2,2-Dichloropropane ND 2.0 µg/L 1 10/13/2021 2:50:00 PM A82008 1,1-Dichloropropene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 Hexachlorobutadiene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 2-Hexanone ND 10 μg/L 1 10/13/2021 2:50:00 PM A82008 Isopropylbenzene ND 1.0 µg/L 1 10/13/2021 2:50:00 PM A82008 4-Isopropyltoluene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 4-Methyl-2-pentanone ND 10 μg/L 1 10/13/2021 2:50:00 PM A82008 Methylene Chloride ND 3.0 μg/L 10/13/2021 2:50:00 PM A82008 1 n-Butylbenzene ND 3.0 μg/L 10/13/2021 2:50:00 PM A82008 ND n-Propylbenzene 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 sec-Butylbenzene ND 1.0 μg/L 1 10/13/2021 2:50:00 PM A82008 Styrene ND 1.0 1 10/13/2021 2:50:00 PM A82008 µg/L tert-Butylbenzene ND 1.0 µg/L 1 10/13/2021 2:50:00 PM A82008 1,1,1,2-Tetrachloroethane ND 1.0 µg/L 1 10/13/2021 2:50:00 PM A82008 1,1,2,2-Tetrachloroethane ND 2.0 μg/L 10/13/2021 2:50:00 PM A82008

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

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 25

Lab Order 2110335

Date Reported: 12/16/2021

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-17

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 10:05:00 AM

Lab ID: 2110335-001 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	CCM
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
trans-1,2-DCE	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
1,1,1-Trichloroethane	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
1,1,2-Trichloroethane	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
Trichloroethene (TCE)	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
Trichlorofluoromethane	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
1,2,3-Trichloropropane	ND	2.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
Vinyl chloride	ND	1.0	μg/L	1	10/13/2021 2:50:00 PM	A82008
Xylenes, Total	ND	1.5	μg/L	1	10/13/2021 2:50:00 PM	A82008
Surr: 1,2-Dichloroethane-d4	91.7	70-130	%Rec	1	10/13/2021 2:50:00 PM	A82008
Surr: 4-Bromofluorobenzene	96.6	70-130	%Rec	1	10/13/2021 2:50:00 PM	A82008
Surr: Dibromofluoromethane	94.9	70-130	%Rec	1	10/13/2021 2:50:00 PM	A82008
Surr: Toluene-d8	96.3	70-130	%Rec	1	10/13/2021 2:50:00 PM	A82008

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 25

Lab Order **2110335** 

**Client Sample ID:** GBR-32

Date Reported: 12/16/2021

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery **Collection Date:** 10/5/2021 11:50:00 AM

**Lab ID:** 2110335-002 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM 4500S2-H: SULFIDE						Analyst:	PAC
Sulfide	ND	0.0500		mg/L	1	10/11/2021 6:41:00 PM	R82474
SM 5310B: DOC						Analyst:	SMS
Organic Carbon, Dissolved	1.0	1.0	J	mg/L	1	10/12/2021 4:39:32 AM	R81969
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst	KS
Total Dissolved Solids	3430	20.0	*	mg/L	1	10/13/2021 11:06:00 AM	A 63150
EPA METHOD 6010B: DISSOLVED METALS						Analyst:	JLF
Arsenic	ND	0.020		mg/L	1	10/19/2021 7:03:53 PM	B82212
Barium	0.0085	0.020	J	mg/L	1	10/19/2021 7:03:53 PM	B82212
Beryllium	ND	0.0030		mg/L	1	11/10/2021 1:53:38 PM	A82772
Cadmium	ND	0.0020		mg/L	1	10/19/2021 7:03:53 PM	B82212
Chromium	ND	0.0060		mg/L	1	10/19/2021 7:03:53 PM	B82212
Iron	ND	0.020		mg/L	1	10/19/2021 7:03:53 PM	B82212
Lead	ND	0.020		mg/L	1	10/19/2021 7:03:53 PM	B82212
Manganese	0.74	0.0020		mg/L	1	10/19/2021 7:03:53 PM	B82212
Nickel	0.026	0.010		mg/L	1	11/10/2021 1:53:38 PM	A82772
Selenium	ND	0.050		mg/L	1	11/15/2021 6:46:13 PM	A82855
Silver	0.011	0.0050		mg/L	1	10/19/2021 7:03:53 PM	B82212
Sodium	450	10		mg/L	10	10/19/2021 7:07:04 PM	B82212
Thallium	ND	0.050		mg/L	1	11/10/2021 1:53:38 PM	A82772
Zinc	0.021	0.020		mg/L	1	10/19/2021 7:03:53 PM	B82212
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst	JLF
Iron	1.3	0.25		mg/L	5	10/13/2021 7:48:17 PM	63130
EPA METHOD 8260B: VOLATILES						Analyst	ССМ
Benzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Toluene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Ethylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Methyl tert-butyl ether (MTBE)	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,2,4-Trimethylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,3,5-Trimethylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,2-Dichloroethane (EDC)	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,2-Dibromoethane (EDB)	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Naphthalene	ND	2.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1-Methylnaphthalene	ND	4.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
2-Methylnaphthalene	ND	4.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Acetone	ND	10	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Bromobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Bromodichloromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 25

Lab Order 2110335

Date Reported: 12/16/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-32

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 11:50:00 AM

Lab ID: 2110335-002 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst:	ССМ
Bromoform	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Bromomethane	ND	3.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
2-Butanone	ND	10	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Carbon disulfide	ND	10	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Carbon Tetrachloride	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Chlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Chloroethane	ND	2.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Chloroform	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Chloromethane	ND	3.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
2-Chlorotoluene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
4-Chlorotoluene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
cis-1,2-DCE	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
cis-1,3-Dichloropropene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,2-Dibromo-3-chloropropane	ND	2.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Dibromochloromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Dibromomethane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,2-Dichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,3-Dichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,4-Dichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Dichlorodifluoromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,1-Dichloroethane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,1-Dichloroethene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,2-Dichloropropane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,3-Dichloropropane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
2,2-Dichloropropane	ND	2.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,1-Dichloropropene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Hexachlorobutadiene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
2-Hexanone	ND	10	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Isopropylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
4-Isopropyltoluene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
4-Methyl-2-pentanone	ND	10	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Methylene Chloride	ND	3.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
n-Butylbenzene	ND	3.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
n-Propylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
sec-Butylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
Styrene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
tert-Butylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,1,1,2-Tetrachloroethane	ND	1.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008
1,1,2,2-Tetrachloroethane	ND	2.0	Р	μg/L	1	10/13/2021 4:00:00 PM	A82008

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

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 25

Trichloroethene (TCE)

Trichlorofluoromethane

1,2,3-Trichloropropane

Surr: Toluene-d8

Surr: 1,2-Dichloroethane-d4

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Vinyl chloride

Xylenes, Total

#### **Analytical Report**

Lab Order **2110335** 

10/13/2021 4:00:00 PM A82008

ratory, Inc. Date Reported: 12/16/2021

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-32

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 11:50:00 AM

Lab ID: 2110335-002 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Result **RL Oual Units DF** Date Analyzed **Batch** Analyses **EPA METHOD 8260B: VOLATILES** Analyst: CCM Tetrachloroethene (PCE) Р 10/13/2021 4:00:00 PM A82008 1.0 1.0 μg/L 1 trans-1,2-DCE ND 1.0 Ρ μg/L 10/13/2021 4:00:00 PM A82008 ND 1.0 Ρ 10/13/2021 4:00:00 PM A82008 trans-1,3-Dichloropropene μg/L 1 1,2,3-Trichlorobenzene Ρ μg/L 10/13/2021 4:00:00 PM A82008 ND 1.0 Р 1,2,4-Trichlorobenzene ND 1.0 μg/L 1 10/13/2021 4:00:00 PM A82008 1.1.1-Trichloroethane ND 1.0 μg/L 1 10/13/2021 4:00:00 PM A82008 ND Ρ 1,1,2-Trichloroethane 1.0 μg/L 1 10/13/2021 4:00:00 PM A82008

1.0

1.0

2.0

1.0

1.5

70-130

70-130

70-130

70-130

Ρ

Ρ

Ρ

Ρ

Ρ

Ρ

Р

Ρ

Р

μg/L

μg/L

μg/L

μg/L

μg/L

%Rec

%Rec

%Rec

%Rec

1

1

1

1

ND

ND

ND

ND

ND

91.6

96.3

93.0

95.7

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 25

Lab Order **2110335** 

#### Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GBR-50

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 12:50:00 PM

Lab ID: 2110335-003 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	<b>Date Analyzed</b>	Batch
SM 4500S2-H: SULFIDE						Analyst	PAC
Sulfide	ND	0.0500		mg/L	1	10/11/2021 6:42:00 PM	R82474
SM 5310B: DOC						Analyst	: SMS
Organic Carbon, Dissolved	3.1	1.0		mg/L	1	10/12/2021 4:55:44 AM	
SM2540C MOD: TOTAL DISSOLVED SOLIDS				···g/ =		Analyst	
	2220	20.0	*	m a/l	1	-	
Total Dissolved Solids	3220	20.0		mg/L	,	10/13/2021 11:06:00 Al	
EPA METHOD 6010B: DISSOLVED METALS						Analyst	: JLF
Arsenic	ND	0.020		mg/L	1	10/19/2021 7:09:54 PM	
Barium	0.0088	0.020	J	mg/L	1	10/19/2021 7:09:54 PM	
Beryllium	ND	0.0030		mg/L	1	11/10/2021 1:57:11 PM	
Cadmium	ND	0.0020		mg/L	1	10/19/2021 7:09:54 PM	
Chromium	0.0085	0.0060		mg/L	1	10/19/2021 7:09:54 PM	
Iron	0.22	0.020		mg/L	1	10/19/2021 7:09:54 PM	
Lead	ND	0.020		mg/L	1	10/19/2021 7:09:54 PM	-
Manganese	0.062	0.0020		mg/L	1	10/19/2021 7:09:54 PM	
Nickel	0.054	0.010		mg/L	1	11/10/2021 1:57:11 PM	
Selenium	ND	0.050		mg/L	1	11/15/2021 6:48:53 PM	
Silver	0.013	0.0050		mg/L	1	10/19/2021 7:09:54 PM	B82212
Sodium	370	10		mg/L	10	10/25/2021 3:50:13 PM	
Thallium	ND	0.050		mg/L	1	11/10/2021 1:57:11 PM	A82772
Zinc	0.022	0.020		mg/L	1	10/19/2021 7:09:54 PM	B82212
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst	: JLF
Iron	0.59	0.050		mg/L	1	10/13/2021 6:24:20 PM	63130
EPA METHOD 8260B: VOLATILES						Analyst	CCM
Benzene	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
Toluene	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
Ethylbenzene	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
Methyl tert-butyl ether (MTBE)	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
1,2,4-Trimethylbenzene	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
1,3,5-Trimethylbenzene	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
1,2-Dichloroethane (EDC)	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
1,2-Dibromoethane (EDB)	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
Naphthalene	ND	2.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
1-Methylnaphthalene	ND	4.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
2-Methylnaphthalene	ND	4.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
Acetone	ND	10		μg/L	1	10/13/2021 4:23:00 PM	A82008
Bromobenzene	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008
Bromodichloromethane	ND	1.0		μg/L	1	10/13/2021 4:23:00 PM	A82008

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 25

Lab Order 2110335

**Client Sample ID:** GBR-50

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery Collection Date: 10/5/2021 12:50:00 PM

**Lab ID:** 2110335-003 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	CCM
Bromoform	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Bromomethane	ND	3.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
2-Butanone	ND	10	μg/L	1	10/13/2021 4:23:00 PM	A82008
Carbon disulfide	ND	10	μg/L	1	10/13/2021 4:23:00 PM	A82008
Carbon Tetrachloride	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Chlorobenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Chloroethane	ND	2.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Chloroform	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Chloromethane	ND	3.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
2-Chlorotoluene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
4-Chlorotoluene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
cis-1,2-DCE	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Dibromochloromethane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Dibromomethane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,2-Dichlorobenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,3-Dichlorobenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,4-Dichlorobenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Dichlorodifluoromethane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,1-Dichloroethane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,1-Dichloroethene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,2-Dichloropropane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,3-Dichloropropane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
2,2-Dichloropropane	ND	2.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,1-Dichloropropene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Hexachlorobutadiene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
2-Hexanone	ND	10	μg/L	1	10/13/2021 4:23:00 PM	A82008
Isopropylbenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
4-Isopropyltoluene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
4-Methyl-2-pentanone	ND	10	μg/L	1	10/13/2021 4:23:00 PM	A82008
Methylene Chloride	ND	3.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
n-Butylbenzene	ND	3.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
n-Propylbenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
sec-Butylbenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
Styrene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
tert-Butylbenzene	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	10/13/2021 4:23:00 PM	A82008
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	10/13/2021 4:23:00 PM	A82008

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

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 8 of 25

Lab Order **2110335** 

Date Reported: 12/16/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GBR-50

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 12:50:00 PM

Lab ID: 2110335-003 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Result **RL Oual Units DF** Date Analyzed **Batch** Analyses **EPA METHOD 8260B: VOLATILES** Analyst: CCM ND Tetrachloroethene (PCE) 10/13/2021 4:23:00 PM A82008 1.0 μg/L 1 trans-1,2-DCE ND 1.0 μg/L 10/13/2021 4:23:00 PM A82008 trans-1,3-Dichloropropene ND 1.0 μg/L 10/13/2021 4:23:00 PM A82008 1 1,2,3-Trichlorobenzene μg/L 10/13/2021 4:23:00 PM A82008 ND 1.0 1,2,4-Trichlorobenzene ND 1.0 μg/L 10/13/2021 4:23:00 PM A82008 1.1.1-Trichloroethane ND 1.0 μg/L 1 10/13/2021 4:23:00 PM A82008 ND 1,1,2-Trichloroethane 1.0 μg/L 1 10/13/2021 4:23:00 PM A82008 Trichloroethene (TCE) ND 1.0 μg/L 1 10/13/2021 4:23:00 PM A82008 Trichlorofluoromethane ND 1.0 μg/L 10/13/2021 4:23:00 PM A82008 1,2,3-Trichloropropane ND 2.0 μg/L 10/13/2021 4:23:00 PM A82008 1 Vinyl chloride ND 1.0 μg/L 10/13/2021 4:23:00 PM A82008 Xylenes, Total ND 1.5 μg/L 1 10/13/2021 4:23:00 PM A82008 Surr: 1,2-Dichloroethane-d4 92.6 70-130 %Rec 10/13/2021 4:23:00 PM A82008 Surr: 4-Bromofluorobenzene 93.6 70-130 10/13/2021 4:23:00 PM A82008 %Rec 1 Surr: Dibromofluoromethane 93.8 70-130 %Rec 10/13/2021 4:23:00 PM A82008 Surr: Toluene-d8 70-130 10/13/2021 4:23:00 PM A82008 96.1 %Rec

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 9 of 25

Lab Order 2110335

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GBR-48

**Project:** Giant Bloomfield Refinery **Collection Date:** 10/5/2021 1:45:00 PM **Lab ID:** 2110335-004 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM 4500S2-H: SULFIDE						Analyst:	PAC
Sulfide	ND	0.0500		mg/L	1	10/11/2021 6:42:00 PM	R82474
SM 5310B: DOC						Analyst:	SMS
Organic Carbon, Dissolved	2.0	1.0		mg/L	1	10/12/2021 5:11:49 AM	
SM2540C MOD: TOTAL DISSOLVED SOLIDS				3		Analyst:	KS
Total Dissolved Solids	3430	200	*D	ma/l	1	10/13/2021 11:06:00 AM	
	3430	200	D	mg/L	'		
EPA METHOD 6010B: DISSOLVED METALS						Analyst:	
Arsenic	ND	0.020		mg/L	1	10/19/2021 7:23:43 PM	
Barium	0.011	0.020	J	mg/L	1	10/19/2021 7:23:43 PM	
Beryllium	ND	0.0030		mg/L	1	11/10/2021 2:00:58 PM	A82772
Cadmium	ND	0.0020		mg/L	1	10/19/2021 7:23:43 PM	-
Chromium	ND	0.0060		mg/L	1	10/19/2021 7:23:43 PM	B82212
Iron	0.34	0.020		mg/L	1	10/19/2021 7:23:43 PM	-
Lead	ND	0.020		mg/L	1	10/19/2021 7:23:43 PM	B82212
Manganese	0.0047	0.0020		mg/L	1	10/19/2021 7:23:43 PM	B82212
Nickel	0.029	0.010		mg/L	1	11/10/2021 2:00:58 PM	A82772
Selenium	ND	0.050		mg/L	1	11/15/2021 6:51:20 PM	A82855
Silver	0.0091	0.0050		mg/L	1	11/15/2021 6:51:20 PM	A82855
Sodium	600	10		mg/L	10	10/25/2021 3:53:06 PM	A82346
Thallium	ND	0.050		mg/L	1	11/10/2021 2:00:58 PM	A82772
Zinc	0.011	0.020	J	mg/L	1	10/19/2021 7:23:43 PM	B82212
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst:	JLF
Iron	260	25		mg/L	500	0 10/13/2021 7:51:23 PM	63130
EPA METHOD 8260B: VOLATILES						Analyst:	CCM
Benzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Toluene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Ethylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Methyl tert-butyl ether (MTBE)	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2,4-Trimethylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,3,5-Trimethylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2-Dichloroethane (EDC)	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2-Dibromoethane (EDB)	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Naphthalene	ND	2.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1-Methylnaphthalene	ND	4.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
2-Methylnaphthalene	ND	4.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Acetone	ND	10	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Bromobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Bromodichloromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 10 of 25

Lab Order 2110335

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GBR-48

Project:Giant Bloomfield RefineryCollection Date: 10/5/2021 1:45:00 PMLab ID:2110335-004Matrix: GROUNDWAReceived Date: 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst	CCM
Bromoform	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Bromomethane	ND	3.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
2-Butanone	ND	10	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Carbon disulfide	ND	10	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Carbon Tetrachloride	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Chlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Chloroethane	ND	2.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Chloroform	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Chloromethane	ND	3.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
2-Chlorotoluene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
4-Chlorotoluene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
cis-1,2-DCE	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
cis-1,3-Dichloropropene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2-Dibromo-3-chloropropane	ND	2.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Dibromochloromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Dibromomethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2-Dichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,3-Dichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,4-Dichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Dichlorodifluoromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1-Dichloroethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1-Dichloroethene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2-Dichloropropane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,3-Dichloropropane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
2,2-Dichloropropane	ND	2.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1-Dichloropropene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Hexachlorobutadiene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
2-Hexanone	ND	10	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Isopropylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
4-Isopropyltoluene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
4-Methyl-2-pentanone	ND	10	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Methylene Chloride	ND	3.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
n-Butylbenzene	ND	3.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
n-Propylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
sec-Butylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Styrene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
tert-Butylbenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1,1,2-Tetrachloroethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1,2,2-Tetrachloroethane	ND	2.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008

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

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 11 of 25

Lab Order **2110335** 

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GBR-48

Project: Giant Bloomfield Refinery Collection Date: 10/5/2021 1:45:00 PM

Lab ID: 2110335-004 Matrix: GROUNDWA Received Date: 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst	: CCM
Tetrachloroethene (PCE)	1.0	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
trans-1,2-DCE	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
trans-1,3-Dichloropropene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2,3-Trichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2,4-Trichlorobenzene	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1,1-Trichloroethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,1,2-Trichloroethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Trichloroethene (TCE)	0.44	1.0	JP	μg/L	1	10/13/2021 4:46:00 PM	A82008
Trichlorofluoromethane	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
1,2,3-Trichloropropane	ND	2.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Vinyl chloride	ND	1.0	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Xylenes, Total	ND	1.5	Р	μg/L	1	10/13/2021 4:46:00 PM	A82008
Surr: 1,2-Dichloroethane-d4	92.7	70-130	Р	%Rec	1	10/13/2021 4:46:00 PM	A82008
Surr: 4-Bromofluorobenzene	93.6	70-130	Р	%Rec	1	10/13/2021 4:46:00 PM	A82008
Surr: Dibromofluoromethane	91.0	70-130	Р	%Rec	1	10/13/2021 4:46:00 PM	A82008
Surr: Toluene-d8	96.1	70-130	Р	%Rec	1	10/13/2021 4:46:00 PM	A82008

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 12 of 25

Lab Order 2110335

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-17-Diss

**Project:** Giant Bloomfield Refinery **Collection Date:** 10/5/2021 10:05:00 AM

**Lab ID:** 2110335-005 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LRN
Fluoride	0.49	0.10		mg/L	1	10/6/2021 8:18:41 PM	R81855
Chloride	58	10		mg/L	20	10/6/2021 8:31:33 PM	R81855
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/6/2021 8:18:41 PM	R81855
Bromide	0.26	0.10		mg/L	1	10/6/2021 8:18:41 PM	R81855
Nitrogen, Nitrate (As N)	6.6	2.0		mg/L	20	10/6/2021 8:31:33 PM	R81855
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/6/2021 8:31:33 PM	R81855
Sulfate	1600	10	E*	mg/L	20	10/6/2021 8:31:33 PM	R81855

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 13 of 25

Lab Order 2110335

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-32-Diss

**Project:** Giant Bloomfield Refinery **Collection Date:** 10/5/2021 11:50:00 AM

**Lab ID:** 2110335-006 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LRN
Fluoride	0.24	0.10		mg/L	1	10/6/2021 8:44:27 PM	R81855
Chloride	170	10		mg/L	20	10/6/2021 8:57:20 PM	R81855
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/6/2021 8:44:27 PM	R81855
Bromide	0.61	0.10		mg/L	1	10/6/2021 8:44:27 PM	R81855
Nitrogen, Nitrate (As N)	3.7	0.10		mg/L	1	10/6/2021 8:44:27 PM	R81855
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/6/2021 8:57:20 PM	R81855
Sulfate	2400	10	E*	mg/L	20	10/6/2021 8:57:20 PM	R81855

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 14 of 25

Lab Order **2110335** 

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-50-Diss

**Project:** Giant Bloomfield Refinery Collection Date: 10/5/2021 12:50:00 PM

**Lab ID:** 2110335-007 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL	Qual U	nits 1	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LRN
Fluoride	0.30	0.10	m	g/L	1	10/6/2021 9:10:13 PM	R81855
Chloride	70	10	m	g/L	20	10/6/2021 9:23:04 PM	R81855
Nitrogen, Nitrite (As N)	ND	0.10	m	g/L	1	10/6/2021 9:10:13 PM	R81855
Bromide	0.34	0.10	m	g/L	1	10/6/2021 9:10:13 PM	R81855
Nitrogen, Nitrate (As N)	9.6	2.0	m	g/L	20	10/6/2021 9:23:04 PM	R81855
Phosphorus, Orthophosphate (As P)	ND	10	m	g/L	20	10/6/2021 9:23:04 PM	R81855
Sulfate	2400	10	E* m	g/L	20	10/6/2021 9:23:04 PM	R81855

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 15 of 25

Lab Order 2110335

Date Reported: 12/16/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Southwest, Inc. Client Sample ID: GBR-48-Diss

**Project:** Giant Bloomfield Refinery Collection Date: 10/5/2021 1:45:00 PM

**Lab ID:** 2110335-008 **Matrix:** GROUNDWA **Received Date:** 10/6/2021 8:40:00 AM

Analyses	Result	RL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LRN
Fluoride	0.21	0.10		mg/L	1	10/6/2021 10:01:44 PM	R81855
Chloride	290	10	*	mg/L	20	10/6/2021 10:40:22 PM	R81855
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/6/2021 10:01:44 PM	R81855
Bromide	1.0	0.10		mg/L	1	10/6/2021 10:01:44 PM	R81855
Nitrogen, Nitrate (As N)	3.2	0.10		mg/L	1	10/6/2021 10:01:44 PM	R81855
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/6/2021 10:40:22 PM	R81855
Sulfate	2600	10	E*	mg/L	20	10/6/2021 10:40:22 PM	R81855

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 16 of 25



# Pace Analytical® ANALYTICAL REPORT

October 12, 2021





Ss













# Hall Environmental Analysis Laboratory

Sample Delivery Group: L1415694 Samples Received: 10/08/2021

Project Number:

Description:

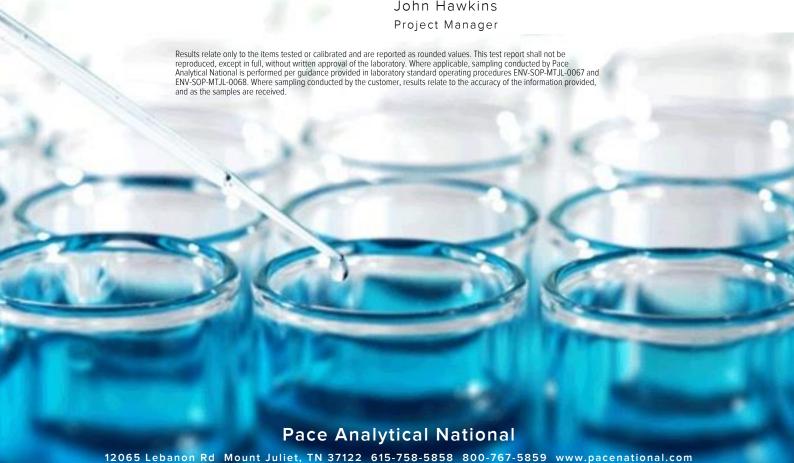
Report To: Andy Freeman

4901 Hawkins NE

Albuquerque, NM 87109

Entire Report Reviewed By: Jah V Houkins

John Hawkins



PROJECT:

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
2110335-001F GBR-17 L1415694-01	5
2110335-002F GBR-32 L1415694-02	6
2110335-003F GBR-50 L1415694-03	7
2110335-004F GBR-48 L1415694-04	8
Qc: Quality Control Summary	9
Wet Chemistry by Method 4500S2 D-2011	9
GI: Glossary of Terms	10
Al: Accreditations & Locations	11
Sc: Sample Chain of Custody	12







Ss













Wet Chemistry by Method 4500S2 D-2011

# SAMPLE SUMMARY

			Collected by	Collected date/time	Received da	te/time
2110335-001F GBR-17 L1415694-01 WW				10/05/21 10:05	10/08/21 09:	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500S2 D-2011	WG1755124	1	10/11/21 18:41	10/11/21 18:41	BMD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
2110335-002F GBR-32 L1415694-02 WW				10/05/21 11:50	10/08/21 09:	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500S2 D-2011	WG1755124	1	10/11/21 18:41	10/11/21 18:41	BMD	Mt. Juliet, TN
2110335-003F GBR-50 L1415694-03 WW			Collected by	Collected date/time 10/05/21 12:50	Received da 10/08/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500S2 D-2011	WG1755124	1	10/11/21 18:42	10/11/21 18:42	BMD	Mt. Juliet, TN
2110335-004F GBR-48 L1415694-04 WW			Collected by	Collected date/time 10/05/21 13:45	Received da 10/08/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location

WG1755124

10/11/21 18:42

10/11/21 18:42

BMD

Mt. Juliet, TN



















John Hawkins Project Manager

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



















Released to Imaging: 10/3/2023 10:47:26 AM
Hall Environmental Analysis Laboratory

# SAMPLE RESULTS - 01

Page 51 of 70

Collected date/time: 10/05/21 10:05

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Sulfide	ND		0.0500	1	10/11/2021 18:41	WG1755124



















#### Page 52 of 70

SAMPLE RESULTS - 02

Collected date/time: 10/05/21 11:50

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Sulfide	ND		0.0500	1	10/11/2021 18:41	WG1755124



















#### Page 53 of 70

SAMPLE RESULTS - 03

Collected date/time: 10/05/21 12:50

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l		date / time		
Sulfide	ND		0.0500	1	10/11/2021 18:42	WG1755124	



















# SAMPLE RESULTS - 04

Page 54 of 70

Collected date/time: 10/05/21 13:45

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Sulfide	ND		0.0500	1	10/11/2021 18:42	WG1755124



















# QUALITY CONTROL SUMMARY

Page 55 of 70

Wet Chemistry by Method 4500S2 D-2011

L1415694-01,02,03,04

#### Method Blank (MB)

(MB) R3714994-1 10/11/21	18:35			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Sulfide	П		0.0250	0.0500







#### L1414553-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1414553-09 10/11/21 18:38 • (DUP) R3714994-4 10/11/21 18:38

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfide	ND	ND	1	0.000		20





# Laboratory Control Sample (LCS)

(LCS) R3714994-2 10/11/21 18:35

(200) 1107 1100 12 10	71.1721.10.00				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Sulfide	0.500	0.516	103	85.0-115	





### L1414553-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1414553-10 10/11/21 18:39 • (MS) R3714994-5 10/11/21 18:39 • (MSD) R3714994-6 10/11/21 18:39

,	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Sulfide	0.500	ND	0.457	0.465	91.4	93.0	1	80.0-120			1.74	20

Hall Environmental Analysis Laboratory

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

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

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

#### Abbreviations and Definitions

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

#### Qualifier Description

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



















Hall Environmental Analysis Laboratory

Pace Analy	tical National	12065 Lebanon Rd	Mount Julia	+ TNI 37122
race Analy	yticai Nationai	12003 Leballoli Ku	i Mourit Julie	l, IIN 3/122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky 16	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	Al30792	Tennessee 1 4	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234



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

TN00003

EPA-Crypto



















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

Released to Imaging: 10/3/2023 10:47:26 AM

ANALYSIS

LABORATORY

OF: 1

Hall Environmental Analysis Laboratory 4901 Hawkins NE

> Albuquerque, NM 87109 TEL: 505-345-3975

FAX: 505-345-4107 Website: clients.hallenvironmental.com

1236

SUB CC	NTRATOR Pace	rn company: PAC	E TN		PHONE:	(800) 7	67-5859	FAX: (615) 758-5859
ADDRE	12065	Lebanon Rd		76 TO 11	ACCOUNT#:			EMAIL
CITY, S	TATE, ZIP: Mt. Ju	ıliet, TN 37122						
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	#CONTAINERS		ANALYTICAL COMMENTS
		GBR-17	500PLNAOH	Groundw	10/5/2021 10:05:00 AM	1 Sulfide	フィる	L1415694-01
2	2110335-002F	GBR-32	500PLNAOH	Groundw	10/5/2021 11:50:00 AM	1 Sulfide	712	02
3	2110335-003F	GBR-50		Groundw	10/5/2021 12:50:00 PM	1 Sulfide	712	03
4	2110335-004F	GBR-48		Groundw-	10/5/2021 1:45:00 PM	1 Sulfide	712	of the second se

-	Sample COC Seal Present/Intact: COC Signed/Accurate:	-Y N	Checklist  If Applicable  VOA Zero Headspace:	_Y_1
	Bottles arrive intact: Correct bottles used: Sufficient volume sent: RAD Screen <0.5 mR/hr:	N N	Pres.Correct/Check:	

SPECIAL INSTRUCTIONS / COMMENTS Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you. D48/8/2 REPORT TRANSMITTAL DESIRED: 10/6/2021 3:58 PM HARDCOPY (extra cost) ☐ EMAIL □ ONLINE Date: Received By Time: Relinquished By Date: Time Time Received By: Time: Date: Relinquished By: 3rd BD Standard T RUSH Next BD 2nd BD TAT: Comments

# Hall Environmental Analysis Laboratory, Inc.

WO#: 2110335 16-Dec-21

**Client:** Western Refining Southwest, Inc. **Project:** Giant Bloomfield Refinery

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R81855 RunNo: 81855

Prep Date: Analysis Date: 10/6/2021 SeqNo: 2896013 Units: mg/L

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Fluoride ND 0.10 Chloride ND 0.50 Nitrogen, Nitrite (As N) ND 0.10 Bromide ND 0.10 Nitrogen, Nitrate (As N) ND 0.10 Phosphorus, Orthophosphate (As P ND 0.50 Sulfate ND 0.50

Sample ID: LCS	Samp	Type: Ics	;	Tes	tCode: El	<b>;</b>				
Client ID: LCSW	Batc	Batch ID: R81855			RunNo: 81855					
Prep Date:	Analysis [	Date: 10	)/6/2021	5	SeqNo: 2	896014	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.9	0.50	5.000	0	98.2	90	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	99.7	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	104	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.6	90	110			
Sulfate	10	0.50	10.00	0	102	90	110			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Page 17 of 25

# Hall Environmental Analysis Laboratory, Inc.

2110335 16-Dec-21

WO#:

Client: Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery

Sample ID: 100ng 8260 lcs	SampT	ype: <b>LC</b>	s	Tes	TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch	Batch ID: A82008			RunNo: 8	2008				
Prep Date:	Analysis D	oate: 10	)/13/2021	8	SeqNo: 29	903970	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.3	70	130			
Toluene	19	1.0	20.00	0	96.8	70	130			
Chlorobenzene	20	1.0	20.00	0	98.9	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.9	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.4	70	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID: mb SampType: MBLK TestCode: EPA Method 8260B: VOLATILES Batch ID: A82008 Client ID: PBW RunNo: 82008 Prep Date: Analysis Date: 10/13/2021 SeqNo: 2903971 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Methyl tert-butyl ether (MTBE)	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
1,2-Dichloroethane (EDC)	ND	1.0
1,2-Dibromoethane (EDB)	ND	1.0
Naphthalene	ND	2.0
1-Methylnaphthalene	ND	4.0
2-Methylnaphthalene	ND	4.0
Acetone	ND	10
Bromobenzene	ND	1.0
Bromodichloromethane	ND	1.0
Bromoform	ND	1.0
Bromomethane	ND	3.0
2-Butanone	ND	10
Carbon disulfide	ND	10
Carbon Tetrachloride	ND	1.0
Chlorobenzene	ND	1.0
Chloroethane	ND	2.0
Chloroform	ND	1.0
Chloromethane	ND	3.0
2-Chlorotoluene	ND	1.0

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 18 of 25

# Hall Environmental Analysis Laboratory, Inc.

2110335 16-Dec-21

WO#:

Client: Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery

Sample ID: mb SampType: MBLK TestCode: EPA Method 8260B: VOLATILES

Sample ID: <b>mb</b>	Sampi	ype: WE	DLN	res	icode: Ei	PA Wethod	8260B: VOL	AIILES		
Client ID: PBW	Batch	n ID: A8	2008	R	RunNo: 82	2008				
Prep Date:	Analysis D	ate: 10	)/13/2021	S	SeqNo: 29	903971	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
.,_,,	.,5	0								

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 19 of 25

# Hall Environmental Analysis Laboratory, Inc.

WO#: 2110335

16-Dec-21

**Client:** Western Refining Southwest, Inc. **Project:** Giant Bloomfield Refinery

Sample ID: mb SampType: MBLK

TestCode: EPA Method 8260B: VOLATILES PBW Client ID: Batch ID: A82008 RunNo: 82008

Units: µg/L Prep Date: Analysis Date: 10/13/2021 SeqNo: 2903971 Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Vinyl chloride ND 1.0 Xylenes, Total ND 1.5 70 10.00 93.4 130 Surr: 1,2-Dichloroethane-d4 9.3 Surr: 4-Bromofluorobenzene 9.5 10.00 94.7 70 130 Surr: Dibromofluoromethane 9.3 10.00 93.5 70 130 Surr: Toluene-d8 9.8 10.00 98.0 70 130

Sample ID: 2110335-001ams SampType: MS TestCode: EPA Method 8260B: VOLATILES Client ID: **GBR-17** Batch ID: A82008 RunNo: 82008 Prep Date: Analysis Date: 10/13/2021 SeqNo: 2903973 Units: µg/L SPK value SPK Ref Val %REC %RPD **RPDLimit** Result PQL LowLimit HighLimit Qual Analyte Benzene 18 1.0 20.00 91.3 70 20 20.00 0 97.6 70 1.0 130 Toluene 20 20.00 0 99.0 70 Chlorobenzene 1.0 130 1,1-Dichloroethene 17 1.0 20.00 0 84.1 70 130 Trichloroethene (TCE) 17 1.0 20.00 0 87.4 70 130 Surr: 1,2-Dichloroethane-d4 9.2 10.00 92.0 70 130 Surr: 4-Bromofluorobenzene 94.8 70 9.5 10.00 130 Surr: Dibromofluoromethane 9.4 10.00 94.1 70 130 Surr: Toluene-d8 9.8 10.00 97.7 130 70

Sample ID: 2110335-001amsd	I SampT	ype: MS	SD	Tes	tCode: El	ATILES				
Client ID: GBR-17	Batch	n ID: A8	2008	R	RunNo: 8	2008				
Prep Date:	Analysis D	ate: 10	0/13/2021	S	SeqNo: 29	904877	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.1	70	130	1.30	20	
Toluene	19	1.0	20.00	0	95.2	70	130	2.51	20	
Chlorobenzene	19	1.0	20.00	0	97.5	70	130	1.52	20	
1,1-Dichloroethene	16	1.0	20.00	0	81.9	70	130	2.65	20	
Trichloroethene (TCE)	17	1.0	20.00	0	84.2	70	130	3.67	20	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		93.3	70	130	0	0	
Surr: Toluene-d8	9.8		10.00		98.1	70	130	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Page 20 of 25

# Hall Environmental Analysis Laboratory, Inc.

WO#: **2110335** *16-Dec-21* 

Client: Western Refining Southwest, Inc.

Project: Giant Bloomfield Refinery

Sample ID: MB-B	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	6010B: Disso	Ived Meta	als	
Client ID: PBW	Bato	h ID: <b>B8</b>	2212	F	RunNo: <b>82212</b>					
Prep Date:	Analysis	Date: 10	0/19/2021	9	SeqNo: 2	913390	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.020								
Barium	ND	0.020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.020								

Sample ID: LCS-B	Samp	Туре: <b>LC</b>	s	Tes	tCode: El	PA Method	6010B: Disso	lved Meta	als	
Client ID: LCSW	Bato	ch ID: B8	2212	F	RunNo: 82212					
Prep Date:	Analysis	Date: 10	)/19/2021	8	SeqNo: 29	913392	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.49	0.020	0.5000	0	97.3	80	120			
Barium	0.50	0.020	0.5000	0	99.9	80	120			
Cadmium	0.51	0.0020	0.5000	0	103	80	120			
Chromium	0.50	0.0060	0.5000	0	99.8	80	120			
Iron	0.51	0.020	0.5000	0	102	80	120			
Lead	0.51	0.020	0.5000	0	102	80	120			
Manganese	0.50	0.0020	0.5000	0	99.3	80	120			
Silver	0.098	0.0050	0.1000	0	98.5	80	120			
Sodium	52	1.0	50.00	0	104	80	120			
Zinc	0.50	0.020	0.5000	0	99.1	80	120			

Sample ID: MB-A	SampT	ype: <b>ME</b>	BLK	Tes	tCode: El	PA Method	6010B: Disso	olved Meta	als	
Client ID: PBW	Batch	ID: <b>A8</b>	2346	F	RunNo: 8	2346				
Prep Date:	Analysis D	ate: 10	)/25/2021	8	SeqNo: 2	920384	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID: LCS-A	SampT	ype: <b>LC</b>	S	Tes	TestCode: EPA Method 6010B: Dissolved Metals					
Client ID: LCSW	Batch	Batch ID: A82346			RunNo: <b>82346</b>					
Prep Date:	Analysis Da	ate: 10	/25/2021	S	SeqNo: 2	920386	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.7	80	120			

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 21 of 25

# Hall Environmental Analysis Laboratory, Inc.

2110335 16-Dec-21

WO#:

**Client:** Western Refining Southwest, Inc. **Project:** Giant Bloomfield Refinery

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals Client ID: PBW Batch ID: A82772 RunNo: 82772 Prep Date: Analysis Date: 11/10/2021 SeqNo: 2938644 Units: mg/L SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result PQL Qual Beryllium ND 0.0030 ND 0.010

Nickel 0.050 Thallium ND

Sample ID: LCS-A TestCode: EPA Method 6010B: Dissolved Metals SampType: LCS Client ID: LCSW Batch ID: A82772 RunNo: 82772 Prep Date: Analysis Date: 11/10/2021 SeqNo: 2938646 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 94.0 0.0030 0 80 120 Beryllium 0.47 0.5000 Nickel 0.41 0.010 0.5000 0 82.8 80 120 0 0.45 0.050 0.5000 90.5 80 120 Thallium

TestCode: EPA Method 6010B: Dissolved Metals Sample ID: MB SampType: MBLK Client ID: PBW Batch ID: A82855 RunNo: 82855 Prep Date: Analysis Date: 11/15/2021 SeqNo: 2941877 Units: mg/L SPK value SPK Ref Val %REC LowLimit Analyte Result PQL HighLimit %RPD **RPDLimit** Qual ND 0.050 Selenium

Silver ND 0.0050

Sample ID: LCS SampType: LCS TestCode: EPA Method 6010B: Dissolved Metals Client ID: LCSW Batch ID: A82855 RunNo: 82855

Prep Date: Analysis Date: 11/15/2021 SeqNo: 2941879 Units: mg/L

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Selenium 80 0.44 0.050 0.5000 0 88.9 120 0.093 0 80 Silver 0.0050 0.1000 92.6 120

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Page 22 of 25

# Hall Environmental Analysis Laboratory, Inc.

WO#: **2110335** 

16-Dec-21

Client: Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery

Sample ID: MB-63130 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: PBW Batch ID: 63130 RunNo: 82038

Prep Date: 10/7/2021 Analysis Date: 10/13/2021 SeqNo: 2905334 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Iron ND 0.050

Sample ID: LCS-63130 SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals

Client ID: LCSW Batch ID: 63130 RunNo: 82038

Prep Date: 10/7/2021 Analysis Date: 10/13/2021 SeqNo: 2905336 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Iron 0.50 0.050 0.5000 0 100 80 120

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 23 of 25

# Hall Environmental Analysis Laboratory, Inc.

2110335 16-Dec-21

WO#:

Client: Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery

Sample ID: MB-doc SampType: MBLK TestCode: SM 5310B: DOC

Client ID: PBW Batch ID: R81969 RunNo: 81969

Prep Date: Analysis Date: 10/12/2021 SeqNo: 2902099 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Organic Carbon, Dissolved ND 1.0

Sample ID: LCS-doc SampType: LCS TestCode: SM 5310B: DOC

Client ID: LCSW Batch ID: R81969 RunNo: 81969

Prep Date: Analysis Date: 10/12/2021 SeqNo: 2902102 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Organic Carbon, Dissolved 4.7 1.0 4.850 0 96.8 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 24 of 25

# Hall Environmental Analysis Laboratory, Inc.

2110335

WO#:

16-Dec-21

Client: Western Refining Southwest, Inc.

**Project:** Giant Bloomfield Refinery

Sample ID: MB-63150 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 63150 RunNo: 81996

Prep Date: 10/11/2021 Analysis Date: 10/13/2021 SeqNo: 2903607 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-63150 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 63150 RunNo: 81996

Prep Date: 10/11/2021 Analysis Date: 10/13/2021 SeqNo: 2903608 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1000 20.0 1000 0 100 80 120

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 25 of 25



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name:	Western Refining Southwest, Inc.	Work Order Numb	er: 2110335		RcptNo: 1
Received By:	Juan Rojas	10/6/2021 8:40:00 A	M	Hungy 9	
Completed By:	Sean Livingston	10/6/2021 3:40:19 F	M	June 9	
Reviewed By:	Jn 10/6/21			JU/	Jon
Chain of Cus	tody				
1. Is Chain of Co	ustody complete?		Yes 🗸	No 🗌	Not Present
2. How was the	sample delivered?		Courier		
Log In					
	pt made to cool the samp	les?	Yes 🗸	No 🗌	NA 🗌
4. Were all samp	oles received at a tempera	ture of >0° C to 6.0°C	Yes 🗸	No 🗌	NA 🗔
5. Sample(s) in p	proper container(s)?		Yes 🗸	No 🗌	
6. Sufficient sam	ple volume for indicated te	est(s)?	Yes 🗸	No 🗌	
7. Are samples (	except VOA and ONG) pro	perly preserved?	Yes 🗸	No 🗌	
8. Was preservat	tive added to bottles?		Yes	No 🗸	NA 🗌
9. Received at lea	ast 1 vial with headspace	<1/4" for AQ VOA?	Yes 🗸	No 🗌	NA 🗌
10. Were any sam	nple containers received b	roken?	Yes	No 🗹	# of preserved
	rk match bottle labels?		Yes 🗸	No 🗆	bottles checked 8 - 4 for pH: (<2)or (12) inless noted)
12. Are matrices c	orrectly identified on Chair	of Custody?	Yes 🗸	No 🗌	Adjusted? NØ
3. Is it clear what	analyses were requested	?	Yes 🗸	No 🗌	
	ng times able to be met?		Yes 🗸	No 🗆	Checked by: TMC 10/7/21
	ing (if applicable)		KRG	10/06/21 t	THE UNPRESTAKEN  BACK - KPG
15. Was client not	tified of all discrepancies v	vith this order?	Yes	No 🗌	NA ₩ 10/06 (
Person I	Notified:	Date:	deservation of the section of the section of		
By Who	m: [	Via:	eMail	Phone  Fax	In Person
Regardii	ng:	TO THE RESIDENCE OF THE PERSON AND A STATE OF THE PERSON AS A STATE OF	THE PERSON NAMED IN COLUMN 2 PROPERTY OF THE PERSON NAMED IN COLUMN 2 PROPERTY	EX SOCIETARIOS PROCESOS AN ANARYMONO REMOVED	BALLA THE BLATCH ANY HIS GARD SOUTH SECURITION OF SECURITION AND SECURITION OF SECURIT
Client In	structions:			Wallery State Under State A-Philadeles (1906)	CONTROL OF THE CONTROL OF T
16. Additional ren	narks: Filtered fr	om 0010,00	40,002	C, 003	C into OOSA,
17. <u>Cooler Inforr</u> Cooler No		Seal Intact Seal No			

Received by OCD: 10/3/2023	0:46:03 AM 'SOLL 'ap; ting	IXII	XXX	+	Page 69 of 70
Aching the	ord + boulossib enoing	$ \chi $	XXX	X	\$ th
₹ 6	Perric I ron	X	$\lambda\lambda\rangle$	X	hy dele WSD.COV
The state of the s	Ferrous Tron	$\times$	XXX	X	S B og I
AR 71000-17	82602 2M-F2I yd Inu non-	: >	XX	$\lambda$	alytics
M 87	Metals (dissolva) by ICPI	'X .	XXX		the an
ENVIRONMEN  FSIS LABORAT  Browinonmental.com  Albuquerque, NM 87109  Fax 505-345-4107  Alysis Request	otal Coliform (Present/Absent)	-			uo pa
Men men erqu	(AOV-ima2) 072	3			F. F
SIS SIS viron viron Fax ysis	(AOV) 09S	3	XXX		Gearl Gearl
	CI' E' BL' NO3' NO5' PO4' 805		= 1		Stuart.
M.ha w.ha	slateM 8 AROS	4	- 7		Jo
HAL ANA www.h kins NE 845-397	2MI20728 10 0158 yd 2HA9				CC.
HALL ANAL www.ha Hawkins NE 505-345-3975	(1.403 bodfeM) AGE				w loo-di
HALI ANA www.h 4901 Hawkins NE Tel. 505-345-397	8081 Pesticides/8082 PCB's				S: S: Any st
4 –	(ORM \ ORO \ DRO \ MRO)		$\perp$		Date Time See CL; Stuart. hydee WSp Date Time attachment (CL; Stuart hydee WSp Older) See Time attachment will be serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
	(FS08) s'BMT \ ABTM \ X3TE	12	606	9	Rer Sposs
ha		1	000		S S S S S S S S S S S S S S S S S S S
Ref, wen	2v	8	20 20 3	<u> </u>	Time
	EAL CL		8 8 8	8	21/2   21/2   22
F. ele	16 ms ms no 6-0.1-4.5 HEAL NO.				Date Date
iush Bloomfield					
Rush	ger:  Ala	330			oratori
ne:	ger: act B-Yes Including CF) Type	7,-	113	<del>}</del>	3: 2. (V. t.)
Turn-Around Time: Standard Project Name:	Sampler: Tash A  Sampler: Tash A  On Ice: A-Yes  # of Coolers: (  Cooler Temp(including cF):  Container Preserva  Type and # Type	3			Via:
ound Idarc	Mana: Atuana da	3			K. K.
Turn-Arou Stand Project Na	Sampler: On Ice: # of Coole Cooler Te	Vortous	1		ved b
Turn-Around Ti	Sampler: The of Cooler Temp Container  Type and #	3			Received by: Received by: ntracted to etbe
to	8				subco
Record  2007 2007 2007 2007 2007 2007 2007 20	Kacenaruthon perdeu   Level 4 (Full Validation)   Sample Name	127			lay be
818 918	Valid				antal m
<b>8</b>	AKac naruthorn Level 4 (Full Vmpliance	二年	-50	01	ionme in the state of the state
\$ \$ \$ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	e e 4 (		2 2 2		ill Env
Narathor Luka 60 E. 23 Arson, CA	Leve liano	CBR-17	CBR-32 CBR-50		ato He
16-Cust		23	3 3 0	3	Relinquished by: Relinquished by: samples submitted t
	人子上 □ Az Co □ Other	3			quish quish es sut
0 0 5			3		Time: Relinquished by: Via:    So
air Aress	(age: nn: pe)	17.00	1150 1250		ssary.
# Add #	Packag ndard litation: AC O (Type		1350	2	Time:
Client: $\mathcal{N}_{\mathcal{CS}}$ Mailing Address:	aA/QC Package:  □ Standard  Accreditation:  □ NELAC  □ EDD (Type)	10-5:31			5 7
		10			Date:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 271818

#### **CONDITIONS**

Operator:	OGRID:
Western Refining Southwest LLC	267595
539 South Main Street	Action Number:
Findlay, OH 45840	271818
	Action Type:
	[UF-DP] Discharge Permit (DISCHARGE PERMIT)

#### CONDITIONS

Create By		Condition Date
lbarr	None	10/3/2023