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May 31, 2024

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

Subject: 2023 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:

Ensolum, LLC (Ensolum), on behalf of Western Refining Southwest, LLC (Western, an affiliate of Marathon Petroleum Company LP), has prepared this report detailing activities completed in 2023 at the former Giant Bloomfield Refinery (Site), Discharge Permit number GW-40, located in San Juan County, New Mexico.

SITE BACKGROUND

The 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 the southwest quarter of Section 22 and the northwest quarter of 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 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 waste 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 former 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 former refinery plume included phase-separated hydrocarbons (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, Inc.'s (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 2023.

2023 GROUNDWATER MONITORING ACTIVITIES

During 2023, groundwater was not recovered from on-Site wells, treated, and/or discharged into the infiltration gallery; however, Ensolum has continued to conduct groundwater monitoring activities from all viable on-Site wells. Further Site activities will be performed once the NMOCD approves the *Stage 2 Abatement Plan* prepared by WSP.

GROUNDWATER GAUGING

Gauging events were conducted by Ensolum in March, June, September, and November of 2023 using an oil-water interface probe. The interface probe was decontaminated with Alconox® detergent 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 groundwater flow direction. Table 1 presents well construction information for all Site monitoring wells. Measurements and calculated groundwater elevations above mean sea level (AMSL) for each sampling event are presented in Table 2. Groundwater potentiometric surface maps and inferred groundwater flow directions for each event are also depicted in Figures 2 through 5. Inferred groundwater flow direction at the Site is to the south.

2023 UPGRADIENT BLM SPLIT SAMPLING AND RESULTS

Ensolum was present and collected split groundwater samples during the Bureau of Land Management (BLM) groundwater sampling events conducted in April and October of 2023. Specifically, as part of their effort to assess residual manganese concentrations related to the Lee Acres Landfill Superfund site (located north and adjacent to the Site), the BLM collected groundwater samples from several Site wells located hydrogeologically downgradient of the Lee Acres Landfill. Ensolum was present during the sampling events 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 containers 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 following United States Environmental Protection Agency (EPA) Method 8260B, total and dissolved metals following EPA Methods 6010B, 6020A, and 245.1, anions following EPA Method 300.0, dissolved organic carbon following EPA Method 9060, and TDS following Standard Method (SM) 2540C. Analytical results, including Site historical results, are summarized on Tables 3, 4, and 5, with laboratory reports attached as Appendix 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 these sampling events. Once the *Stage 2 Abatement Plan,* is approved, iso-concentration maps will be developed for the Site constituents of concern.

Ensolum appreciates the opportunity to provide this report to you. If you have any questions or comments regarding this report, do not hesitate to contact the undersigned.

Sincerely,

Ensolum, LLC

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Attachments:

Figure 1: Site Location Map
Figure 2: Groundwater Elevation Contour Map March 2023
Figure 3: Groundwater Elevation Contour Map June 2023
Figure 4: Groundwater Elevation Contour Map September 2023
Figure 5: Groundwater Elevation Contour Map November 2023

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

Appendix A: Laboratory Analytical Reports

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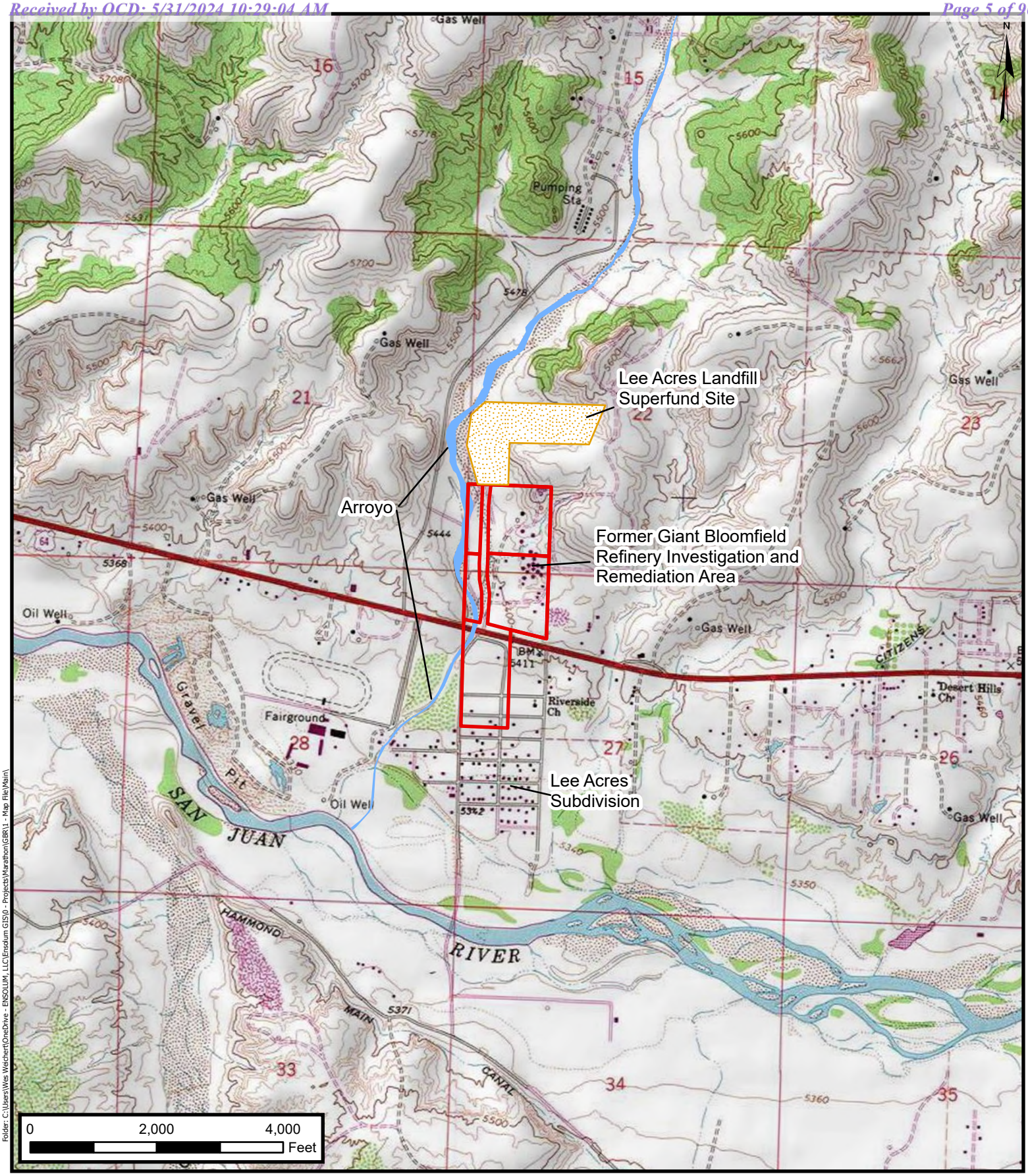
FIGURES



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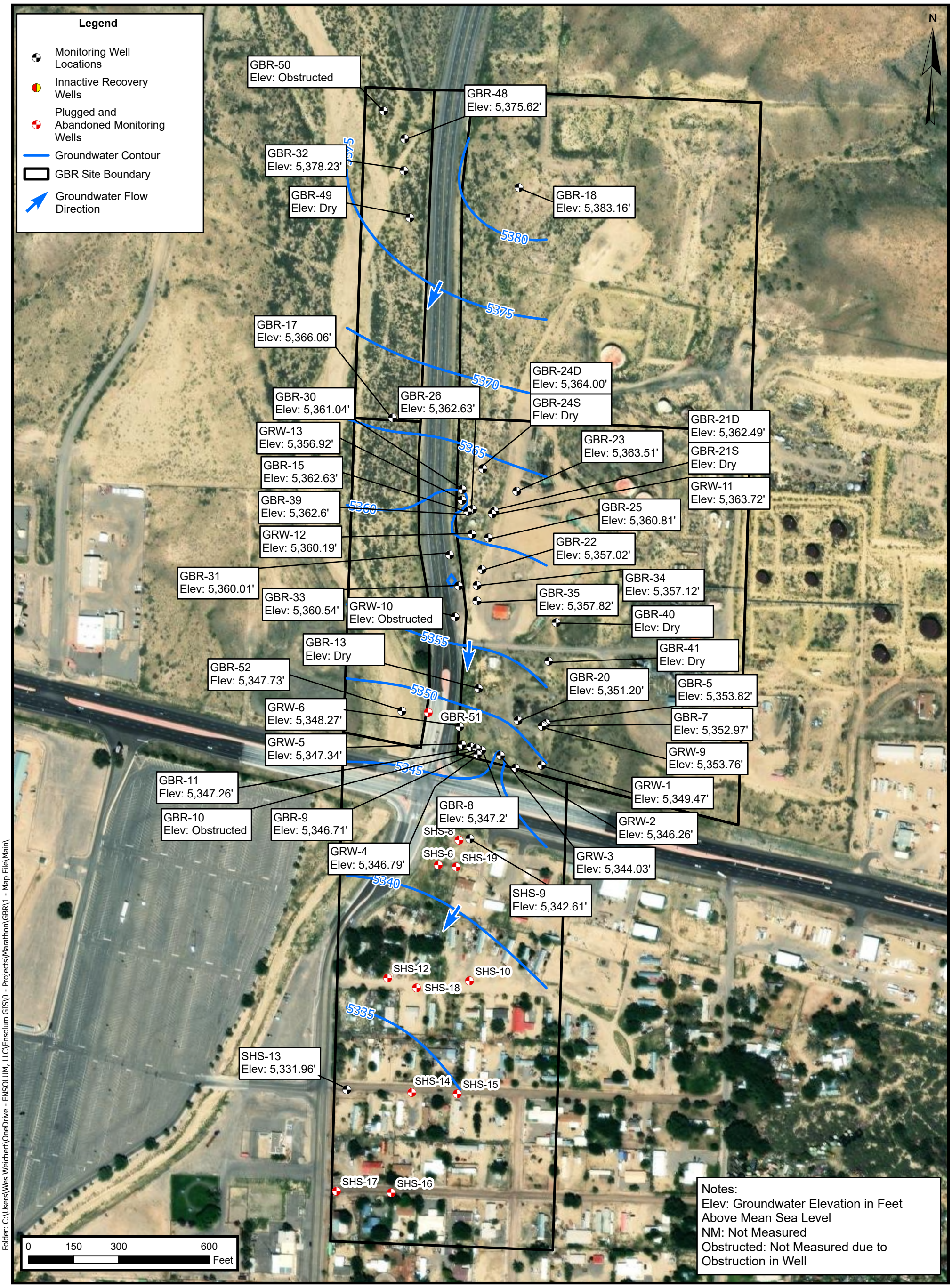
Site Location Map

Western Refining Southwest LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE 1



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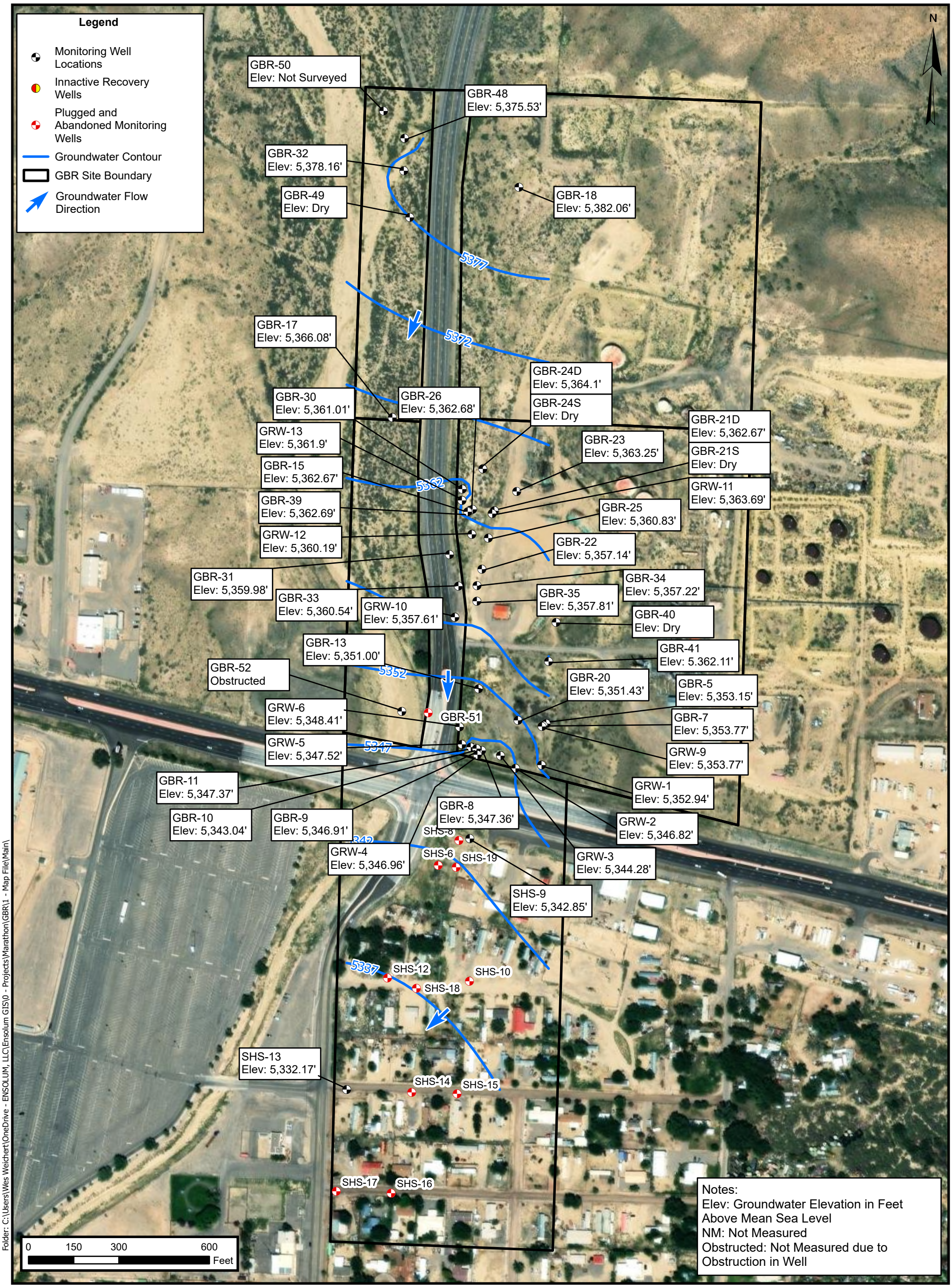
Groundwater Elevation Contour Map
March 2023

Western Refining Southwest LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE

2



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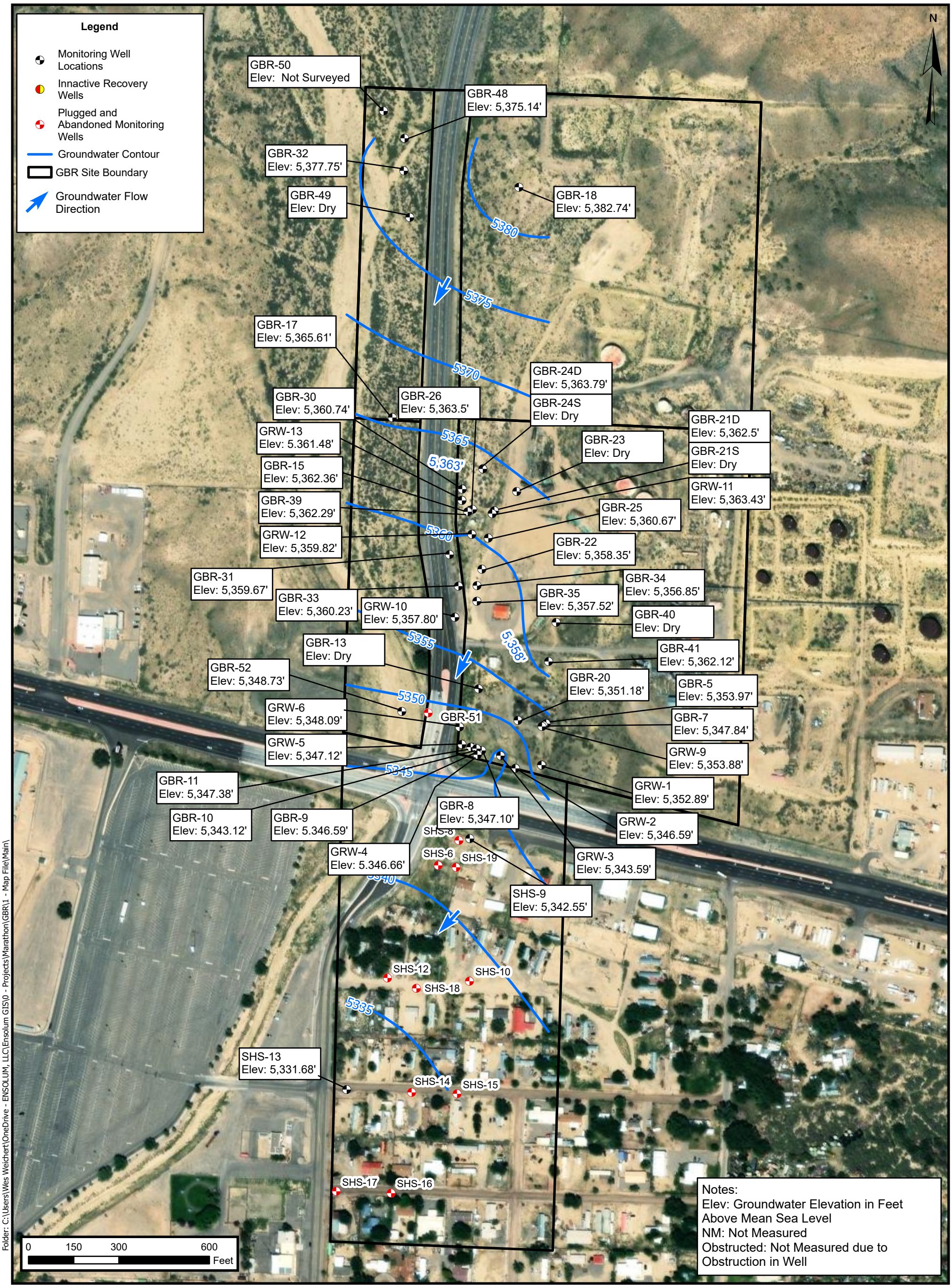
Groundwater Elevation Contour Map
June 2023

Western Refining Southwest LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE

3



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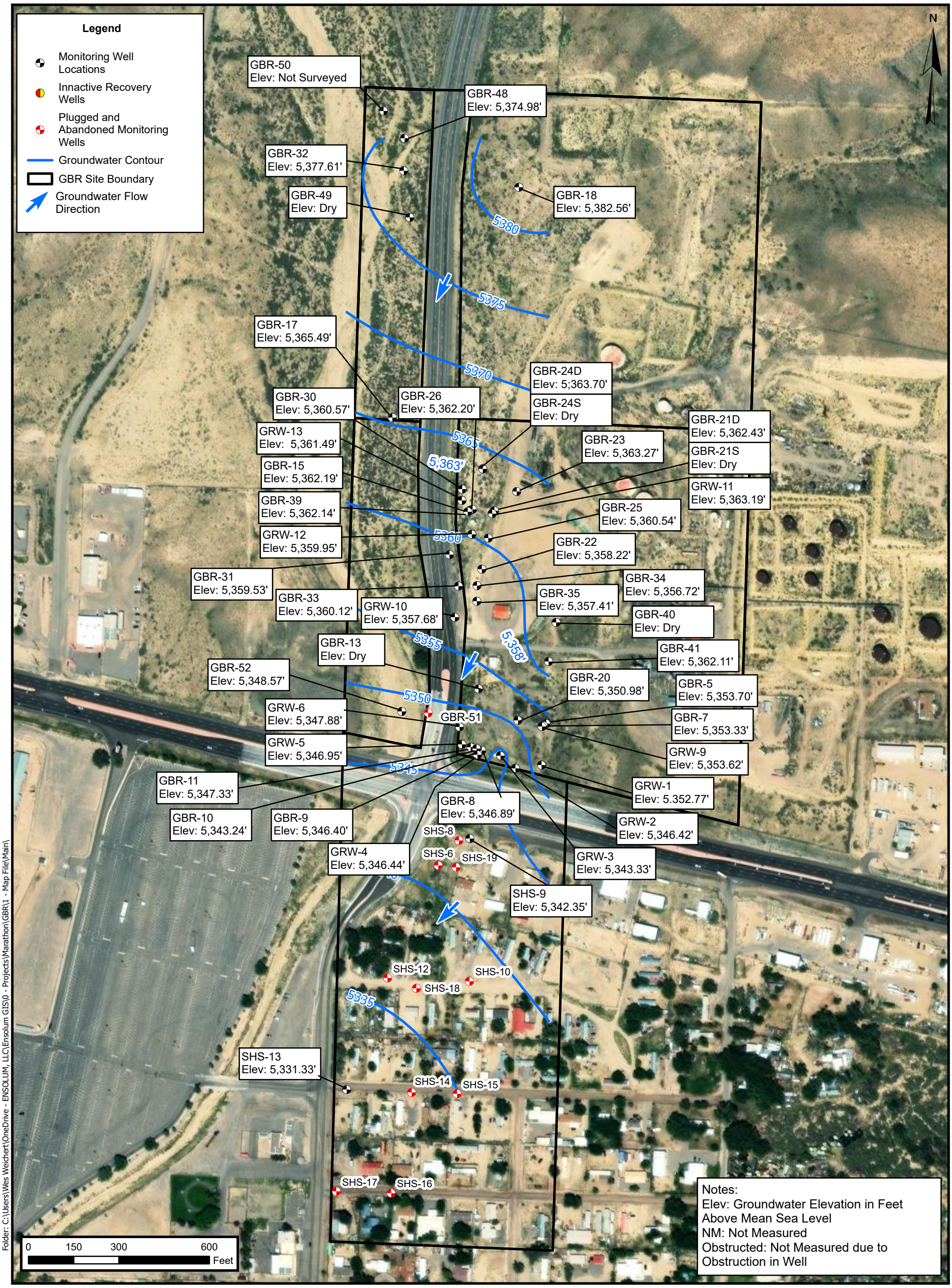
Groundwater Elevation Contour Map
September 2023

Western Refining Southwest LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE

4



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Groundwater Elevation Contour Map
November 2023

Western Refining Southwest LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE

5

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TABLES

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-2 / GBR-42	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	5,397.99	58.33	45 - 55	clay	2
GBR-17	5,402.69	50.25	31 - 51	sand	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
GBR-41	5,396.35	34.34	22 - 32	sand	2
GBR-48	5,413.90	43.76	28 - 38	sand/gravel	2
GBR-49	(2)	40.26	26 - 36	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
Wells Plugged and Abandoned or Damaged					
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	5,373.80	45.80	-	-	-
SHS-12	5,373.94	52.41	-	-	-
SHS-14	5,367.07	52.71	-	-	-
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	-	-	-

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

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TABLE 2
GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE-SEPARATED HYDROCARBONS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN COUNTY, NEW MEXICO

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	March 2023				June 2023				September 2023				November 2023			
			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)	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	44.83	-	-	5,349.47	41.36	--	--	5,352.94	41.41	--	--	5,352.89	41.53	--	--	5352.77
GRW-2 / GBR-42	5,391.28	66.11	45.02	-	-	5,346.26	44.46	--	--	5,346.82	44.69	--	--	5,346.59	44.86	--	--	5,346.42
GRW-3 / GBR-29	5,388.77	60.90	44.74	-	-	5,344.03	44.49	--	--	5,344.28	45.18	--	--	5,343.59	45.44	--	--	5,343.33
GRW-4 / GBR-43	5,390.02	66.30	43.23	-	-	5,346.79	43.06	--	--	5,346.96	43.36	--	--	5,346.66	43.58	--	--	5,346.44
GRW-5 / GBR-37	5,390.56	75.44	43.22	-	-	5,347.34	43.04	--	--	5,347.52	43.44	--	--	5,347.12	43.61	--	--	5,346.95
GRW-6 / GBR-44	5,390.81	63.11	42.54	-	-	5,348.27	42.40	--	--	5,348.41	42.72	--	--	5,348.09	42.93	--	--	5,347.88
GRW-9 / GBR-6	5,395.70	54.90	41.94	-	-	5,353.76	41.56	--	--	5,354.14	41.82	--	--	5,353.88	42.08	--	--	5,353.62
GRW-10 / GBR-36	5,395.02*	66.02	Obstructed				37.41	--	--	5,357.61	37.22	--	--	5,357.80	37.34	--	--	5,357.68
GRW-11 / GBR-27	5,397.85	55.60	34.13	-	-	5,363.72	34.16	--	--	5,363.69	34.42	--	--	5,363.43	34.66	--	--	5,363.19
GRW-12 / GBR-28	5,397.24	51.76	37.05	-	-	5,360.19	37.05	--	--	5,360.19	37.42	--	--	5,359.82	37.29	--	--	5,359.95
GRW-13 / GBR-14	5,396.90	70.86	39.98	-	-	5,356.92	35.00	--	--	5,361.90	35.42	--	--	5,361.48	35.41	--	--	5,361.49
GBR-5	5,395.07	46.88	41.25	-	-	5,353.82	41.92	--	--	5,353.15	41.10	--	--	5,353.97	41.37	--	--	5,353.70
GBR-7	5,395.85	50.56	42.88	42.87	0.01	5,352.97	42.08	--	--	5,353.77	42.31	--	--	5,347.84	42.52	--	--	5,353.33
GBR-8	5,390.50	49.26	43.30			5,347.20	43.14	--	--	5,347.36	43.40	--	--	5,347.10	43.61	--	--	5,346.89
GBR-9	5,389.92	67.28	43.21	-	-	5,346.71	43.01	--	--	5,346.91	43.33	--	--	5,346.59	43.52	--	--	5,346.40
GBR-10	5,390.57	47.50	DRY				47.53	--	--	5,343.04	47.45	--	--	5,343.12	47.33	--	--	5,343.24
GBR-11	5,389.43	51.20	42.17	-	-	5,347.26	42.06	--	--	5,347.37	42.05	--	--	5,347.38	42.10	--	--	5,347.33
GBR-13	5,393.04	45.40	DRY				42.04	--	--	5,351.00	DRY				DRY			
GBR-15	5,397.99	58.33	35.36	-	-	5,362.63	35.32	--	--	5,362.67	35.63	--	--	5,362.36	35.80	--	--	5,362.19
GBR-17	5,402.69	50.25	36.63	-	-	5,366.06	36.61	--	--	5,366.08	37.08	--	--	5,365.61	37.20	--	--	5,365.49
GBR-18	5,421.68	47.87	38.52	Trace	-	5,383.16	39.62	--	--	5,382.06	38.94	--	--	5,382.74	39.12	--	--	5,382.56
GBR-20	5,393.47	44.60	42.27	-	-	5,351.20	42.04	--	--	5,351.43	42.29	--	--	5,351.18	42.49	--	--	5,350.98
GBR-21D	5,400.19	48.64	37.44	-	-	5,362.75	37.52	--	--	5,362.67	37.69	--	--	5,362.50	37.76	--	--	5,362.43
GBR-21S	5,400.65	34.85	Dry				Dry				DRY				DRY			
GBR-22	5,395.91	45.85	38.89	-	-	5,357.02	38.77	--	--	5,357.14	37.56	--	--	5,358.35	37.69	--	--	5,358.22
GBR-23	5,403.72	41.75	40.21	-	-	5,363.51	40.47	--	--	5,363.25	DRY				40.45	--	--	5,363.27
GBR-24D	5,396.77	51.44	32.77	-	-	5,364.00	32.67	--	--	5,364.10	32.98	--	--	5,363.79	33.07	--	--	5,363.70
GBR-24S	5,396.08	33.50	DRY				Dry				DRY				DRY			
GBR-25	5,397.03	50.27	36.22	-	-	5,360.81	36.20	--	--	5,360.83	36.36	--	--	5,360.67	36.49	--	--	5,360.54
GBR-26	5,396.72	42.54	34.09	-	-	5,362.63	34.04	--	--	5,362.68	33.22	--	--	5,363.50	34.52	--	--	5,362.20
GBR-30	5,395.59	41.44	34.55	-	-	5,361.04	34.58	--	--	5,361.01	34.85	--	--	5,360.74	35.02	--	--	5,360.57
GBR-31	5,396.58	43.50	36.57	-	-	5,360.01	36.60	--	--	5,359.98	36.91	--	--	5,359.67	37.05	--	--	5,359.53
GBR-32	5,414.86	47.90	36.63	Trace	-	5,378.23	36.70	--	--	5,378.16	37.11	--	--	5,377.75	37.25	--	--	5,377.61
GBR-33	5,396.28	45.77	35.74	-	-	5,360.54	35.74	--	--	5,360.54	36.05	--	--	5,360.23	36.16	--	--	5,360.12
GBR-34	5,394.00	46.70	36.88	-	-	5,357.12	36.78	--	--	5,357.22	37.15	--	--	5,356.85	37.28	--	--	5,356.72
GBR-35	5,393.66	41.62	35.84	-	-	5,357.82	35.85	--	--	5,357.81	36.14	--	--	5,357.52	36.25	--	--	5,357.41
GBR-39	5,397.55	41.39	34.95	-	-	5,362.60	34.86	--	--	5,362.69	35.26	--	--	5,362.29	35.41	--	--	5,362.14
GBR-40	5,400.76	39.40	Dry				Dry				DRY				DRY			
GBR-41	5,396.35	34.34	Dry				34.24	--	--	5,362.11	34.23	--	--	5,362.12	34.24	--	--	5,362.11
GBR-48	5,413.90	43.76	38.28	Trace	-	5,375.62	38.37	--	--	5,375.53	38.76	--	--	5,375.14	38.92	--	--	5,374.98
GBR-49	(1)	40.26	Dry				Dry				DRY				DRY			
GBR-50	(1)	40.63	Obstructed				34.08	--	--	--	34.48	--	--	--	34.52	--	--	--
GBR-52 / GRW-8	5,387.74	54.59	40.01	Trace	-	5,347.73	Obstructed				39.01	--	--	5,348.73	39.17	--	--	5,348.57
SHS-9	5,380.79	46.27	38.18	-	-	5,342.61	37.94	--	--	5,342.85	38.24	--	--	5,342.55	38.44	--	--	5,342.35
SHS-13	5,367.81	47.51	35.85	-	-	5,331.96	35.64	--	--	5,332.17	36.13	--	--	5,331.68	36.48	--	--	5,331.33

Notes:

(1) Top-of-casing elevation is unknown

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

** - Repaired and resurveyed August 2023, new elevation = 5,393.78*

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN COUNTY, NEW MEXICO

ENSOLUM

Well ID	Sample Date	benzene	toluene	xylenes, total	acetone	bromoform (Tribromomethane)	2-butanone (methyl ethyl ketone)	carbon disulfide	chlorobenzene	chloroform (trichloromethane)	chloromethane	cis-1,2-dichloroethene (cis-1,2-DCE)	cis-1,3-dichloropropene	dibromochloromethane	1,1-dichloroethane	2-hexanone (n-butyl methyl ketone)	styrene	tetrachloroethene (PCE)	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene (TCE)
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
NMWQCC Standard		**5**	**1,000**	**620**	NE	NE	NE	NE	NE	**100**	NE	**70**	NE	NE	**25**	NE	**100**	**5**	**200**	**5**	**5**
EPA Regional Screening Level (2)		4.55	1,100	193	**14,100**	**32.9**	**5,570**	**811**	**77.7**	2.21	**188**	36.1	**4.71**	**8.71**	27.5	**38.0**	1,210	40.6	8,010	0.415	2.83
Lee Acres Alluvial Aquifer Background Concentration (3)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres Regional Background Concentration (4)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (5)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	70	NE	NE	NE	NE	NE	5.0	NE	NE	5.0
GBR Background Concentrations (6)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
GBR-17	Jun-86	ND	ND	ND	---	ND	---	---	ND	ND	ND	ND	ND	ND	20	---	---	1.0	14	ND	1.0
	Dec-88	ND	ND	ND	---	ND	---	---	ND	ND	ND	---	ND	ND	ND	---	---	ND	3.1	ND	ND
	Jan-95	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
	Dec-05	ND	ND	ND	---	ND	---	---	ND	ND	ND	---	ND	ND	ND	---	---	ND	ND	ND	ND
	Jan-10	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Jan-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Oct-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Apr-22 (Obstructed)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Sep-22 (Obstructed)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-23	<1.0	---	---	<10	---	---	---	<1.0	<1.0	---	<1.0	<1.0	---	<1.0	---	---	<1.0	<1.0	---	<1.0
	Oct-23	<1.0	---	---	<10	---	---	---	<1.0	<1.0	---	<1.0	<1.0	---	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
GBR-32*	Aug-88	ND	ND	ND	---	ND	---	---	ND	3.9	ND	**97**	ND	ND	3.6	---	---	**24**	4.5	ND	**16**
	Jan-95	0.80	ND	ND	---	ND	---	---	ND	1.4	ND	**120**	ND	ND	1.8	---	---	**11**	ND	ND	**6.4**
	Dec-00	ND	ND	ND	---	ND	---	---	ND	1.6	ND	10	0.30	ND	1.1	---	---	2.9	ND	ND	2.1
	Dec-05	ND	ND	ND	---	ND	---	---	ND	ND	ND	---	ND	ND	ND	---	---	ND	ND	ND	ND
	Jan 2010	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1.2	<1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Jan-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Oct-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1	<1.0	<1.0	<1.0
	Apr-22	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Sep-22	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Apr-23	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Oct-23	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN COUNTY, NEW MEXICO

ENSOLUM

Well ID	Sample Date	benzene	toluene	xylenes, total	acetone	bromoform (Tribromomethane)	2-butanone (methyl ethyl ketone)	carbon disulfide	chlorobenzene	chloroform (trichloromethane)	chloromethane	cis-1,2-dichloroethene (cis-1,2-DCE)	cis-1,3-dichloropropene	dibromochloromethane	1,1-dichloroethane	2-hexanone (n-butyl methyl ketone)	styrene	tetrachloroethene (PCE)	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene (TCE)
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
NMWQCC Standard		**5**	**1,000**	**620**	NE	NE	NE	NE	NE	**100**	NE	**70**	NE	NE	**25**	NE	**100**	**5**	**200**	**5**	**5**
EPA Regional Screening Level (2)		4.55	1,100	193	**14,100**	**32.9**	**5,570**	**811**	**77.7**	2.21	**188**	36.1	**4.71**	**8.71**	27.5	**38.0**	1,210	40.6	8,010	0.415	2.83
Lee Acres Alluvial Aquifer Background Concentration (3)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres Regional Background Concentration (4)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (5)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	70	NE	NE	NE	NE	NE	5.0	NE	NE	5.0
GBR Background Concentrations (6)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
GBR-48	Nov-88	ND	ND	ND	---	ND	---	---	180	ND	ND	ND	ND	ND	**31**	---	---	ND	ND	ND	ND
	Jan-95	ND	ND	ND	---	ND	---	---	ND	1.4	ND	54	ND	ND	0.30	---	---	**601**	ND	ND	3.6
	Dec-00	ND	ND	ND	---	ND	---	---	ND	3.2	ND	15	ND	ND	0.50	---	---	3.3	ND	ND	2.6
	Dec-05	ND	ND	ND	---	ND	---	---	ND	ND	ND	---	ND	ND	ND	---	---	2.3	ND	ND	0.90
	Jan-10	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1.3	<1.0	<1.0	<1.0
	Aug-15	<2.0	<2.0	<3.0	<20	<2.0	<20	<20	<2.0	<2.0	<6.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<2.0	<2.0	<2.0
	Nov-19	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Jan-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Oct-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1	<1.0	<1.0	<1.0
	Apr-22	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Sep-22	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1.2	<1.0	<1.0	<1.0
	Apr-23	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Oct-23	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	1.1	<1.0	<1.0	<1.0
GBR-50	Nov-88	0.80	ND	ND	---	ND	---	---	ND	0.20	ND	ND	ND	ND	0.70	---	---	0.70	0.60	ND	0.20
	Jan-95	ND	ND	ND	---	ND	---	---	ND	ND	ND	2.3	ND	ND	ND	---	---	ND	ND	ND	ND
	Dec-00	ND	ND	ND	---	ND	---	---	ND	ND	ND	0.20	ND	ND	ND	---	---	ND	ND	ND	ND
	Dec-05	ND	ND	ND	---	ND	---	---	ND	ND	ND	---	ND	ND	ND	---	---	ND	ND	ND	ND
	Jan-10	<1.0	<1.0	<1.5	11	<1.0	<10	<10	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Aug-15	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Nov-19	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Jan-21	<1.0	<1.0	<1.5	10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Oct-21	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Apr-22	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Sep-22	<1.0	<1.0	<1.5	<10	<1.0	<10	<10	<1.0	<1.0	<3.0	<1.0	<1.0	---	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
	Apr-23	<1.0	---	---	<10	---	---	---	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	---	---	<1.0	<1.0	---	<1.0
	Oct-23	<1.0	---	---	<10	---	---	---	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	---	---	<1.0	<1.0	---	<1.0

Notes:

(1) - Compounds were not detected above laboratory reporting limits. See complete laboratory analytical reports for additional details.

(2) - 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)

(3) - "Background" Concentration Proposed in Lee Acres DRAFT Remedial Investigation Report Prepared for the US Bureau of Land Management (dated February 1992)

(4) - Regional Background Concentrations Established in Document Titled Hydrogeology and Water Resources of San Juan Basin, New Mexico, Stone et al., dated 1983

(5) - 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).

(6) - 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

ND - not detected above the laboratory reporting limit

NE - not established

NMWQCC - New Mexico Water Quality Control Commission

USEPA - United States Environmental Protection Agency

***BOLD** - bold cells indicates concentration exceeds the NMWQCC standard, where NMWQCC are not established, concentrations compared to EPA regional screening levels*

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - METALS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN COUNTY, NEW MEXICO

ENSOLUM

Well ID	Sample Date	Total Metals: arsenic	barium	beryllium	cadmium	chromium	iron	lead	manganese	mercury	nickel	selenium	silver	thallium	Dissolved Metals: arsenic	barium	beryllium	cadmium	chromium	iron	lead	manganese	nickel	selenium	silver	thallium
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		**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 Level (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	0.000517	3.77	0.0246	0.0092	22.5	14	0.015	0.434	0.392	0.0998	0.0941	0.0002
Lee Acres Alluvial Aquifer Background Concentration (2)		nd	nd	nd	nd	0.0144 - 0.113	nd - 1.48	nd	0.0161 - 0.423	nd	nd	0.008 - 0.0095	0.0273 - 0.0309	NE	nd	nd	nd	nd	0.0144 - 0.113	nd - 1.48	nd	0.0161 - 0.423	nd	0.008 - 0.0095	0.0273 - 0.0309	NE
Lee Acres Regional Background Concentration (3)		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	0.001 - 0.060	0.010 - 16	0 - 0.055	0 - 2.6	NE	0.002 - 0.04	NE	NE
Lee Acres RI/ROD Remedial 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 Concentrations (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
GBR-17	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**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Aug-15	---	---	---	---	---	3.60	---	<0.0020	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Nov-19	---	---	---	---	---	**120**	---	3.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-21	<0.0010	0.014	<0.0010	<0.00050	0.011	0.79	0.00064	0.014	<0.00020	0.0056	0.0030	<0.00050	<0.00025	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-21	<0.0010	0.011	<0.0010	<0.00050	0.003	<0.050	<0.00050	0.015	<0.00020	0.0014	0.0038	<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
	Apr-22 (Obstructed)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Sep-22 (Obstructed)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-23	0.0011	0.033	<0.0030	<0.0020	---	4	0.0028	0.073	<0.00020	0.023	---	<0.0087	<0.0010	<0.0050	<0.020	<0.0030	<0.0020	---	<0.020	<0.0010	<0.0020	<0.010	---	0.0095	<0.0010
	Oct-23	0.0051	0.20	<0.0030	<0.0020	---	35	**0.035**	3.6	<0.00020	0.12	---	<0.0050	<0.0010	<0.0010	<0.020	<0.0030	<0.0020	---	<0.020	<0.0010	<0.0020	<0.010	---	0.015	<0.0010
GBR-32*	Aug-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Dec-05	---	---	---	---	---	---	---	---	---	**9.00**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Jan 2010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	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	<0.0010	0.034	<0.010	<0.010	0.10	3.6	0.0012	2.1	<0.00020	0.07	0.0029	<0.025	<0.00050	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-21	0.0013	0.028	<0.0010	<0.00050	0.33	8.3	0.0011	1.1	<0.00020	0.061	0.0044	<0.00050	<0.00025	---	---	---	---	---	---	---	---	---	---	---	---
	Apr-21	0.0013	0.054	<0.0010	<0.00050	0.13	6	0.0025	2.0	<0.00020	0.059	0.0025	<0.00050	<0.00025	<0.0010	0.012	<0.0010	<0.0050	<0.0010	<0.020	<0.00050	1.4	0.034	0.0014	<0.0050	<0.00050
	Oct-21	---	---	---	---	---	1.3	---	---	---	---	---	---	---	<0.020	0.0085 J	<0.0030	<0.0020	<0.0060	<0.020	<0.020	0.74	0.026	<0.050	0.0110	<0.050
	Apr-22	---	---	---	---	---	0.44	---	---	---	---	---	---	---	<0.0010	0.011	<0.0020	<0.0020	<0.0060	---	<0.0050	1.10	0.039	<0.010	<0.0050	<0.0025
	Sep-22	---	---	---	---	---	1.2	<0.00050	---	---	---	---	---	---	<0.0010	0.0080	<0.0020	<0.0020	---	<0.020	<0.00050	0.81	0.034	0.0033	0.0079	---
	Apr-23	<0.0010	0.0093	<0.0030	<0.0020	---	0.22	<0.0010	0.82	<0.00020	0.032	---	0.0097	<0.0010	<0.0010	<0.020	<0.0030	<0.0020	---	<0.020	<0.0010	0.73	0.029	---	0.0096	<0.0010
	Oct-23	<0.0010	0.010	<0.0030	<0.0020	---	0.33	<0.0010	0.88	<0.00020	0.035	---	0.013	<0.0010	<0.0050	<0.020	<0.0030	<0.0020	---	<0.020	<0.0050	0.81	0.031	---	0.0170	<0.0050
GBR-48	Nov-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Dec-05	---	---	---	---	---	---	---	---	---	**10.0**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	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	0.0076	0.31	0.0038	<0.0020	0.23	48	**0.031**	1.80	<0.00020	0.10	0.018	<0.0050	0.0005	---	---	---	---	---	---	---	---	---	---	---	---
	Jan-21	0.0050	0.20	0.00200	<0.00050	0.05	29	**0.016**	0.67	<0.00020	0.068	0.02	<0.00050	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	0.340	<0.020	0.005	0.029	<0.050	0.009	<0.050
	Apr-22	---	---	---	---	---	2.0	---	---	---	---	---	---	---	<0.010	0.013	---	<0.0020	<0.0060	---	<0.00050	<0.0020	0.037	0.018	<0.0050	<0.0025
	Sep-22	0.0035	0.17	<0.0020	<0.0020	---	26	0.011	0.51	<0.00020	0.049	0.034	<0.0050	---	<0.0010	0.017	<0.0020	<0.0020	---	<0.020	<0.00050	<0.0020	0.033	0.028	0.0086	---
	Apr-23	0.0058	0.19	<0.0030	<0.0020	---	40	**0.017**	0.67	<0.0010	0.055	---	0.0056	<0.0010	<0.0010	0.023	<0.0030	<0.0020	---	<0.020	<0.0010	<0.0020	0.024	---	0.0097	<0.0010
	Oct-23	0.0058	0.24	<0.0030	<0.0020	---	44	**0.019**	0.75	<0.00020	0.055	---	<0.0050	<0.0010	<0.0011	0.027	<0.0030	<0.0020	---	0.21	<0.0050	0.0077	0.027	---	0.0160	<0.0050

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - METALS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN COUNTY, NEW MEXICO

ENSOLUM

Well ID	Sample Date	Total Metals	arsenic	barium	beryllium	cadmium	chromium	iron	lead	manganese	mercury	nickel	selenium	silver	thallium	Dissolved Metals	arsenic	barium	beryllium	cadmium	chromium	iron	lead	manganese	nickel	selenium	silver	thallium
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			**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 Level (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		0.000517	3.77	0.0246	0.0092	22.5	14	0.015	0.434	0.392	0.0998	0.0941	0.0002
Lee Acres Alluvial Aquifer Background Concentration (2)			nd	nd	nd	nd	0.0144 - 0.113	nd - 1.48	nd	0.0161 - 0.423	nd	nd	0.008 - 0.0095	0.0273 - 0.0309	NE		nd	nd	nd	nd	0.0144 - 0.113	nd - 1.48	nd	0.0161 - 0.423	nd	0.008 - 0.0095	0.0273 - 0.0309	NE
Lee Acres Regional Background Concentration (3)			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	0.001 - 0.060	0.010 - 16	0 - 0.055	0 - 2.6	NE	0.002 - 0.04	NE	NE
Lee Acres RI/ROD Remedial 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 Concentrations (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
GBR-50	Nov-88		---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---
	Jan-95		---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---
	Dec-00		---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---
	Dec-05		---	---	---	---	---	---	---	---	---	**10**	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---
	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	0.018	<0.0020	<0.0020	0.039	2.2	0.0010	0.14	<0.00020	0.06	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	0.001	<0.0010	<0.00050	0.001	<0.020	<0.00050	0.0093	<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	0.062	0.054	<0.050	0.013	<0.050
	Apr-22		---	---	---	---	---	0.45	---	---	---	---	---	---	---		<0.0010	0.010	---	<0.0020	<0.0060	---	<0.00050	0.046	0.021	0.011	<0.0050	<0.00025
	Sep-22		<0.0010	0.018	<0.0020	<0.0020	---	2.3	0.0015	0.099	<0.00020	0.043	0.013	0.0057	---		<0.0010	0.0080	<0.0020	<0.0020	---	<0.020	<0.00050	0.026	<0.010	0.010	0.0091	---
	Apr-23		<0.0010	0.012	<0.0030	<0.0020	---	1.6	<0.0010	0.053	<0.00020	0.062	---	0.012	<0.0010		<0.0010	<0.020	<0.0030	<0.0020	---	0.023	<0.0010	0.052	0.018	---	0.0110	<0.0010
	Oct-23		<0.0010	0.020	<0.0030	<0.0020	---	1.8	0.0013	0.077	<0.00020	0.035	---	0.012	<0.0010		<0.0050	<0.020	<0.0030	<0.0020	---	<0.020	<0.0050	0.035	<0.010	---	0.0160	<0.0050

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

ND - not detected above the laboratory reporting limit

NE - not established

NMWQCC - New Mexico Water Quality Control Commission

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 levels*

TABLE 5
GROUNDWATER ANALYTIAL RESULTS - GENERAL CHEMISTRY PARAMETERS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN OUNTY, NEW MEXIO

ENSOLUM

Well ID	Sample Date	chloride	fluoride	nitrate + nitrite as N	nitrate (as NO_3)	nitrite (as NO_2)	sodium	sulfate	sulfide	total dissolved solids	dissolved organic carbon
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
EPA Regional Screening Level (1)		NE	0.799	NE	32	2.0	NE	NE	NE	NE	NE
Lee Ares Alluvial Aquifer Background concentration (2)		6.4 - 404	NE	1.2 - 4.9	NE	NE	NE	420 - 2,120	NE	760 - 3,600	NE
Lee Ares Regional Background concentration (3)		2 - 34,000	NE	0.10 - 1,640	NE	NE	NE	1.9 - 14,000	NE	NE	NE
Lee Ares RI/ROD Remedial Goals (4)		34,000	NE	10	NE	NE	NE	14,000	NE	10,000	NE
GBR Background concentrations (5)		**560**	NE	NE	NE	NE	NE	**2,800**	NE	**4,599**	NE
GBR-17	Jun-86	**1,005**	---	---	---	---	---	1,202	---	4,355	---
	Dec-88	370	---	---	---	---	---	2,270	---	3,996	---
	Jan-95	---	---	---	---	---	---	---	---	---	---
	Dec-00	4.0	---	---	---	---	---	1,060	---	1,930	---
	Dec-05	48	---	---	---	---	---	1,000	---	2,200	---
	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	59	0.33	7.1	7.1	<0.10	---	1,300	<0.050	2,330	<1.0
	Oct-21	58	0.49	6.6	6.6	<0.10	230	1,600	<0.050	2,300	0.94 J
	Apr-22 (Obstruted)	---	---	---	---	---	---	---	---	---	---
	Sep-22 (Obstruted)	---	---	---	---	---	---	---	---	---	---
	Apr-23	61	0.33	7.9	---	---	---	1,400	---	2,430	<1.0
	Oct-23	70	0.85	9.1	9.1	<0.50	---	1,500	---	2,550	<1.0
GBR-32*	Aug-88	**588**	---	---	---	---	---	1,830	---	4,400	---
	Jan-95	**569**	---	---	---	---	---	1,770	---	3,830	---
	Dec-00	**735**	---	---	---	---	---	2,190	---	**4,840**	---
	Dec-05	520	---	---	---	---	---	1,700	---	4,400	---
	Jan 2010	---	---	---	---	---	---	---	---	---	---
	Aug-15	370	0.49	3.1	---	---	---	2,000	---	3,830	---
	Nov-19	190	<0.50	<1.0	---	---	---	1,700	---	3,200	---
	Jan-21	170	0.37	<1.0	---	---	---	1,900	---	3,230	---
	Apr-21	160	<0.50	1.6	1.6	<0.50	---	1,800	<0.050	3,240	2
	Apr-21	---	---	---	---	---	---	---	---	3,200	< 2.0
	Oct-21	---	---	---	---	---	---	---	---	3,310	1.6 n
	Oct-21	170	0.24	3.7	3.7	<0.10	450	2,400	<0.050	3,430	1.0 J
	Apr-22	---	---	<1.0	---	---	---	---	---	3,460	1.8
	Sep-22	190	0.57	1.0	---	---	---	2,100	---	3,360	---
	Apr-23	210	0.22	1.6	---	---	---	1,900	---	3,470	1.4
	Oct-23	210	<2.0	1.4	1.4	<0.10	---	2,100	---	3,780	1.3
GBR-48	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	420	---	---	---	---	---	1,300	---	3,400	---
	Jan-10	---	---	---	---	---	---	---	---	---	---
	Aug-15	370	0.45	7.3	---	---	---	2,100	---	3,730	---
	Nov-19	270	<0.50	1.9	---	---	---	2,000	---	3,450	---
	Jan-21	290	0.39	2.1	---	---	---	2,100	---	3,720	---
	Apr-21	290	<0.50	2.8	2.8	<0.50	---	1,700	<0.050	3,410	1.6
	Oct-21	290	0	3.2	3.2	<0.10	600	2,600	<0.050	3,430	2.0
	Apr-22	---	---	3.0	---	---	---	---	---	3,750	2.5
	Sep-22	300	0.59	3.9	---	---	---	1,900	---	3,920	1.9
	Apr-23	370	<2.0	8.2	---	---	---	1,900	---	3,860	2.1
	Oct-23	330	0.69	6.3	6.3	<0.50	---	2,200	---	3,770	1.8

TABLE 5
GROUNDWATER ANALYTIAL RESULTS - GENERAL CHEMISTRY PARAMETERS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN OUNTY, NEW MEXIO

ENSOLUM

Well ID	Sample Date	chloride	fluoride	nitrate + nitrite as N	nitrate (as NO_3)	nitrite (as NO_2)	sodium	sulfate	sulfide	total dissolved solids	dissolved organic carbon
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
EPA Regional Screening Level (1)		NE	0.799	NE	32	2.0	NE	NE	NE	NE	NE
Lee Ares Alluvial Aquifer Background concentration (2)		6.4 - 404	NE	1.2 - 4.9	NE	NE	NE	420 - 2,120	NE	760 - 3,600	NE
Lee Ares Regional Background concentration (3)		2 - 34,000	NE	0.10 - 1,640	NE	NE	NE	1.9 - 14,000	NE	NE	NE
Lee Ares RI/ROD Remedial Goals (4)		34,000	NE	10	NE	NE	NE	14,000	NE	10,000	NE
GBR Background concentrations (5)		**560**	NE	NE	NE	NE	NE	**2,800**	NE	**4,599**	NE
GBR-50	Nov-88	110	**2.3**	1.8	---	---	---	1,300	---	---	---
	Jan-95	39	---	---	---	---	---	1,940	---	2,690	---
	Dec-00	4.0	---	---	---	---	---	1,540	---	2,580	---
	Dec-05	51	---	---	---	---	---	1,300	---	2,700	---
	Jan-10	---	---	---	---	---	---	---	---	---	---
	Aug-15	44	0.83	5.0	---	---	---	1,700	---	2,760	---
	Nov-19	69	<0.50	6.9	---	---	---	1,700	---	2,910	---
	Jan-21	60	0.56	2.4	---	---	---	2,100	---	3,100	---
	Apr-21	68	0.17	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
	Apr-22	---	---	9.8	---	---	---	---	---	3,210	1.7
	Sep-22	77	0.67	9.7	---	---	---	2,000	---	3,150	1.6
	Apr-23	70	<2.0	9.0	---	---	---	2,000	---	3,270	2.6
	Oct-23	73	<2.0	9.6	9.6	<0.10	---	1,900	---	3,270	1.9

Notes:

(1) - EPA Regional Screening Level for tap water using hazard quotient of 1.0 (non-carcinogens) and aner risk of 1 in 100,000 exposed persons (carcinogens)

(2) - "Background" concentration Proposed in Lee Ares 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 Ares Superfund Site. Based on the Lee Ares 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

USEPA - United States Environmental Protection Agency

***BOLD -** bold and highlighted ells 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*

ENSOLUM

APPENDIX A

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 16, 2023

Stuart Hyde
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: GBR OrderNo.: 2304C49

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/28/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-001A

Client Sample ID: GBR 50
Collection Date: 4/26/2023 10:15:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 9060 DOC						Analyst: **SMS**	
Dissolved Organic Carbon	2.6	1.0		mg/L	1	5/9/2023 7:27:58 PM	A96764

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: GBR 50
Project: GBR
Collection Date: 4/26/2023 10:15:00 AM
Lab ID: 2304C49-001B
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Toluene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Ethylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Naphthalene	ND	2.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
2-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Acetone	ND	10		µg/L	1	5/4/2023 3:05:00 AM	B96482
Bromobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Bromodichloromethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Bromoform	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Bromomethane	ND	3.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
2-Butanone	ND	10		µg/L	1	5/4/2023 3:05:00 AM	B96482
Carbon disulfide	ND	10		µg/L	1	5/4/2023 3:05:00 AM	B96482
Carbon Tetrachloride	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Chlorobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Chloroethane	ND	2.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Chloroform	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Chloromethane	ND	3.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
2-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
4-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
cis-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Dibromochloromethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Dibromomethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1-Dichloroethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1-Dichloroethene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,3-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
2,2-Dichloropropane	ND	2.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Hexachlorobutadiene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: GBR 50
Project: GBR
Collection Date: 4/26/2023 10:15:00 AM
Lab ID: 2304C49-001B
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
2-Hexanone	ND	10		µg/L	1	5/4/2023 3:05:00 AM	B96482
Isopropylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
4-Isopropyltoluene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
4-Methyl-2-pentanone	ND	10		µg/L	1	5/4/2023 3:05:00 AM	B96482
Methylene Chloride	ND	3.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
n-Butylbenzene	ND	3.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
n-Propylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
sec-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Styrene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
tert-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
trans-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Trichlorofluoromethane	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Vinyl chloride	ND	1.0		µg/L	1	5/4/2023 3:05:00 AM	B96482
Xylenes, Total	ND	1.5		µg/L	1	5/4/2023 3:05:00 AM	B96482
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	5/4/2023 3:05:00 AM	B96482
Surr: 4-Bromofluorobenzene	99.9	70-130		%Rec	1	5/4/2023 3:05:00 AM	B96482
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/4/2023 3:05:00 AM	B96482
Surr: Toluene-d8	95.4	70-130		%Rec	1	5/4/2023 3:05:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-001C

Client Sample ID: GBR 50
Collection Date: 4/26/2023 10:15:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Fluoride	ND	2.0		mg/L	20	5/2/2023 11:33:39 PM	R96479
Chloride	70	10		mg/L	20	5/2/2023 11:33:39 PM	R96479
Bromide	0.31	0.10		mg/L	1	5/2/2023 10:56:26 PM	R96479
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	5/2/2023 11:33:39 PM	R96479
Sulfate	2000	25	*	mg/L	50	5/4/2023 5:47:07 PM	R96547
Nitrate+Nitrite as N	9.0	1.0		mg/L	5	5/3/2023 1:25:22 AM	R96479
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**	
Total Dissolved Solids	3270	50.0	*	mg/L	1	5/4/2023 2:22:00 PM	74723

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: GBR 50
Project: GBR
Collection Date: 4/26/2023 10:15:00 AM
Lab ID: 2304C49-001D
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/4/2023 10:42:46 AM	74713
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	0.0020	0.0010		mg/L	1	5/3/2023 11:17:19 AM	74663
Arsenic	ND	0.0010		mg/L	1	5/3/2023 11:17:19 AM	74663
Lead	ND	0.0010		mg/L	1	5/3/2023 11:17:19 AM	74663
Thallium	ND	0.0010		mg/L	1	5/3/2023 11:17:19 AM	74663
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JRR**	
Barium	0.012	0.0020		mg/L	1	5/3/2023 5:24:57 PM	74663
Beryllium	ND	0.0030		mg/L	1	5/3/2023 5:24:57 PM	74663
Cadmium	ND	0.0020		mg/L	1	5/3/2023 5:24:57 PM	74663
Iron	1.6	0.50		mg/L	10	5/3/2023 5:26:52 PM	74663
Magnesium	42	1.0		mg/L	1	5/3/2023 5:24:57 PM	74663
Manganese	0.053	0.050		mg/L	1	5/3/2023 5:24:57 PM	74663
Nickel	0.062	0.010		mg/L	1	5/3/2023 5:24:57 PM	74663
Silver	0.012	0.0050		mg/L	1	5/5/2023 9:25:15 AM	74663
Zinc	ND	0.020		mg/L	1	5/3/2023 5:24:57 PM	74663

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-001E

Client Sample ID: GBR 50
Collection Date: 4/26/2023 10:15:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/4/2023 10:45:03 AM	74713
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	5/1/2023 12:56:19 PM	A96445
Arsenic	ND	0.0010		mg/L	1	5/1/2023 12:56:19 PM	A96445
Lead	ND	0.0010		mg/L	1	5/1/2023 12:56:19 PM	A96445
Thallium	ND	0.0010		mg/L	1	5/1/2023 12:56:19 PM	A96445
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **JRR**	
Barium	ND	0.020		mg/L	1	5/3/2023 6:31:35 PM	A96500
Beryllium	ND	0.0030		mg/L	1	5/3/2023 6:31:35 PM	A96500
Cadmium	ND	0.0020		mg/L	1	5/3/2023 6:31:35 PM	A96500
Iron	0.023	0.020		mg/L	1	5/3/2023 6:31:35 PM	A96500
Magnesium	43	1.0		mg/L	1	5/3/2023 6:31:35 PM	A96500
Manganese	0.052	0.0020		mg/L	1	5/3/2023 6:31:35 PM	A96500
Nickel	0.018	0.010		mg/L	1	5/3/2023 6:31:35 PM	A96500
Silver	0.011	0.0050		mg/L	1	5/3/2023 6:31:35 PM	A96500
Zinc	ND	0.020		mg/L	1	5/3/2023 6:31:35 PM	A96500

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-002A

Client Sample ID: GBR 48
Collection Date: 4/26/2023 11:00:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 9060 DOC						Analyst: **SMS**	
Dissolved Organic Carbon	2.1	1.0		mg/L	1	5/9/2023 8:13:16 PM	A96764

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-002B

Client Sample ID: GBR 48
Collection Date: 4/26/2023 11:00:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Toluene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Ethylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Naphthalene	ND	2.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
2-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Acetone	ND	10		µg/L	1	5/4/2023 4:17:00 AM	B96482
Bromobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Bromodichloromethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Bromoform	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Bromomethane	ND	3.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
2-Butanone	ND	10		µg/L	1	5/4/2023 4:17:00 AM	B96482
Carbon disulfide	ND	10		µg/L	1	5/4/2023 4:17:00 AM	B96482
Carbon Tetrachloride	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Chlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Chloroethane	ND	2.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Chloroform	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Chloromethane	ND	3.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
2-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
4-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
cis-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Dibromochloromethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Dibromomethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1-Dichloroethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1-Dichloroethene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,3-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
2,2-Dichloropropane	ND	2.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Hexachlorobutadiene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-002B

Client Sample ID: GBR 48
Collection Date: 4/26/2023 11:00:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
2-Hexanone	ND	10		µg/L	1	5/4/2023 4:17:00 AM	B96482
Isopropylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
4-Isopropyltoluene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
4-Methyl-2-pentanone	ND	10		µg/L	1	5/4/2023 4:17:00 AM	B96482
Methylene Chloride	ND	3.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
n-Butylbenzene	ND	3.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
n-Propylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
sec-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Styrene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
tert-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
trans-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Trichlorofluoromethane	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Vinyl chloride	ND	1.0		µg/L	1	5/4/2023 4:17:00 AM	B96482
Xylenes, Total	ND	1.5		µg/L	1	5/4/2023 4:17:00 AM	B96482
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	5/4/2023 4:17:00 AM	B96482
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	5/4/2023 4:17:00 AM	B96482
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/4/2023 4:17:00 AM	B96482
Surr: Toluene-d8	94.3	70-130		%Rec	1	5/4/2023 4:17:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: GBR 48
Project: GBR
Collection Date: 4/26/2023 11:00:00 AM
Lab ID: 2304C49-002C
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Fluoride	ND	2.0		mg/L	20	5/2/2023 11:58:29 PM	R96479
Chloride	370	10	*	mg/L	20	5/2/2023 11:58:29 PM	R96479
Bromide	ND	2.0		mg/L	20	5/2/2023 11:58:29 PM	R96479
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	5/2/2023 11:58:29 PM	R96479
Sulfate	1900	50	*	mg/L	100	5/4/2023 5:59:32 PM	R96547
Nitrate+Nitrite as N	8.2	1.0		mg/L	5	5/3/2023 1:37:46 AM	R96479
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**	
Total Dissolved Solids	3860	100	*D	mg/L	1	5/4/2023 2:22:00 PM	74723

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-002D

Client Sample ID: GBR 48
Collection Date: 4/26/2023 11:00:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.0010		mg/L	5	5/4/2023 10:56:36 AM	74713
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	5/3/2023 11:32:22 AM	74663
Arsenic	0.0058	0.0010		mg/L	1	5/3/2023 11:32:22 AM	74663
Lead	0.017	0.0010		mg/L	1	5/3/2023 11:32:22 AM	74663
Thallium	ND	0.0010		mg/L	1	5/3/2023 11:32:22 AM	74663
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JRR**	
Barium	0.19	0.0020		mg/L	1	5/3/2023 5:35:26 PM	74663
Beryllium	ND	0.0030		mg/L	1	5/3/2023 5:35:26 PM	74663
Cadmium	ND	0.0020		mg/L	1	5/3/2023 5:35:26 PM	74663
Iron	40	2.5		mg/L	50	5/5/2023 9:26:47 AM	74663
Magnesium	60	1.0		mg/L	1	5/3/2023 5:35:26 PM	74663
Manganese	0.67	0.050		mg/L	1	5/3/2023 5:35:26 PM	74663
Nickel	0.055	0.010		mg/L	1	5/3/2023 5:35:26 PM	74663
Silver	0.0056	0.0050		mg/L	1	5/3/2023 5:35:26 PM	74663
Zinc	0.14	0.020		mg/L	1	5/3/2023 5:35:26 PM	74663

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-002E

Client Sample ID: GBR 48
Collection Date: 4/26/2023 11:00:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/11/2023 2:03:17 PM	74872
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	5/1/2023 1:11:50 PM	A96445
Arsenic	ND	0.0010		mg/L	1	5/1/2023 1:11:50 PM	A96445
Lead	ND	0.0010		mg/L	1	5/1/2023 1:11:50 PM	A96445
Thallium	ND	0.0010		mg/L	1	5/1/2023 1:11:50 PM	A96445
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **JRR**	
Barium	0.023	0.020		mg/L	1	5/3/2023 6:35:54 PM	A96500
Beryllium	ND	0.0030		mg/L	1	5/3/2023 6:35:54 PM	A96500
Cadmium	ND	0.0020		mg/L	1	5/3/2023 6:35:54 PM	A96500
Iron	ND	0.020		mg/L	1	5/3/2023 6:35:54 PM	A96500
Magnesium	56	1.0		mg/L	1	5/3/2023 6:35:54 PM	A96500
Manganese	ND	0.0020		mg/L	1	5/3/2023 6:35:54 PM	A96500
Nickel	0.024	0.010		mg/L	1	5/3/2023 6:35:54 PM	A96500
Silver	0.0097	0.0050		mg/L	1	5/3/2023 6:35:54 PM	A96500
Zinc	ND	0.020		mg/L	1	5/3/2023 6:35:54 PM	A96500

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-003A

Client Sample ID: GBR 32
Collection Date: 4/26/2023 12:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 9060 DOC						Analyst: **SMS**	
Dissolved Organic Carbon	1.4	1.0		mg/L	1	5/9/2023 8:29:20 PM	A96764

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-003B

Client Sample ID: GBR 32
Collection Date: 4/26/2023 12:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Toluene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Ethylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Naphthalene	ND	2.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
2-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Acetone	ND	10		µg/L	1	5/4/2023 4:42:00 AM	B96482
Bromobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Bromodichloromethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Bromoform	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Bromomethane	ND	3.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
2-Butanone	ND	10		µg/L	1	5/4/2023 4:42:00 AM	B96482
Carbon disulfide	ND	10		µg/L	1	5/4/2023 4:42:00 AM	B96482
Carbon Tetrachloride	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Chlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Chloroethane	ND	2.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Chloroform	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Chloromethane	ND	3.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
2-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
4-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
cis-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Dibromochloromethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Dibromomethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1-Dichloroethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1-Dichloroethene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,3-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
2,2-Dichloropropane	ND	2.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Hexachlorobutadiene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: GBR 32
Project: GBR
Collection Date: 4/26/2023 12:00:00 PM
Lab ID: 2304C49-003B
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
2-Hexanone	ND	10		µg/L	1	5/4/2023 4:42:00 AM	B96482
Isopropylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
4-Isopropyltoluene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
4-Methyl-2-pentanone	ND	10		µg/L	1	5/4/2023 4:42:00 AM	B96482
Methylene Chloride	ND	3.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
n-Butylbenzene	ND	3.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
n-Propylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
sec-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Styrene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
tert-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
trans-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Trichlorofluoromethane	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Vinyl chloride	ND	1.0		µg/L	1	5/4/2023 4:42:00 AM	B96482
Xylenes, Total	ND	1.5		µg/L	1	5/4/2023 4:42:00 AM	B96482
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	5/4/2023 4:42:00 AM	B96482
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	5/4/2023 4:42:00 AM	B96482
Surr: Dibromofluoromethane	97.7	70-130		%Rec	1	5/4/2023 4:42:00 AM	B96482
Surr: Toluene-d8	96.4	70-130		%Rec	1	5/4/2023 4:42:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-003C

Client Sample ID: GBR 32
Collection Date: 4/26/2023 12:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Fluoride	0.22	0.10		mg/L	1	5/3/2023 12:35:43 AM	R96479
Chloride	210	10		mg/L	20	5/3/2023 12:48:08 AM	R96479
Bromide	0.63	0.10		mg/L	1	5/3/2023 12:35:43 AM	R96479
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	5/3/2023 12:48:08 AM	R96479
Sulfate	1900	25	*	mg/L	50	5/4/2023 6:11:56 PM	R96547
Nitrate+Nitrite as N	1.6	1.0		mg/L	5	5/3/2023 1:50:11 AM	R96479
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**	
Total Dissolved Solids	3470	50.0	*	mg/L	1	5/4/2023 2:22:00 PM	74723

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-003D

Client Sample ID: GBR 32
Collection Date: 4/26/2023 12:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/4/2023 10:51:58 AM	74713
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	5/3/2023 11:37:23 AM	74663
Arsenic	ND	0.0010		mg/L	1	5/3/2023 11:37:23 AM	74663
Lead	ND	0.0010		mg/L	1	5/3/2023 11:37:23 AM	74663
Thallium	ND	0.0010		mg/L	1	5/3/2023 11:37:23 AM	74663
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JRR**	
Barium	0.0093	0.0020		mg/L	1	5/3/2023 5:39:20 PM	74663
Beryllium	ND	0.0030		mg/L	1	5/3/2023 5:39:20 PM	74663
Cadmium	ND	0.0020		mg/L	1	5/3/2023 5:39:20 PM	74663
Iron	0.22	0.050		mg/L	1	5/3/2023 5:39:20 PM	74663
Magnesium	48	1.0		mg/L	1	5/3/2023 5:39:20 PM	74663
Manganese	0.82	0.050		mg/L	1	5/3/2023 5:39:20 PM	74663
Nickel	0.032	0.010		mg/L	1	5/3/2023 5:39:20 PM	74663
Silver	0.0097	0.0050		mg/L	1	5/3/2023 5:39:20 PM	74663
Zinc	ND	0.020		mg/L	1	5/3/2023 5:39:20 PM	74663

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: GBR 32
Project: GBR
Collection Date: 4/26/2023 12:00:00 PM
Lab ID: 2304C49-003E
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/4/2023 10:54:16 AM	74713
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	5/1/2023 1:17:01 PM	A96445
Arsenic	ND	0.0010		mg/L	1	5/1/2023 1:17:01 PM	A96445
Lead	ND	0.0010		mg/L	1	5/1/2023 1:17:01 PM	A96445
Thallium	ND	0.0010		mg/L	1	5/1/2023 1:17:01 PM	A96445
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **JRR**	
Barium	ND	0.020		mg/L	1	5/3/2023 6:40:02 PM	A96500
Beryllium	ND	0.0030		mg/L	1	5/3/2023 6:40:02 PM	A96500
Cadmium	ND	0.0020		mg/L	1	5/3/2023 6:40:02 PM	A96500
Iron	ND	0.020		mg/L	1	5/3/2023 6:40:02 PM	A96500
Magnesium	49	1.0		mg/L	1	5/3/2023 6:40:02 PM	A96500
Manganese	0.73	0.0020		mg/L	1	5/3/2023 6:40:02 PM	A96500
Nickel	0.029	0.010		mg/L	1	5/3/2023 6:40:02 PM	A96500
Silver	0.0096	0.0050		mg/L	1	5/3/2023 6:40:02 PM	A96500
Zinc	ND	0.020		mg/L	1	5/3/2023 6:40:02 PM	A96500

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-004A

Client Sample ID: GBR 17
Collection Date: 4/26/2023 1:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 9060 DOC						Analyst: **SMS**	
Dissolved Organic Carbon	ND	1.0		mg/L	1	5/9/2023 9:16:54 PM	A96764

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-004B

Client Sample ID: GBR 17
Collection Date: 4/26/2023 1:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Toluene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Ethylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Naphthalene	ND	2.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
2-Methylnaphthalene	ND	4.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Acetone	ND	10		µg/L	1	5/4/2023 5:06:00 AM	B96482
Bromobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Bromodichloromethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Bromoform	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Bromomethane	ND	3.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
2-Butanone	ND	10		µg/L	1	5/4/2023 5:06:00 AM	B96482
Carbon disulfide	ND	10		µg/L	1	5/4/2023 5:06:00 AM	B96482
Carbon Tetrachloride	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Chlorobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Chloroethane	ND	2.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Chloroform	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Chloromethane	ND	3.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
2-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
4-Chlorotoluene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
cis-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Dibromochloromethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Dibromomethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1-Dichloroethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1-Dichloroethene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,3-Dichloropropane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
2,2-Dichloropropane	ND	2.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Hexachlorobutadiene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-004B

Client Sample ID: GBR 17
Collection Date: 4/26/2023 1:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
2-Hexanone	ND	10		µg/L	1	5/4/2023 5:06:00 AM	B96482
Isopropylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
4-Isopropyltoluene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
4-Methyl-2-pentanone	ND	10		µg/L	1	5/4/2023 5:06:00 AM	B96482
Methylene Chloride	ND	3.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
n-Butylbenzene	ND	3.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
n-Propylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
sec-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Styrene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
tert-Butylbenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
trans-1,2-DCE	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Trichlorofluoromethane	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Vinyl chloride	ND	1.0		µg/L	1	5/4/2023 5:06:00 AM	B96482
Xylenes, Total	ND	1.5		µg/L	1	5/4/2023 5:06:00 AM	B96482
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	5/4/2023 5:06:00 AM	B96482
Surr: 4-Bromofluorobenzene	99.9	70-130		%Rec	1	5/4/2023 5:06:00 AM	B96482
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/4/2023 5:06:00 AM	B96482
Surr: Toluene-d8	95.2	70-130		%Rec	1	5/4/2023 5:06:00 AM	B96482

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-004C

Client Sample ID: GBR 17
Collection Date: 4/26/2023 1:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Fluoride	0.33	0.10		mg/L	1	5/3/2023 1:00:33 AM	R96479
Chloride	61	10		mg/L	20	5/3/2023 1:12:57 AM	R96479
Bromide	0.25	0.10		mg/L	1	5/3/2023 1:00:33 AM	R96479
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	5/3/2023 1:12:57 AM	R96479
Sulfate	1400	25	*	mg/L	50	5/4/2023 6:24:20 PM	R96547
Nitrate+Nitrite as N	7.9	1.0		mg/L	5	5/3/2023 2:02:36 AM	R96479
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**	
Total Dissolved Solids	2430	100	*D	mg/L	1	5/4/2023 2:22:00 PM	74723

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-004D

Client Sample ID: GBR 17
Collection Date: 4/26/2023 1:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/4/2023 10:58:56 AM	74713
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	5/3/2023 11:42:25 AM	74663
Arsenic	0.0011	0.0010		mg/L	1	5/3/2023 11:42:25 AM	74663
Lead	0.0028	0.0010		mg/L	1	5/3/2023 11:42:25 AM	74663
Thallium	ND	0.0010		mg/L	1	5/3/2023 11:42:25 AM	74663
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JRR**	
Barium	0.033	0.0020		mg/L	1	5/3/2023 5:43:46 PM	74663
Beryllium	ND	0.0030		mg/L	1	5/3/2023 5:43:46 PM	74663
Cadmium	ND	0.0020		mg/L	1	5/3/2023 5:43:46 PM	74663
Iron	3.6	0.50		mg/L	10	5/3/2023 5:45:40 PM	74663
Magnesium	35	1.0		mg/L	1	5/3/2023 5:43:46 PM	74663
Manganese	0.073	0.050		mg/L	1	5/3/2023 5:43:46 PM	74663
Nickel	0.023	0.010		mg/L	1	5/3/2023 5:43:46 PM	74663
Silver	0.0087	0.0050		mg/L	1	5/3/2023 5:43:46 PM	74663
Zinc	0.021	0.020		mg/L	1	5/3/2023 5:43:46 PM	74663

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order: **2304C49**
Date Reported: **5/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: GBR
Lab ID: 2304C49-004E

Client Sample ID: GBR 17
Collection Date: 4/26/2023 1:00:00 PM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	5/4/2023 11:01:15 AM	74713
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0050		mg/L	5	5/3/2023 10:52:17 AM	A96502
Arsenic	ND	0.0050		mg/L	5	5/1/2023 2:13:54 PM	A96445
Lead	ND	0.0010		mg/L	1	5/1/2023 1:32:36 PM	A96445
Thallium	ND	0.0010		mg/L	1	5/1/2023 1:32:36 PM	A96445
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **JRR**	
Barium	ND	0.020		mg/L	1	5/3/2023 6:44:21 PM	A96500
Beryllium	ND	0.0030		mg/L	1	5/3/2023 6:44:21 PM	A96500
Cadmium	ND	0.0020		mg/L	1	5/3/2023 6:44:21 PM	A96500
Iron	ND	0.020		mg/L	1	5/3/2023 6:44:21 PM	A96500
Magnesium	35	1.0		mg/L	1	5/3/2023 6:44:21 PM	A96500
Manganese	ND	0.0020		mg/L	1	5/3/2023 6:44:21 PM	A96500
Nickel	ND	0.010		mg/L	1	5/3/2023 6:44:21 PM	A96500
Silver	0.0095	0.0050		mg/L	1	5/3/2023 6:44:21 PM	A96500
Zinc	ND	0.020		mg/L	1	5/3/2023 6:44:21 PM	A96500

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**

16-May-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-74713**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **74713**	RunNo: **96549**
Prep Date: **5/2/2023**	Analysis Date: **5/4/2023**	SeqNo: **3500093** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: **LCSLL-74713**	SampType: **LCSLL**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **74713**	RunNo: **96549**
Prep Date: **5/2/2023**	Analysis Date: **5/4/2023**	SeqNo: **3500094** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00023	0.00020	0.0001500	0	153	50	150			S

Sample ID: **LCS-74713**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **74713**	RunNo: **96549**
Prep Date: **5/2/2023**	Analysis Date: **5/4/2023**	SeqNo: **3500095** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	85	115			

Sample ID: **MB-74872**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **74872**	RunNo: **96699**
Prep Date: **5/10/2023**	Analysis Date: **5/11/2023**	SeqNo: **3506575** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: **LCSLL-74872**	SampType: **LCSLL**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **74872**	RunNo: **96699**
Prep Date: **5/10/2023**	Analysis Date: **5/11/2023**	SeqNo: **3506576** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020	0.0001500	0	121	50	150			

Sample ID: **LCS-74872**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **74872**	RunNo: **96699**
Prep Date: **5/10/2023**	Analysis Date: **5/11/2023**	SeqNo: **3506577** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	85	115			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R96479**	RunNo: **96479**
Prep Date:	Analysis Date: **5/2/2023**	SeqNo: **3495781** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R96479**	RunNo: **96479**
Prep Date:	Analysis Date: **5/2/2023**	SeqNo: **3495782** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.8	90	110			
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Bromide	2.4	0.10	2.500	0	96.8	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	97.8	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.9	90	110			

Sample ID: **2304C49-001CMS**	SampType: **ms**	TestCode: **EPA Method 300.0: Anions**
Client ID: **GBR 50**	Batch ID: **R96479**	RunNo: **96479**
Prep Date:	Analysis Date: **5/2/2023**	SeqNo: **3495808** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.7	0.10	2.500	0.3077	94.5	88.8	110			

Sample ID: **2304C49-001CMSD**	SampType: **msd**	TestCode: **EPA Method 300.0: Anions**
Client ID: **GBR 50**	Batch ID: **R96479**	RunNo: **96479**
Prep Date:	Analysis Date: **5/2/2023**	SeqNo: **3495809** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.7	0.10	2.500	0.3077	95.2	87.2	110	0.590	20	

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R96547**	RunNo: **96547**
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3500043** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**

16-May-23

Client: ENSOLUM

Project: GBR

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R96547**	RunNo: **96547**							
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3500044**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.5	0.50	10.00	0	94.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A96445**	RunNo: **96445**
Prep Date:	Analysis Date: **5/1/2023**	SeqNo: **3493791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Thallium	ND	0.0010								

Sample ID: **LCSLL**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A96445**	RunNo: **96445**
Prep Date:	Analysis Date: **5/1/2023**	SeqNo: **3493792** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010	0.001000	0	82.1	70	130			
Arsenic	0.0011	0.0010	0.001000	0	112	70	130			
Lead	0.0011	0.0010	0.001000	0	107	70	130			
Thallium	ND	0.0010	0.001000	0	96.8	70	130			

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A96445**	RunNo: **96445**
Prep Date:	Analysis Date: **5/1/2023**	SeqNo: **3493793** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.047	0.0010	0.05000	0	94.5	80	120			
Arsenic	0.051	0.0010	0.05000	0	101	80	120			
Lead	0.050	0.0010	0.05000	0	99.9	80	120			
Thallium	0.050	0.0010	0.05000	0	101	80	120			

Sample ID: **2304C49-001EMS**	SampType: **MS**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **GBR 50**	Batch ID: **A96445**	RunNo: **96445**
Prep Date:	Analysis Date: **5/1/2023**	SeqNo: **3493803** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.047	0.0010	0.05000	0	94.0	75	125			
Lead	0.052	0.0010	0.05000	0	105	75	125			
Thallium	0.053	0.0010	0.05000	0	106	75	125			

Sample ID: **2304C49-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **GBR 50**	Batch ID: **A96445**	RunNo: **96445**
Prep Date:	Analysis Date: **5/1/2023**	SeqNo: **3493804** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.046	0.0010	0.05000	0	92.5	75	125	1.62	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**

16-May-23

Client: ENSOLUM

Project: GBR

Sample ID: **2304C49-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **GBR 50**	Batch ID: **A96445**	RunNo: **96445**
Prep Date:	Analysis Date: **5/1/2023**	SeqNo: **3493804** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.058	0.0010	0.05000	0	116	75	125	0.242	20	
Lead	0.052	0.0010	0.05000	0	104	75	125	0.421	20	
Thallium	0.052	0.0010	0.05000	0	104	75	125	1.13	20	

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A96502**	RunNo: **96502**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								

Sample ID: **MSLCSLL**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A96502**	RunNo: **96502**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497055** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0011	0.0010	0.001000	0	110	70	130			

Sample ID: **MSLCS**	SampType: **LCS**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A96502**	RunNo: **96502**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.045	0.0010	0.05000	0	89.8	80	120			

Sample ID: **2304C49-004EMS**	SampType: **MS**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **GBR 17**	Batch ID: **A96502**	RunNo: **96502**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497073** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.23	0.0050	0.2500	0	91.7	75	125			

Sample ID: **2304C49-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **GBR 17**	Batch ID: **A96502**	RunNo: **96502**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497076** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.23	0.0050	0.2500	0	90.7	75	125	1.09	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**

16-May-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-74663**	SampType: **MBLK**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **PBW**	Batch ID: **74663**	RunNo: **96469**
Prep Date: **5/1/2023**	Analysis Date: **5/2/2023**	SeqNo: **3495212** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Thallium	ND	0.0010								

Sample ID: **MSLCSLL-74663**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **BatchQC**	Batch ID: **74663**	RunNo: **96469**
Prep Date: **5/1/2023**	Analysis Date: **5/2/2023**	SeqNo: **3495213** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010	0.001000	0	89.6	70	130			
Thallium	ND	0.0010	0.001000	0	93.3	70	130			

Sample ID: **MSLCS-74663**	SampType: **LCS**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **LCSW**	Batch ID: **74663**	RunNo: **96469**
Prep Date: **5/1/2023**	Analysis Date: **5/2/2023**	SeqNo: **3495214** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.047	0.0010	0.05000	0	93.1	80	120			
Lead	0.047	0.0010	0.05000	0	94.5	80	120			
Thallium	0.047	0.0010	0.05000	0	93.9	80	120			

Sample ID: **MSLCSLL-74663**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **BatchQC**	Batch ID: **74663**	RunNo: **96469**
Prep Date: **5/1/2023**	Analysis Date: **5/2/2023**	SeqNo: **3495215** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0012	0.0010	0.001000	0	123	70	130			

Sample ID: **MB-74663**	SampType: **MBLK**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **PBW**	Batch ID: **74663**	RunNo: **96502**
Prep Date: **5/1/2023**	Analysis Date: **5/3/2023**	SeqNo: **3497046** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								

Sample ID: **MSLCSLL-74663**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **BatchQC**	Batch ID: **74663**	RunNo: **96502**
Prep Date: **5/1/2023**	Analysis Date: **5/3/2023**	SeqNo: **3497048** Units: **mg/L**

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **MSLCSLL-74663** SampType: **LCSLL** TestCode: **EPA Method 6020A: Total Metals**
Client ID: **BatchQC** Batch ID: **74663** RunNo: **96502**
Prep Date: **5/1/2023** Analysis Date: **5/3/2023** SeqNo: **3497048** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0012	0.0010	0.001000	0	116	70	130			

Sample ID: **MSLCS-74663** SampType: **LCS** TestCode: **EPA Method 6020A: Total Metals**
Client ID: **LCSW** Batch ID: **74663** RunNo: **96502**
Prep Date: **5/1/2023** Analysis Date: **5/3/2023** SeqNo: **3497051** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.048	0.0010	0.05000	0	95.7	80	120			

Sample ID: **2304C49-001DMSLL** SampType: **MS** TestCode: **EPA Method 6020A: Total Metals**
Client ID: **GBR 50** Batch ID: **74663** RunNo: **96502**
Prep Date: **5/1/2023** Analysis Date: **5/3/2023** SeqNo: **3497080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.045	0.0010	0.05000	0.001976	85.8	75	125			
Arsenic	0.051	0.0010	0.05000	0.0006495	101	75	125			
Lead	0.048	0.0010	0.05000	0.0006877	94.0	75	125			
Thallium	0.046	0.0010	0.05000	0	92.3	75	125			

Sample ID: **2304C49-001DMSDL** SampType: **MSD** TestCode: **EPA Method 6020A: Total Metals**
Client ID: **GBR 50** Batch ID: **74663** RunNo: **96502**
Prep Date: **5/1/2023** Analysis Date: **5/3/2023** SeqNo: **3497083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.048	0.0010	0.05000	0.001976	92.6	75	125	7.22	20	
Arsenic	0.051	0.0010	0.05000	0.0006495	100	75	125	0.543	20	
Lead	0.047	0.0010	0.05000	0.0006877	93.5	75	125	0.523	20	
Thallium	0.047	0.0010	0.05000	0	94.9	75	125	2.72	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **100ng lcs**	SampType: **LCS4**	TestCode: **EPA Method 8260B: VOLATILES**						
Client ID: **BatchQC**	Batch ID: **R96482**	RunNo: **96482**						
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3496322**	Units: **%Rec**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.5	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**						
Client ID: **PBW**	Batch ID: **R96482**	RunNo: **96482**						
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3498436**	Units: **%Rec**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.2	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**						
Client ID: **LCSW**	Batch ID: **B96482**	RunNo: **96482**						
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498442**	Units: **µg/L**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	70	130			
Toluene	19	1.0	20.00	0	97.4	70	130			
Chlorobenzene	20	1.0	20.00	0	99.2	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	85.8	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.5	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**						
Client ID: **PBW**	Batch ID: **B96482**	RunNo: **96482**						
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498443**	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								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **B96482**	RunNo: **96482**
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498443** Units: **µg/L**

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **B96482**	RunNo: **96482**
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498443** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	10		10.00		99.5	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID: **2304c49-001bms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GBR 50**	Batch ID: **B96482**	RunNo: **96482**
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498445** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.3	70	130			
Toluene	20	1.0	20.00	0	98.1	70	130			
Chlorobenzene	20	1.0	20.00	0	99.4	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	93.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.5	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **2304c49-001bms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **GBR 50**	Batch ID: **B96482**	RunNo: **96482**							
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498445**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID: **2304c49-001bmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **GBR 50**	Batch ID: **B96482**	RunNo: **96482**							
Prep Date:	Analysis Date: **5/4/2023**	SeqNo: **3498446**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.8	70	130	2.53	20	
Toluene	19	1.0	20.00	0	95.0	70	130	3.23	20	
Chlorobenzene	19	1.0	20.00	0	96.9	70	130	2.56	20	
1,1-Dichloroethene	17	1.0	20.00	0	85.4	70	130	8.66	20	
Trichloroethene (TCE)	18	1.0	20.00	0	91.8	70	130	0.673	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		110	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		99.7	70	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**

16-May-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-doc**	SampType: **MBLK**	TestCode: **EPA Method 9060 DOC**							
Client ID: **PBW**	Batch ID: **A96764**	RunNo: **96764**							
Prep Date:	Analysis Date: **5/9/2023**	SeqNo: **3508702**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	ND	1.0								

Sample ID: **LCS-doc**	SampType: **LCS**	TestCode: **EPA Method 9060 DOC**							
Client ID: **LCSW**	Batch ID: **A96764**	RunNo: **96764**							
Prep Date:	Analysis Date: **5/9/2023**	SeqNo: **3508705**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	5.1	1.0	4.850	0	104	90	110			

Sample ID: **2304C49-001Ams**	SampType: **ms**	TestCode: **EPA Method 9060 DOC**							
Client ID: **GBR 50**	Batch ID: **A96764**	RunNo: **96764**							
Prep Date:	Analysis Date: **5/9/2023**	SeqNo: **3508707**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	7.0	1.0	4.650	2.649	92.7	75	125			

Sample ID: **2304C49-001Amsd**	SampType: **msd**	TestCode: **EPA Method 9060 DOC**							
Client ID: **GBR 50**	Batch ID: **A96764**	RunNo: **96764**							
Prep Date:	Analysis Date: **5/9/2023**	SeqNo: **3508708**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	6.9	1.0	4.650	2.649	91.6	75	125	0.721	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A96500**	RunNo: **96500**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497956** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.020								
Beryllium	ND	0.0030								
Cadmium	ND	0.0020								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Zinc	ND	0.020								

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A96500**	RunNo: **96500**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3497958** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.020	0.5000	0	97.8	80	120			
Beryllium	0.49	0.0030	0.5000	0	97.5	80	120			
Cadmium	0.50	0.0020	0.5000	0	100	80	120			
Iron	0.50	0.020	0.5000	0	99.1	80	120			
Magnesium	50	1.0	50.00	0	100	80	120			
Manganese	0.49	0.0020	0.5000	0	97.6	80	120			
Nickel	0.49	0.010	0.5000	0	98.8	80	120			
Silver	0.097	0.0050	0.1000	0	97.4	80	120			
Zinc	0.49	0.020	0.5000	0	97.7	80	120			

Sample ID: **LCSD-A**	SampType: **LCSD**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSS02**	Batch ID: **A96500**	RunNo: **96500**
Prep Date:	Analysis Date: **5/3/2023**	SeqNo: **3498110** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.020	0.5000	0	93.9	80	120	4.11	20	
Beryllium	0.48	0.0030	0.5000	0	96.3	80	120	1.30	20	
Cadmium	0.48	0.0020	0.5000	0	96.6	80	120	3.58	20	
Iron	0.49	0.020	0.5000	0	97.5	80	120	1.65	20	
Magnesium	52	1.0	50.00	0	104	80	120	3.90	20	
Manganese	0.48	0.0020	0.5000	0	95.6	80	120	2.03	20	
Nickel	0.47	0.010	0.5000	0	94.6	80	120	4.37	20	
Silver	0.098	0.0050	0.1000	0	98.3	80	120	0.911	20	
Zinc	0.44	0.020	0.5000	0	89.0	80	120	9.31	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**
16-May-23

Client: ENSOLUM
Project: GBR

Sample ID: **MB-74663**	SampType: **MBLK**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **PBW**	Batch ID: **74663**	RunNo: **96500**
Prep Date: **5/1/2023**	Analysis Date: **5/3/2023**	SeqNo: **3497953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0030								
Cadmium	ND	0.0020								
Iron	ND	0.050								
Magnesium	ND	1.0								
Manganese	ND	0.050								
Nickel	ND	0.010								
Silver	ND	0.0050								
Zinc	ND	0.020								

Sample ID: **LCS-74663**	SampType: **LCS**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **LCSW**	Batch ID: **74663**	RunNo: **96500**
Prep Date: **5/1/2023**	Analysis Date: **5/3/2023**	SeqNo: **3497955** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.0	80	120			
Beryllium	0.49	0.0030	0.5000	0	97.5	80	120			
Cadmium	0.48	0.0020	0.5000	0	95.8	80	120			
Iron	0.49	0.050	0.5000	0	98.6	80	120			
Magnesium	50	1.0	50.00	0	99.6	80	120			
Manganese	0.48	0.050	0.5000	0	95.4	80	120			
Nickel	0.48	0.010	0.5000	0	96.0	80	120			
Silver	0.096	0.0050	0.1000	0	95.5	80	120			
Zinc	0.47	0.020	0.5000	0	94.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C49**

16-May-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-74723**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **74723**	RunNo: **96527**
Prep Date: **5/3/2023**	Analysis Date: **5/4/2023**	SeqNo: **3498487** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-74723**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **74723**	RunNo: **96527**
Prep Date: **5/3/2023**	Analysis Date: **5/4/2023**	SeqNo: **3498488** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	50.0	1000	0	100	80	120			

Sample ID: **2304C49-001CDUP**	SampType: **DUP**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **GBR 50**	Batch ID: **74723**	RunNo: **96527**
Prep Date: **5/3/2023**	Analysis Date: **5/4/2023**	SeqNo: **3498497** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	3230	50.0						1.11	10	*

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2304C49 RcptNo: 1

Received By: Tracy Casarrubias 4/28/2023 7:00:00 AM

Completed By: Tracy Casarrubias 4/28/2023 12:12:08 PM

Reviewed By: 4-28-23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 12
(<2 or >12 unless noted)
Adjusted? NO
Checked by: TMC 4/28/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions: Mailing address and phone number are missing on COC-TMC 4/28/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.5	Good	Yes			

Chain-of-Custody Record

Client: Ensolum

Mailing Address:

Phone #:

email or Fax#: Shyde@ensolum.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GBR

Project #:

Project Manager: Stuart Hyde

Sampler: E. Carroll

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 4.5-0=4.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2304C49	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TDS	DOC	Metals Total	Metals Dissolved		
4-26	10:15	GW	GBR 50	various	various	001							X	X			X	X	X	X		
	11:00	GW	GBR 48			002							X	X			X	X	X	X		
	12:00	GW	GBR 32			003							X	X			X	X	X	X		
↓	13:00	GW	GBR 17	↓	↓	004							X	X			X	X	X	X		

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4-27	16:00				4/27/23	1600
4/27/23	1825			Courier	4/28/23	7:00

Remarks: Metals: Fe, Mn, Mg, Ar, Sb, Ba, Be, Cd Pb, Hg, Ni, Ag, Tl, Zn

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 09, 2023

Stuart Hyde
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: GBR OrderNo.: 2310B71

Dear Stuart Hyde:

Eurofins Environment Testing South Central, LLC received 4 sample(s) on 10/25/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-17
Project: GBR **Collection Date:** 10/24/2023 9:40:00 AM
Lab ID: 2310B71-001 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060A DOC						Analyst: **SMS**	
Dissolved Organic Carbon	ND	1.0		mg/L	1	10/27/2023 6:14:54 PM	D100809
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	0.85	0.50		mg/L	5	10/25/2023 4:49:08 PM	R100738
Chloride	70	2.5		mg/L	5	10/25/2023 4:49:08 PM	R100738
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	10/25/2023 4:49:08 PM	R100738
Bromide	ND	0.50		mg/L	5	10/25/2023 4:49:08 PM	R100738
Nitrogen, Nitrate (As N)	9.1	0.50		mg/L	5	10/25/2023 4:49:08 PM	R100738
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	10/25/2023 4:49:08 PM	R100738
Sulfate	1500	25	*	mg/L	50	10/31/2023 9:35:26 AM	R100855
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**	
Total Dissolved Solids	2550	250	*D	mg/L	1	10/27/2023 1:42:00 PM	78388
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	10/27/2023 11:47:49 AM	A100789
Arsenic	ND	0.0010		mg/L	1	10/27/2023 11:47:49 AM	A100789
Lead	ND	0.0010		mg/L	1	10/27/2023 11:47:49 AM	A100789
Thallium	ND	0.0010		mg/L	1	10/27/2023 11:47:49 AM	A100789
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	10/27/2023 11:21:30 AM	78377
Arsenic	0.0051	0.0010		mg/L	1	10/27/2023 11:21:30 AM	78377
Lead	0.035	0.0010		mg/L	1	10/27/2023 11:21:30 AM	78377
Thallium	ND	0.0010		mg/L	1	10/27/2023 11:21:30 AM	78377
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:24:32 PM	78585
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:26:52 PM	78585
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **VP**	
Barium	ND	0.020		mg/L	1	11/2/2023 12:31:19 PM	A100910
Beryllium	ND	0.0030		mg/L	1	11/2/2023 12:31:19 PM	A100910
Cadmium	ND	0.0020		mg/L	1	11/2/2023 12:31:19 PM	A100910
Iron	ND	0.020		mg/L	1	11/2/2023 12:31:19 PM	A100910
Magnesium	39	1.0		mg/L	1	11/2/2023 12:31:19 PM	A100910
Manganese	ND	0.0020		mg/L	1	11/2/2023 12:31:19 PM	A100910
Nickel	ND	0.010		mg/L	1	11/6/2023 11:27:04 AM	A100951
Silver	0.015	0.0050		mg/L	1	11/2/2023 12:31:19 PM	A100910
Zinc	ND	0.020		mg/L	1	11/6/2023 11:27:04 AM	A100951

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-17
Project: GBR **Collection Date:** 10/24/2023 9:40:00 AM
Lab ID: 2310B71-001 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **VP**	
Barium	0.20	0.0020		mg/L	1	11/6/2023 12:46:37 PM	78377
Beryllium	ND	0.0030		mg/L	1	11/6/2023 12:46:37 PM	78377
Cadmium	ND	0.0020		mg/L	1	11/6/2023 12:46:37 PM	78377
Iron	35	2.5		mg/L	50	11/6/2023 1:14:18 PM	78377
Magnesium	42	1.0		mg/L	1	11/6/2023 12:46:37 PM	78377
Manganese	3.6	0.25		mg/L	5	11/6/2023 4:10:44 PM	78377
Nickel	0.12	0.010		mg/L	1	11/6/2023 12:46:37 PM	78377
Silver	ND	0.0050		mg/L	1	11/6/2023 2:26:22 PM	78377
Zinc	0.077	0.020		mg/L	1	11/6/2023 12:46:37 PM	78377
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Toluene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Ethylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Naphthalene	ND	2.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
2-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Acetone	ND	10		µg/L	1	11/1/2023 4:31:24 PM	R100889
Bromobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Bromodichloromethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Bromoform	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Bromomethane	ND	3.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
2-Butanone	ND	10		µg/L	1	11/1/2023 4:31:24 PM	R100889
Carbon disulfide	ND	10		µg/L	1	11/1/2023 4:31:24 PM	R100889
Carbon Tetrachloride	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Chlorobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Chloroethane	ND	2.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Chloroform	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Chloromethane	ND	3.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
2-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
4-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
cis-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Dibromochloromethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-17
Project: GBR **Collection Date:** 10/24/2023 9:40:00 AM
Lab ID: 2310B71-001 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Dibromomethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1-Dichloroethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1-Dichloroethene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,3-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
2,2-Dichloropropane	ND	2.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Hexachlorobutadiene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
2-Hexanone	ND	10		µg/L	1	11/1/2023 4:31:24 PM	R100889
Isopropylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
4-Isopropyltoluene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
4-Methyl-2-pentanone	ND	10		µg/L	1	11/1/2023 4:31:24 PM	R100889
Methylene Chloride	ND	3.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
n-Butylbenzene	ND	3.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
n-Propylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
sec-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Styrene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
tert-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
trans-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Trichlorofluoromethane	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Vinyl chloride	ND	1.0		µg/L	1	11/1/2023 4:31:24 PM	R100889
Xylenes, Total	ND	1.5		µg/L	1	11/1/2023 4:31:24 PM	R100889
Surr: 1,2-Dichloroethane-d4	89.1	70-130		%Rec	1	11/1/2023 4:31:24 PM	R100889
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	11/1/2023 4:31:24 PM	R100889
Surr: Dibromofluoromethane	94.7	70-130		%Rec	1	11/1/2023 4:31:24 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-17
Project: GBR **Collection Date:** 10/24/2023 9:40:00 AM
Lab ID: 2310B71-001 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Surr: Toluene-d8	101	70-130		%Rec	1	11/1/2023 4:31:24 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-32
Project: GBR **Collection Date:** 10/24/2023 11:00:00 AM
Lab ID: 2310B71-002 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060A DOC						Analyst: **SMS**	
Dissolved Organic Carbon	1.3	1.0		mg/L	1	10/27/2023 6:59:36 PM	D100809
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	ND	2.0		mg/L	20	10/25/2023 5:30:09 PM	R100738
Chloride	210	10		mg/L	20	10/25/2023 5:30:09 PM	R100738
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/25/2023 5:17:44 PM	R100738
Bromide	0.79	0.10		mg/L	1	10/25/2023 5:17:44 PM	R100738
Nitrogen, Nitrate (As N)	1.4	0.10		mg/L	1	10/25/2023 5:17:44 PM	R100738
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/25/2023 5:30:09 PM	R100738
Sulfate	2100	50	*	mg/L	100	10/31/2023 9:48:17 AM	R100855
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**	
Total Dissolved Solids	3780	50.0	*	mg/L	1	10/27/2023 1:42:00 PM	78388
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0050		mg/L	5	10/27/2023 12:10:09 PM	A100789
Arsenic	ND	0.0050		mg/L	5	10/27/2023 12:10:09 PM	A100789
Lead	ND	0.0050		mg/L	5	10/27/2023 12:10:09 PM	A100789
Thallium	ND	0.0050		mg/L	5	10/27/2023 12:10:09 PM	A100789
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	10/27/2023 11:25:16 AM	78377
Arsenic	ND	0.0010		mg/L	1	10/27/2023 11:25:16 AM	78377
Lead	ND	0.0010		mg/L	1	10/27/2023 11:25:16 AM	78377
Thallium	ND	0.0010		mg/L	1	10/27/2023 11:25:16 AM	78377
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:29:12 PM	78585
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:31:31 PM	78585
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **VP**	
Barium	ND	0.020		mg/L	1	11/2/2023 12:35:57 PM	A100910
Beryllium	ND	0.0030		mg/L	1	11/2/2023 12:35:57 PM	A100910
Cadmium	ND	0.0020		mg/L	1	11/2/2023 12:35:57 PM	A100910
Iron	ND	0.020		mg/L	1	11/2/2023 12:35:57 PM	A100910
Magnesium	61	1.0		mg/L	1	11/2/2023 12:35:57 PM	A100910
Manganese	0.81	0.0020		mg/L	1	11/2/2023 12:35:57 PM	A100910
Nickel	0.031	0.010		mg/L	1	11/6/2023 11:29:20 AM	A100951
Silver	0.017	0.0050		mg/L	1	11/2/2023 12:35:57 PM	A100910
Zinc	ND	0.020		mg/L	1	11/6/2023 11:29:20 AM	A100951

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-32
Project: GBR **Collection Date:** 10/24/2023 11:00:00 AM
Lab ID: 2310B71-002 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **VP**	
Barium	0.010	0.0020		mg/L	1	11/6/2023 1:01:04 PM	78377
Beryllium	ND	0.0030		mg/L	1	11/6/2023 1:01:04 PM	78377
Cadmium	ND	0.0020		mg/L	1	11/6/2023 1:01:04 PM	78377
Iron	0.33	0.050		mg/L	1	11/6/2023 1:01:04 PM	78377
Magnesium	55	1.0		mg/L	1	11/6/2023 1:01:04 PM	78377
Manganese	0.88	0.050		mg/L	1	11/6/2023 1:01:04 PM	78377
Nickel	0.035	0.010		mg/L	1	11/6/2023 1:01:04 PM	78377
Silver	0.013	0.0050		mg/L	1	11/6/2023 2:30:37 PM	78377
Zinc	ND	0.020		mg/L	1	11/6/2023 1:01:04 PM	78377
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Toluene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Ethylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Naphthalene	ND	2.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
2-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Acetone	ND	10		µg/L	1	11/1/2023 5:55:44 PM	R100889
Bromobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Bromodichloromethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Bromoform	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Bromomethane	ND	3.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
2-Butanone	ND	10		µg/L	1	11/1/2023 5:55:44 PM	R100889
Carbon disulfide	ND	10		µg/L	1	11/1/2023 5:55:44 PM	R100889
Carbon Tetrachloride	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Chlorobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Chloroethane	ND	2.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Chloroform	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Chloromethane	ND	3.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
2-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
4-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
cis-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Dibromochloromethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-32
Project: GBR **Collection Date:** 10/24/2023 11:00:00 AM
Lab ID: 2310B71-002 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Dibromomethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1-Dichloroethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1-Dichloroethene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,3-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
2,2-Dichloropropane	ND	2.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Hexachlorobutadiene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
2-Hexanone	ND	10		µg/L	1	11/1/2023 5:55:44 PM	R100889
Isopropylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
4-Isopropyltoluene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
4-Methyl-2-pentanone	ND	10		µg/L	1	11/1/2023 5:55:44 PM	R100889
Methylene Chloride	ND	3.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
n-Butylbenzene	ND	3.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
n-Propylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
sec-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Styrene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
tert-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
trans-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Trichlorofluoromethane	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Vinyl chloride	ND	1.0		µg/L	1	11/1/2023 5:55:44 PM	R100889
Xylenes, Total	ND	1.5		µg/L	1	11/1/2023 5:55:44 PM	R100889
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%Rec	1	11/1/2023 5:55:44 PM	R100889
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	11/1/2023 5:55:44 PM	R100889
Surr: Dibromofluoromethane	96.4	70-130		%Rec	1	11/1/2023 5:55:44 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-32
Project: GBR **Collection Date:** 10/24/2023 11:00:00 AM
Lab ID: 2310B71-002 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Surr: Toluene-d8	103	70-130		%Rec	1	11/1/2023 5:55:44 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-48
Project: GBR **Collection Date:** 10/24/2023 12:00:00 PM
Lab ID: 2310B71-003 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060A DOC						Analyst: **SMS**	
Dissolved Organic Carbon	1.8	1.0		mg/L	1	10/27/2023 7:15:44 PM	D100809
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	0.69	0.50		mg/L	5	10/25/2023 6:11:43 PM	R100738
Chloride	330	10	*	mg/L	20	10/25/2023 6:24:34 PM	R100738
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	10/25/2023 6:11:43 PM	R100738
Bromide	1.3	0.50		mg/L	5	10/25/2023 6:11:43 PM	R100738
Nitrogen, Nitrate (As N)	6.3	0.50		mg/L	5	10/25/2023 6:11:43 PM	R100738
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	10/25/2023 6:11:43 PM	R100738
Sulfate	2200	50	*	mg/L	100	10/31/2023 10:01:09 AM	R100855
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**	
Total Dissolved Solids	3770	100	*D	mg/L	1	10/27/2023 1:42:00 PM	78388
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0050		mg/L	5	10/27/2023 12:13:52 PM	A100789
Arsenic	ND	0.0050		mg/L	5	10/27/2023 12:13:52 PM	A100789
Lead	ND	0.0050		mg/L	5	10/27/2023 12:13:52 PM	A100789
Thallium	ND	0.0050		mg/L	5	10/27/2023 12:13:52 PM	A100789
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	10/27/2023 11:40:21 AM	78377
Arsenic	0.0058	0.0010		mg/L	1	10/27/2023 11:40:21 AM	78377
Lead	0.019	0.0010		mg/L	1	10/27/2023 11:40:21 AM	78377
Thallium	ND	0.0010		mg/L	1	10/27/2023 11:40:21 AM	78377
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:33:49 PM	78585
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:36:08 PM	78585
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **VP**	
Barium	0.027	0.020		mg/L	1	11/2/2023 12:40:26 PM	A100910
Beryllium	ND	0.0030		mg/L	1	11/2/2023 12:40:26 PM	A100910
Cadmium	ND	0.0020		mg/L	1	11/2/2023 12:40:26 PM	A100910
Iron	0.21	0.020		mg/L	1	11/2/2023 12:40:26 PM	A100910
Magnesium	61	1.0		mg/L	1	11/2/2023 12:40:26 PM	A100910
Manganese	0.0077	0.0020		mg/L	1	11/2/2023 12:40:26 PM	A100910
Nickel	0.027	0.010		mg/L	1	11/6/2023 11:38:19 AM	A100951
Silver	0.016	0.0050		mg/L	1	11/2/2023 12:40:26 PM	A100910
Zinc	ND	0.020		mg/L	1	11/6/2023 11:38:19 AM	A100951

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

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-48
Project: GBR **Collection Date:** 10/24/2023 12:00:00 PM
Lab ID: 2310B71-003 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **VP**	
Barium	0.24	0.0020		mg/L	1	11/6/2023 1:03:20 PM	78377
Beryllium	ND	0.0030		mg/L	1	11/6/2023 1:03:20 PM	78377
Cadmium	ND	0.0020		mg/L	1	11/6/2023 1:03:20 PM	78377
Iron	44	2.5		mg/L	50	11/6/2023 1:31:05 PM	78377
Magnesium	64	1.0		mg/L	1	11/6/2023 1:03:20 PM	78377
Manganese	0.75	0.050		mg/L	1	11/6/2023 1:03:20 PM	78377
Nickel	0.055	0.010		mg/L	1	11/6/2023 1:03:20 PM	78377
Silver	ND	0.0050		mg/L	1	11/6/2023 2:32:06 PM	78377
Zinc	0.058	0.020		mg/L	1	11/6/2023 1:03:20 PM	78377
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Toluene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Ethylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Naphthalene	ND	2.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
2-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Acetone	ND	10		µg/L	1	11/1/2023 6:23:49 PM	R100889
Bromobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Bromodichloromethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Bromoform	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Bromomethane	ND	3.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
2-Butanone	ND	10		µg/L	1	11/1/2023 6:23:49 PM	R100889
Carbon disulfide	ND	10		µg/L	1	11/1/2023 6:23:49 PM	R100889
Carbon Tetrachloride	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Chlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Chloroethane	ND	2.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Chloroform	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Chloromethane	ND	3.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
2-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
4-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
cis-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Dibromochloromethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-48
Project: GBR **Collection Date:** 10/24/2023 12:00:00 PM
Lab ID: 2310B71-003 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Dibromomethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1-Dichloroethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1-Dichloroethene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,3-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
2,2-Dichloropropane	ND	2.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Hexachlorobutadiene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
2-Hexanone	ND	10		µg/L	1	11/1/2023 6:23:49 PM	R100889
Isopropylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
4-Isopropyltoluene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
4-Methyl-2-pentanone	ND	10		µg/L	1	11/1/2023 6:23:49 PM	R100889
Methylene Chloride	ND	3.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
n-Butylbenzene	ND	3.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
n-Propylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
sec-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Styrene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
tert-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Tetrachloroethene (PCE)	1.1	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
trans-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Trichlorofluoromethane	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Vinyl chloride	ND	1.0		µg/L	1	11/1/2023 6:23:49 PM	R100889
Xylenes, Total	ND	1.5		µg/L	1	11/1/2023 6:23:49 PM	R100889
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%Rec	1	11/1/2023 6:23:49 PM	R100889
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	11/1/2023 6:23:49 PM	R100889
Surr: Dibromofluoromethane	95.0	70-130		%Rec	1	11/1/2023 6:23:49 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-48
Project: GBR **Collection Date:** 10/24/2023 12:00:00 PM
Lab ID: 2310B71-003 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Surr: Toluene-d8	98.6	70-130		%Rec	1	11/1/2023 6:23:49 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-50
Project: GBR **Collection Date:** 10/24/2023 1:00:00 PM
Lab ID: 2310B71-004 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060A DOC						Analyst: **SMS**	
Dissolved Organic Carbon	1.9	1.0		mg/L	1	10/27/2023 7:32:00 PM	D100809
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	ND	2.0		mg/L	20	10/25/2023 6:50:18 PM	R100738
Chloride	73	10		mg/L	20	10/25/2023 6:50:18 PM	R100738
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/25/2023 6:37:25 PM	R100738
Bromide	ND	0.10		mg/L	1	10/25/2023 6:37:25 PM	R100738
Nitrogen, Nitrate (As N)	9.6	2.0		mg/L	20	10/25/2023 6:50:18 PM	R100738
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/25/2023 6:50:18 PM	R100738
Sulfate	1900	50	*	mg/L	100	10/31/2023 10:17:09 AM	R100855
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**	
Total Dissolved Solids	3270	100	*D	mg/L	1	10/27/2023 1:42:00 PM	78388
EPA METHOD 6020A: DISSOLVED METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	10/27/2023 12:06:26 PM	A100789
Arsenic	ND	0.0050		mg/L	5	10/27/2023 12:25:05 PM	A100789
Lead	ND	0.0050		mg/L	5	10/27/2023 12:25:05 PM	A100789
Thallium	ND	0.0050		mg/L	5	10/27/2023 12:25:05 PM	A100789
EPA METHOD 6020A: TOTAL METALS						Analyst: **ELS**	
Antimony	ND	0.0010		mg/L	1	10/27/2023 11:44:05 AM	78377
Arsenic	ND	0.0010		mg/L	1	10/27/2023 11:44:05 AM	78377
Lead	0.0013	0.0010		mg/L	1	10/27/2023 11:44:05 AM	78377
Thallium	ND	0.0010		mg/L	1	10/27/2023 11:44:05 AM	78377
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:38:27 PM	78585
EPA METHOD 7470A: MERCURY						Analyst: **tem**	
Mercury	ND	0.00020		mg/L	1	11/7/2023 3:40:46 PM	78585
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **VP**	
Barium	ND	0.020		mg/L	1	11/2/2023 12:44:55 PM	A100910
Beryllium	ND	0.0030		mg/L	1	11/2/2023 12:44:55 PM	A100910
Cadmium	ND	0.0020		mg/L	1	11/2/2023 12:44:55 PM	A100910
Iron	ND	0.020		mg/L	1	11/2/2023 12:44:55 PM	A100910
Magnesium	43	1.0		mg/L	1	11/2/2023 12:44:55 PM	A100910
Manganese	0.035	0.0020		mg/L	1	11/2/2023 12:44:55 PM	A100910
Nickel	ND	0.010		mg/L	1	11/6/2023 11:40:39 AM	A100951
Silver	0.016	0.0050		mg/L	1	11/2/2023 12:44:55 PM	A100910
Zinc	ND	0.020		mg/L	1	11/6/2023 11:40:39 AM	A100951

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-50
Project: GBR **Collection Date:** 10/24/2023 1:00:00 PM
Lab ID: 2310B71-004 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **VP**	
Barium	0.020	0.0020		mg/L	1	11/6/2023 1:05:31 PM	78377
Beryllium	ND	0.0030		mg/L	1	11/6/2023 1:05:31 PM	78377
Cadmium	ND	0.0020		mg/L	1	11/6/2023 1:05:31 PM	78377
Iron	1.8	0.25		mg/L	5	11/6/2023 1:35:27 PM	78377
Magnesium	45	1.0		mg/L	1	11/6/2023 1:05:31 PM	78377
Manganese	0.077	0.050		mg/L	1	11/6/2023 1:05:31 PM	78377
Nickel	0.035	0.010		mg/L	1	11/6/2023 1:05:31 PM	78377
Silver	0.012	0.0050		mg/L	1	11/6/2023 2:33:37 PM	78377
Zinc	ND	0.020		mg/L	1	11/6/2023 1:05:31 PM	78377
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Toluene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Ethylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Naphthalene	ND	2.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
2-Methylnaphthalene	ND	4.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Acetone	ND	10		µg/L	1	11/1/2023 6:52:06 PM	R100889
Bromobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Bromodichloromethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Bromoform	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Bromomethane	ND	3.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
2-Butanone	ND	10		µg/L	1	11/1/2023 6:52:06 PM	R100889
Carbon disulfide	ND	10		µg/L	1	11/1/2023 6:52:06 PM	R100889
Carbon Tetrachloride	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Chlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Chloroethane	ND	2.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Chloroform	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Chloromethane	ND	3.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
2-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
4-Chlorotoluene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
cis-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Dibromochloromethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-50
Project: GBR **Collection Date:** 10/24/2023 1:00:00 PM
Lab ID: 2310B71-004 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Dibromomethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1-Dichloroethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1-Dichloroethene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,3-Dichloropropane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
2,2-Dichloropropane	ND	2.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Hexachlorobutadiene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
2-Hexanone	ND	10		µg/L	1	11/1/2023 6:52:06 PM	R100889
Isopropylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
4-Isopropyltoluene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
4-Methyl-2-pentanone	ND	10		µg/L	1	11/1/2023 6:52:06 PM	R100889
Methylene Chloride	ND	3.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
n-Butylbenzene	ND	3.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
n-Propylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
sec-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Styrene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
tert-Butylbenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
trans-1,2-DCE	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Trichlorofluoromethane	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Vinyl chloride	ND	1.0		µg/L	1	11/1/2023 6:52:06 PM	R100889
Xylenes, Total	ND	1.5		µg/L	1	11/1/2023 6:52:06 PM	R100889
Surr: 1,2-Dichloroethane-d4	88.0	70-130		%Rec	1	11/1/2023 6:52:06 PM	R100889
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	11/1/2023 6:52:06 PM	R100889
Surr: Dibromofluoromethane	96.0	70-130		%Rec	1	11/1/2023 6:52:06 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2310B71**
Date Reported: **11/9/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** GBR-50
Project: GBR **Collection Date:** 10/24/2023 1:00:00 PM
Lab ID: 2310B71-004 **Matrix:** GROUNDWA **Received Date:** 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **JR**	
Surr: Toluene-d8	99.1	70-130		%Rec	1	11/1/2023 6:52:06 PM	R100889

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R100738**	RunNo: **100738**
Prep Date:	Analysis Date: **10/25/2023**	SeqNo: **3694851** Units: **mg/L**

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

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R100738**	RunNo: **100738**
Prep Date:	Analysis Date: **10/25/2023**	SeqNo: **3694852** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.8	90	110			
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.5	90	110			
Bromide	2.4	0.10	2.500	0	95.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.9	90	110			
Phosphorus, Orthophosphate (As P)	4.6	0.50	5.000	0	91.4	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R100855**	RunNo: **100855**
Prep Date:	Analysis Date: **10/31/2023**	SeqNo: **3701039** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R100855**	RunNo: **100855**
Prep Date:	Analysis Date: **10/31/2023**	SeqNo: **3701041** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.7	0.50	10.00	0	97.5	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R100855**	RunNo: **100855**
Prep Date:	Analysis Date: **10/31/2023**	SeqNo: **3701081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R100855**	RunNo: **100855**							
Prep Date:	Analysis Date: **10/31/2023**	SeqNo: **3701083**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.9	0.50	10.00	0	99.1	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A100789**	RunNo: **100789**
Prep Date:	Analysis Date: **10/27/2023**	SeqNo: **3696977** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Thallium	ND	0.0010								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A100789**	RunNo: **100789**
Prep Date:	Analysis Date: **10/27/2023**	SeqNo: **3696979** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.049	0.0010	0.05000	0	97.6	80	120			
Arsenic	0.050	0.0010	0.05000	0	100	80	120			
Lead	0.050	0.0010	0.05000	0	101	80	120			
Thallium	0.049	0.0010	0.05000	0	97.1	80	120			

Sample ID: **LCSLL**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A100789**	RunNo: **100789**
Prep Date:	Analysis Date: **10/27/2023**	SeqNo: **3696980** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0015	0.0010	0.001000	0	153	70	130			S
Arsenic	0.0011	0.0010	0.001000	0	106	70	130			
Lead	0.0010	0.0010	0.001000	0	103	70	130			
Thallium	0.0010	0.0010	0.001000	0	103	70	130			

Sample ID: **2310B71-001EMS**	SampType: **MS**	TestCode: **EPA Method 6020A: Dissolved Metals**
Client ID: **GBR-17**	Batch ID: **A100789**	RunNo: **100789**
Prep Date:	Analysis Date: **10/27/2023**	SeqNo: **3697002** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.055	0.0010	0.05000	0	111	75	125			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-78377**	SampType: **MBLK**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **PBW**	Batch ID: **78377**	RunNo: **100789**
Prep Date: **10/25/2023**	Analysis Date: **10/27/2023**	SeqNo: **3696973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Thallium	ND	0.0010								

Sample ID: **MSLCS-78377**	SampType: **LCS**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **LCSW**	Batch ID: **78377**	RunNo: **100789**
Prep Date: **10/25/2023**	Analysis Date: **10/27/2023**	SeqNo: **3696975** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.048	0.0010	0.05000	0	96.9	80	120			
Arsenic	0.048	0.0010	0.05000	0	95.4	80	120			
Lead	0.050	0.0010	0.05000	0	99.6	80	120			
Thallium	0.049	0.0010	0.05000	0	97.5	80	120			

Sample ID: **MSLCSLL-78377**	SampType: **LCSLL**	TestCode: **EPA Method 6020A: Total Metals**
Client ID: **BatchQC**	Batch ID: **78377**	RunNo: **100789**
Prep Date: **10/25/2023**	Analysis Date: **10/27/2023**	SeqNo: **3696976** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0012	0.0010	0.001000	0	119	70	130			
Arsenic	0.0012	0.0010	0.001000	0	125	70	130			
Lead	0.0010	0.0010	0.001000	0	104	70	130			
Thallium	ND	0.0010	0.001000	0	93.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R100889**	RunNo: **100889**
Prep Date:	Analysis Date: **11/1/2023**	SeqNo: **3701981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	88.0	70	130			
Toluene	19	1.0	20.00	0	94.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.4	70	130			
1,1-Dichloroethene	16	1.0	20.00	0	81.3	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.6	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Sample ID: **2310b71-001bms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GBR-17**	Batch ID: **R100889**	RunNo: **100889**
Prep Date:	Analysis Date: **11/1/2023**	SeqNo: **3701984** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	85.1	70	130			
Toluene	18	1.0	20.00	0	90.5	70	130			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			
1,1-Dichloroethene	16	1.0	20.00	0.3690	77.7	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			

Sample ID: **2310b71-001bmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GBR-17**	Batch ID: **R100889**	RunNo: **100889**
Prep Date:	Analysis Date: **11/1/2023**	SeqNo: **3701985** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	85.5	70	130	0.530	20	
Toluene	19	1.0	20.00	0	94.2	70	130	4.02	20	
Chlorobenzene	19	1.0	20.00	0	96.0	70	130	0.417	20	
1,1-Dichloroethene	16	1.0	20.00	0.3690	78.0	70	130	0.383	20	
Trichloroethene (TCE)	16	1.0	20.00	0	81.2	70	130	3.94	20	
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130	0	0	
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130	0	0	
Surr: Toluene-d8	10		10.00		103	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R100889**	RunNo: **100889**
Prep Date:	Analysis Date: **11/1/2023**	SeqNo: **3702007** 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								
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								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R100889**	RunNo: **100889**
Prep Date:	Analysis Date: **11/1/2023**	SeqNo: **3702007** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-doc** SampType: **MBLK** TestCode: **EPA Method 9060A DOC**

Client ID: **PBW** Batch ID: **D100809** RunNo: **100809**

Prep Date: Analysis Date: **10/26/2023** SeqNo: **3698453** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	ND	1.0								

Sample ID: **LCS-doc** SampType: **LCS** TestCode: **EPA Method 9060A DOC**

Client ID: **LCSW** Batch ID: **D100809** RunNo: **100809**

Prep Date: Analysis Date: **10/26/2023** SeqNo: **3698454** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	4.8	1.0	4.850	0	98.2	90	110			

Sample ID: **LCSD-doc** SampType: **LCSD** TestCode: **EPA Method 9060A DOC**

Client ID: **LCSS02** Batch ID: **D100809** RunNo: **100809**

Prep Date: Analysis Date: **10/26/2023** SeqNo: **3698455** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	4.9	1.0	4.850	0	100	90	110	1.95	10	

Sample ID: **2310b71-001ams** SampType: **ms** TestCode: **EPA Method 9060A DOC**

Client ID: **GBR-17** Batch ID: **D100809** RunNo: **100809**

Prep Date: Analysis Date: **10/27/2023** SeqNo: **3698519** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	5.4	1.0	4.650	0.8127	98.2	85	115			

Sample ID: **2310b71-001amsd** SampType: **msd** TestCode: **EPA Method 9060A DOC**

Client ID: **GBR-17** Batch ID: **D100809** RunNo: **100809**

Prep Date: Analysis Date: **10/27/2023** SeqNo: **3698520** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Organic Carbon	5.4	1.0	4.650	0.8127	98.0	85	115	0.242	15	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-78585**	SampType: **MBLK**	TestCode: **EPA Method 7470A: Mercury**
Client ID: **PBW**	Batch ID: **78585**	RunNo: **101007**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3707706** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: **LCSLL-78585**	SampType: **LCSLL**	TestCode: **EPA Method 7470A: Mercury**
Client ID: **BatchQC**	Batch ID: **78585**	RunNo: **101007**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3707707** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020	0.0001500	0	80.7	50	150			

Sample ID: **LCS-78585**	SampType: **LCS**	TestCode: **EPA Method 7470A: Mercury**
Client ID: **LCSW**	Batch ID: **78585**	RunNo: **101007**
Prep Date: **11/6/2023**	Analysis Date: **11/7/2023**	SeqNo: **3707708** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	85	115			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A100910**	RunNo: **100910**
Prep Date:	Analysis Date: **11/2/2023**	SeqNo: **3702893** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.020								
Beryllium	ND	0.0030								
Cadmium	ND	0.0020								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A100910**	RunNo: **100910**
Prep Date:	Analysis Date: **11/2/2023**	SeqNo: **3702895** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.020	0.5000	0	110	80	120			
Beryllium	0.55	0.0030	0.5000	0	111	80	120			
Cadmium	0.55	0.0020	0.5000	0	109	80	120			
Iron	0.56	0.020	0.5000	0	111	80	120			
Manganese	0.55	0.0020	0.5000	0	110	80	120			
Silver	0.57	0.0050	0.5000	0	114	80	120			

Sample ID: **LCS_CAT-A**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A100910**	RunNo: **100910**
Prep Date:	Analysis Date: **11/2/2023**	SeqNo: **3702896** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	53	1.0	50.00	0	105	80	120			

Sample ID: **2310B84-004BMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A100910**	RunNo: **100910**
Prep Date:	Analysis Date: **11/2/2023**	SeqNo: **3702988** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.46	0.020	0.5000	0.02135	87.9	75	125	4.58	20	
Manganese	0.67	0.0020	0.5000	0.2270	88.5	75	125	3.44	20	

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A100951**	RunNo: **100951**
Prep Date:	Analysis Date: **11/6/2023**	SeqNo: **3706083** Units: **mg/L**

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A100951**	RunNo: **100951**
Prep Date:	Analysis Date: **11/6/2023**	SeqNo: **3706083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nickel	ND	0.010								
Zinc	ND	0.020								

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A100951**	RunNo: **100951**
Prep Date:	Analysis Date: **11/6/2023**	SeqNo: **3706085** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nickel	0.51	0.010	0.5000	0	101	80	120			
Zinc	0.50	0.020	0.5000	0	99.7	80	120			

Sample ID: **2310B71-004EMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **GBR-50**	Batch ID: **A100951**	RunNo: **100951**
Prep Date:	Analysis Date: **11/6/2023**	SeqNo: **3706098** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nickel	0.46	0.010	0.5000	0.006993	90.8	75	125			
Zinc	0.44	0.020	0.5000	0	87.9	75	125			

Sample ID: **2310B71-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **GBR-50**	Batch ID: **A100951**	RunNo: **100951**
Prep Date:	Analysis Date: **11/6/2023**	SeqNo: **3706099** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nickel	0.47	0.010	0.5000	0.006993	93.0	75	125	2.31	20	
Zinc	0.45	0.020	0.5000	0	91.0	75	125	3.39	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **2310B71-001DMS**	SampType: **MS**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **GBR-17**	Batch ID: **78377**	RunNo: **100951**
Prep Date: **10/25/2023**	Analysis Date: **11/6/2023**	SeqNo: **3706130** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.2028	88.3	75	125			
Beryllium	0.49	0.0030	0.5000	0.001105	98.6	75	125			
Cadmium	0.48	0.0020	0.5000	0	95.6	75	125			
Magnesium	93	1.0	50.00	41.91	101	75	125			
Nickel	0.53	0.010	0.5000	0.1167	82.7	75	125			
Zinc	0.46	0.020	0.5000	0.07720	77.3	75	125			

Sample ID: **2310B71-001DMSD**	SampType: **MSD**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **GBR-17**	Batch ID: **78377**	RunNo: **100951**
Prep Date: **10/25/2023**	Analysis Date: **11/6/2023**	SeqNo: **3706131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.2028	86.5	75	125	1.38	20	
Beryllium	0.49	0.0030	0.5000	0.001105	96.9	75	125	1.68	20	
Cadmium	0.47	0.0020	0.5000	0	94.0	75	125	1.73	20	
Magnesium	91	1.0	50.00	41.91	97.8	75	125	1.95	20	
Nickel	0.52	0.010	0.5000	0.1167	80.8	75	125	1.84	20	
Zinc	0.46	0.020	0.5000	0.07720	76.4	75	125	1.01	20	

Sample ID: **2310B71-001DMS**	SampType: **MS**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **GBR-17**	Batch ID: **78377**	RunNo: **100951**
Prep Date: **10/25/2023**	Analysis Date: **11/6/2023**	SeqNo: **3706174** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0.004859	100	75	125			

Sample ID: **2310B71-001DMSD**	SampType: **MSD**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **GBR-17**	Batch ID: **78377**	RunNo: **100951**
Prep Date: **10/25/2023**	Analysis Date: **11/6/2023**	SeqNo: **3706175** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0.004859	101	75	125	0.662	20	

Sample ID: **2310B71-001DMS**	SampType: **MS**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **GBR-17**	Batch ID: **78377**	RunNo: **100951**
Prep Date: **10/25/2023**	Analysis Date: **11/6/2023**	SeqNo: **3706243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.8	0.25	0.5000	3.599	48.8	75	125			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **2310B71-001DMSD**	SampType: **MSD**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **GBR-17**	Batch ID: **78377**	RunNo: **100951**
Prep Date: **10/25/2023**	Analysis Date: **11/6/2023**	SeqNo: **3706244** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.25	0.5000	3.599	65.4	75	125	2.14	20	S

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310B71**

09-Nov-23

Client: ENSOLUM

Project: GBR

Sample ID: **MB-78388**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **78388**	RunNo: **100792**
Prep Date: **10/26/2023**	Analysis Date: **10/27/2023**	SeqNo: **3697072** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-78388**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **78388**	RunNo: **100792**
Prep Date: **10/26/2023**	Analysis Date: **10/27/2023**	SeqNo: **3697073** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	50.0	1000	0	101	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2310B71 RcptNo: 1

Received By: Tracy Casarrubias 10/25/2023 7:10:00 AM

Completed By: Tracy Casarrubias 10/25/2023 9:25:48 AM

Reviewed By: SCM 10/25/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 3 (<2 or >12 unless noted)

Adjusted? NO

Checked by: TMC 10/25/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions: Phone number is missing on COC- TMC 10/25/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 776 E. 2nd Ave

Durango, CO.

Phone #:

email or Fax#: shyde@ensolum.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☒ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: GBR

Project #:

Project Manager: Stuart Hyde

Sampler: E. Carroll

On Ice: ☒ Yes ☐ No 4001

# of Coolers: 1

Cooler Temp(including CF): 4.9 - Ø = 4.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2310B71	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Total Metals	Dissolved Metals	TDS	Dissolved Organic carbon
10-24	0940	GW	GBR-17	various	various	001							X	X			X	X	X	X
	11:00		GBR-32			002														
	12:00		GBR-48			003														
	1300		GBR-50			004														

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10-24	14:20				10/24/23	1420
10/24/23	1730			Courier	10/25/23	7:10

Remarks: Dispose of 500mL Zinc/A. bottles per E.C. miscommunication of Analysis, so they are not needed. - TMC 10/25/23

Cheyenne Cason

From: Tracy Casarrubias
Sent: Tuesday, October 24, 2023 3:50 PM
To: Cheyenne Cason
Subject: FW: GBR

From: Eric Carroll <ecarroll@ensolum.com>
Sent: Tuesday, October 24, 2023 3:48 PM
To: Tracy Casarrubias <tmc@hallenvironmental.com>; Christine Walters <cmw@hallenvironmental.com>
Subject: GBR

Tracy,

I dropped off samples with Christine today with 4 groundwater samples at the location GBR. Below is the list of metals for analytical.

- Total/Dissolved Metals
  - Mercury
  - Antimony
  - Arsenic
  - Lead
  - Thalium
  - Barium
  - Beryllium
  - Cadmium
  - Iron
  - Magnesium
  - Manganese
  - Nickel
  - Silver
  - Zinc

Thank you,

Eric Carroll
Project Geologist
303-842-9578
Ensolum, LLC

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 349779

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 349779
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
joel.stone	None	7/25/2024