

DRAFT REPORT

Produced For City of Huntington Beach

October 10, 2021



moffatt & nichol

ORANGE COUNTY OIL SPILL

Water Quality Sampling Results



Document Verification

Client	City of Huntington Beach
Document title	Orange County Oil Spill
Document sub-title	Water Quality Sampling Results
Status	Draft Report
Date	October 10, 2021
Project number	212289 / 03

Revision	Description	Issued by	Date	Checked
00	Draft Report			

Produced by:
Moffatt & Nichol
555 Anton Blvd., Ste. 400
Costa Mesa, CA 92626
657.261.2166
www.moffattnichol.com



Table of Contents

- 1. Introduction 1
- 2. Contaminant Exposure Pathways 2
 - 2.1. Human Health 2
 - 2.2. Ecological Health 3
- 3. Field Collection Program 4
 - 3.1. Field Sampling Methods 4
 - 3.2. Chemical Analyses 7
- 4. Results 8
 - 4.1. Detected TPH 8
- 5. Conclusion 11

APPENDIX

- J72168-1 UDS Level 2 Report – Final Report
- J72168-3 UDS Level 2 Report – Final Report



List of Figures

- Figure 1. Leak Location..... 1
- Figure 2. Proposed locations of sampling sites along Huntington Beach on October 7, 2021..... 4
- Figure 3. Example site condition photograph (site 33)..... 5
- Figure 4. Example field log (Sample Location 34)..... 6

List of Tables

- Table 1. Exposure Pathways for Beachgoers with Recommended Screening Levels..... 2
- Table 2. Proposed locations for Huntington Beach Oil Spill Response 7
- Table 3. Analytical Results with Comparison to Applicable Criteria..... 9



Glossary

City	The City of Huntington Beach
COCP	Chemicals of Potential Concern
DOR	Diesel Range Organics
DTSC	Department of Toxic Substances Control
ESL	Environmental Screening Level
HERO	Human and Ecological Risk Office
M&N	Moffatt & Nichol
MCL	Maximum Contaminant Level
MDL	Minimum Detection Limit
ORO	Oil Range Organics
PAH	Polycyclic Aromatic Hydrocarbons
QA/QC	Quality Assurance / Quality Control
TDML	Total Maximum Daily Load
TPH	Total Petroleum Hydrocarbon
USEPA	U.S. Environmental Protection Agency



1. Introduction

It is estimated that over 100,000 gallons of crude oil spilled off the coast of Orange County. The oil spill was first spotted late Friday October 1, 2021. The likely source is the oil pipe approximately 4.5 miles offshore, owned by Amplify Energy Corp. The pipeline was shut down at 6:00 am Saturday morning on October 2, 2021 (<https://www.cnn.com/2021/10/06/us/huntington-beach-california-oil-spill-timeline/index.html>).



FIGURE 1. LEAK LOCATION

(SOURCE: [HTTPS://WWW.CNN.COM/2021/10/06/US/HUNTINGTON-BEACH-CALIFORNIA-OIL-SPILL-TIMELINE/INDEX.HTML](https://www.cnn.com/2021/10/06/us/huntington-beach-california-oil-spill-timeline/index.html))

The City of Huntington Beach (City) closed the beaches on Sunday October 3, 2021 to ensure that beachgoers would not be exposed to health risks. On October 2nd the oil leak was sealed. Clean up efforts with skimmers and containment floating barriers known as booms on the water have continued. The City implemented removal clean-up procedures by professional clean-up crews on the beaches. Now that the extent of the oil spill is known and the slick is moving south and away from the Huntington Beach area, the City would like to consider reopening the beaches. The City requested that Moffatt & Nichol (M&N) collect environmental data to aid in the determination of any potential health risks that may be present.

2. Contaminant Exposure Pathways

2.1. Human Health

Beachgoers are expected to have potential exposure to chemicals in the environment through the pathways summarized in Table 2-1. Marine water quality was considered for each pathway and when applicable. Resource agencies have developed numeric standards to evaluate concentration of chemicals in the environment; applicable screening levels were compared to marine waters to estimate the potential for human health exposure.

TABLE 1. EXPOSURE PATHWAYS FOR BEACHGOERS WITH RECOMMENDED SCREENING LEVELS

Exposure Route	Consideration of Oil Spill Exposure
Inhalation	<ul style="list-style-type: none"> • Oil spill related compounds volatilize easily, resulting in petroleum related odors, even though beachgoers are outdoors, in well ventilated areas. • City health officials should provide direction to beachgoers to avoid unnecessary and prolonged exposure when odors are present. This summary does not include air sampling and, therefore, comparison to air concentrations was not evaluated. • However, there are standards for nuisance odor for 3 compounds that are associated with oil spills. Water quality characterization includes a comparison to Odor Nuisance Levels¹ established by the Regional Water Quality Control Board for groundwater to provide a conservative comparison.
Dermal absorption from contact on sand and from bathing, including immersion contact	<ul style="list-style-type: none"> • The oil spill has resulted in oil globules and stained sands in areas where the oil has reached the shore. • City health officials should provide direction to beachgoers to avoid unnecessary exposure by handling oily sands. • However, it is possible that a swimmer or beachgoer will be inadvertently exposed by accidentally touching oil on the sand or oil slicks on water surface resulting in dermal or direct exposure. Therefore, water quality characterization includes a comparison to Direct Exposure Human Health Risk Levels² established by the Regional Water Quality Control Board for groundwater to provide a conservative comparison.
Ingestion during swimming	<ul style="list-style-type: none"> • The oil spill has resulted in oiled water surfaces that are often visible as slicks. • City health officials should provide direction to beachgoers to avoid unnecessary exposure by swimming within observed slicks. • However, it is possible that a swimmer or beachgoer will be inadvertently exposed by accidentally swallowing water while swimming. Water quality characterization includes a comparison to Oral Exposure Levels³ provided by California Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO) to provide a conservative comparison.

¹ San Francisco Regional Water Quality Control Board (2019) for nuisance odor environmental screening levels (ESLs) for groundwater. Available at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html

² The highly conservative screen level of California maximum contaminant level (MCL) was applied. The MCL priority lists all available MCL values. If no MCL values are available, the lower of the cancer and noncancer tap water direct exposure levels is listed. MCL values are established for 13 polycyclic aromatic hydrocarbons (PAH) compounds.

³ Guidance for Evaluating Human Health Risk at Sites Contaminated by Petroleum Hydrocarbons and Related Chemicals of Potential Concern (COPC) – Human Health Risk Assessment NOTE 12 was developed by DTSC. The guidance provides human health total petroleum hydrocarbon (TPH) human health toxicity criteria for carbon ranges of compounds.



2.2. Ecological Health

The following ecological screening levels were used to characterize the marine waters off Huntington Beach:

- California Toxics Rule Criteria to protect human health and aquatic life
- California Ocean Plan Water Quality Objectives (no oil standard available, metals only)
- U.S. Environmental Protection Agency (USEPA) Recommended Water Quality Criteria to Protect Human Health and Aquatic Life

The Santa Ana Basin Plan was reviewed to confirm no additional standards are applied to the Huntington Beach coastline through Clean Water Act Total Maximum Daily Loads (TMDLs).



3. Field Collection Program

3.1. Field Sampling Methods

Forty samples were collected along Huntington Beach at 0.25-mile increments (Figure 2); field replicates were collected at sample locations 5, 14, 25, and 35. At each sampling location, water samples were collected within the surf zone (knee to waist deep). Site observations were documented and photographed at each site (Figure 3). The presence of oil in the wrack line, in the sand (globules, discoloration, or sheen), and in the water were recorded in the field logs (Figure 4).

All water samples were stored on ice at the south end of Huntington Beach immediately after sampling and were transferred to Eurofins Laboratory.



FIGURE 2. PROPOSED LOCATIONS OF SAMPLING SITES ALONG HUNTINGTON BEACH ON OCTOBER 7, 2021





FIGURE 3. EXAMPLE SITE CONDITION PHOTOGRAPH (SITE 33)



Project No. -

Location: HB

Date: 10/7/21

Field Log



moffatt & nichol

Site ID: 034 Sampler: Webb Thickman McMahon Corlett Butler Beck

Time: 3:52 Recorder: Webb Thickman McMahon Corlett Butler Beck

Bottle ID: HB — W S — 20211007 — 034

QA/QC Sample: Y N Type: Duplicate (DUP) Blank (BLK) Control (CTL)

Water Depth at Sample (ft): knee Notes:

Weather: Sunny Partly Cloudy Overcast Fog Rain Air Temp (F): 68

Wind: Direction: N NE E SE S SW W NW Notes:

Speed: Calm Light Medium Heavy

Currents: Direction: N NE E SE S SW W NW Notes:

Speed: Calm <1ft/s 1-2ft/s 3+ft/s

Waves: Direction: N NE E SE S SW W NW Notes:

Height: Flat <1ft 1-2ft 2-3ft 3-5ft Overhead

Tide: high mid low flood — ebb Wrackline: Y N

Sheen: Y N Notes:

Surface Debris: Y N Notes:

Odor: None Slight Mod Strong H₂S Petro Septic

Water Clarity: Clear (see bottom) Cloudy (>4") Murky (<4")

Water Color: Colorless Green Yellow Brown Blue

Photos: Y N Geotagged: Y N Notes:

Comments: gld. obs

FIGURE 4. EXAMPLE FIELD LOG (SAMPLE LOCATION 34)



TABLE 2. PROPOSED LOCATIONS FOR HUNTINGTON BEACH OIL SPILL RESPONSE

Site No.	Eastings (ft CA Zone 6)	Northings (ft CA Zone 6)	Site No.	Eastings (ft CA Zone 6)	Northings (ft CA Zone 6)
1	-13130900.15	3978938.60	21	-13138525.61	3984836.90
2	-13131345.31	3979209.87	22	-13138875.81	3985171.05
3	-13131753.70	3979468.47	23	-13139226.03	3985505.19
4	-13132162.10	3979727.07	24	-13139556.24	3985859.22
5	-13132570.52	3979985.66	25	-13139884.52	3986215.18
6	-13132980.57	3980241.64	26	-13140203.38	3986579.20
7	-13133391.00	3980497.03	27	-13140500.07	3986962.17
8	-13133780.48	3980780.73	28	-13140796.79	3987345.14
9	-13134143.97	3981099.80	29	-13141093.52	3987728.11
10	-13134528.40	3981393.27	30	-13141390.27	3988111.09
11	-13134912.85	3981686.73	31	-13141652.81	3988517.81
12	-13135297.32	3981980.18	32	-13141916.72	3988923.18
13	-13135726.29	3982201.24	33	-13142229.91	3989292.77
14	-13136150.84	3982426.16	34	-13142575.70	3989630.59
15	-13136451.76	3982805.57	35	-13142934.15	3989956.10
16	-13136783.86	3983156.79	36	-13143270.84	3990304.18
17	-13137128.76	3983496.35	37	-13143602.40	3990657.30
18	-13137477.47	3983831.98	38	-13143937.25	3991007.29
19	-13137826.20	3984167.62	39	-13144273.74	3991355.72
20	-13138175.42	3984502.76	40	-13144530.97	3991696.73

3.2. Chemical Analyses

Seawater from 40 sample locations were tested for PAHs (EPA method 8270 SIM), diesel range organics (DOR), and oil range organics (ORO) (EPA method 8015). The DOR and ORO typically refer to petroleum hydrocarbons with a range of 10-28 and 20-35 carbon atoms, respectively. Samples collected at Sites 1-3 were also analyzed for metals to evaluate potential ecological impacts.



4. Results

To provide early information to decision makers, this section summarizes available information as of October 10. A final report will incorporate all field observations sheets, site photographs, metals data, and laboratory quality assurance / quality control (QA/QC) Level IV summary.

Analytical results are summarized in Table 3. The screening criteria summarized in Table 1 were compared to the results. All minimum detection limit (MDL) values were below all applicable screening levels with the exception of the TPH human health toxicity criteria for carbon ranges of compounds. Laboratory QA/QC Level II is complete.

The following results are available from the laboratory test results:

- No PAHs were detected
- No oil was detected except at sample location 33

4.1. Detected TPH

As stated in the DTSC guidance, consideration of risks associated with TPH should include an assessment of the risk characterization for individual chemicals of potential concern. The mixture of chemicals varies significantly with each source and through time with degradation. The marine water samples were tested for DOR and ORO. The MDL for DOR and ORO samples (33 µg/L to 97 µg/L) were higher than human toxicity screening levels⁴ proposed by DTSC, which have a daily oral exposure limit of 0.03 µg/L. However, this level is based on specific toxicology of naphthalene and methylnaphthalene measurements. While TPH was detected at sampling station 33 (HB-10072021-033), naphthalene and methylnaphthalene were non-detect with an MDL at 0.8 µg/L. If we conservatively assume the concentration is half the detection limit (0.04 µg/L), a beachgoer will need to consume 1 liter of seawater to meet daily toxicity criteria.

⁴ Salt interferes with extraction methods and requires higher MDL than freshwater/drinking water samples.



TABLE 3. ANALYTICAL RESULTS WITH COMPARISON TO APPLICABLE CRITERIA

	US EPA Ambient Water Quality Criteria		Groundwater ESLs (SF RWQCB ESLs, 2019)		TPH Human Health Toxicity	HB-W-2021100-7-001	HB-W-2021100-7-002	HB-W-2021100-7-003	HB-W-2021100-7-004	HB-W-2021100-7-005	HB-W-2021100-7-005-DUP	HB-W-2021100-7-006	HB-W-2021100-7-007	HB-W-2021100-7-008	HB-W-2021100-7-009	HB-W-2021100-7-010	HB-W-2021100-7-011	HB-W-2021100-7-012	HB-W-2021100-7-013	HB-W-2021100-7-014	HB-W-2021100-7-014-DUP	HB-W-2021100-7-015	HB-W-2021100-7-016	HB-W-2021100-7-017	HB-W-2021100-7-018	HB-W-2021100-7-019	HB-W-2021100-7-020	
	Chronic CCC	Acute CMC	Odor	Exposure		7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21
PAHs (µg/L)																												
1-Methylnaphthalene	-	-	-	-	-	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U					
2-Methylnaphthalene	-	-	-	-	-	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U					
Acenaphthene	40*	970	200	530	-	0.095 U	0.095 U	0.096 U	0.096 U	0.095 U	0.096 U	0.095 U	0.095 U	0.096 U	0.096 U	0.096 U	0.097 U	0.097 U	0.096 U	0.097 U	0.095 U	0.095 U	0.095 U	0.096 U	0.096 U	0.097 U	0.097 U	0.097 U
Acenaphthylene	-	300	-	-	-	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U	0.069 U	0.069 U	0.068 U	0.069 U	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U	0.069 U	0.069 U					
Anthracene	-	300	-	1800	-	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.059 U	0.059 U	0.059 U	0.059 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.059 U	0.059 U					
Benzo(a)anthracene	-	300	-	0.02	-	0.084 U	0.084 U	0.084 U	0.085 U	0.084 U	0.084 U	0.084 U	0.086 U	0.086 U	0.085 U	0.085 U	0.084 U	0.084 U	0.084 U	0.085 U	0.085 U	0.085 U	0.085 U					
Benzo(a)pyrene	-	300	-	0.2	-	0.061 U	0.061 U	0.061 U	0.062 U	0.061 U	0.061 U	0.061 U	0.061 U	0.062 U	0.062 U	0.062 U	0.062 U	0.063 U	0.062 U	0.062 U	0.062 U	0.061 U	0.061 U	0.061 U	0.062 U	0.062 U	0.062 U	0.062 U
Benzo(b)fluoranthene	-	300	-	0.25	-	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U					
Benzo(g,h,i)perylene	-	300	-	-	-	0.099 U	0.099 U	0.099 U	0.10 U	0.099 U	0.099 U	0.099 U	0.099 U	0.10 U	0.099 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.099 U	0.099 U	0.099 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(k)fluoranthene	-	300	-	2.5	-	0.091 U	0.091 U	0.092 U	0.092 U	0.091 U	0.092 U	0.091 U	0.091 U	0.092 U	0.092 U	0.092 U	0.093 U	0.093 U	0.092 U	0.093 U	0.091 U	0.091 U	0.092 U	0.092 U	0.092 U	0.093 U	0.093 U	0.093 U
Chrysene	-	300	-	25	-	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.059 U	0.059 U	0.059 U	0.059 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.059 U	0.059 U	0.059 U					
Dibenz(a,h)anthracene	-	300	-	0.03	-	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U					
Fluoranthene	11*	800	-	800	-	0.066 U	0.066 U	0.067 U	0.067 U	0.066 U	0.067 U	0.066 U	0.066 U	0.067 U	0.067 U	0.067 U	0.067 U	0.068 U	0.068 U	0.067 U	0.067 U	0.066 U	0.066 U	0.067 U				
Fluorene	-	300	-	290	-	0.074 U	0.073 U	0.074 U	0.074 U	0.073 U	0.074 U	0.073 U	0.073 U	0.074 U	0.074 U	0.074 U	0.075 U	0.075 U	0.074 U	0.075 U	0.073 U	0.073 U	0.074 U	0.074 U	0.074 U	0.075 U	0.075 U	0.075 U
Indeno(1,2,3-c,d)pyrene	-	300	-	0.25	-	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U	0.11 U					
Naphthalene	1.4†	2400	210	0.17	-	0.081 U	0.081 U	0.081 U	0.082 U	0.081 U	0.081 U	0.081 U	0.081 U	0.082 U	0.081 U	0.082 U	0.083 U	0.083 U	0.082 U	0.082 U	0.081 U	0.081 U	0.081 U	0.082 U				
Phenanthrene	4.6†	7.7†	10000	-	-	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.073 U	0.073 U	0.072 U	0.073 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.073 U	0.073 U	0.073 U					
Pyrene	-	300	-	120	-	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.066 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.066 U	0.066 U	0.066 U									
Total PAHs (ND = 0)	-	300	-	-	-	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U					
Additional Analytes																												
C8-C40 (ug/L)	-	-	-	-	0.03	33 U	97 U	32 U	33 U	33 U	33 U	32 U	33 U	32 U	34 U	32 U	33 U	32 U	34 U	34 U	34 U	32 U	35 U	33 U	34 U	33 U	34 U	34 U
Diesel Range Organics [C10-C28] (ug/L)	-	-	-	-	0.03	33 U	97 U	32 U	33 U	33 U	33 U	32 U	33 U	32 U	34 U	32 U	33 U	32 U	34 U	34 U	34 U	32 U	35 U	33 U	34 U	33 U	34 U	34 U



	US EPA Ambient Water Quality Criteria		Groundwater ESLs (SF RWQCB ESLs, 2019)		TPH Human Health Toxicity	HB-W-2021100-7-021	HB-W-2021100-7-022	HB-W-2021100-7-023	HB-W-2021100-7-024	HB-W-2021100-7-025	HB-W-2021100-7-025-DUP	HB-W-2021100-7-026	HB-W-2021100-7-027	HB-W-2021100-7-028	HB-W-2021100-7-029	HB-W-2021100-7-030	HB-W-2021100-7-031	HB-W-2021100-7-032	HB-W-2021100-7-033	HB-W-2021100-7-034	HB-W-2021100-7-035	HB-W-2021100-7-035-DUP	HB-W-2021100-7-036	HB-W-2021100-7-037	HB-W-2021100-7-038	HB-W-2021100-7-039	HB-W-2021100-7-040	
	Chronic CCC	Acute CMC	Odor	7-Oct-21		7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21	7-Oct-21
PAHs (µg/L)																												
1-Methylnaphthalene	-	-	-	-	-	0.071 U	0.072 U	0.071 U	0.072 U	0.071 U	0.072 U	0.071 U	0.072 U	0.071 U	0.071 U	0.071 U	0.071 U	0.071 U	0.071 U	0.071 U								
2-Methylnaphthalene	-	-	-	-	-	0.075 U	0.076 U	0.075 U	0.076 U	0.075 U	0.076 U	0.075 U	0.076 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U								
Acenaphthene	40*	970	200	530	-	0.095 U	0.096 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U				
Acenaphthylene	-	300	-	-	-	0.067 U	0.068 U	0.067 U	0.068 U	0.067 U	0.068 U	0.067 U	0.068 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U								
Anthracene	-	300	-	1800	-	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U					
Benzo(a)anthracene	-	300	-	0.02	-	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.083 U	0.084 U	0.084 U					
Benzo(a)pyrene	-	300	-	0.2	-	0.061 U	0.062 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U				
Benzo(b)fluoranthene	-	300	-	0.25	-	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U					
Benzo(g,h,i)perylene	-	300	-	-	-	0.099 U	0.10 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.098 U	0.099 U	0.098 U				
Benzo(k)fluoranthene	-	300	-	2.5	-	0.091 U	0.092 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.092 U	0.091 U	0.091 U				
Chrysene	-	300	-	25	-	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U					
Dibenz(a,h)anthracene	-	300	-	0.03	-	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U					
Fluoranthene	11*	800	-	800	-	0.066 U	0.067 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.067 U	0.066 U	0.066 U				
Fluorene	-	300	-	290	-	0.073 U	0.074 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.073 U	0.074 U	0.073 U	0.073 U	0.074 U				
Indeno(1,2,3-c,d)pyrene	-	300	-	0.25	-	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U					
Naphthalene	1.4†	2400	210	0.17	-	0.081 U	0.082 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U				
Phenanthrene	4.6‡	7.7‡	10000	-	-	0.071 U	0.072 U	0.071 U	0.072 U	0.071 U	0.072 U	0.071 U	0.072 U	0.071 U	0.071 U	0.071 U	0.072 U	0.071 U	0.071 U	0.072 U								
Pyrene	-	300	-	120	-	0.064 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.064 U	0.065 U	0.064 U	0.065 U				
Total PAHs (ND = 0)	-	300	-	-	-	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U					
Additional Analytes																												
C8-C40 (ug/L)	-	-	-	-	0.03	33 U	32 U	33 U	32 U	33 U	33 U	32 U	33 U	32 U	33 U	32 U	34 U	32 U	53	32 U	33 U	33 U	32 U	33 U	32 U	33 U	32 U	32 U
Diesel Range Organics [C10-C28] (ug/L)	-	-	-	-	0.03	33 U	32 U	33 U	32 U	33 U	33 U	32 U	33 U	32 U	33 U	32 U	34 U	32 U	39 J	32 U	33 U	33 U	32 U	33 U	32 U	33 U	32 U	32 U

Notes:
 * Chronic value from Eco - EPA Eco Update, Ecotox Thresholds, EPA 540/F-95/038
 † Chronic value = LOEL - Avian
 ‡ Acute and chronic - proposed criteria
53 TPH human health non-cancer oral reference value exceeded.
Bold Detected result
 - No criteria
 J Result is less than the RL but greater than or equal to the minimum detection limit (MDL) and the concentration is an approximate value.
 U Indicates the analyte was analyzed for but not detected.
 CCC Criteria Continuous Concentration
 CMC Criteria Maximum Concentration
 PAH Polycyclic Aromatic Hydrocarbon
 For totals, zeros were used for non-detect samples for summing. If all samples were non-detect, the highest MDL of all samples was used as the total result.
 Total PAHs are the sum of available HMW and LMW PAHs.



5. Conclusion

Forty water quality samples were collected on October 7, 2021 along Huntington Beach over a shoreline length of 9.5 miles (from Santa Ana River to Anderson Street in Sunset Beach). All samples were analyzed for PAHs and TPH. All measured analytes were non-detect and below applicable standards with the exception of TPH at Station 33. The detected TPH sample at Station 33 did not co-occur with elevated levels of contaminants of concern (PAHs); therefore, the observed concentration is not anticipated to be at a level to be a concern for normal beachgoing activities.



APPENDIX

J72168-1 UDS Level 2 Report – Final Report

J72168-3 UDS Level 2 Report – Final Report



ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-72168-1

Client Project/Site: Huntington Beach Oil Spill Sample

For:

Moffatt & Nichol
4225 East Conant
Long Beach, California 90808

Attn: Shelly Anghera



Authorized for release by:
10/8/2021 1:52:23 PM

Carla Hollowell, Project Manager I
(714)895-5494
Carla.Hollowell@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	13
QC Sample Results	15
QC Association Summary	18
Lab Chronicle	21
Certification Summary	30
Method Summary	31
Sample Summary	32
Chain of Custody	33
Receipt Checklists	38

Definitions/Glossary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Job ID: 570-72168-1

Laboratory: Eurofins Calscience LLC

Narrative

**Job Narrative
570-72168-1**

Comments

No additional comments.

Receipt

The samples were received on 10/7/2021 6:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 5.0° C, 5.2° C, 5.3° C and 5.5° C.

Receipt Exceptions

No additional comments.

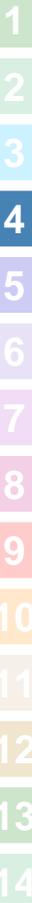
GC Semi VOA

Method 8015B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-184905 and analytical batch 570-184856 recovered outside control limits for the following analytes: TPH as Motor Oil (C17-C44)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: HB-W-20211007-001

Date Collected: 10/07/21 17:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/07/21 23:15	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/07/21 23:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	109		53 - 151				10/07/21 19:11	10/07/21 23:15	1

Client Sample ID: HB-W-20211007-002

Date Collected: 10/07/21 17:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		130	97	ug/L	-	10/07/21 19:11	10/07/21 23:36	1
C8-C40	ND		130	97	ug/L	-	10/07/21 19:11	10/07/21 23:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	104		53 - 151				10/07/21 19:11	10/07/21 23:36	1

Client Sample ID: HB-W-20211007-003

Date Collected: 10/07/21 17:35

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		44	32	ug/L	-	10/07/21 19:11	10/07/21 23:58	1
C8-C40	ND		44	32	ug/L	-	10/07/21 19:11	10/07/21 23:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	102		53 - 151				10/07/21 19:11	10/07/21 23:58	1

Client Sample ID: HB-W-20211007-004

Date Collected: 10/07/21 12:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 00:19	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 00:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	99		53 - 151				10/07/21 19:11	10/08/21 00:19	1

Client Sample ID: HB-W-20211007-005

Date Collected: 10/07/21 12:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 00:40	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 00:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	108		53 - 151				10/07/21 19:11	10/08/21 00:40	1

Client Sample ID: HB-W-20211007-006

Date Collected: 10/07/21 12:25

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 01:02	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 01:02	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	110		53 - 151	10/07/21 19:11	10/08/21 01:02	1

Client Sample ID: HB-W-20211007-007

Lab Sample ID: 570-72168-7

Date Collected: 10/07/21 12:30

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 01:24	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	101		53 - 151	10/07/21 19:11	10/08/21 01:24	1

Client Sample ID: HB-W-20211007-008

Lab Sample ID: 570-72168-8

Date Collected: 10/07/21 12:35

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 01:44	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	99		53 - 151	10/07/21 19:11	10/08/21 01:44	1

Client Sample ID: HB-W-20211007-009

Lab Sample ID: 570-72168-9

Date Collected: 10/07/21 12:43

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 02:06	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 02:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	109		53 - 151	10/07/21 19:11	10/08/21 02:06	1

Client Sample ID: HB-W-20211007-010

Lab Sample ID: 570-72168-10

Date Collected: 10/07/21 12:50

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 02:28	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 02:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	107		53 - 151	10/07/21 19:11	10/08/21 02:28	1

Client Sample ID: HB-W-20211007-011

Lab Sample ID: 570-72168-11

Date Collected: 10/07/21 12:55

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 02:49	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 02:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	113		53 - 151	10/07/21 19:11	10/08/21 02:49	1

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: HB-W-20211007-012

Date Collected: 10/07/21 13:10

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 03:10	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 03:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	97		53 - 151				10/07/21 19:11	10/08/21 03:10	1

Client Sample ID: HB-W-20211007-013

Date Collected: 10/07/21 13:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 03:32	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 03:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	106		53 - 151				10/07/21 19:11	10/08/21 03:32	1

Client Sample ID: HB-W-20211007-014

Date Collected: 10/07/21 13:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 03:53	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	116		53 - 151				10/07/21 19:11	10/08/21 03:53	1

Client Sample ID: HB-W-20211007-015

Date Collected: 10/07/21 13:45

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 04:58	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:11	10/08/21 04:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	108		53 - 151				10/07/21 19:11	10/08/21 04:58	1

Client Sample ID: HB-W-20211007-016

Date Collected: 10/07/21 13:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		48	35	ug/L	-	10/07/21 19:11	10/08/21 05:18	1
C8-C40	ND		48	35	ug/L	-	10/07/21 19:11	10/08/21 05:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	97		53 - 151				10/07/21 19:11	10/08/21 05:18	1

Client Sample ID: HB-W-20211007-017

Date Collected: 10/07/21 14:00

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 05:40	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 05:40	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	99		53 - 151	10/07/21 19:11	10/08/21 05:40	1

Client Sample ID: HB-W-20211007-018

Lab Sample ID: 570-72168-18

Date Collected: 10/07/21 14:05

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 06:01	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	116		53 - 151	10/07/21 19:11	10/08/21 06:01	1

Client Sample ID: HB-W-20211007-019

Lab Sample ID: 570-72168-19

Date Collected: 10/07/21 14:15

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 06:22	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:11	10/08/21 06:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	99		53 - 151	10/07/21 19:11	10/08/21 06:22	1

Client Sample ID: HB-W-20211007-020

Lab Sample ID: 570-72168-20

Date Collected: 10/07/21 14:30

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 06:43	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:11	10/08/21 06:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	107		53 - 151	10/07/21 19:11	10/08/21 06:43	1

Client Sample ID: HB-W-20211007-021

Lab Sample ID: 570-72168-21

Date Collected: 10/07/21 14:42

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 03:27	1
C8-C40	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 03:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	84		53 - 151	10/07/21 19:36	10/08/21 03:27	1

Client Sample ID: HB-W-20211007-022

Lab Sample ID: 570-72168-22

Date Collected: 10/07/21 14:50

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		44	32	ug/L	-	10/07/21 19:36	10/08/21 03:47	1
C8-C40	ND		44	32	ug/L	-	10/07/21 19:36	10/08/21 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	83		53 - 151	10/07/21 19:36	10/08/21 03:47	1

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: HB-W-20211007-023

Date Collected: 10/07/21 14:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-23

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:36	10/08/21 04:06	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:36	10/08/21 04:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	58		53 - 151				10/07/21 19:36	10/08/21 04:06	1

Client Sample ID: HB-W-20211007-024

Date Collected: 10/07/21 14:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		44	32	ug/L	-	10/07/21 19:36	10/08/21 04:26	1
C8-C40	ND		44	32	ug/L	-	10/07/21 19:36	10/08/21 04:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	76		53 - 151				10/07/21 19:36	10/08/21 04:26	1

Client Sample ID: HB-W-20211007-025

Date Collected: 10/07/21 15:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-25

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:36	10/08/21 04:47	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:36	10/08/21 04:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	81		53 - 151				10/07/21 19:36	10/08/21 04:47	1

Client Sample ID: HB-W-20211007-026

Date Collected: 10/07/21 15:10

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-26

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 05:06	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 05:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	77		53 - 151				10/07/21 19:36	10/08/21 05:06	1

Client Sample ID: HB-W-20211007-027

Date Collected: 10/07/21 15:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-27

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 05:26	1
C8-C40	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	89		53 - 151				10/07/21 19:36	10/08/21 05:26	1

Client Sample ID: HB-W-20211007-028

Date Collected: 10/07/21 15:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-28

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 05:46	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 05:46	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	74		53 - 151	10/07/21 19:36	10/08/21 05:46	1

Client Sample ID: HB-W-20211007-029

Lab Sample ID: 570-72168-29

Date Collected: 10/07/21 15:30

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:36	10/08/21 06:06	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:36	10/08/21 06:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	72		53 - 151	10/07/21 19:36	10/08/21 06:06	1

Client Sample ID: HB-W-20211007-030

Lab Sample ID: 570-72168-30

Date Collected: 10/07/21 15:32

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 06:25	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 06:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	74		53 - 151	10/07/21 19:36	10/08/21 06:25	1

Client Sample ID: HB-W-20211007-031

Lab Sample ID: 570-72168-31

Date Collected: 10/07/21 15:40

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:36	10/08/21 06:45	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:36	10/08/21 06:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	76		53 - 151	10/07/21 19:36	10/08/21 06:45	1

Client Sample ID: HB-W-20211007-032

Lab Sample ID: 570-72168-32

Date Collected: 10/07/21 15:42

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 07:05	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 07:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	67		53 - 151	10/07/21 19:36	10/08/21 07:05	1

Client Sample ID: HB-W-20211007-033

Lab Sample ID: 570-72168-33

Date Collected: 10/07/21 15:50

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	39	J	47	34	ug/L	-	10/07/21 19:36	10/08/21 07:26	1
C8-C40	53		47	34	ug/L	-	10/07/21 19:36	10/08/21 07:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	65		53 - 151	10/07/21 19:36	10/08/21 07:26	1

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: HB-W-20211007-034

Date Collected: 10/07/21 15:52

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-34

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 07:45	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 07:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	66		53 - 151				10/07/21 19:36	10/08/21 07:45	1

Client Sample ID: HB-W-20211007-035

Date Collected: 10/07/21 16:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-35

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 08:05	1
C8-C40	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 08:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	65		53 - 151				10/07/21 19:36	10/08/21 08:05	1

Client Sample ID: HB-W-20211007-036

Date Collected: 10/07/21 16:02

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-36

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 10:46	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 10:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	83		53 - 151				10/07/21 19:36	10/08/21 10:46	1

Client Sample ID: HB-W-20211007-037

Date Collected: 10/07/21 16:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-37

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 09:26	1
C8-C40	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 09:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	69		53 - 151				10/07/21 19:36	10/08/21 09:26	1

Client Sample ID: HB-W-20211007-038

Date Collected: 10/07/21 16:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-38

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 09:47	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 09:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	70		53 - 151				10/07/21 19:36	10/08/21 09:47	1

Client Sample ID: HB-W-20211007-039

Date Collected: 10/07/21 16:25

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-39

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 10:07	1
C8-C40	ND		45	33	ug/L	-	10/07/21 19:36	10/08/21 10:07	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	71		53 - 151	10/07/21 19:36	10/08/21 10:07	1

Client Sample ID: HB-W-20211007-040

Lab Sample ID: 570-72168-40

Date Collected: 10/07/21 16:30

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 10:27	1
C8-C40	ND		45	32	ug/L	-	10/07/21 19:36	10/08/21 10:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	66		53 - 151	10/07/21 19:36	10/08/21 10:27	1

Client Sample ID: HB-W-20211007-005-DUP

Lab Sample ID: 570-72168-41

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		45	33	ug/L	-	10/07/21 19:40	10/08/21 00:07	1
C8-C40	ND		45	33	ug/L	-	10/07/21 19:40	10/08/21 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	87		53 - 151	10/07/21 19:40	10/08/21 00:07	1

Client Sample ID: HB-W-20211007-014-DUP

Lab Sample ID: 570-72168-42

Date Collected: 10/07/21 13:15

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	34	ug/L	-	10/07/21 19:40	10/08/21 00:26	1
C8-C40	ND		47	34	ug/L	-	10/07/21 19:40	10/08/21 00:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	85		53 - 151	10/07/21 19:40	10/08/21 00:26	1

Client Sample ID: HB-W-20211007-025-DUP

Lab Sample ID: 570-72168-43

Date Collected: 10/07/21 15:05

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:40	10/08/21 00:46	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:40	10/08/21 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	88		53 - 151	10/07/21 19:40	10/08/21 00:46	1

Client Sample ID: HB-W-20211007-035-DUP

Lab Sample ID: 570-72168-44

Date Collected: 10/07/21 16:05

Matrix: Water

Date Received: 10/07/21 18:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46	33	ug/L	-	10/07/21 19:40	10/08/21 01:06	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:40	10/08/21 01:06	1
C8-C40	ND		46	33	ug/L	-	10/07/21 19:40	10/08/21 01:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	87		53 - 151	10/07/21 19:40	10/08/21 01:06	1
<i>n</i> -Octacosane (Surr)	87		53 - 151	10/07/21 19:40	10/08/21 01:06	1

Surrogate Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1 (53-151)	OTCSN1 (53-151)
570-72168-1	HB-W-20211007-001	109	109
570-72168-2	HB-W-20211007-002	104	104
570-72168-3	HB-W-20211007-003	102	102
570-72168-4	HB-W-20211007-004	99	99
570-72168-5	HB-W-20211007-005	108	108
570-72168-6	HB-W-20211007-006	110	110
570-72168-7	HB-W-20211007-007	101	101
570-72168-8	HB-W-20211007-008	99	99
570-72168-9	HB-W-20211007-009	109	109
570-72168-10	HB-W-20211007-010	107	107
570-72168-11	HB-W-20211007-011	113	113
570-72168-12	HB-W-20211007-012	97	97
570-72168-13	HB-W-20211007-013	106	106
570-72168-14	HB-W-20211007-014	116	116
570-72168-15	HB-W-20211007-015	108	108
570-72168-16	HB-W-20211007-016	97	97
570-72168-17	HB-W-20211007-017	99	99
570-72168-18	HB-W-20211007-018	116	116
570-72168-19	HB-W-20211007-019	99	99
570-72168-20	HB-W-20211007-020	107	107
570-72168-21	HB-W-20211007-021	84	84
570-72168-22	HB-W-20211007-022	83	83
570-72168-23	HB-W-20211007-023	58	58
570-72168-24	HB-W-20211007-024	76	76
570-72168-25	HB-W-20211007-025	81	81
570-72168-26	HB-W-20211007-026	77	77
570-72168-27	HB-W-20211007-027	89	89
570-72168-28	HB-W-20211007-028	74	74
570-72168-29	HB-W-20211007-029	72	72
570-72168-30	HB-W-20211007-030	74	74
570-72168-31	HB-W-20211007-031	76	76
570-72168-32	HB-W-20211007-032	67	67
570-72168-33	HB-W-20211007-033	65	65
570-72168-34	HB-W-20211007-034	66	66
570-72168-35	HB-W-20211007-035	65	65
570-72168-36	HB-W-20211007-036	83	83
570-72168-37	HB-W-20211007-037	69	69
570-72168-38	HB-W-20211007-038	70	70
570-72168-39	HB-W-20211007-039	71	71
570-72168-40	HB-W-20211007-040	66	66
570-72168-41	HB-W-20211007-005-DUP	87	87
570-72168-42	HB-W-20211007-014-DUP	85	85
570-72168-43	HB-W-20211007-025-DUP	88	88
570-72168-44	HB-W-20211007-035-DUP	87	87
LCS 570-184900/24-A	Lab Control Sample	95	95
LCS 570-184900/2-A	Lab Control Sample	94	94
LCS 570-184905/2-A	Lab Control Sample	83	83
LCS 570-184905/4-A	Lab Control Sample	93	93
LCS 570-184906/2-A	Lab Control Sample	79	79

Surrogate Summary

Client: Moffatt & Nichol

Job ID: 570-72168-1

Project/Site: Huntington Beach Oil Spill Sample

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)	OTCSN1 (53-151)
LCS 570-184906/4-A	Lab Control Sample	80	80
LCSD 570-184900/25-A	Lab Control Sample Dup	114	114
LCSD 570-184900/3-A	Lab Control Sample Dup	115	115
LCSD 570-184905/3-A	Lab Control Sample Dup	67	67
LCSD 570-184905/5-A	Lab Control Sample Dup	77	77
LCSD 570-184906/3-A	Lab Control Sample Dup	81	81
LCSD 570-184906/5-A	Lab Control Sample Dup	90	90
MB 570-184900/1-A	Method Blank	115	115
MB 570-184905/1-A	Method Blank	72	72
MB 570-184906/1-A	Method Blank	76	76

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-184900/1-A
Matrix: Water
Analysis Batch: 184674

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184900

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		50	36	ug/L		10/07/21 19:11	10/07/21 21:30	1
C8-C40	ND		50	36	ug/L		10/07/21 19:11	10/07/21 21:30	1
Surrogate	MB MB		Limits			D	Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
n-Octacosane (Surr)	115		53 - 151				10/07/21 19:11	10/07/21 21:30	1

Lab Sample ID: LCS 570-184900/24-A
Matrix: Water
Analysis Batch: 184674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.	
									TPH as Motor Oil (C17-C44)
Surrogate	LCS LCS		Limits			D	Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
n-Octacosane (Surr)	95		53 - 151						

Lab Sample ID: LCS 570-184900/2-A
Matrix: Water
Analysis Batch: 184674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.	
									Diesel Range Organics [C10-C28]
Surrogate	LCS LCS		Limits			D	Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
n-Octacosane (Surr)	94		53 - 151						

Lab Sample ID: LCSD 570-184900/25-A
Matrix: Water
Analysis Batch: 184674

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184900

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	%Rec.	RPD	
									RPD	Limit
TPH as Motor Oil (C17-C44)	4000	4271		ug/L		107	57 - 137	15	20	
Surrogate	LCSD LCSD		Limits			D	Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier									
n-Octacosane (Surr)	114		53 - 151							

Lab Sample ID: LCSD 570-184900/3-A
Matrix: Water
Analysis Batch: 184674

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184900

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	%Rec.	RPD	
									RPD	Limit
Diesel Range Organics [C10-C28]	4000	3329		ug/L		83	70 - 131	11	20	
Surrogate	LCSD LCSD		Limits			D	Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier									
n-Octacosane (Surr)	115		53 - 151							

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 570-184905/1-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184905

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Diesel Range Organics [C10-C28]	ND		50	36	ug/L		10/07/21 19:36	10/07/21 23:07			1
C8-C40	ND		50	36	ug/L		10/07/21 19:36	10/07/21 23:07			1
Surrogate	MB	MB	Limits	Prepared		Analyzed		Dil Fac			
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier									
	72		53 - 151	10/07/21 19:36	10/07/21 23:07			1			

Lab Sample ID: LCS 570-184905/2-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184905

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
Diesel Range Organics [C10-C28]	4000	3416		ug/L		85	70 - 131	
Surrogate	LCS	LCS	Limits					
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier						
	83		53 - 151					

Lab Sample ID: LCS 570-184905/4-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184905

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
TPH as Motor Oil (C17-C44)	4000	2934		ug/L		73	57 - 137	
Surrogate	LCS	LCS	Limits					
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier						
	93		53 - 151					

Lab Sample ID: LCSD 570-184905/3-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184905

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
		Result	Qualifier							
Diesel Range Organics [C10-C28]	4000	4139		ug/L		103	70 - 131	19	20	
Surrogate	LCSD	LCSD	Limits							
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier								
	67		53 - 151							

Lab Sample ID: LCSD 570-184905/5-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184905

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
		Result	Qualifier							
TPH as Motor Oil (C17-C44)	4000	3933	*1	ug/L		98	57 - 137	29	20	
Surrogate	LCSD	LCSD	Limits							
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier								
	77		53 - 151							

Eurofins Calscience LLC

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 570-184906/1-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184906

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Diesel Range Organics [C10-C28]	ND		50	36	ug/L		10/07/21 19:40	10/07/21 22:07			1
C8-C40	ND		50	36	ug/L		10/07/21 19:40	10/07/21 22:07			1
Surrogate	MB	MB	Limits	Prepared		Analyzed		Dil Fac			
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier									
	76		53 - 151	10/07/21 19:40	10/07/21 22:07		1				

Lab Sample ID: LCS 570-184906/2-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184906

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
Diesel Range Organics [C10-C28]	4000	3620		ug/L		90	70 - 131	
Surrogate	LCS	LCS	Limits					
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier						
	79		53 - 151					

Lab Sample ID: LCS 570-184906/4-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184906

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
TPH as Motor Oil (C17-C44)	4000	3403		ug/L		85	57 - 137	
Surrogate	LCS	LCS	Limits					
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier						
	80		53 - 151					

Lab Sample ID: LCSD 570-184906/3-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184906

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
		Result	Qualifier							
Diesel Range Organics [C10-C28]	4000	3543		ug/L		89	70 - 131	2	20	
Surrogate	LCSD	LCSD	Limits							
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier								
	81		53 - 151							

Lab Sample ID: LCSD 570-184906/5-A
Matrix: Water
Analysis Batch: 184856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184906

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
		Result	Qualifier							
TPH as Motor Oil (C17-C44)	4000	3522		ug/L		88	57 - 137	3	20	
Surrogate	LCSD	LCSD	Limits							
<i>n</i> -Octacosane (Surr)	%Recovery	Qualifier								
	90		53 - 151							

QC Association Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

GC Semi VOA

Analysis Batch: 184674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-1	HB-W-20211007-001	Total/NA	Water	8015B	184900
570-72168-2	HB-W-20211007-002	Total/NA	Water	8015B	184900
570-72168-3	HB-W-20211007-003	Total/NA	Water	8015B	184900
570-72168-4	HB-W-20211007-004	Total/NA	Water	8015B	184900
570-72168-5	HB-W-20211007-005	Total/NA	Water	8015B	184900
570-72168-6	HB-W-20211007-006	Total/NA	Water	8015B	184900
570-72168-7	HB-W-20211007-007	Total/NA	Water	8015B	184900
570-72168-8	HB-W-20211007-008	Total/NA	Water	8015B	184900
570-72168-9	HB-W-20211007-009	Total/NA	Water	8015B	184900
570-72168-10	HB-W-20211007-010	Total/NA	Water	8015B	184900
570-72168-11	HB-W-20211007-011	Total/NA	Water	8015B	184900
570-72168-12	HB-W-20211007-012	Total/NA	Water	8015B	184900
570-72168-13	HB-W-20211007-013	Total/NA	Water	8015B	184900
570-72168-14	HB-W-20211007-014	Total/NA	Water	8015B	184900
570-72168-15	HB-W-20211007-015	Total/NA	Water	8015B	184900
570-72168-16	HB-W-20211007-016	Total/NA	Water	8015B	184900
570-72168-17	HB-W-20211007-017	Total/NA	Water	8015B	184900
570-72168-18	HB-W-20211007-018	Total/NA	Water	8015B	184900
570-72168-19	HB-W-20211007-019	Total/NA	Water	8015B	184900
570-72168-20	HB-W-20211007-020	Total/NA	Water	8015B	184900
MB 570-184900/1-A	Method Blank	Total/NA	Water	8015B	184900
LCS 570-184900/24-A	Lab Control Sample	Total/NA	Water	8015B	184900
LCS 570-184900/2-A	Lab Control Sample	Total/NA	Water	8015B	184900
LCSD 570-184900/25-A	Lab Control Sample Dup	Total/NA	Water	8015B	184900
LCSD 570-184900/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	184900

Analysis Batch: 184856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-21	HB-W-20211007-021	Total/NA	Water	8015B	184905
570-72168-22	HB-W-20211007-022	Total/NA	Water	8015B	184905
570-72168-23	HB-W-20211007-023	Total/NA	Water	8015B	184905
570-72168-24	HB-W-20211007-024	Total/NA	Water	8015B	184905
570-72168-25	HB-W-20211007-025	Total/NA	Water	8015B	184905
570-72168-26	HB-W-20211007-026	Total/NA	Water	8015B	184905
570-72168-27	HB-W-20211007-027	Total/NA	Water	8015B	184905
570-72168-28	HB-W-20211007-028	Total/NA	Water	8015B	184905
570-72168-29	HB-W-20211007-029	Total/NA	Water	8015B	184905
570-72168-30	HB-W-20211007-030	Total/NA	Water	8015B	184905
570-72168-31	HB-W-20211007-031	Total/NA	Water	8015B	184905
570-72168-32	HB-W-20211007-032	Total/NA	Water	8015B	184905
570-72168-33	HB-W-20211007-033	Total/NA	Water	8015B	184905
570-72168-34	HB-W-20211007-034	Total/NA	Water	8015B	184905
570-72168-35	HB-W-20211007-035	Total/NA	Water	8015B	184905
570-72168-36	HB-W-20211007-036	Total/NA	Water	8015B	184905
570-72168-37	HB-W-20211007-037	Total/NA	Water	8015B	184905
570-72168-38	HB-W-20211007-038	Total/NA	Water	8015B	184905
570-72168-39	HB-W-20211007-039	Total/NA	Water	8015B	184905
570-72168-40	HB-W-20211007-040	Total/NA	Water	8015B	184905
570-72168-41	HB-W-20211007-005-DUP	Total/NA	Water	8015B	184906
570-72168-42	HB-W-20211007-014-DUP	Total/NA	Water	8015B	184906
570-72168-43	HB-W-20211007-025-DUP	Total/NA	Water	8015B	184906

Eurofins Calscience LLC

QC Association Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

GC Semi VOA (Continued)

Analysis Batch: 184856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-44	HB-W-20211007-035-DUP	Total/NA	Water	8015B	184906
MB 570-184905/1-A	Method Blank	Total/NA	Water	8015B	184905
MB 570-184906/1-A	Method Blank	Total/NA	Water	8015B	184906
LCS 570-184905/2-A	Lab Control Sample	Total/NA	Water	8015B	184905
LCS 570-184905/4-A	Lab Control Sample	Total/NA	Water	8015B	184905
LCS 570-184906/2-A	Lab Control Sample	Total/NA	Water	8015B	184906
LCS 570-184906/4-A	Lab Control Sample	Total/NA	Water	8015B	184906
LCSD 570-184905/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	184905
LCSD 570-184905/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	184905
LCSD 570-184906/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	184906
LCSD 570-184906/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	184906

Prep Batch: 184900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-1	HB-W-20211007-001	Total/NA	Water	3510C	
570-72168-2	HB-W-20211007-002	Total/NA	Water	3510C	
570-72168-3	HB-W-20211007-003	Total/NA	Water	3510C	
570-72168-4	HB-W-20211007-004	Total/NA	Water	3510C	
570-72168-5	HB-W-20211007-005	Total/NA	Water	3510C	
570-72168-6	HB-W-20211007-006	Total/NA	Water	3510C	
570-72168-7	HB-W-20211007-007	Total/NA	Water	3510C	
570-72168-8	HB-W-20211007-008	Total/NA	Water	3510C	
570-72168-9	HB-W-20211007-009	Total/NA	Water	3510C	
570-72168-10	HB-W-20211007-010	Total/NA	Water	3510C	
570-72168-11	HB-W-20211007-011	Total/NA	Water	3510C	
570-72168-12	HB-W-20211007-012	Total/NA	Water	3510C	
570-72168-13	HB-W-20211007-013	Total/NA	Water	3510C	
570-72168-14	HB-W-20211007-014	Total/NA	Water	3510C	
570-72168-15	HB-W-20211007-015	Total/NA	Water	3510C	
570-72168-16	HB-W-20211007-016	Total/NA	Water	3510C	
570-72168-17	HB-W-20211007-017	Total/NA	Water	3510C	
570-72168-18	HB-W-20211007-018	Total/NA	Water	3510C	
570-72168-19	HB-W-20211007-019	Total/NA	Water	3510C	
570-72168-20	HB-W-20211007-020	Total/NA	Water	3510C	
MB 570-184900/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-184900/24-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-184900/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-184900/25-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-184900/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 184905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-21	HB-W-20211007-021	Total/NA	Water	3510C	
570-72168-22	HB-W-20211007-022	Total/NA	Water	3510C	
570-72168-23	HB-W-20211007-023	Total/NA	Water	3510C	
570-72168-24	HB-W-20211007-024	Total/NA	Water	3510C	
570-72168-25	HB-W-20211007-025	Total/NA	Water	3510C	
570-72168-26	HB-W-20211007-026	Total/NA	Water	3510C	
570-72168-27	HB-W-20211007-027	Total/NA	Water	3510C	
570-72168-28	HB-W-20211007-028	Total/NA	Water	3510C	
570-72168-29	HB-W-20211007-029	Total/NA	Water	3510C	

QC Association Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

GC Semi VOA (Continued)

Prep Batch: 184905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-30	HB-W-20211007-030	Total/NA	Water	3510C	
570-72168-31	HB-W-20211007-031	Total/NA	Water	3510C	
570-72168-32	HB-W-20211007-032	Total/NA	Water	3510C	
570-72168-33	HB-W-20211007-033	Total/NA	Water	3510C	
570-72168-34	HB-W-20211007-034	Total/NA	Water	3510C	
570-72168-35	HB-W-20211007-035	Total/NA	Water	3510C	
570-72168-36	HB-W-20211007-036	Total/NA	Water	3510C	
570-72168-37	HB-W-20211007-037	Total/NA	Water	3510C	
570-72168-38	HB-W-20211007-038	Total/NA	Water	3510C	
570-72168-39	HB-W-20211007-039	Total/NA	Water	3510C	
570-72168-40	HB-W-20211007-040	Total/NA	Water	3510C	
MB 570-184905/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-184905/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-184905/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-184905/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-184905/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 184906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-41	HB-W-20211007-005-DUP	Total/NA	Water	3510C	
570-72168-42	HB-W-20211007-014-DUP	Total/NA	Water	3510C	
570-72168-43	HB-W-20211007-025-DUP	Total/NA	Water	3510C	
570-72168-44	HB-W-20211007-035-DUP	Total/NA	Water	3510C	
MB 570-184906/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-184906/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-184906/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-184906/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 570-184906/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Lab Chronicle

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-001

Lab Sample ID: 570-72168-1

Date Collected: 10/07/21 17:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			274.2 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/07/21 23:15	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-002

Lab Sample ID: 570-72168-2

Date Collected: 10/07/21 17:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			92.8 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/07/21 23:36	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-003

Lab Sample ID: 570-72168-3

Date Collected: 10/07/21 17:35

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			281.2 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/07/21 23:58	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-004

Lab Sample ID: 570-72168-4

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			271.3 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 00:19	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-005

Lab Sample ID: 570-72168-5

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			271.1 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 00:40	UJ3K	ECL 1
Instrument ID: GC48										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-006

Lab Sample ID: 570-72168-6

Date Collected: 10/07/21 12:25

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.6 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 01:02	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-007

Lab Sample ID: 570-72168-7

Date Collected: 10/07/21 12:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			272.2 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 01:24	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-008

Lab Sample ID: 570-72168-8

Date Collected: 10/07/21 12:35

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.7 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 01:44	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-009

Lab Sample ID: 570-72168-9

Date Collected: 10/07/21 12:43

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			266.4 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 02:06	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-010

Lab Sample ID: 570-72168-10

Date Collected: 10/07/21 12:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			279.1 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 02:28	UJ3K	ECL 1
Instrument ID: GC48										

Lab Chronicle

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-011

Lab Sample ID: 570-72168-11

Date Collected: 10/07/21 12:55

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			270.9 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 02:49	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-012

Lab Sample ID: 570-72168-12

Date Collected: 10/07/21 13:10

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.4 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 03:10	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-013

Lab Sample ID: 570-72168-13

Date Collected: 10/07/21 13:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			268.8 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 03:32	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-014

Lab Sample ID: 570-72168-14

Date Collected: 10/07/21 13:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			263.8 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 03:53	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-015

Lab Sample ID: 570-72168-15

Date Collected: 10/07/21 13:45

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 04:58	UJ3K	ECL 1
Instrument ID: GC48										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-016

Lab Sample ID: 570-72168-16

Date Collected: 10/07/21 13:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			260.9 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 05:18	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-017

Lab Sample ID: 570-72168-17

Date Collected: 10/07/21 14:00

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			270.1 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 05:40	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-018

Lab Sample ID: 570-72168-18

Date Collected: 10/07/21 14:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			268.2 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 06:01	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-019

Lab Sample ID: 570-72168-19

Date Collected: 10/07/21 14:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			272.7 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 06:22	UJ3K	ECL 1
Instrument ID: GC48										

Client Sample ID: HB-W-20211007-020

Lab Sample ID: 570-72168-20

Date Collected: 10/07/21 14:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			263.6 mL	2.5 mL	184900	10/07/21 19:11	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184674	10/08/21 06:43	UJ3K	ECL 1
Instrument ID: GC48										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-021

Lab Sample ID: 570-72168-21

Date Collected: 10/07/21 14:42

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			275.8 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 03:27	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-022

Lab Sample ID: 570-72168-22

Date Collected: 10/07/21 14:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			281.1 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 03:47	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-023

Lab Sample ID: 570-72168-23

Date Collected: 10/07/21 14:55

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			271.3 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 04:06	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-024

Lab Sample ID: 570-72168-24

Date Collected: 10/07/21 14:55

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			281.7 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 04:26	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-025

Lab Sample ID: 570-72168-25

Date Collected: 10/07/21 15:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			274.4 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 04:47	N1A	ECL 1
Instrument ID: GC50										

Lab Chronicle

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-026

Lab Sample ID: 570-72168-26

Date Collected: 10/07/21 15:10

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.2 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 05:06	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-027

Lab Sample ID: 570-72168-27

Date Collected: 10/07/21 15:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			277 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 05:26	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-028

Lab Sample ID: 570-72168-28

Date Collected: 10/07/21 15:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			280.5 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 05:46	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-029

Lab Sample ID: 570-72168-29

Date Collected: 10/07/21 15:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			273.4 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 06:06	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-030

Lab Sample ID: 570-72168-30

Date Collected: 10/07/21 15:32

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.7 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 06:25	N1A	ECL 1
Instrument ID: GC50										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-031

Lab Sample ID: 570-72168-31

Date Collected: 10/07/21 15:40

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			264.6 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 06:45	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-032

Lab Sample ID: 570-72168-32

Date Collected: 10/07/21 15:42

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			277.2 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 07:05	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-033

Lab Sample ID: 570-72168-33

Date Collected: 10/07/21 15:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			265.6 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 07:26	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-034

Lab Sample ID: 570-72168-34

Date Collected: 10/07/21 15:52

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.2 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 07:45	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-035

Lab Sample ID: 570-72168-35

Date Collected: 10/07/21 16:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			278.4 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 08:05	N1A	ECL 1
Instrument ID: GC50										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-036

Lab Sample ID: 570-72168-36

Date Collected: 10/07/21 16:02

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			280.2 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 10:46	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-037

Lab Sample ID: 570-72168-37

Date Collected: 10/07/21 16:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			275.9 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 09:26	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-038

Lab Sample ID: 570-72168-38

Date Collected: 10/07/21 16:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			279.5 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 09:47	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-039

Lab Sample ID: 570-72168-39

Date Collected: 10/07/21 16:25

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			276.9 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 10:07	N1A	ECL 1
Instrument ID: GC50										

Client Sample ID: HB-W-20211007-040

Lab Sample ID: 570-72168-40

Date Collected: 10/07/21 16:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			279.5 mL	2.5 mL	184905	10/07/21 19:36	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 10:27	N1A	ECL 1
Instrument ID: GC50										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Client Sample ID: HB-W-20211007-005-DUP

Lab Sample ID: 570-72168-41

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			276.2 mL	2.5 mL	184906	10/07/21 19:40	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 00:07	N1A	ECL 1

Instrument ID: GC50

Client Sample ID: HB-W-20211007-014-DUP

Lab Sample ID: 570-72168-42

Date Collected: 10/07/21 13:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			263.6 mL	2.5 mL	184906	10/07/21 19:40	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 00:26	N1A	ECL 1

Instrument ID: GC50

Client Sample ID: HB-W-20211007-025-DUP

Lab Sample ID: 570-72168-43

Date Collected: 10/07/21 15:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			273 mL	2.5 mL	184906	10/07/21 19:40	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 00:46	N1A	ECL 1

Instrument ID: GC50

Client Sample ID: HB-W-20211007-035-DUP

Lab Sample ID: 570-72168-44

Date Collected: 10/07/21 16:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			271.3 mL	2.5 mL	184906	10/07/21 19:40	UFLU	ECL 1
Total/NA	Analysis	8015B		1			184856	10/08/21 01:06	N1A	ECL 1

Instrument ID: GC50

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

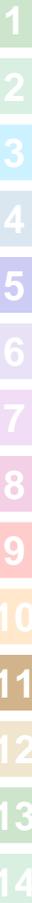
Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494



Sample Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-72168-1	HB-W-20211007-001	Water	10/07/21 17:20	10/07/21 18:45
570-72168-2	HB-W-20211007-002	Water	10/07/21 17:30	10/07/21 18:45
570-72168-3	HB-W-20211007-003	Water	10/07/21 17:35	10/07/21 18:45
570-72168-4	HB-W-20211007-004	Water	10/07/21 12:20	10/07/21 18:45
570-72168-5	HB-W-20211007-005	Water	10/07/21 12:20	10/07/21 18:45
570-72168-6	HB-W-20211007-006	Water	10/07/21 12:25	10/07/21 18:45
570-72168-7	HB-W-20211007-007	Water	10/07/21 12:30	10/07/21 18:45
570-72168-8	HB-W-20211007-008	Water	10/07/21 12:35	10/07/21 18:45
570-72168-9	HB-W-20211007-009	Water	10/07/21 12:43	10/07/21 18:45
570-72168-10	HB-W-20211007-010	Water	10/07/21 12:50	10/07/21 18:45
570-72168-11	HB-W-20211007-011	Water	10/07/21 12:55	10/07/21 18:45
570-72168-12	HB-W-20211007-012	Water	10/07/21 13:10	10/07/21 18:45
570-72168-13	HB-W-20211007-013	Water	10/07/21 13:05	10/07/21 18:45
570-72168-14	HB-W-20211007-014	Water	10/07/21 13:15	10/07/21 18:45
570-72168-15	HB-W-20211007-015	Water	10/07/21 13:45	10/07/21 18:45
570-72168-16	HB-W-20211007-016	Water	10/07/21 13:50	10/07/21 18:45
570-72168-17	HB-W-20211007-017	Water	10/07/21 14:00	10/07/21 18:45
570-72168-18	HB-W-20211007-018	Water	10/07/21 14:05	10/07/21 18:45
570-72168-19	HB-W-20211007-019	Water	10/07/21 14:15	10/07/21 18:45
570-72168-20	HB-W-20211007-020	Water	10/07/21 14:30	10/07/21 18:45
570-72168-21	HB-W-20211007-021	Water	10/07/21 14:42	10/07/21 18:45
570-72168-22	HB-W-20211007-022	Water	10/07/21 14:50	10/07/21 18:45
570-72168-23	HB-W-20211007-023	Water	10/07/21 14:55	10/07/21 18:45
570-72168-24	HB-W-20211007-024	Water	10/07/21 14:55	10/07/21 18:45
570-72168-25	HB-W-20211007-025	Water	10/07/21 15:05	10/07/21 18:45
570-72168-26	HB-W-20211007-026	Water	10/07/21 15:10	10/07/21 18:45
570-72168-27	HB-W-20211007-027	Water	10/07/21 15:20	10/07/21 18:45
570-72168-28	HB-W-20211007-028	Water	10/07/21 15:20	10/07/21 18:45
570-72168-29	HB-W-20211007-029	Water	10/07/21 15:30	10/07/21 18:45
570-72168-30	HB-W-20211007-030	Water	10/07/21 15:32	10/07/21 18:45
570-72168-31	HB-W-20211007-031	Water	10/07/21 15:40	10/07/21 18:45
570-72168-32	HB-W-20211007-032	Water	10/07/21 15:42	10/07/21 18:45
570-72168-33	HB-W-20211007-033	Water	10/07/21 15:50	10/07/21 18:45
570-72168-34	HB-W-20211007-034	Water	10/07/21 15:52	10/07/21 18:45
570-72168-35	HB-W-20211007-035	Water	10/07/21 16:05	10/07/21 18:45
570-72168-36	HB-W-20211007-036	Water	10/07/21 16:02	10/07/21 18:45
570-72168-37	HB-W-20211007-037	Water	10/07/21 16:15	10/07/21 18:45
570-72168-38	HB-W-20211007-038	Water	10/07/21 16:15	10/07/21 18:45
570-72168-39	HB-W-20211007-039	Water	10/07/21 16:25	10/07/21 18:45
570-72168-40	HB-W-20211007-040	Water	10/07/21 16:30	10/07/21 18:45
570-72168-41	HB-W-20211007-005-DUP	Water	10/07/21 12:20	10/07/21 18:45
570-72168-42	HB-W-20211007-014-DUP	Water	10/07/21 13:15	10/07/21 18:45
570-72168-43	HB-W-20211007-025-DUP	Water	10/07/21 15:05	10/07/21 18:45
570-72168-44	HB-W-20211007-035-DUP	Water	10/07/21 16:05	10/07/21 18:45



Calscience

7440 Lincoln Way Garden Grove CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information contact us26_sales@eurofins.com or call us

LABORATORY CLIENT: MOFFATT AND NICHOL

ADDRESS: 555 ANTON BLVD # 400
CITY: COSTA MESA STATE: CA ZIP:
E-MAIL: Sanghera@moffattnichol.com Cwebb@moffattnichol.com

TEL: 657-261-2699

TURNAROUND TIME (Rush services may apply to any TAT not 'STANDARD')
 SAME DAY 48 HR 72 HR 5 DAYS STANDARD
 COELT EDF SW = Seawater

SPECIAL INSTRUCTIONS:
RUSH TAT
SO CAL OIL SPILL PROJECT
C/O CARLA HOLLOWELL (@EUROFINS)
"5P" samples 24 hr TAT
everything else same
day TAT

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	LOG CODE		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
41	HB-W-20211007-005-DUP	07-10-21	12:20	SW	2	X		
42	HB-W-20211007-014-DUP	07-10-21	1:15	SW	2	X		
43	HB-W-20211007-025-DUP	07-10-21	3:05	SW	2	X		
44	HB-W-20211007-035-DUP	07-10-21	4:05	SW	2	X		
45	HB-W-20211007-1	07-10-21	5:20	SW	2	X		
46	HB-W-20211007-2	07-10-21	5:30	SW	2	X		
47	HB-W-20211007-3	07-10-21	5:35	SW	2	X		
	HB-W-20211007-	07-10-21		SW	2	X		

Requested Analyses: PAHs (EPA 8270 SIM), DRO / ORO (EPA 8015), GC10B-Metals (ICP), 7H7GA-Mercury (CVA)

Requested by (Signature): [Signature] ECI
 Received by (Signature/Affiliation): [Signature] ECI
 Received by (Signature): [Signature] ECI
 Received by (Signature/Affiliation): [Signature] ECI

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 1

DATE: 10-07-21

PAGE: 5 OF 5

CLIENT PROJECT NAME / NUMBER: Huntington Beach Oil Spill

PROJECT CONTACT: SHELLY ANGHERA (sanghera@moffattnichol.com)

SAMPLER(S) / PRINT: C. Webb, M. Butkus

REQUESTED ANALYSES

Please check box or fill in blank as needed

PAHs (EPA 8270 SIM)	DRO / ORO (EPA 8015)	GC10B-Metals (ICP)	7H7GA-Mercury (CVA)	Date	Time
X	X	X	X	10-7-2021	18:01
X	X	X	X	10-7-2021	18:57

Login Sample Receipt Checklist

Client: Moffatt & Nichol

Job Number: 570-72168-1

Login Number: 72168

List Source: Eurofins Calscience LLC

List Number: 1

Creator: Cruise, Noel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-72168-3

Client Project/Site: Huntington Beach Oil Spill Sample

For:

Moffatt & Nichol
4225 East Conant
Long Beach, California 90808

Attn: Shelly Anghera



Authorized for release by:
10/8/2021 8:34:43 PM

Carla Hollowell, Project Manager I
(714)895-5494
Carla.Hollowell@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	30
QC Sample Results	32
QC Association Summary	38
Lab Chronicle	41
Certification Summary	50
Method Summary	51
Sample Summary	52
Chain of Custody	53
Receipt Checklists	58

Definitions/Glossary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Job ID: 570-72168-3

Laboratory: Eurofins Calscience LLC

Narrative

**Job Narrative
570-72168-3**

Comments

No additional comments.

Receipt

The samples were received on 10/7/2021 6:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 5.0° C, 5.2° C, 5.3° C and 5.5° C.

Receipt Exceptions

No additional comments.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

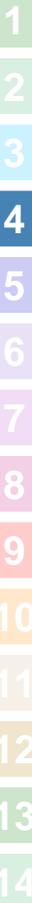
Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-184901. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-184917 and 570-184917. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. Method 8270 Sim P.A.H

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-184919. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. Method 8270 Sim P.A.H

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: HB-W-20211007-001

Date Collected: 10/07/21 17:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 11:03	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 11:03	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 11:03	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 11:03	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 11:03	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 11:03	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/07/21 19:21	10/08/21 11:03	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 11:03	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 11:03	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 11:03	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 11:03	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 11:03	1
Fluoranthene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 11:03	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 11:03	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 11:03	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 11:03	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 11:03	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 11:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		33 - 144	10/07/21 19:21	10/08/21 11:03	1
Nitrobenzene-d5 (Surr)	69		28 - 139	10/07/21 19:21	10/08/21 11:03	1
p-Terphenyl-d14 (Surr)	71		23 - 160	10/07/21 19:21	10/08/21 11:03	1

Client Sample ID: HB-W-20211007-002

Date Collected: 10/07/21 17:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 11:25	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 11:25	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 11:25	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 11:25	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 11:25	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 11:25	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/07/21 19:21	10/08/21 11:25	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 11:25	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 11:25	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 11:25	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 11:25	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 11:25	1
Fluoranthene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 11:25	1
Fluorene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 11:25	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 11:25	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 11:25	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 11:25	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 11:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		33 - 144	10/07/21 19:21	10/08/21 11:25	1
Nitrobenzene-d5 (Surr)	61		28 - 139	10/07/21 19:21	10/08/21 11:25	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-002

Date Collected: 10/07/21 17:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	68		23 - 160	10/07/21 19:21	10/08/21 11:25	1

Client Sample ID: HB-W-20211007-003

Date Collected: 10/07/21 17:35

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 11:46	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 11:46	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 11:46	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 11:46	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 11:46	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 11:46	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 11:46	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 11:46	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 11:46	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 11:46	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 11:46	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 11:46	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 11:46	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 11:46	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 11:46	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 11:46	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 11:46	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 11:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		33 - 144	10/07/21 19:21	10/08/21 11:46	1
Nitrobenzene-d5 (Surr)	68		28 - 139	10/07/21 19:21	10/08/21 11:46	1
p-Terphenyl-d14 (Surr)	70		23 - 160	10/07/21 19:21	10/08/21 11:46	1

Client Sample ID: HB-W-20211007-004

Date Collected: 10/07/21 12:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 12:08	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 12:08	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 12:08	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 12:08	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 12:08	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 12:08	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 12:08	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 12:08	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 12:08	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 12:08	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 12:08	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 12:08	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 12:08	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 12:08	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 12:08	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 12:08	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-004

Date Collected: 10/07/21 12:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 12:08	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 12:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		33 - 144				10/07/21 19:21	10/08/21 12:08	1
Nitrobenzene-d5 (Surr)	62		28 - 139				10/07/21 19:21	10/08/21 12:08	1
p-Terphenyl-d14 (Surr)	66		23 - 160				10/07/21 19:21	10/08/21 12:08	1

Client Sample ID: HB-W-20211007-005

Date Collected: 10/07/21 12:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 12:29	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 12:29	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 12:29	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 12:29	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 12:29	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 12:29	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/07/21 19:21	10/08/21 12:29	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 12:29	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 12:29	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 12:29	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 12:29	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 12:29	1
Fluoranthene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 12:29	1
Fluorene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 12:29	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 12:29	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 12:29	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 12:29	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 12:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		33 - 144				10/07/21 19:21	10/08/21 12:29	1
Nitrobenzene-d5 (Surr)	69		28 - 139				10/07/21 19:21	10/08/21 12:29	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/07/21 19:21	10/08/21 12:29	1

Client Sample ID: HB-W-20211007-006

Date Collected: 10/07/21 12:25

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 12:51	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 12:51	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 12:51	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 12:51	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 12:51	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 12:51	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/07/21 19:21	10/08/21 12:51	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 12:51	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 12:51	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 12:51	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-006

Date Collected: 10/07/21 12:25

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 12:51	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 12:51	1
Fluoranthene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 12:51	1
Fluorene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 12:51	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 12:51	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 12:51	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 12:51	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 12:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		33 - 144				10/07/21 19:21	10/08/21 12:51	1
Nitrobenzene-d5 (Surr)	65		28 - 139				10/07/21 19:21	10/08/21 12:51	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/07/21 19:21	10/08/21 12:51	1

Client Sample ID: HB-W-20211007-007

Date Collected: 10/07/21 12:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 13:13	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 13:13	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 13:13	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 13:13	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 13:13	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 13:13	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/07/21 19:21	10/08/21 13:13	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 13:13	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 13:13	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 13:13	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 13:13	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 13:13	1
Fluoranthene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 13:13	1
Fluorene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 13:13	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 13:13	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 13:13	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 13:13	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 13:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		33 - 144				10/07/21 19:21	10/08/21 13:13	1
Nitrobenzene-d5 (Surr)	65		28 - 139				10/07/21 19:21	10/08/21 13:13	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/07/21 19:21	10/08/21 13:13	1

Client Sample ID: HB-W-20211007-008

Date Collected: 10/07/21 12:35

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 13:34	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 13:34	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 13:34	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 13:34	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-008

Date Collected: 10/07/21 12:35

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 13:34	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 13:34	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 13:34	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 13:34	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 13:34	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 13:34	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 13:34	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 13:34	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 13:34	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 13:34	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 13:34	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 13:34	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 13:34	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		33 - 144				10/07/21 19:21	10/08/21 13:34	1
Nitrobenzene-d5 (Surr)	62		28 - 139				10/07/21 19:21	10/08/21 13:34	1
p-Terphenyl-d14 (Surr)	66		23 - 160				10/07/21 19:21	10/08/21 13:34	1

Client Sample ID: HB-W-20211007-009

Date Collected: 10/07/21 12:43

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 13:56	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 13:56	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 13:56	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 13:56	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 13:56	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 13:56	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 13:56	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 13:56	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 13:56	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 13:56	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 13:56	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 13:56	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 13:56	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 13:56	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 13:56	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 13:56	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 13:56	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 13:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		33 - 144				10/07/21 19:21	10/08/21 13:56	1
Nitrobenzene-d5 (Surr)	65		28 - 139				10/07/21 19:21	10/08/21 13:56	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/07/21 19:21	10/08/21 13:56	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: HB-W-20211007-010

Date Collected: 10/07/21 12:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 14:17	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 14:17	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 14:17	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 14:17	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 14:17	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 14:17	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 14:17	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 14:17	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 14:17	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 14:17	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 14:17	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 14:17	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 14:17	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 14:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 14:17	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 14:17	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 14:17	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 14:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		33 - 144				10/07/21 19:21	10/08/21 14:17	1
Nitrobenzene-d5 (Surr)	58		28 - 139				10/07/21 19:21	10/08/21 14:17	1
p-Terphenyl-d14 (Surr)	67		23 - 160				10/07/21 19:21	10/08/21 14:17	1

Client Sample ID: HB-W-20211007-011

Date Collected: 10/07/21 12:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 14:39	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/07/21 19:21	10/08/21 14:39	1
Acenaphthene	ND		0.20	0.097	ug/L		10/07/21 19:21	10/08/21 14:39	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/07/21 19:21	10/08/21 14:39	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 14:39	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 14:39	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/07/21 19:21	10/08/21 14:39	1
Benzo[a]anthracene	ND		0.20	0.086	ug/L		10/07/21 19:21	10/08/21 14:39	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/07/21 19:21	10/08/21 14:39	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 14:39	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 14:39	1
Dibenz(a,h)anthracene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 14:39	1
Fluoranthene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 14:39	1
Fluorene	ND		0.20	0.075	ug/L		10/07/21 19:21	10/08/21 14:39	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 14:39	1
Naphthalene	ND		0.20	0.083	ug/L		10/07/21 19:21	10/08/21 14:39	1
Phenanthrene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 14:39	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		33 - 144				10/07/21 19:21	10/08/21 14:39	1
Nitrobenzene-d5 (Surr)	60		28 - 139				10/07/21 19:21	10/08/21 14:39	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-011

Date Collected: 10/07/21 12:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-11

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	69		23 - 160	10/07/21 19:21	10/08/21 14:39	1

Client Sample ID: HB-W-20211007-012

Date Collected: 10/07/21 13:10

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 15:00	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/07/21 19:21	10/08/21 15:00	1
Acenaphthene	ND		0.20	0.097	ug/L		10/07/21 19:21	10/08/21 15:00	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/07/21 19:21	10/08/21 15:00	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 15:00	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 15:00	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/07/21 19:21	10/08/21 15:00	1
Benzo[a]anthracene	ND		0.20	0.086	ug/L		10/07/21 19:21	10/08/21 15:00	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 15:00	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 15:00	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 15:00	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 15:00	1
Fluoranthene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 15:00	1
Fluorene	ND		0.20	0.075	ug/L		10/07/21 19:21	10/08/21 15:00	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 15:00	1
Naphthalene	ND		0.20	0.083	ug/L		10/07/21 19:21	10/08/21 15:00	1
Phenanthrene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 15:00	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 15:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2</i> -Fluorobiphenyl (Surr)	52		33 - 144	10/07/21 19:21	10/08/21 15:00	1
Nitrobenzene-d5 (Surr)	54		28 - 139	10/07/21 19:21	10/08/21 15:00	1
<i>p</i> -Terphenyl-d14 (Surr)	69		23 - 160	10/07/21 19:21	10/08/21 15:00	1

Client Sample ID: HB-W-20211007-013

Date Collected: 10/07/21 13:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 15:22	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 15:22	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 15:22	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 15:22	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 15:22	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 15:22	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 15:22	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 15:22	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 15:22	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 15:22	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 15:22	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 15:22	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 15:22	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 15:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 15:22	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 15:22	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-013

Date Collected: 10/07/21 13:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 15:22	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 15:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		33 - 144				10/07/21 19:21	10/08/21 15:22	1
Nitrobenzene-d5 (Surr)	59		28 - 139				10/07/21 19:21	10/08/21 15:22	1
p-Terphenyl-d14 (Surr)	71		23 - 160				10/07/21 19:21	10/08/21 15:22	1

Client Sample ID: HB-W-20211007-014

Date Collected: 10/07/21 13:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 15:43	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/07/21 19:21	10/08/21 15:43	1
Acenaphthene	ND		0.20	0.097	ug/L		10/07/21 19:21	10/08/21 15:43	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/07/21 19:21	10/08/21 15:43	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 15:43	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 15:43	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/07/21 19:21	10/08/21 15:43	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 15:43	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 15:43	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 15:43	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 15:43	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 15:43	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 15:43	1
Fluorene	ND		0.20	0.075	ug/L		10/07/21 19:21	10/08/21 15:43	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 15:43	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 15:43	1
Phenanthrene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 15:43	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 15:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		33 - 144				10/07/21 19:21	10/08/21 15:43	1
Nitrobenzene-d5 (Surr)	63		28 - 139				10/07/21 19:21	10/08/21 15:43	1
p-Terphenyl-d14 (Surr)	69		23 - 160				10/07/21 19:21	10/08/21 15:43	1

Client Sample ID: HB-W-20211007-015

Date Collected: 10/07/21 13:45

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 16:05	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 16:05	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 16:05	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 16:05	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 16:05	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 16:05	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/07/21 19:21	10/08/21 16:05	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 16:05	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 16:05	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 16:05	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-015

Date Collected: 10/07/21 13:45

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 16:05	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 16:05	1
Fluoranthene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 16:05	1
Fluorene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 16:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 16:05	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 16:05	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 16:05	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		33 - 144				10/07/21 19:21	10/08/21 16:05	1
Nitrobenzene-d5 (Surr)	65		28 - 139				10/07/21 19:21	10/08/21 16:05	1
p-Terphenyl-d14 (Surr)	74		23 - 160				10/07/21 19:21	10/08/21 16:05	1

Client Sample ID: HB-W-20211007-016

Date Collected: 10/07/21 13:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 16:26	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 16:26	1
Acenaphthene	ND		0.20	0.095	ug/L		10/07/21 19:21	10/08/21 16:26	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 16:26	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 16:26	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/07/21 19:21	10/08/21 16:26	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 16:26	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/07/21 19:21	10/08/21 16:26	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/07/21 19:21	10/08/21 16:26	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 16:26	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 16:26	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 16:26	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 16:26	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 16:26	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 16:26	1
Naphthalene	ND		0.20	0.081	ug/L		10/07/21 19:21	10/08/21 16:26	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 16:26	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		33 - 144				10/07/21 19:21	10/08/21 16:26	1
Nitrobenzene-d5 (Surr)	59		28 - 139				10/07/21 19:21	10/08/21 16:26	1
p-Terphenyl-d14 (Surr)	71		23 - 160				10/07/21 19:21	10/08/21 16:26	1

Client Sample ID: HB-W-20211007-017

Date Collected: 10/07/21 14:00

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 16:48	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 16:48	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 16:48	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 16:48	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-017

Date Collected: 10/07/21 14:00

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 16:48	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 16:48	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 16:48	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 16:48	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 16:48	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 16:48	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 16:48	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 16:48	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 16:48	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 16:48	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 16:48	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 16:48	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 16:48	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		33 - 144				10/07/21 19:21	10/08/21 16:48	1
Nitrobenzene-d5 (Surr)	54		28 - 139				10/07/21 19:21	10/08/21 16:48	1
p-Terphenyl-d14 (Surr)	66		23 - 160				10/07/21 19:21	10/08/21 16:48	1

Client Sample ID: HB-W-20211007-018

Date Collected: 10/07/21 14:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 17:10	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/07/21 19:21	10/08/21 17:10	1
Acenaphthene	ND		0.20	0.096	ug/L		10/07/21 19:21	10/08/21 17:10	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 17:10	1
Anthracene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 17:10	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 17:10	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/07/21 19:21	10/08/21 17:10	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 17:10	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 17:10	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 17:10	1
Chrysene	ND		0.20	0.058	ug/L		10/07/21 19:21	10/08/21 17:10	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 17:10	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 17:10	1
Fluorene	ND		0.20	0.074	ug/L		10/07/21 19:21	10/08/21 17:10	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 17:10	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 17:10	1
Phenanthrene	ND		0.20	0.072	ug/L		10/07/21 19:21	10/08/21 17:10	1
Pyrene	ND		0.20	0.065	ug/L		10/07/21 19:21	10/08/21 17:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		33 - 144				10/07/21 19:21	10/08/21 17:10	1
Nitrobenzene-d5 (Surr)	66		28 - 139				10/07/21 19:21	10/08/21 17:10	1
p-Terphenyl-d14 (Surr)	72		23 - 160				10/07/21 19:21	10/08/21 17:10	1

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: HB-W-20211007-019

Date Collected: 10/07/21 14:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-19

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 17:31	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/07/21 19:21	10/08/21 17:31	1
Acenaphthene	ND		0.20	0.097	ug/L		10/07/21 19:21	10/08/21 17:31	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/07/21 19:21	10/08/21 17:31	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 17:31	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 17:31	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/07/21 19:21	10/08/21 17:31	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 17:31	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 17:31	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 17:31	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 17:31	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 17:31	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 17:31	1
Fluorene	ND		0.20	0.075	ug/L		10/07/21 19:21	10/08/21 17:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 17:31	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 17:31	1
Phenanthrene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 17:31	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 17:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		33 - 144				10/07/21 19:21	10/08/21 17:31	1
Nitrobenzene-d5 (Surr)	56		28 - 139				10/07/21 19:21	10/08/21 17:31	1
p-Terphenyl-d14 (Surr)	63		23 - 160				10/07/21 19:21	10/08/21 17:31	1

Client Sample ID: HB-W-20211007-020

Date Collected: 10/07/21 14:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 17:27	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/07/21 19:21	10/08/21 17:27	1
Acenaphthene	ND		0.20	0.097	ug/L		10/07/21 19:21	10/08/21 17:27	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/07/21 19:21	10/08/21 17:27	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 17:27	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 17:27	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/07/21 19:21	10/08/21 17:27	1
Benzo[a]anthracene	ND		0.20	0.085	ug/L		10/07/21 19:21	10/08/21 17:27	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/07/21 19:21	10/08/21 17:27	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 17:27	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 17:27	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 17:27	1
Fluoranthene	ND		0.20	0.067	ug/L		10/07/21 19:21	10/08/21 17:27	1
Fluorene	ND		0.20	0.075	ug/L		10/07/21 19:21	10/08/21 17:27	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 17:27	1
Naphthalene	ND		0.20	0.082	ug/L		10/07/21 19:21	10/08/21 17:27	1
Phenanthrene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 17:27	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 17:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		33 - 144				10/07/21 19:21	10/08/21 17:27	1
Nitrobenzene-d5 (Surr)	81		28 - 139				10/07/21 19:21	10/08/21 17:27	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-020

Date Collected: 10/07/21 14:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-20

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	84		23 - 160	10/07/21 19:21	10/08/21 17:27	1

Client Sample ID: HB-W-20211007-021

Date Collected: 10/07/21 14:42

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-21

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 12:42	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 12:42	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 12:42	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 12:42	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 12:42	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 12:42	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 12:42	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 12:42	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 12:42	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 12:42	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 12:42	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 12:42	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 12:42	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 12:42	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 12:42	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 12:42	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 12:42	1
Pyrene	ND		0.20	0.064	ug/L		10/08/21 05:29	10/08/21 12:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2</i> -Fluorobiphenyl (Surr)	53		33 - 144	10/08/21 05:29	10/08/21 12:42	1
Nitrobenzene-d5 (Surr)	56		28 - 139	10/08/21 05:29	10/08/21 12:42	1
<i>p</i> -Terphenyl-d14 (Surr)	56		23 - 160	10/08/21 05:29	10/08/21 12:42	1

Client Sample ID: HB-W-20211007-022

Date Collected: 10/07/21 14:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-22

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 13:02	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 05:29	10/08/21 13:02	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 13:02	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 05:29	10/08/21 13:02	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 13:02	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 13:02	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 13:02	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 13:02	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 13:02	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 13:02	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 13:02	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 13:02	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 13:02	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 13:02	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 13:02	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 13:02	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-022

Date Collected: 10/07/21 14:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-22

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 13:02	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	37		33 - 144				10/08/21 05:29	10/08/21 13:02	1
Nitrobenzene-d5 (Surr)	42		28 - 139				10/08/21 05:29	10/08/21 13:02	1
p-Terphenyl-d14 (Surr)	38		23 - 160				10/08/21 05:29	10/08/21 13:02	1

Client Sample ID: HB-W-20211007-023

Date Collected: 10/07/21 14:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-23

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 13:21	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 13:21	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 13:21	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 13:21	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 13:21	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 13:21	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 13:21	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 13:21	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 13:21	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 13:21	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 13:21	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 13:21	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 13:21	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 13:21	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 13:21	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 13:21	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 13:21	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		33 - 144				10/08/21 05:29	10/08/21 13:21	1
Nitrobenzene-d5 (Surr)	62		28 - 139				10/08/21 05:29	10/08/21 13:21	1
p-Terphenyl-d14 (Surr)	58		23 - 160				10/08/21 05:29	10/08/21 13:21	1

Client Sample ID: HB-W-20211007-024

Date Collected: 10/07/21 14:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 13:41	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 05:29	10/08/21 13:41	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 13:41	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 05:29	10/08/21 13:41	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 13:41	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 13:41	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 13:41	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 13:41	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 13:41	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 13:41	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-024

Date Collected: 10/07/21 14:55

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 13:41	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 13:41	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 13:41	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 13:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 13:41	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 13:41	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 13:41	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 13:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		33 - 144				10/08/21 05:29	10/08/21 13:41	1
Nitrobenzene-d5 (Surr)	62		28 - 139				10/08/21 05:29	10/08/21 13:41	1
p-Terphenyl-d14 (Surr)	57		23 - 160				10/08/21 05:29	10/08/21 13:41	1

Client Sample ID: HB-W-20211007-025

Date Collected: 10/07/21 15:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-25

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:00	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 14:00	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 14:00	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 14:00	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:00	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 14:00	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 14:00	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 14:00	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 14:00	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 14:00	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:00	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 14:00	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 14:00	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 14:00	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 14:00	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 14:00	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:00	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 14:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		33 - 144				10/08/21 05:29	10/08/21 14:00	1
Nitrobenzene-d5 (Surr)	56		28 - 139				10/08/21 05:29	10/08/21 14:00	1
p-Terphenyl-d14 (Surr)	54		23 - 160				10/08/21 05:29	10/08/21 14:00	1

Client Sample ID: HB-W-20211007-026

Date Collected: 10/07/21 15:10

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-26

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:20	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 14:20	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 14:20	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 14:20	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-026

Date Collected: 10/07/21 15:10

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-26

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:20	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 14:20	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 14:20	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 14:20	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 14:20	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 14:20	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:20	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 14:20	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 14:20	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 14:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 14:20	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 14:20	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:20	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 14:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		33 - 144				10/08/21 05:29	10/08/21 14:20	1
Nitrobenzene-d5 (Surr)	61		28 - 139				10/08/21 05:29	10/08/21 14:20	1
p-Terphenyl-d14 (Surr)	59		23 - 160				10/08/21 05:29	10/08/21 14:20	1

Client Sample ID: HB-W-20211007-027

Date Collected: 10/07/21 15:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-27

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 14:39	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 05:29	10/08/21 14:39	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 14:39	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 05:29	10/08/21 14:39	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:39	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 14:39	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 14:39	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 14:39	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 14:39	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 14:39	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:39	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 14:39	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 14:39	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 14:39	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 14:39	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 14:39	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 14:39	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		33 - 144				10/08/21 05:29	10/08/21 14:39	1
Nitrobenzene-d5 (Surr)	59		28 - 139				10/08/21 05:29	10/08/21 14:39	1
p-Terphenyl-d14 (Surr)	59		23 - 160				10/08/21 05:29	10/08/21 14:39	1

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: HB-W-20211007-028

Date Collected: 10/07/21 15:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-28

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:59	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 14:59	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 14:59	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 14:59	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:59	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 14:59	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 14:59	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 14:59	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 14:59	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 14:59	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:59	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 14:59	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 14:59	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 14:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 14:59	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 14:59	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:59	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 14:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		33 - 144				10/08/21 05:29	10/08/21 14:59	1
Nitrobenzene-d5 (Surr)	61		28 - 139				10/08/21 05:29	10/08/21 14:59	1
p-Terphenyl-d14 (Surr)	60		23 - 160				10/08/21 05:29	10/08/21 14:59	1

Client Sample ID: HB-W-20211007-029

Date Collected: 10/07/21 15:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-29

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:18	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 15:18	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 15:18	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 15:18	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:18	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 15:18	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 15:18	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 15:18	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 15:18	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 15:18	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:18	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 15:18	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 15:18	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 15:18	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 15:18	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 15:18	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:18	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 15:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		33 - 144				10/08/21 05:29	10/08/21 15:18	1
Nitrobenzene-d5 (Surr)	63		28 - 139				10/08/21 05:29	10/08/21 15:18	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-029

Date Collected: 10/07/21 15:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-29

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	62		23 - 160	10/08/21 05:29	10/08/21 15:18	1

Client Sample ID: HB-W-20211007-030

Date Collected: 10/07/21 15:32

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-30

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:38	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 15:38	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 15:38	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 15:38	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:38	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 15:38	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 15:38	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 15:38	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 15:38	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 15:38	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:38	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 15:38	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 15:38	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 15:38	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 15:38	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 15:38	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:38	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2</i> -Fluorobiphenyl (Surr)	54		33 - 144	10/08/21 05:29	10/08/21 15:38	1
Nitrobenzene-d5 (Surr)	60		28 - 139	10/08/21 05:29	10/08/21 15:38	1
<i>p</i> -Terphenyl-d14 (Surr)	57		23 - 160	10/08/21 05:29	10/08/21 15:38	1

Client Sample ID: HB-W-20211007-031

Date Collected: 10/07/21 15:40

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-31

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:57	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 15:57	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 15:57	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 15:57	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:57	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 15:57	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 15:57	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 15:57	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 15:57	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 15:57	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:57	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 15:57	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 15:57	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 15:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 15:57	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 15:57	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-031

Date Collected: 10/07/21 15:40

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-31

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:57	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	48		33 - 144				10/08/21 05:29	10/08/21 15:57	1
Nitrobenzene-d5 (Surr)	48		28 - 139				10/08/21 05:29	10/08/21 15:57	1
p-Terphenyl-d14 (Surr)	55		23 - 160				10/08/21 05:29	10/08/21 15:57	1

Client Sample ID: HB-W-20211007-032

Date Collected: 10/07/21 15:42

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-32

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:28	10/08/21 16:17	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:28	10/08/21 16:17	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:28	10/08/21 16:17	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:28	10/08/21 16:17	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:28	10/08/21 16:17	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:28	10/08/21 16:17	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:28	10/08/21 16:17	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:28	10/08/21 16:17	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:28	10/08/21 16:17	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:28	10/08/21 16:17	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:28	10/08/21 16:17	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:28	10/08/21 16:17	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:28	10/08/21 16:17	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:28	10/08/21 16:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:28	10/08/21 16:17	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:28	10/08/21 16:17	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:28	10/08/21 16:17	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:28	10/08/21 16:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		33 - 144				10/08/21 05:28	10/08/21 16:17	1
Nitrobenzene-d5 (Surr)	54		28 - 139				10/08/21 05:28	10/08/21 16:17	1
p-Terphenyl-d14 (Surr)	61		23 - 160				10/08/21 05:28	10/08/21 16:17	1

Client Sample ID: HB-W-20211007-033

Date Collected: 10/07/21 15:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-33

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 16:36	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 16:36	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 16:36	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 16:36	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 16:36	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 16:36	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 16:36	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 16:36	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 16:36	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 16:36	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-033

Date Collected: 10/07/21 15:50

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-33

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 16:36	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 16:36	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 16:36	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 16:36	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 16:36	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 16:36	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 16:36	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		33 - 144				10/08/21 05:29	10/08/21 16:36	1
Nitrobenzene-d5 (Surr)	54		28 - 139				10/08/21 05:29	10/08/21 16:36	1
p-Terphenyl-d14 (Surr)	58		23 - 160				10/08/21 05:29	10/08/21 16:36	1

Client Sample ID: HB-W-20211007-034

Date Collected: 10/07/21 15:52

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-34

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 16:55	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 16:55	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 16:55	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 16:55	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 16:55	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 16:55	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 16:55	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 16:55	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 16:55	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 16:55	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 16:55	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 16:55	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 16:55	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 16:55	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 16:55	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 16:55	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 16:55	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 16:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	47		33 - 144				10/08/21 05:29	10/08/21 16:55	1
Nitrobenzene-d5 (Surr)	50		28 - 139				10/08/21 05:29	10/08/21 16:55	1
p-Terphenyl-d14 (Surr)	57		23 - 160				10/08/21 05:29	10/08/21 16:55	1

Client Sample ID: HB-W-20211007-035

Date Collected: 10/07/21 16:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-35

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:54	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 14:54	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 14:54	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 14:54	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-035

Date Collected: 10/07/21 16:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-35

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:54	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 14:54	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 14:54	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 14:54	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 14:54	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 14:54	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 14:54	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 14:54	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 14:54	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 14:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 14:54	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 14:54	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 14:54	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 14:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		33 - 144				10/08/21 05:29	10/08/21 14:54	1
Nitrobenzene-d5 (Surr)	66		28 - 139				10/08/21 05:29	10/08/21 14:54	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/08/21 05:29	10/08/21 14:54	1

Client Sample ID: HB-W-20211007-036

Date Collected: 10/07/21 16:02

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-36

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:17	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 15:17	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 15:17	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 15:17	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:17	1
Benzo[g,h,i]perylene	ND		0.20	0.098	ug/L		10/08/21 05:29	10/08/21 15:17	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 15:17	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 15:17	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 15:17	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 15:17	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:17	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 15:17	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 15:17	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 15:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 15:17	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 15:17	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:17	1
Pyrene	ND		0.20	0.064	ug/L		10/08/21 05:29	10/08/21 15:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		33 - 144				10/08/21 05:29	10/08/21 15:17	1
Nitrobenzene-d5 (Surr)	67		28 - 139				10/08/21 05:29	10/08/21 15:17	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/08/21 05:29	10/08/21 15:17	1

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: HB-W-20211007-037

Date Collected: 10/07/21 16:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-37

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:40	1
2-Methylnaphthalene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 15:40	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 15:40	1
Acenaphthylene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 15:40	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:40	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 15:40	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 05:29	10/08/21 15:40	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 15:40	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 15:40	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 15:40	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 15:40	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 15:40	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 15:40	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 15:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 15:40	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 15:40	1
Phenanthrene	ND		0.20	0.071	ug/L		10/08/21 05:29	10/08/21 15:40	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		33 - 144	10/08/21 05:29	10/08/21 15:40	1
Nitrobenzene-d5 (Surr)	60		28 - 139	10/08/21 05:29	10/08/21 15:40	1
p-Terphenyl-d14 (Surr)	68		23 - 160	10/08/21 05:29	10/08/21 15:40	1

Client Sample ID: HB-W-20211007-038

Date Collected: 10/07/21 16:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-38

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/08/21 05:29	10/08/21 16:19	1
2-Methylnaphthalene	ND		0.19	0.075	ug/L		10/08/21 05:29	10/08/21 16:19	1
Acenaphthene	ND		0.19	0.095	ug/L		10/08/21 05:29	10/08/21 16:19	1
Acenaphthylene	ND		0.19	0.067	ug/L		10/08/21 05:29	10/08/21 16:19	1
Anthracene	ND		0.19	0.058	ug/L		10/08/21 05:29	10/08/21 16:19	1
Benzo[g,h,i]perylene	ND		0.19	0.098	ug/L		10/08/21 05:29	10/08/21 16:19	1
Benzo[k]fluoranthene	ND		0.19	0.091	ug/L		10/08/21 05:29	10/08/21 16:19	1
Benzo[a]anthracene	ND		0.19	0.083	ug/L		10/08/21 05:29	10/08/21 16:19	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		10/08/21 05:29	10/08/21 16:19	1
Benzo[b]fluoranthene	ND		0.19	0.11	ug/L		10/08/21 05:29	10/08/21 16:19	1
Chrysene	ND		0.19	0.058	ug/L		10/08/21 05:29	10/08/21 16:19	1
Dibenz(a,h)anthracene	ND		0.19	0.11	ug/L		10/08/21 05:29	10/08/21 16:19	1
Fluoranthene	ND		0.19	0.066	ug/L		10/08/21 05:29	10/08/21 16:19	1
Fluorene	ND		0.19	0.073	ug/L		10/08/21 05:29	10/08/21 16:19	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.10	ug/L		10/08/21 05:29	10/08/21 16:19	1
Naphthalene	ND		0.19	0.081	ug/L		10/08/21 05:29	10/08/21 16:19	1
Phenanthrene	ND		0.19	0.071	ug/L		10/08/21 05:29	10/08/21 16:19	1
Pyrene	ND		0.19	0.064	ug/L		10/08/21 05:29	10/08/21 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		33 - 144	10/08/21 05:29	10/08/21 16:19	1
Nitrobenzene-d5 (Surr)	68		28 - 139	10/08/21 05:29	10/08/21 16:19	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-038

Date Collected: 10/07/21 16:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-38

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	73		23 - 160	10/08/21 05:29	10/08/21 16:19	1

Client Sample ID: HB-W-20211007-039

Date Collected: 10/07/21 16:25

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-39

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 16:42	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 05:29	10/08/21 16:42	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 05:29	10/08/21 16:42	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 05:29	10/08/21 16:42	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 16:42	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 05:29	10/08/21 16:42	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/08/21 05:29	10/08/21 16:42	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 05:29	10/08/21 16:42	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 05:29	10/08/21 16:42	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 16:42	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 05:29	10/08/21 16:42	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 16:42	1
Fluoranthene	ND		0.20	0.067	ug/L		10/08/21 05:29	10/08/21 16:42	1
Fluorene	ND		0.20	0.074	ug/L		10/08/21 05:29	10/08/21 16:42	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 16:42	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 05:29	10/08/21 16:42	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 05:29	10/08/21 16:42	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 05:29	10/08/21 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2</i> -Fluorobiphenyl (Surr)	59		33 - 144	10/08/21 05:29	10/08/21 16:42	1
<i>Nitro</i> benzene-d5 (Surr)	62		28 - 139	10/08/21 05:29	10/08/21 16:42	1
<i>p</i> -Terphenyl-d14 (Surr)	72		23 - 160	10/08/21 05:29	10/08/21 16:42	1

Client Sample ID: HB-W-20211007-040

Date Collected: 10/07/21 16:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-40

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/08/21 05:29	10/08/21 17:05	1
2-Methylnaphthalene	ND		0.19	0.075	ug/L		10/08/21 05:29	10/08/21 17:05	1
Acenaphthene	ND		0.19	0.095	ug/L		10/08/21 05:29	10/08/21 17:05	1
Acenaphthylene	ND		0.19	0.067	ug/L		10/08/21 05:29	10/08/21 17:05	1
Anthracene	ND		0.19	0.058	ug/L		10/08/21 05:29	10/08/21 17:05	1
Benzo[g,h,i]perylene	ND		0.19	0.098	ug/L		10/08/21 05:29	10/08/21 17:05	1
Benzo[k]fluoranthene	ND		0.19	0.091	ug/L		10/08/21 05:29	10/08/21 17:05	1
Benzo[a]anthracene	ND		0.19	0.084	ug/L		10/08/21 05:29	10/08/21 17:05	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		10/08/21 05:29	10/08/21 17:05	1
Benzo[b]fluoranthene	ND		0.19	0.11	ug/L		10/08/21 05:29	10/08/21 17:05	1
Chrysene	ND		0.19	0.058	ug/L		10/08/21 05:29	10/08/21 17:05	1
Dibenz(a,h)anthracene	ND		0.19	0.11	ug/L		10/08/21 05:29	10/08/21 17:05	1
Fluoranthene	ND		0.19	0.066	ug/L		10/08/21 05:29	10/08/21 17:05	1
Fluorene	ND		0.19	0.073	ug/L		10/08/21 05:29	10/08/21 17:05	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.10	ug/L		10/08/21 05:29	10/08/21 17:05	1
Naphthalene	ND		0.19	0.081	ug/L		10/08/21 05:29	10/08/21 17:05	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-040

Date Collected: 10/07/21 16:30

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-40

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.19	0.071	ug/L		10/08/21 05:29	10/08/21 17:05	1
Pyrene	ND		0.19	0.064	ug/L		10/08/21 05:29	10/08/21 17:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		33 - 144				10/08/21 05:29	10/08/21 17:05	1
Nitrobenzene-d5 (Surr)	67		28 - 139				10/08/21 05:29	10/08/21 17:05	1
p-Terphenyl-d14 (Surr)	78		23 - 160				10/08/21 05:29	10/08/21 17:05	1

Client Sample ID: HB-W-20211007-005-DUP

Date Collected: 10/07/21 12:20

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-41

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 13:24	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 06:59	10/08/21 13:24	1
Acenaphthene	ND		0.20	0.096	ug/L		10/08/21 06:59	10/08/21 13:24	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 06:59	10/08/21 13:24	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 13:24	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 06:59	10/08/21 13:24	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/08/21 06:59	10/08/21 13:24	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 06:59	10/08/21 13:24	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 06:59	10/08/21 13:24	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 06:59	10/08/21 13:24	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 13:24	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 06:59	10/08/21 13:24	1
Fluoranthene	ND		0.20	0.067	ug/L		10/08/21 06:59	10/08/21 13:24	1
Fluorene	ND		0.20	0.074	ug/L		10/08/21 06:59	10/08/21 13:24	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 06:59	10/08/21 13:24	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 06:59	10/08/21 13:24	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 13:24	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 06:59	10/08/21 13:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		33 - 144				10/08/21 06:59	10/08/21 13:24	1
Nitrobenzene-d5 (Surr)	75		28 - 139				10/08/21 06:59	10/08/21 13:24	1
p-Terphenyl-d14 (Surr)	72		23 - 160				10/08/21 06:59	10/08/21 13:24	1

Client Sample ID: HB-W-20211007-014-DUP

Date Collected: 10/07/21 13:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-42

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 13:46	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 06:59	10/08/21 13:46	1
Acenaphthene	ND		0.20	0.095	ug/L		10/08/21 06:59	10/08/21 13:46	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 06:59	10/08/21 13:46	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 13:46	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 06:59	10/08/21 13:46	1
Benzo[k]fluoranthene	ND		0.20	0.091	ug/L		10/08/21 06:59	10/08/21 13:46	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 06:59	10/08/21 13:46	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 06:59	10/08/21 13:46	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 06:59	10/08/21 13:46	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-014-DUP

Date Collected: 10/07/21 13:15

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-42

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 13:46	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 06:59	10/08/21 13:46	1
Fluoranthene	ND		0.20	0.066	ug/L		10/08/21 06:59	10/08/21 13:46	1
Fluorene	ND		0.20	0.073	ug/L		10/08/21 06:59	10/08/21 13:46	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 06:59	10/08/21 13:46	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 06:59	10/08/21 13:46	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 13:46	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 06:59	10/08/21 13:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		33 - 144				10/08/21 06:59	10/08/21 13:46	1
Nitrobenzene-d5 (Surr)	75		28 - 139				10/08/21 06:59	10/08/21 13:46	1
p-Terphenyl-d14 (Surr)	73		23 - 160				10/08/21 06:59	10/08/21 13:46	1

Client Sample ID: HB-W-20211007-025-DUP

Date Collected: 10/07/21 15:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-43

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 14:09	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 06:59	10/08/21 14:09	1
Acenaphthene	ND		0.20	0.096	ug/L		10/08/21 06:59	10/08/21 14:09	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 06:59	10/08/21 14:09	1
Anthracene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 14:09	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/08/21 06:59	10/08/21 14:09	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/08/21 06:59	10/08/21 14:09	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 06:59	10/08/21 14:09	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/08/21 06:59	10/08/21 14:09	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 06:59	10/08/21 14:09	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 14:09	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 06:59	10/08/21 14:09	1
Fluoranthene	ND		0.20	0.067	ug/L		10/08/21 06:59	10/08/21 14:09	1
Fluorene	ND		0.20	0.074	ug/L		10/08/21 06:59	10/08/21 14:09	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 06:59	10/08/21 14:09	1
Naphthalene	ND		0.20	0.082	ug/L		10/08/21 06:59	10/08/21 14:09	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 14:09	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 06:59	10/08/21 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		33 - 144				10/08/21 06:59	10/08/21 14:09	1
Nitrobenzene-d5 (Surr)	76		28 - 139				10/08/21 06:59	10/08/21 14:09	1
p-Terphenyl-d14 (Surr)	70		23 - 160				10/08/21 06:59	10/08/21 14:09	1

Client Sample ID: HB-W-20211007-035-DUP

Date Collected: 10/07/21 16:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-44

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 14:32	1
2-Methylnaphthalene	ND		0.20	0.076	ug/L		10/08/21 06:59	10/08/21 14:32	1
Acenaphthene	ND		0.20	0.096	ug/L		10/08/21 06:59	10/08/21 14:32	1
Acenaphthylene	ND		0.20	0.068	ug/L		10/08/21 06:59	10/08/21 14:32	1

Eurofins Calscience LLC

Client Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: HB-W-20211007-035-DUP

Date Collected: 10/07/21 16:05

Date Received: 10/07/21 18:45

Lab Sample ID: 570-72168-44

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 14:32	1
Benzo[g,h,i]perylene	ND		0.20	0.099	ug/L		10/08/21 06:59	10/08/21 14:32	1
Benzo[k]fluoranthene	ND		0.20	0.092	ug/L		10/08/21 06:59	10/08/21 14:32	1
Benzo[a]anthracene	ND		0.20	0.084	ug/L		10/08/21 06:59	10/08/21 14:32	1
Benzo[a]pyrene	ND		0.20	0.061	ug/L		10/08/21 06:59	10/08/21 14:32	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 06:59	10/08/21 14:32	1
Chrysene	ND		0.20	0.058	ug/L		10/08/21 06:59	10/08/21 14:32	1
Dibenz(a,h)anthracene	ND		0.20	0.11	ug/L		10/08/21 06:59	10/08/21 14:32	1
Fluoranthene	ND		0.20	0.067	ug/L		10/08/21 06:59	10/08/21 14:32	1
Fluorene	ND		0.20	0.074	ug/L		10/08/21 06:59	10/08/21 14:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		10/08/21 06:59	10/08/21 14:32	1
Naphthalene	ND		0.20	0.081	ug/L		10/08/21 06:59	10/08/21 14:32	1
Phenanthrene	ND		0.20	0.072	ug/L		10/08/21 06:59	10/08/21 14:32	1
Pyrene	ND		0.20	0.065	ug/L		10/08/21 06:59	10/08/21 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		33 - 144	10/08/21 06:59	10/08/21 14:32	1
Nitrobenzene-d5 (Surr)	80		28 - 139	10/08/21 06:59	10/08/21 14:32	1
p-Terphenyl-d14 (Surr)	72		23 - 160	10/08/21 06:59	10/08/21 14:32	1

Surrogate Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (33-144)	NBZ (28-139)	TPHd14 (23-160)
570-72168-1	HB-W-20211007-001	65	69	71
570-72168-2	HB-W-20211007-002	59	61	68
570-72168-3	HB-W-20211007-003	65	68	70
570-72168-4	HB-W-20211007-004	58	62	66
570-72168-5	HB-W-20211007-005	65	69	70
570-72168-6	HB-W-20211007-006	64	65	70
570-72168-7	HB-W-20211007-007	63	65	70
570-72168-8	HB-W-20211007-008	60	62	66
570-72168-9	HB-W-20211007-009	63	65	70
570-72168-10	HB-W-20211007-010	59	58	67
570-72168-11	HB-W-20211007-011	59	60	69
570-72168-12	HB-W-20211007-012	52	54	69
570-72168-13	HB-W-20211007-013	59	59	71
570-72168-14	HB-W-20211007-014	61	63	69
570-72168-15	HB-W-20211007-015	64	65	74
570-72168-16	HB-W-20211007-016	59	59	71
570-72168-17	HB-W-20211007-017	54	54	66
570-72168-18	HB-W-20211007-018	66	66	72
570-72168-19	HB-W-20211007-019	54	56	63
570-72168-20	HB-W-20211007-020	74	81	84
570-72168-21	HB-W-20211007-021	53	56	56
570-72168-22	HB-W-20211007-022	37	42	38
570-72168-23	HB-W-20211007-023	53	62	58
570-72168-24	HB-W-20211007-024	53	62	57
570-72168-25	HB-W-20211007-025	50	56	54
570-72168-26	HB-W-20211007-026	55	61	59
570-72168-27	HB-W-20211007-027	54	59	59
570-72168-28	HB-W-20211007-028	55	61	60
570-72168-29	HB-W-20211007-029	55	63	62
570-72168-30	HB-W-20211007-030	54	60	57
570-72168-31	HB-W-20211007-031	48	48	55
570-72168-32	HB-W-20211007-032	53	54	61
570-72168-33	HB-W-20211007-033	54	54	58
570-72168-34	HB-W-20211007-034	47	50	57
570-72168-35	HB-W-20211007-035	61	66	70
570-72168-36	HB-W-20211007-036	62	67	70
570-72168-37	HB-W-20211007-037	58	60	68
570-72168-38	HB-W-20211007-038	62	68	73
570-72168-39	HB-W-20211007-039	59	62	72
570-72168-40	HB-W-20211007-040	64	67	78
570-72168-41	HB-W-20211007-005-DUP	67	75	72
570-72168-42	HB-W-20211007-014-DUP	68	75	73
570-72168-43	HB-W-20211007-025-DUP	70	76	70
570-72168-44	HB-W-20211007-035-DUP	73	80	72
LCS 570-184901/2-A	Lab Control Sample	66	66	64
LCS 570-184917/2-A	Lab Control Sample	61	65	63
LCS 570-184919/2-A	Lab Control Sample	63	73	78
LCSD 570-184901/3-A	Lab Control Sample Dup	63	66	63
LCSD 570-184917/3-A	Lab Control Sample Dup	64	68	65

Surrogate Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (33-144)	NBZ (28-139)	TPHd14 (23-160)
LCSD 570-184919/3-A	Lab Control Sample Dup	65	76	73
MB 570-184901/1-A	Method Blank	62	62	63
MB 570-184917/1-A	Method Blank	60	62	64
MB 570-184919/1-A	Method Blank	65	76	76

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM)

Lab Sample ID: MB 570-184901/1-A
Matrix: Water
Analysis Batch: 184986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 09:59	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/07/21 19:21	10/08/21 09:59	1
Acenaphthene	ND		0.20	0.097	ug/L		10/07/21 19:21	10/08/21 09:59	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/07/21 19:21	10/08/21 09:59	1
Anthracene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 09:59	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/07/21 19:21	10/08/21 09:59	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/07/21 19:21	10/08/21 09:59	1
Benzo[a]anthracene	ND		0.20	0.086	ug/L		10/07/21 19:21	10/08/21 09:59	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/07/21 19:21	10/08/21 09:59	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 09:59	1
Chrysene	ND		0.20	0.059	ug/L		10/07/21 19:21	10/08/21 09:59	1
Dibenz(a,h)anthracene	ND		0.20	0.12	ug/L		10/07/21 19:21	10/08/21 09:59	1
Fluoranthene	ND		0.20	0.068	ug/L		10/07/21 19:21	10/08/21 09:59	1
Fluorene	ND		0.20	0.075	ug/L		10/07/21 19:21	10/08/21 09:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/07/21 19:21	10/08/21 09:59	1
Naphthalene	ND		0.20	0.083	ug/L		10/07/21 19:21	10/08/21 09:59	1
Phenanthrene	ND		0.20	0.073	ug/L		10/07/21 19:21	10/08/21 09:59	1
Pyrene	ND		0.20	0.066	ug/L		10/07/21 19:21	10/08/21 09:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		33 - 144	10/07/21 19:21	10/08/21 09:59	1
Nitrobenzene-d5 (Surr)	62		28 - 139	10/07/21 19:21	10/08/21 09:59	1
p-Terphenyl-d14 (Surr)	63		23 - 160	10/07/21 19:21	10/08/21 09:59	1

Lab Sample ID: LCS 570-184901/2-A
Matrix: Water
Analysis Batch: 184986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	2.00	1.284		ug/L		64	20 - 140
2-Methylnaphthalene	2.00	1.201		ug/L		60	21 - 140
Acenaphthene	2.00	1.267		ug/L		63	55 - 121
Acenaphthylene	2.00	1.537		ug/L		77	33 - 145
Anthracene	2.00	1.309		ug/L		65	27 - 133
Benzo[g,h,i]perylene	2.00	1.118		ug/L		56	25 - 157
Benzo[k]fluoranthene	2.00	1.256		ug/L		63	24 - 159
Benzo[a]anthracene	2.00	1.193		ug/L		60	33 - 143
Benzo[a]pyrene	2.00	1.157		ug/L		58	17 - 163
Benzo[b]fluoranthene	2.00	1.102		ug/L		55	24 - 159
Chrysene	2.00	1.246		ug/L		62	17 - 168
Dibenz(a,h)anthracene	2.00	0.9222		ug/L		46	25 - 175
Fluoranthene	2.00	1.218		ug/L		61	26 - 137
Fluorene	2.00	1.301		ug/L		65	59 - 121
Indeno[1,2,3-cd]pyrene	2.00	0.8607		ug/L		43	25 - 175
Naphthalene	2.00	1.245		ug/L		62	21 - 133
Phenanthrene	2.00	1.295		ug/L		65	54 - 120
Pyrene	2.00	1.268		ug/L		63	45 - 129

QC Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCS 570-184901/2-A
Matrix: Water
Analysis Batch: 184986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184901

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	66		33 - 144
Nitrobenzene-d5 (Surr)	66		28 - 139
p-Terphenyl-d14 (Surr)	64		23 - 160

Lab Sample ID: LCSD 570-184901/3-A
Matrix: Water
Analysis Batch: 184986

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184901

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
1-Methylnaphthalene	2.00	1.270		ug/L		64	20 - 140	1	25	
2-Methylnaphthalene	2.00	1.200		ug/L		60	21 - 140	0	25	
Acenaphthene	2.00	1.290		ug/L		65	55 - 121	2	25	
Acenaphthylene	2.00	1.467		ug/L		73	33 - 145	5	25	
Anthracene	2.00	1.322		ug/L		66	27 - 133	1	25	
Benzo[g,h,i]perylene	2.00	1.134		ug/L		57	25 - 157	1	25	
Benzo[k]fluoranthene	2.00	1.242		ug/L		62	24 - 159	1	25	
Benzo[a]anthracene	2.00	1.191		ug/L		60	33 - 143	0	25	
Benzo[a]pyrene	2.00	1.139		ug/L		57	17 - 163	2	25	
Benzo[b]fluoranthene	2.00	1.091		ug/L		55	24 - 159	1	25	
Chrysene	2.00	1.248		ug/L		62	17 - 168	0	25	
Dibenz(a,h)anthracene	2.00	0.9160		ug/L		46	25 - 175	1	25	
Fluoranthene	2.00	1.244		ug/L		62	26 - 137	2	25	
Fluorene	2.00	1.305		ug/L		65	59 - 121	0	25	
Indeno[1,2,3-cd]pyrene	2.00	0.8638		ug/L		43	25 - 175	0	25	
Naphthalene	2.00	1.219		ug/L		61	21 - 133	2	25	
Phenanthrene	2.00	1.315		ug/L		66	54 - 120	2	25	
Pyrene	2.00	1.292		ug/L		65	45 - 129	2	25	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	63		33 - 144
Nitrobenzene-d5 (Surr)	66		28 - 139
p-Terphenyl-d14 (Surr)	63		23 - 160

Lab Sample ID: MB 570-184917/1-A
Matrix: Water
Analysis Batch: 185015

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184917

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 11:44	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/08/21 05:29	10/08/21 11:44	1
Acenaphthene	ND		0.20	0.097	ug/L		10/08/21 05:29	10/08/21 11:44	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/08/21 05:29	10/08/21 11:44	1
Anthracene	ND		0.20	0.059	ug/L		10/08/21 05:29	10/08/21 11:44	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/08/21 05:29	10/08/21 11:44	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/08/21 05:29	10/08/21 11:44	1
Benzo[a]anthracene	ND		0.20	0.086	ug/L		10/08/21 05:29	10/08/21 11:44	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/08/21 05:29	10/08/21 11:44	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 11:44	1

Eurofins Calscience LLC

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: MB 570-184917/1-A
Matrix: Water
Analysis Batch: 185015

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184917

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chrysene	ND		0.20	0.059	ug/L		10/08/21 05:29	10/08/21 11:44	1
Dibenz(a,h)anthracene	ND		0.20	0.12	ug/L		10/08/21 05:29	10/08/21 11:44	1
Fluoranthene	ND		0.20	0.068	ug/L		10/08/21 05:29	10/08/21 11:44	1
Fluorene	ND		0.20	0.075	ug/L		10/08/21 05:29	10/08/21 11:44	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/08/21 05:29	10/08/21 11:44	1
Naphthalene	ND		0.20	0.083	ug/L		10/08/21 05:29	10/08/21 11:44	1
Phenanthrene	ND		0.20	0.073	ug/L		10/08/21 05:29	10/08/21 11:44	1
Pyrene	ND		0.20	0.066	ug/L		10/08/21 05:29	10/08/21 11:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	60		33 - 144	10/08/21 05:29	10/08/21 11:44	1
Nitrobenzene-d5 (Surr)	62		28 - 139	10/08/21 05:29	10/08/21 11:44	1
p-Terphenyl-d14 (Surr)	64		23 - 160	10/08/21 05:29	10/08/21 11:44	1

Lab Sample ID: LCS 570-184917/2-A
Matrix: Water
Analysis Batch: 185015

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184917

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
1-Methylnaphthalene	2.00	1.296		ug/L		65		20 - 140
2-Methylnaphthalene	2.00	1.464		ug/L		73		21 - 140
Acenaphthene	2.00	1.229		ug/L		61		55 - 121
Acenaphthylene	2.00	1.413		ug/L		71		33 - 145
Anthracene	2.00	1.303		ug/L		65		27 - 133
Benzo[g,h,i]perylene	2.00	1.241		ug/L		62		25 - 157
Benzo[k]fluoranthene	2.00	1.326		ug/L		66		24 - 159
Benzo[a]anthracene	2.00	1.268		ug/L		63		33 - 143
Benzo[a]pyrene	2.00	1.221		ug/L		61		17 - 163
Benzo[b]fluoranthene	2.00	1.167		ug/L		58		24 - 159
Chrysene	2.00	1.275		ug/L		64		17 - 168
Dibenz(a,h)anthracene	2.00	1.114		ug/L		56		25 - 175
Fluoranthene	2.00	1.276		ug/L		64		26 - 137
Fluorene	2.00	1.306		ug/L		65		59 - 121
Indeno[1,2,3-cd]pyrene	2.00	1.130		ug/L		57		25 - 175
Naphthalene	2.00	1.209		ug/L		60		21 - 133
Phenanthrene	2.00	1.261		ug/L		63		54 - 120
Pyrene	2.00	1.333		ug/L		67		45 - 129

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	61		33 - 144
Nitrobenzene-d5 (Surr)	65		28 - 139
p-Terphenyl-d14 (Surr)	63		23 - 160

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 570-184917/3-A
Matrix: Water
Analysis Batch: 185015

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit	
									%Rec.	RPD
1-Methylnaphthalene	2.00	1.376		ug/L		69	20 - 140	6		25
2-Methylnaphthalene	2.00	1.555		ug/L		78	21 - 140	6		25
Acenaphthene	2.00	1.299		ug/L		65	55 - 121	6		25
Acenaphthylene	2.00	1.480		ug/L		74	33 - 145	5		25
Anthracene	2.00	1.330		ug/L		66	27 - 133	2		25
Benzo[g,h,i]perylene	2.00	1.243		ug/L		62	25 - 157	0		25
Benzo[k]fluoranthene	2.00	1.464		ug/L		73	24 - 159	10		25
Benzo[a]anthracene	2.00	1.262		ug/L		63	33 - 143	1		25
Benzo[a]pyrene	2.00	1.238		ug/L		62	17 - 163	1		25
Benzo[b]fluoranthene	2.00	1.065		ug/L		53	24 - 159	9		25
Chrysene	2.00	1.301		ug/L		65	17 - 168	2		25
Dibenz(a,h)anthracene	2.00	1.112		ug/L		56	25 - 175	0		25
Fluoranthene	2.00	1.317		ug/L		66	26 - 137	3		25
Fluorene	2.00	1.370		ug/L		68	59 - 121	5		25
Indeno[1,2,3-cd]pyrene	2.00	1.129		ug/L		56	25 - 175	0		25
Naphthalene	2.00	1.297		ug/L		65	21 - 133	7		25
Phenanthrene	2.00	1.304		ug/L		65	54 - 120	3		25
Pyrene	2.00	1.351		ug/L		68	45 - 129	1		25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Fluorobiphenyl (Surr)	64		33 - 144
Nitrobenzene-d5 (Surr)	68		28 - 139
p-Terphenyl-d14 (Surr)	65		23 - 160

Lab Sample ID: MB 570-184919/1-A
Matrix: Water
Analysis Batch: 185044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184919

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/08/21 06:59	10/08/21 12:15	1
2-Methylnaphthalene	ND		0.20	0.077	ug/L		10/08/21 06:59	10/08/21 12:15	1
Acenaphthene	ND		0.20	0.097	ug/L		10/08/21 06:59	10/08/21 12:15	1
Acenaphthylene	ND		0.20	0.069	ug/L		10/08/21 06:59	10/08/21 12:15	1
Anthracene	ND		0.20	0.059	ug/L		10/08/21 06:59	10/08/21 12:15	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		10/08/21 06:59	10/08/21 12:15	1
Benzo[k]fluoranthene	ND		0.20	0.093	ug/L		10/08/21 06:59	10/08/21 12:15	1
Benzo[a]anthracene	ND		0.20	0.086	ug/L		10/08/21 06:59	10/08/21 12:15	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/08/21 06:59	10/08/21 12:15	1
Benzo[b]fluoranthene	ND		0.20	0.12	ug/L		10/08/21 06:59	10/08/21 12:15	1
Chrysene	ND		0.20	0.059	ug/L		10/08/21 06:59	10/08/21 12:15	1
Dibenz(a,h)anthracene	ND		0.20	0.12	ug/L		10/08/21 06:59	10/08/21 12:15	1
Fluoranthene	ND		0.20	0.068	ug/L		10/08/21 06:59	10/08/21 12:15	1
Fluorene	ND		0.20	0.075	ug/L		10/08/21 06:59	10/08/21 12:15	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.11	ug/L		10/08/21 06:59	10/08/21 12:15	1
Naphthalene	ND		0.20	0.083	ug/L		10/08/21 06:59	10/08/21 12:15	1
Phenanthrene	ND		0.20	0.073	ug/L		10/08/21 06:59	10/08/21 12:15	1
Pyrene	ND		0.20	0.066	ug/L		10/08/21 06:59	10/08/21 12:15	1

Eurofins Calscience LLC

QC Sample Results

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: MB 570-184919/1-A
Matrix: Water
Analysis Batch: 185044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184919

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	65		33 - 144	10/08/21 06:59	10/08/21 12:15	1
Nitrobenzene-d5 (Surr)	76		28 - 139	10/08/21 06:59	10/08/21 12:15	1
p-Terphenyl-d14 (Surr)	76		23 - 160	10/08/21 06:59	10/08/21 12:15	1

Lab Sample ID: LCS 570-184919/2-A
Matrix: Water
Analysis Batch: 185044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184919

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
1-Methylnaphthalene	2.00	1.460		ug/L		73	20 - 140	
2-Methylnaphthalene	2.00	1.657		ug/L		83	21 - 140	
Acenaphthene	2.00	1.292		ug/L		65	55 - 121	
Acenaphthylene	2.00	1.481		ug/L		74	33 - 145	
Anthracene	2.00	1.438		ug/L		72	27 - 133	
Benzo[g,h,i]perylene	2.00	1.342		ug/L		67	25 - 157	
Benzo[k]fluoranthene	2.00	1.415		ug/L		71	24 - 159	
Benzo[a]anthracene	2.00	1.370		ug/L		69	33 - 143	
Benzo[a]pyrene	2.00	1.508		ug/L		75	17 - 163	
Benzo[b]fluoranthene	2.00	1.372		ug/L		69	24 - 159	
Chrysene	2.00	1.406		ug/L		70	17 - 168	
Dibenz(a,h)anthracene	2.00	1.264		ug/L		63	25 - 175	
Fluoranthene	2.00	1.433		ug/L		72	26 - 137	
Fluorene	2.00	1.340		ug/L		67	59 - 121	
Indeno[1,2,3-cd]pyrene	2.00	1.259		ug/L		63	25 - 175	
Naphthalene	2.00	1.316		ug/L		66	21 - 133	
Phenanthrene	2.00	1.383		ug/L		69	54 - 120	
Pyrene	2.00	1.493		ug/L		75	45 - 129	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	63		33 - 144
Nitrobenzene-d5 (Surr)	73		28 - 139
p-Terphenyl-d14 (Surr)	78		23 - 160

Lab Sample ID: LCSD 570-184919/3-A
Matrix: Water
Analysis Batch: 185044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184919

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
1-Methylnaphthalene	2.00	1.540		ug/L		77	20 - 140	5	25	
2-Methylnaphthalene	2.00	1.744		ug/L		87	21 - 140	5	25	
Acenaphthene	2.00	1.337		ug/L		67	55 - 121	3	25	
Acenaphthylene	2.00	1.544		ug/L		77	33 - 145	4	25	
Anthracene	2.00	1.509		ug/L		75	27 - 133	5	25	
Benzo[g,h,i]perylene	2.00	1.366		ug/L		68	25 - 157	2	25	
Benzo[k]fluoranthene	2.00	1.507		ug/L		75	24 - 159	6	25	
Benzo[a]anthracene	2.00	1.448		ug/L		72	33 - 143	6	25	
Benzo[a]pyrene	2.00	1.536		ug/L		77	17 - 163	2	25	
Benzo[b]fluoranthene	2.00	1.383		ug/L		69	24 - 159	1	25	

Eurofins Calscience LLC

QC Sample Results

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 570-184919/3-A
Matrix: Water
Analysis Batch: 185044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184919

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	2.00	1.423		ug/L		71	17 - 168	1	25
Dibenz(a,h)anthracene	2.00	1.297		ug/L		65	25 - 175	3	25
Fluoranthene	2.00	1.434		ug/L		72	26 - 137	0	25
Fluorene	2.00	1.372		ug/L		69	59 - 121	2	25
Indeno[1,2,3-cd]pyrene	2.00	1.264		ug/L		63	25 - 175	0	25
Naphthalene	2.00	1.399		ug/L		70	21 - 133	6	25
Phenanthrene	2.00	1.338		ug/L		67	54 - 120	3	25
Pyrene	2.00	1.442		ug/L		72	45 - 129	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Fluorobiphenyl (Surr)	65		33 - 144
Nitrobenzene-d5 (Surr)	76		28 - 139
p-Terphenyl-d14 (Surr)	73		23 - 160

QC Association Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

GC/MS Semi VOA

Prep Batch: 184901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-1	HB-W-20211007-001	Total/NA	Water	3510C	
570-72168-2	HB-W-20211007-002	Total/NA	Water	3510C	
570-72168-3	HB-W-20211007-003	Total/NA	Water	3510C	
570-72168-4	HB-W-20211007-004	Total/NA	Water	3510C	
570-72168-5	HB-W-20211007-005	Total/NA	Water	3510C	
570-72168-6	HB-W-20211007-006	Total/NA	Water	3510C	
570-72168-7	HB-W-20211007-007	Total/NA	Water	3510C	
570-72168-8	HB-W-20211007-008	Total/NA	Water	3510C	
570-72168-9	HB-W-20211007-009	Total/NA	Water	3510C	
570-72168-10	HB-W-20211007-010	Total/NA	Water	3510C	
570-72168-11	HB-W-20211007-011	Total/NA	Water	3510C	
570-72168-12	HB-W-20211007-012	Total/NA	Water	3510C	
570-72168-13	HB-W-20211007-013	Total/NA	Water	3510C	
570-72168-14	HB-W-20211007-014	Total/NA	Water	3510C	
570-72168-15	HB-W-20211007-015	Total/NA	Water	3510C	
570-72168-16	HB-W-20211007-016	Total/NA	Water	3510C	
570-72168-17	HB-W-20211007-017	Total/NA	Water	3510C	
570-72168-18	HB-W-20211007-018	Total/NA	Water	3510C	
570-72168-19	HB-W-20211007-019	Total/NA	Water	3510C	
570-72168-20	HB-W-20211007-020	Total/NA	Water	3510C	
MB 570-184901/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-184901/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-184901/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 184917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-21	HB-W-20211007-021	Total/NA	Water	3510C	
570-72168-22	HB-W-20211007-022	Total/NA	Water	3510C	
570-72168-23	HB-W-20211007-023	Total/NA	Water	3510C	
570-72168-24	HB-W-20211007-024	Total/NA	Water	3510C	
570-72168-25	HB-W-20211007-025	Total/NA	Water	3510C	
570-72168-26	HB-W-20211007-026	Total/NA	Water	3510C	
570-72168-27	HB-W-20211007-027	Total/NA	Water	3510C	
570-72168-28	HB-W-20211007-028	Total/NA	Water	3510C	
570-72168-29	HB-W-20211007-029	Total/NA	Water	3510C	
570-72168-30	HB-W-20211007-030	Total/NA	Water	3510C	
570-72168-31	HB-W-20211007-031	Total/NA	Water	3510C	
570-72168-32	HB-W-20211007-032	Total/NA	Water	3510C	
570-72168-33	HB-W-20211007-033	Total/NA	Water	3510C	
570-72168-34	HB-W-20211007-034	Total/NA	Water	3510C	
570-72168-35	HB-W-20211007-035	Total/NA	Water	3510C	
570-72168-36	HB-W-20211007-036	Total/NA	Water	3510C	
570-72168-37	HB-W-20211007-037	Total/NA	Water	3510C	
570-72168-38	HB-W-20211007-038	Total/NA	Water	3510C	
570-72168-39	HB-W-20211007-039	Total/NA	Water	3510C	
570-72168-40	HB-W-20211007-040	Total/NA	Water	3510C	
MB 570-184917/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-184917/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-184917/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

QC Association Summary

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

GC/MS Semi VOA

Prep Batch: 184919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-41	HB-W-20211007-005-DUP	Total/NA	Water	3510C	
570-72168-42	HB-W-20211007-014-DUP	Total/NA	Water	3510C	
570-72168-43	HB-W-20211007-025-DUP	Total/NA	Water	3510C	
570-72168-44	HB-W-20211007-035-DUP	Total/NA	Water	3510C	
MB 570-184919/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-184919/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-184919/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 184986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-1	HB-W-20211007-001	Total/NA	Water	8270C SIM	184901
570-72168-2	HB-W-20211007-002	Total/NA	Water	8270C SIM	184901
570-72168-3	HB-W-20211007-003	Total/NA	Water	8270C SIM	184901
570-72168-4	HB-W-20211007-004	Total/NA	Water	8270C SIM	184901
570-72168-5	HB-W-20211007-005	Total/NA	Water	8270C SIM	184901
570-72168-6	HB-W-20211007-006	Total/NA	Water	8270C SIM	184901
570-72168-7	HB-W-20211007-007	Total/NA	Water	8270C SIM	184901
570-72168-8	HB-W-20211007-008	Total/NA	Water	8270C SIM	184901
570-72168-9	HB-W-20211007-009	Total/NA	Water	8270C SIM	184901
570-72168-10	HB-W-20211007-010	Total/NA	Water	8270C SIM	184901
570-72168-11	HB-W-20211007-011	Total/NA	Water	8270C SIM	184901
570-72168-12	HB-W-20211007-012	Total/NA	Water	8270C SIM	184901
570-72168-13	HB-W-20211007-013	Total/NA	Water	8270C SIM	184901
570-72168-14	HB-W-20211007-014	Total/NA	Water	8270C SIM	184901
570-72168-15	HB-W-20211007-015	Total/NA	Water	8270C SIM	184901
570-72168-16	HB-W-20211007-016	Total/NA	Water	8270C SIM	184901
570-72168-17	HB-W-20211007-017	Total/NA	Water	8270C SIM	184901
570-72168-18	HB-W-20211007-018	Total/NA	Water	8270C SIM	184901
570-72168-19	HB-W-20211007-019	Total/NA	Water	8270C SIM	184901
MB 570-184901/1-A	Method Blank	Total/NA	Water	8270C SIM	184901
LCS 570-184901/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	184901
LCSD 570-184901/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	184901

Analysis Batch: 185015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-21	HB-W-20211007-021	Total/NA	Water	8270C SIM	184917
570-72168-22	HB-W-20211007-022	Total/NA	Water	8270C SIM	184917
570-72168-23	HB-W-20211007-023	Total/NA	Water	8270C SIM	184917
570-72168-24	HB-W-20211007-024	Total/NA	Water	8270C SIM	184917
570-72168-25	HB-W-20211007-025	Total/NA	Water	8270C SIM	184917
570-72168-26	HB-W-20211007-026	Total/NA	Water	8270C SIM	184917
570-72168-27	HB-W-20211007-027	Total/NA	Water	8270C SIM	184917
570-72168-28	HB-W-20211007-028	Total/NA	Water	8270C SIM	184917
570-72168-29	HB-W-20211007-029	Total/NA	Water	8270C SIM	184917
570-72168-30	HB-W-20211007-030	Total/NA	Water	8270C SIM	184917
570-72168-31	HB-W-20211007-031	Total/NA	Water	8270C SIM	184917
570-72168-32	HB-W-20211007-032	Total/NA	Water	8270C SIM	184917
570-72168-33	HB-W-20211007-033	Total/NA	Water	8270C SIM	184917
570-72168-34	HB-W-20211007-034	Total/NA	Water	8270C SIM	184917
MB 570-184917/1-A	Method Blank	Total/NA	Water	8270C SIM	184917
LCS 570-184917/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	184917

QC Association Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

GC/MS Semi VOA (Continued)

Analysis Batch: 185015 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-184917/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	184917

Analysis Batch: 185044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-72168-20	HB-W-20211007-020	Total/NA	Water	8270C SIM	184901
570-72168-35	HB-W-20211007-035	Total/NA	Water	8270C SIM	184917
570-72168-36	HB-W-20211007-036	Total/NA	Water	8270C SIM	184917
570-72168-37	HB-W-20211007-037	Total/NA	Water	8270C SIM	184917
570-72168-38	HB-W-20211007-038	Total/NA	Water	8270C SIM	184917
570-72168-39	HB-W-20211007-039	Total/NA	Water	8270C SIM	184917
570-72168-40	HB-W-20211007-040	Total/NA	Water	8270C SIM	184917
570-72168-41	HB-W-20211007-005-DUP	Total/NA	Water	8270C SIM	184919
570-72168-42	HB-W-20211007-014-DUP	Total/NA	Water	8270C SIM	184919
570-72168-43	HB-W-20211007-025-DUP	Total/NA	Water	8270C SIM	184919
570-72168-44	HB-W-20211007-035-DUP	Total/NA	Water	8270C SIM	184919
MB 570-184919/1-A	Method Blank	Total/NA	Water	8270C SIM	184919
LCS 570-184919/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	184919
LCSD 570-184919/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	184919

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-001

Lab Sample ID: 570-72168-1

Date Collected: 10/07/21 17:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 11:03	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-002

Lab Sample ID: 570-72168-2

Date Collected: 10/07/21 17:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.1 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 11:25	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-003

Lab Sample ID: 570-72168-3

Date Collected: 10/07/21 17:35

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1016.6 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 11:46	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-004

Lab Sample ID: 570-72168-4

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1014.3 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 12:08	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-005

Lab Sample ID: 570-72168-5

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.9 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 12:29	ULLI	ECL 1

Instrument ID: GCMSEEE

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-006

Lab Sample ID: 570-72168-6

Date Collected: 10/07/21 12:25

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.7 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 12:51	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-007

Lab Sample ID: 570-72168-7

Date Collected: 10/07/21 12:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.2 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 13:13	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-008

Lab Sample ID: 570-72168-8

Date Collected: 10/07/21 12:35

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1014.1 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 13:34	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-009

Lab Sample ID: 570-72168-9

Date Collected: 10/07/21 12:43

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1015.3 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 13:56	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-010

Lab Sample ID: 570-72168-10

Date Collected: 10/07/21 12:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1014.5 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 14:17	ULLI	ECL 1

Instrument ID: GCMSEEE

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-011

Lab Sample ID: 570-72168-11

Date Collected: 10/07/21 12:55

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			999.9 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 14:39	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-012

Lab Sample ID: 570-72168-12

Date Collected: 10/07/21 13:10

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1002.3 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 15:00	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-013

Lab Sample ID: 570-72168-13

Date Collected: 10/07/21 13:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1008.9 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 15:22	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-014

Lab Sample ID: 570-72168-14

Date Collected: 10/07/21 13:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1003.8 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 15:43	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-015

Lab Sample ID: 570-72168-15

Date Collected: 10/07/21 13:45

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.1 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 16:05	ULLI	ECL 1

Instrument ID: GCMSEEE

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-016

Lab Sample ID: 570-72168-16

Date Collected: 10/07/21 13:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1018 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 16:26	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-017

Lab Sample ID: 570-72168-17

Date Collected: 10/07/21 14:00

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1010.5 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 16:48	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-018

Lab Sample ID: 570-72168-18

Date Collected: 10/07/21 14:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1012.6 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 17:10	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-019

Lab Sample ID: 570-72168-19

Date Collected: 10/07/21 14:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1004.3 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			184986	10/08/21 17:31	ULLI	ECL 1

Instrument ID: GCMSEEE

Client Sample ID: HB-W-20211007-020

Lab Sample ID: 570-72168-20

Date Collected: 10/07/21 14:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1004.2 mL	2 mL	184901	10/07/21 19:21	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 17:27	AJ2Q	ECL 1

Instrument ID: GCMSMM

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-021

Lab Sample ID: 570-72168-21

Date Collected: 10/07/21 14:42

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1025.3 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 12:42	AJ2Q	ECL 1

Instrument ID: GCMSAAA

Client Sample ID: HB-W-20211007-022

Lab Sample ID: 570-72168-22

Date Collected: 10/07/21 14:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.8 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 13:02	AJ2Q	ECL 1

Instrument ID: GCMSAAA

Client Sample ID: HB-W-20211007-023

Lab Sample ID: 570-72168-23

Date Collected: 10/07/21 14:55

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1022 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 13:21	AJ2Q	ECL 1

Instrument ID: GCMSAAA

Client Sample ID: HB-W-20211007-024

Lab Sample ID: 570-72168-24

Date Collected: 10/07/21 14:55

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1020 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 13:41	AJ2Q	ECL 1

Instrument ID: GCMSAAA

Client Sample ID: HB-W-20211007-025

Lab Sample ID: 570-72168-25

Date Collected: 10/07/21 15:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1022.1 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 14:00	AJ2Q	ECL 1

Instrument ID: GCMSAAA

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-026

Lab Sample ID: 570-72168-26

Date Collected: 10/07/21 15:10

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1021.6 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 14:20	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-027

Lab Sample ID: 570-72168-27

Date Collected: 10/07/21 15:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.1 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 14:39	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-028

Lab Sample ID: 570-72168-28

Date Collected: 10/07/21 15:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1022.9 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 14:59	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-029

Lab Sample ID: 570-72168-29

Date Collected: 10/07/21 15:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1021.2 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 15:18	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-030

Lab Sample ID: 570-72168-30

Date Collected: 10/07/21 15:32

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1022.4 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 15:38	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Lab Chronicle

Client: Moffatt & Nichol
 Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-031

Lab Sample ID: 570-72168-31

Date Collected: 10/07/21 15:40

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1022.2 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 15:57	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-032

Lab Sample ID: 570-72168-32

Date Collected: 10/07/21 15:42

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1021.6 mL	2 mL	184917	10/08/21 05:28	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 16:17	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-033

Lab Sample ID: 570-72168-33

Date Collected: 10/07/21 15:50

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1023.6 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 16:36	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-034

Lab Sample ID: 570-72168-34

Date Collected: 10/07/21 15:52

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1024.2 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185015	10/08/21 16:55	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

Client Sample ID: HB-W-20211007-035

Lab Sample ID: 570-72168-35

Date Collected: 10/07/21 16:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1024.5 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 14:54	AJ2Q	ECL 1
Instrument ID: GCMSMM										

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-036

Lab Sample ID: 570-72168-36

Date Collected: 10/07/21 16:02

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1025.5 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 15:17	AJ2Q	ECL 1

Instrument ID: GCMSMM

Client Sample ID: HB-W-20211007-037

Lab Sample ID: 570-72168-37

Date Collected: 10/07/21 16:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1024.5 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 15:40	AJ2Q	ECL 1

Instrument ID: GCMSMM

Client Sample ID: HB-W-20211007-038

Lab Sample ID: 570-72168-38

Date Collected: 10/07/21 16:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1026.8 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 16:19	AJ2Q	ECL 1

Instrument ID: GCMSMM

Client Sample ID: HB-W-20211007-039

Lab Sample ID: 570-72168-39

Date Collected: 10/07/21 16:25

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1017.9 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 16:42	AJ2Q	ECL 1

Instrument ID: GCMSMM

Client Sample ID: HB-W-20211007-040

Lab Sample ID: 570-72168-40

Date Collected: 10/07/21 16:30

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1026.2 mL	2 mL	184917	10/08/21 05:29	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 17:05	AJ2Q	ECL 1

Instrument ID: GCMSMM

Lab Chronicle

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Client Sample ID: HB-W-20211007-005-DUP

Lab Sample ID: 570-72168-41

Date Collected: 10/07/21 12:20

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1016.8 mL	2 mL	184919	10/08/21 06:59	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 13:24	AJ2Q	ECL 1
Instrument ID: GCMSMM										

Client Sample ID: HB-W-20211007-014-DUP

Lab Sample ID: 570-72168-42

Date Collected: 10/07/21 13:15

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1019.5 mL	2 mL	184919	10/08/21 06:59	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 13:46	AJ2Q	ECL 1
Instrument ID: GCMSMM										

Client Sample ID: HB-W-20211007-025-DUP

Lab Sample ID: 570-72168-43

Date Collected: 10/07/21 15:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1014.6 mL	2 mL	184919	10/08/21 06:59	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 14:09	AJ2Q	ECL 1
Instrument ID: GCMSMM										

Client Sample ID: HB-W-20211007-035-DUP

Lab Sample ID: 570-72168-44

Date Collected: 10/07/21 16:05

Matrix: Water

Date Received: 10/07/21 18:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1017.3 mL	2 mL	184919	10/08/21 06:59	H1SH	ECL 1
Total/NA	Analysis	8270C SIM		1			185044	10/08/21 14:32	AJ2Q	ECL 1
Instrument ID: GCMSMM										

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs (GC/MS SIM)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Sample Summary

Client: Moffatt & Nichol
Project/Site: Huntington Beach Oil Spill Sample

Job ID: 570-72168-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-72168-1	HB-W-20211007-001	Water	10/07/21 17:20	10/07/21 18:45
570-72168-2	HB-W-20211007-002	Water	10/07/21 17:30	10/07/21 18:45
570-72168-3	HB-W-20211007-003	Water	10/07/21 17:35	10/07/21 18:45
570-72168-4	HB-W-20211007-004	Water	10/07/21 12:20	10/07/21 18:45
570-72168-5	HB-W-20211007-005	Water	10/07/21 12:20	10/07/21 18:45
570-72168-6	HB-W-20211007-006	Water	10/07/21 12:25	10/07/21 18:45
570-72168-7	HB-W-20211007-007	Water	10/07/21 12:30	10/07/21 18:45
570-72168-8	HB-W-20211007-008	Water	10/07/21 12:35	10/07/21 18:45
570-72168-9	HB-W-20211007-009	Water	10/07/21 12:43	10/07/21 18:45
570-72168-10	HB-W-20211007-010	Water	10/07/21 12:50	10/07/21 18:45
570-72168-11	HB-W-20211007-011	Water	10/07/21 12:55	10/07/21 18:45
570-72168-12	HB-W-20211007-012	Water	10/07/21 13:10	10/07/21 18:45
570-72168-13	HB-W-20211007-013	Water	10/07/21 13:05	10/07/21 18:45
570-72168-14	HB-W-20211007-014	Water	10/07/21 13:15	10/07/21 18:45
570-72168-15	HB-W-20211007-015	Water	10/07/21 13:45	10/07/21 18:45
570-72168-16	HB-W-20211007-016	Water	10/07/21 13:50	10/07/21 18:45
570-72168-17	HB-W-20211007-017	Water	10/07/21 14:00	10/07/21 18:45
570-72168-18	HB-W-20211007-018	Water	10/07/21 14:05	10/07/21 18:45
570-72168-19	HB-W-20211007-019	Water	10/07/21 14:15	10/07/21 18:45
570-72168-20	HB-W-20211007-020	Water	10/07/21 14:30	10/07/21 18:45
570-72168-21	HB-W-20211007-021	Water	10/07/21 14:42	10/07/21 18:45
570-72168-22	HB-W-20211007-022	Water	10/07/21 14:50	10/07/21 18:45
570-72168-23	HB-W-20211007-023	Water	10/07/21 14:55	10/07/21 18:45
570-72168-24	HB-W-20211007-024	Water	10/07/21 14:55	10/07/21 18:45
570-72168-25	HB-W-20211007-025	Water	10/07/21 15:05	10/07/21 18:45
570-72168-26	HB-W-20211007-026	Water	10/07/21 15:10	10/07/21 18:45
570-72168-27	HB-W-20211007-027	Water	10/07/21 15:20	10/07/21 18:45
570-72168-28	HB-W-20211007-028	Water	10/07/21 15:20	10/07/21 18:45
570-72168-29	HB-W-20211007-029	Water	10/07/21 15:30	10/07/21 18:45
570-72168-30	HB-W-20211007-030	Water	10/07/21 15:32	10/07/21 18:45
570-72168-31	HB-W-20211007-031	Water	10/07/21 15:40	10/07/21 18:45
570-72168-32	HB-W-20211007-032	Water	10/07/21 15:42	10/07/21 18:45
570-72168-33	HB-W-20211007-033	Water	10/07/21 15:50	10/07/21 18:45
570-72168-34	HB-W-20211007-034	Water	10/07/21 15:52	10/07/21 18:45
570-72168-35	HB-W-20211007-035	Water	10/07/21 16:05	10/07/21 18:45
570-72168-36	HB-W-20211007-036	Water	10/07/21 16:02	10/07/21 18:45
570-72168-37	HB-W-20211007-037	Water	10/07/21 16:15	10/07/21 18:45
570-72168-38	HB-W-20211007-038	Water	10/07/21 16:15	10/07/21 18:45
570-72168-39	HB-W-20211007-039	Water	10/07/21 16:25	10/07/21 18:45
570-72168-40	HB-W-20211007-040	Water	10/07/21 16:30	10/07/21 18:45
570-72168-41	HB-W-20211007-005-DUP	Water	10/07/21 12:20	10/07/21 18:45
570-72168-42	HB-W-20211007-014-DUP	Water	10/07/21 13:15	10/07/21 18:45
570-72168-43	HB-W-20211007-025-DUP	Water	10/07/21 15:05	10/07/21 18:45
570-72168-44	HB-W-20211007-035-DUP	Water	10/07/21 16:05	10/07/21 18:45



Calscience

7440 Lincoln Way Garden Grove CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information contact us26_sales@eurofins.com or call us

LABORATORY CLIENT: MOFFATT AND NICHOL

ADDRESS: 555 ANTON BLVD # 400
CITY: COSTA MESA STATE: CA ZIP:
E-MAIL: Sanghera@moffattnichol.com Cwebb@moffattnichol.com

TEL: 657-261-2699
TURNAROUND TIME (Rush services may apply to any TAT not 'STANDARD')
 SAME DAY 48 HR 72 HR 5 DAYS STANDARD

COELT EDF SW = Seawater
SPECIAL INSTRUCTIONS: RUSH TAT
SO CAL OIL SPILL PROJECT
C/O CARLA HOLLOWELL (@EUROFINS)

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	LOG CODE		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
41	HB-W-20211007-005-DUP	07-10-21	12:20	SW	2	X		
42	HB-W-20211007-014-DUP	07-10-21	1:15	SW	2	X		
43	HB-W-20211007-025-DUP	07-10-21	3:05	SW	2	X		
44	HB-W-20211007-035-DUP	07-10-21	4:05	SW	2	X		
45	HB-W-20211007-1	07-10-21	5:20	SW	2	X		
46	HB-W-20211007-2	07-10-21	5:30	SW	2	X		
47	HB-W-20211007-3	07-10-21	5:35	SW	2	X		
	HB-W-20211007-	07-10-21		SW	2	X		

PAHs (EPA 8270 SIM)	DRO / ORO (EPA 8015)	GC10B-Metals (ICP)	7H7GA-Mercury (CVA)
X	X	X	X
X	X	X	X
X	X	X	X
X	X	X	X
X	X	X	X
X	X	X	X
X	X	X	X
X	X	X	X

REQUESTED ANALYSES

Please check box or fill in blank as needed

Client Project Name / Number: Huntington Beach Oil Spill

Project Contact: SHELLY ANGHERRA (sanghera@moffattnichol.com)

Sampler(s) / Print: C. Webb, M. Butkus

WO # / LAB USE ONLY: 1

DATE: 10-07-21

PAGE: 5 OF 5

PO NO:

Received by (Signature/Affiliation): [Signature] ECI

Received by (Signature/Affiliation): [Signature] ECI

Received by (Signature/Affiliation): [Signature] ECI

Date: 10-7-2021 Time: 18:01

Date: 10-7-2021 Time: 18:57



Login Sample Receipt Checklist

Client: Moffatt & Nichol

Job Number: 570-72168-3

Login Number: 72168

List Source: Eurofins Calscience LLC

List Number: 1

Creator: Cruise, Noel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	