



Facility Closure Investigation and Environmental Summary

LUCCI-BC B 01-09 Wellhead

ECMC Remediation Project #36402

Weld County, Colorado

Attachments:

Figure 1 – General Location Map

Figure 2 – Wellhead Soil Sample and Field Screening Locations

Table 1 – Soil Sample and Field Screening Location Information

Table 2 – Soil Analytical Results Summary Table – Volatile Organics

Table 3 – Soil Analytical Results Summary Table – PAHs

Table 4 – Soil Analytical Results Summary Table – Soil Suitability

Table 5 – Soil Analytical Results Summary Table – Metals

Attachment A: Photographic Log

Attachment B: Facility Closure Checklist

FIGURES



County Road 62.75

County Road 64

Briscoe Lake

4675 ft

4650 ft

County Road 62

4632 ft

County Road 61

County Road 60 1/2

County Road 59



North Fork Ogilvy Ditch

Crow Creek

County Road 55 1/2

County Road 58 1/2

South Fork Ogilvy Ditch

County Road 57

County Road 5



Front Range

Fort Collins

Greeley

Longmont

Boulder

Denver

4796 ft

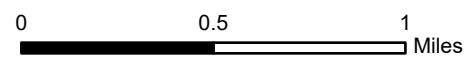
4706 ft

4685 ft

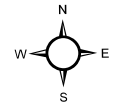
4737 ft

LEGEND

Site Location



1 inch = 0.5 Mile



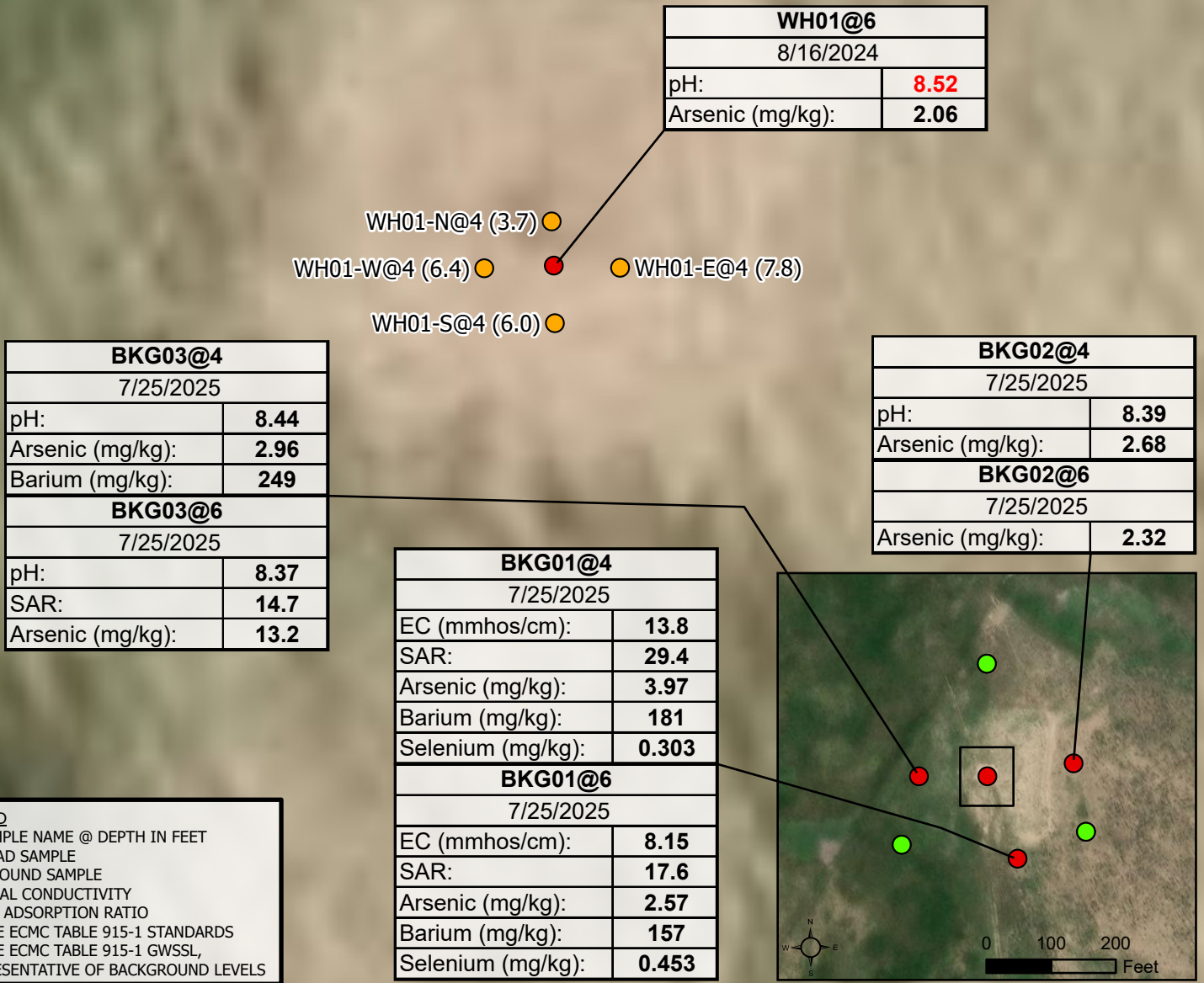
Project No:	024-438
Map By:	JW
Date:	09/23/2024

**LUCCI BCB 01-09 WELLHEAD
GENERAL LOCATION MAP**
NOBLE ENERGY
NE 1/4 SE 1/4 SECTION 01
T5N R64W, 6TH PM
WELD COUNTY, COLORADO



1843 Sunlight Dr.
Longmont, CO 80504
303.378.4036

Figure
1

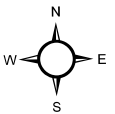
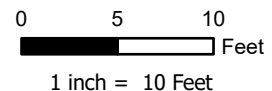


LABEL LEGEND
 XXXX@X: SAMPLE NAME @ DEPTH IN FEET
 WH: WELLHEAD SAMPLE
 BKG: BACKGROUND SAMPLE
 EC: ELECTRICAL CONDUCTIVITY
 SAR: SODIUM ADSORPTION RATIO
BOLD: ABOVE ECMC TABLE 915-1 STANDARDS
BOLD: ABOVE ECMC TABLE 915-1 GWSSL, REPRESENTATIVE OF BACKGROUND LEVELS

Legend

- Soil Sample
- Screening Location
- Proposed Background Sample

NOTES:
 - Sample Label (PID Result in ppm)
 - ppm = parts per million
 - PID = photoionization detector



Project No: 024-438	LUCCI BCB 01-09 WELLHEAD SOIL SAMPLE AND FIELD SCREENING LOCATIONS NOBLE ENERGY NE 1/4 SE 1/4 SECTION 1 T5N R64W, 6TH PM WELD COUNTY, COLORADO		610 Garrison St., Unit T Lakewood, CO 80215 303.378.4036	Figure
Map By: JW				
Date: 12/15/2025				

Chiron, Figure 2 - Template Noble Wellhead - Soil Sample and Field Screening Locations

TABLES

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
LUCCI-BC B 01-09 WELLHEAD, WELD COUNTY, COLORADO
REM # 36402

Sample ID	Sample Date	Depth (ft-bgs)	GPS Data		VOC Concentration (ppm)
			Latitude	Longitude	
WH01@6	8/16/2024	6	40.426843	-104.490774	6.5
WH01-S@4	8/16/2024	4	40.426833	-104.490774	6.0
WH01-N@4	8/16/2024	4	40.426850	-104.490774	3.7
WH01-W@4	8/16/2024	4	40.426842	-104.490789	6.4
WH01-E@4	8/16/2024	4	40.426842	-104.490759	7.8
BKG01	7/25/2025	4,6	40.426492	-104.490609	NM
BKG02	7/25/2025	4,6	40.426895	-104.490294	NM
BKG03	7/25/2025	4,6	40.426847	-104.491151	NM

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

ppm - Parts per million

ft-bgs - feet below ground surface

NM - Not measured

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
LUCCI-BC B 01-09 WELLHEAD, WELD COUNTY, COLORADO
REM # 36402

Sample ID	Sample Date	Depth (ft-bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
WH01@6	8/16/2024	6	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.200	<0.200	<25.0	<100

1. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit
 2. ** Summation of GRO+DRO+ORO must be less than 500 mg/kg
- ft-bgs - feet below ground surface
mg/kg - milligrams per kilogram

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE 100322
LUCCI-BC B 01-09 WELLHEAD, WELD COUNTY, COLORADO
REM # 36402

Sample ID	Sample Date	Depth (ft-bgs)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
WH01@6	8/16/2024	6	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002

1. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit
ft-bgs - feet below ground surface
mg/kg - milligrams per kilogram

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
LUCCI-BC B 01-09 WELLHEAD, WELD COUNTY, COLORADO
REM # 36402

Sample ID	Sample Date	Depth (ft-bgs)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
WH01@6	8/16/2024	6	8.52	0.318	2.36	0.149
BKG01@4	7/25/2025	4	7.85	13.8	29.4	1.77
BKG01@6	7/25/2025	6	7.78	8.15	17.6	0.481
BKG02@4	7/25/2025	4	8.39	0.302	2.33	0.215
BKG02@6	7/25/2025	6	8.20	1.00	4.01	0.433
BKG03@4	7/25/2025	4	8.44	0.672	4.01	0.510
BKG03@6	7/25/2025	6	8.37	3.95	14.7	0.798
Maximum Background Concentration			8.44	13.8	29.4	1.77

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.

2. **Bold** faced values exceed the ECMC Table 915-1 limit(s)

ft-bgs - feet below ground surface

EC - Electrical Conductivity

SAR - Sodium adsorption ratio

mmhos/cm - millimhos per centimeter

mg/L - milligrams per liter

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
LUCCI-BC B 01-09 WELLHEAD, WELD COUNTY, COLORADO
REM # 36402

Sample ID	Sample Date	Depth (ft-bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
WH01@6	8/16/2024	6	2.06	43.2	<0.0922	<0.5*	<9.22	4.29	3.12	<0.240	<0.0922	<34.1
BKG01@4	7/25/2025	4	3.97	181	<0.349	<0.19*	<42.2	<12.8	<23.8	0.303	<0.734	<339
BKG01@6	7/25/2025	6	2.57	157	<0.337	<0.20*	<40.8	<12.4	<23.1	0.453	<0.709	<328
BKG02@4	7/25/2025	4	2.68	<74.3	<0.344	<0.19*	<41.7	<12.7	<23.6	<0.236	<0.725	<335
BKG02@6	7/25/2025	6	2.32	<75.3	<0.349	<0.20*	<42.2	<12.9	<23.9	<0.239	<0.734	<340
BKG03@4	7/25/2025	4	2.96	249	<0.343	<0.20*	<41.5	<12.6	<23.5	<0.235	<0.722	<334
BKG03@6	7/25/2025	6	13.2	80.7	<0.330	<0.20*	<40.0	<12.2	<22.6	<0.226	<0.695	<322
1.25 X Maximum Background Concentration			16.5	311	-	-	-	-	-	0.566	-	-

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.

2. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit

* Indicates laboratory reporting or minimum detection limit in excess of SSL

ft-bgs - feet below ground surface

mg/kg - milligrams per kilogram

**ATTACHMENT A
PHOTOGRAPHIC LOG**

LUCCI-BC B 01-09 Wellhead Photographic Log



LUCCI-BC B 01-09 Wellhead Photographic Log



LUCCI-BC B 01-09 Wellhead Photographic Log



LUCCI-BC B 01-09 Wellhead Photographic Log

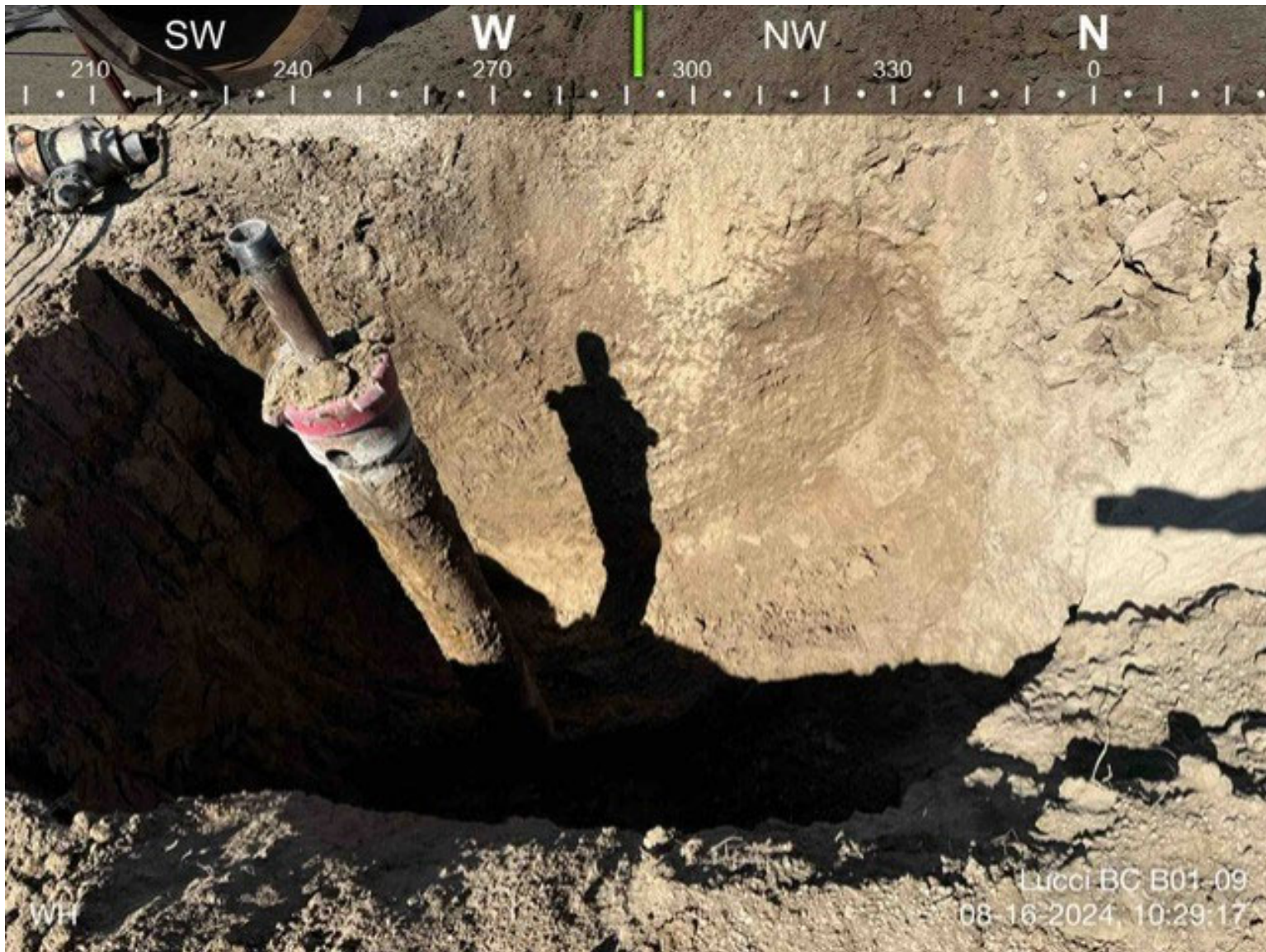




Photo Log

LUCCI BCB 01-09

July 25, 2025

Initial BKG01 Photo



BKG01 Closure Photo



Initial BKG02 Photo



BKG02 Closure Photo



Initial BKG03 Photo



BKG03 Closure Photo



**ATTACHMENT B
FACILITY CLOSURE CHECKLISTS**

Wellhead Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional):		Pit Closure		Tank Battery Closure		Flowline Closure		Partially Buried Vault Closure	
Site Name & COGCC Facility Number: LUCCI BCB 01-09, 246487		Date: 08/16/2024					Remediation Project #: 36402		
Associated Wells: NA		Age of Site: 07/24/1989 - Spud Date					Number of Photos Attached: 10		
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.426850 / -104.490780							Estimated Facility Size (acres): ~0.01		
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.) Overall good									
USCS Soil Type: SM				Estimated Depth to Groundwater: Unknown/Not encountered					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None encountered or observed									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None encountered or observed									
Wellhead(s)									
Well API	05-123-14284								
Age	07/24/1989 - Spud Date								
Condition of surface around wellhead	Good								
PID Readings	3.7 ppm - 7.8 ppm								
Condition of subsurface (staining present)	Good								
PID Readings	6.5 ppm								
Sample taken? Location/Sample ID#	WH01@6								
Photo Number(s)	1-10								
Other observations regarding wellheads: NA									
Summary									
Was impacted soil identified? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - less than 10 cubic yards <input type="checkbox"/> Yes - more than 10 cubic yards									
Total number of samples field screened: 5				Total number of samples collected: 5					
Highest PID Reading: 7.8 ppm				Total number of samples submitted to lab for analysis: 1					
If more than 10 cubic yards of impacted soil were observed:									
Vertical extent:				Estimated spill volume:					
Lateral extent:				Volume of soil removed:					
Is additional investigation required?									
Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - not impacted or in contact with impacted soils <input type="checkbox"/> Yes - groundwater impacted and/or in contact with impacted soils									
Measured depth to groundwater:				Was remedial groundwater removal conducted? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Date Groundwater was encountered:				Commencement date of removal:					
Sheen on groundwater? <input type="checkbox"/> Yes <input type="checkbox"/> No				Volume of groundwater removed prior to sampling:					
Free product observed? <input type="checkbox"/> Yes <input type="checkbox"/> No				Volume of groundwater removed post sampling:					
Total number of samples collected:				Total Volume of groundwater removed:					
Total number of samples submitted to lab for analysis:									