



**ESSO  
DAILY SITE SAFETY RECORD**

Date: 28-1-08

Tool Box Talk  
Topics Covered:

Held By: Steve Lichey

TB ① work at height	② Tool Box
START WORK DISCUSSION	
① Site Supervisor daily routine	JSA T01
② Removal of Canopy Gullies + Beams	JSA C+B03 JSA C+B 10
③ Trail pits. Installation of Plans flag	JSA C+B01 JSA T04

All personnel attending Toolbox Talk (including sub-contractors): ((LMRA.))

<u>WL Smith</u>		
<u>Mr J M Linn</u>		
<u>Paddy Gilmore</u>		
<u>Conor Easton</u>		
<u>Paul Linn</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

① vehical movement on Site Excavator, Hhah.
② Canopy removal Take down in reverse order in Small Section.
③ working from MEWP lanyard must be attached at all times.

Notes and Action Points:

① Banksman to assist with all vehical movement on Site.
② Banksman to assure nobody enters Swing area of Excavator
③ Gates to be kept locked at all times.

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

[Signature]

30/1/08

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**ESSO  
DAILY SITE SAFETY RECORD**

Date: 20.1.108

Tool Box Talk  
Topics Covered:

Held By: CLAVIN BYRDE

Sitesupervisors DAILY routine done SSA 01.
Repair to brick surface water. Drain SSA T30.
meop - removal of car wash wall & beams. SSA C+B 10
LMEA CARRIED out doc.

All personnel attending Toolbox Talk (including sub-contractors):

P. Higgins		
A. Gibson		
P. Gibbons		
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Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

1) Took down canopy structures.
2) stripped down car wash Bay.

Notes and Action Points:

Had site pre-start meeting with HSB + MSI.
Came across live ntc cable coming straight across the site bounding from the overhead cable #

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 31/1/08

Tool Box Talk  
Topics Covered:

Held By: GAVIN BIRDE

Sales previous Daily routine JSFO1
Removal of Car wash area JSA C+B10.
Demolition of Existing Shop Building JSA C+B02.
LMPA CARRIED out also.

All personnel attending Toolbox Talk (including sub-contractors):

P. Gibbons		
Man/Plc		
D. Hetherington		
W. Jones		
NOEL BAKER		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):


Notes and Action Points:


Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 1/2/05.....

**Tool Box Talk**  
**Topics Covered:**

Held By: Gavin Grogan.....

Supervisor	DAILY	Equipment Done	JSA 01
Demolition of existing Building			JSA C+B 09.
Removal of canopy		upright tankers	JSA C+B 06.
LMPA CARRIED out also.			

**All personnel attending Toolbox Talk (including sub-contractors):**

<u>[Signature]</u>		
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<u>[Signature]</u>		

**Hazard Spotting, Unsafe Acts, Near Misses (from previous day):**


**Notes and Action Points:**


Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

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**ESSO  
DAILY SITE SAFETY RECORD**

Date: 4-2-08

**Tool Box Talk  
Topics Covered:**

Held By: Steve Hickey

TIB	Slip, Trips, Falls.
	START WORK DISCUSSION Site Supervisor daily routine JSA TO1
	Installation of Horns fencing JSA TO4
	Demolition of Existing building JSA C+B 02
	Removal of MID Signs JSA C+B 09
	Carry out LMRA.

**All personnel attending Toolbox Talk (including sub-contractors):**

<u>[Signature]</u>		
<u>[Signature]</u>		
<u>[Signature]</u>		

**Hazard Spotting, Unsafe Acts, Near Misses (from previous day):**

vehical movement / Trucks entering & Exiting Site
Live Services. NTL along Coraush creek
Surface Drains must be protected (Culvert).

**Notes and Action Points:**

Banksman to assist with all vehical movement
Extra Care while trucks arriving & leaving.

Reviewed by:  
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Signed:

Date:

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05/12/08

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 5-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Hehey

START WORK Discussion
Site Supervisor Daily routine JSA T01
Installation of Home's fence JSA T04
Demolition of Existing building JSA C+B02
Uncovering of UST with Claypit JSA T609 JSA T09.

LMRA To Be Carried out prior to all tasks.

All personnel attending Toolbox Talk (including sub-contractors):

<u>Steve Hehey</u>		
<u>Neil Bartle</u>		
<u>P. Gibbs</u>		
<u>D. Alkwas</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

vehical movement.
weather conditions - strong winds.
NIL Live Service wall beside carwash area.
All work areas to be fenced off.

Notes and Action Points:

Banksman to assist with vehical movement on Site, Extra
care while vehicals entering or exiting.
Keep work area tidy to prevent trip or fall hazards
(vacuum extraction works on Site.)
(Seperate permit for this work SMS.)

Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

Contractor Management/Safety Officer

Hehey

05/02/08

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 6-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Hechey

START WORK DISCUSSION.		
(1) Site Supervisor Daily routine.		JSA TO1
(2) Installation of Home Energy.		JSA TO4
(3) Uncovering of UST's with Glycol.		JSA TGOA
LMRA prior to all tasks.		

All personnel attending Toolbox Talk (including sub-contractors):

<u>Man M. King</u>		
<u>D. Hechey</u>		
<u>P. Sidmore</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

(1) Excavator on Site.
(2) noise level while concrete breaking.
(3) NTL Live Service, part overhead part underground.

Notes and Action Points:

(1) All work areas to be fenced off
(2) NO unauthorised entry to work areas.
(3) Keep work area clean & tidy.

Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 7-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Mchey

START WORK DISCUSSION .
① Supervisor Daily routine JSA T01
② Installation of Hoover paving JSA T04
③ Decommission Storage Tanks JSA T11
④ Removing M11 Signs with Hibab JSA C1B 09 CMRA prior to all tasks.

All personnel attending Toolbox Talk (including sub-contractors):

<u>Mr. Mchey</u>		
<u>Paddy Gifford</u>		
<u>Neil Broad</u>		
<u>J. Helena</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

vehicular movement on site.
Track machine Keep out of Sundry area of machine.
Rebar in Concrete
noise levels during concrete breaking

Notes and Action Points:

Banksman to assist with all traffic movement, extra care
while wagons entering or leaving site.
Keep out of work area of track machine
Remove all trip Hazards.
Follow all work procedure, PPE as JSA <sup>2</sup>

Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 8-2008

Tool Box Talk  
Topics Covered:

Held By: Steve Kichey

SWD - Site Supervisor Daily routine	SSA T01
Installation of Harris fencing	SSA T04
Decommission Storage Tanks	SSA 11
Remove MID Sign with Ashub	SSA C+B 09.
LMRA prior to all tasks	

**All personnel attending Toolbox Talk (including sub-contractors):**

<u>Eric Dico</u>		
<u>P. Gibson</u>		
<u>P. Ashub</u>		
<u>Neil Bush</u>		

**Hazard Spotting, Unsafe Acts, Near Misses (from previous day):**

<u>vehicular movement</u>
<u>Truck machine</u>

**Notes and Action Points:**

<u>Barbican in place to assist with all traffic, extra</u>
<u>Core cable vehiculars entering or leaving Site.</u>
<u>NO Entry into Saung area of truck machine</u>

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

[Signature]

12/02/08

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 11-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Hickey

Tool Box + START WORK DISCUSSION	
(1) Site Supervisor Daily routine	SSA T01
(2) Installation of Harris frames	SSA T04
(3) Tank lifting	SSA T12.
(4) uncovering USTs prior to SSA T12.	SSA T09
LMRA Prior to all tasks.	

All personnel attending Toolbox Talk (including sub-contractors):

<u>P. Hickey</u>	<u>Tool Box</u>	
<u>C. CARTON</u>		
<u>Q. [unclear]</u>		
<u>P. [unclear]</u>		
<u>[unclear]</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>vehicular movement</u>
<u>Excavations</u>
<u>Trips or falls.</u>

Notes and Action Points:

<u>Banksman to assist with all Traffic movement, Extra Care</u>
<u>while vehicles entering or exiting Site.</u>
<u>Fence off all excavations</u>
<u>keep out of swing area of track machine.</u>
<u>Tool Box Seven Common Accident Causes.</u>
<u>11-2-08.</u>

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

[Signature]

12/10/08

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 12-2-08

**Tool Box Talk**  
**Topics Covered:**

Held By: Steve Muekey

START WORK DISCUSSION	
Site Supervisor Daily routine	JSA T01
Installation of Harris fence	JSA T04
Uncovering UST's with Claycol	JSA TG-09
Removal of Tank bases and backfill of Tank pit	JSA T16
LMRA Prior to all Tasks.	

**All personnel attending Toolbox Talk (including sub-contractors):**

<u>P. Gubins</u>		
<u>Mark McLean</u>		
<u>Mal Burt</u>		
<u>Jim Pitts</u>		
<u>D. Schuur</u>		

**Hazard Spotting, Unsafe Acts, Near Misses (from previous day):**

<u>vehical movement</u>
<u>Excavations</u>
<u>Trip or fall</u>

**Notes and Action Points:**

<u>Banksmen to assist with all vehical movement, Extra Care</u>
<u>while Traffic entering or exiting Site.</u>
<u>Fence off all excavations</u>
<u>Keep work area tidy.</u>

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 13-2-08

Tool Box Talk  
Topics Covered:

Held By: S. Heaney

START WORK DISCUSSION	
Site Supervisor daily routine	JSA T01
Installation of Hoops from	JSA T04
Uncovery Tanks with Chisel	JSA T6-04
Removal of Tank bases and back filling of Tank pit	JSA T16
Carry out LMPA prior to all tasks.	

All personnel attending Toolbox Talk (including sub-contractors):

<u>P. Gibson</u>		
<u>M. [unclear]</u>		
<u>A. [unclear]</u>		
<u>D. [unclear]</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>Truck machine on Site.</u>
<u>Excavations.</u>
<u>NO Entry into Excavations</u>

Notes and Action Points:

<u>Banksman to assist with all vehical movement on Site.</u>
<u>Keep out of swing area of Truck machine</u>
<u>Keep behind firing of Excavations.</u>

Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 14-2-08

**Tool Box Talk**  
**Topics Covered:**

Held By: Steve Hechen

START WORK Discussion	
Site Supervisor daily routine	JSA T01
Installation of Horns fence	JSA T04
Removal of Tank Bases and backfilling of Tank pit	JSA T16
Conyent LMRB PWR Wall East	

**All personnel attending Toolbox Talk (including sub-contractors):**

<u>D. Hechen</u>		
<u>P. Gibson</u>		
<u>M. V. Smith</u>		

**Hazard Spotting, Unsafe Acts, Near Misses (from previous day):**

<u>vehical movement on site</u>
<u>Excavations</u>

**Notes and Action Points:**

<u>Banksman in place to assist with all traffic movement</u>
<u>Extra Care while vehicles along or Exting Site</u>
<u>NO Entry into Excavations.</u>

Reviewed by:  
Safety Consultant

Signed: .....

Date: .....

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 15-2-08

**Tool Box Talk**  
**Topics Covered:**

Held By: Gavin B. HADGE

Sitesupervisor's Daily routine done JSA 01
Install of chain link fencing JSA 23.
Removal of tank. Basis and Backfill of tank pit JSA 16
Trial pitting work's JSA 15.

**All personnel attending Toolbox Talk (including sub-contractors):**

M. J. King		
M. Roberts		
P. Gibbons		

**Hazard Spotting, Unsafe Acts, Near Misses (from previous day):**

URS arrived on site 11:30 didnt start trial pitting until 12:00.
qob stone delivered for tank pit

**Notes and Action Points:**


Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer



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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 18-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Hickey

START WORK DISCUSSION	
Site Supervisor Daily routine	JSA T01
Installation of Hards fencing	JSA T04
Back fill Transport	JSA 116
Truck pitting works	JSA 15
Carryout LMRP Proxy to all tasks	

All personnel attending Toolbox Talk (including sub-contractors):

<u>P Gibbons</u>		
<u>Neil Breen</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>vehicular movement</u>
<u>2 mo Banks men assisting</u>

Notes and Action Points: overlooked.

<u>Truck machine vandalised (Side window broken)</u>
<u>portaloos pushed over. (mirrors, wipers,</u>
<u>Goal post System at NTL pushed over.</u>
<u>Signs taken from office (First Aid. office Sign)</u>

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

[Signature]

19/02/08

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 19-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Mcken

IB eye protection.	START WORK DISCUSSION
Site Supervisor Daily routine	JSA T01
Installation of Harry ferry	JSA T04
Back fill Tank pits	JSA 116
Trall pit works	JSA 15
LMRA Proxy to all Tasks.	

All personnel attending Toolbox Talk (including sub-contractors):

<u>Mel Bredin</u>		
<u>Paddy/Gibson</u>		
<u>Mark the boss</u>		
<u>D. H. H. H.</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>Excavators</u>
<u>vehical movemet</u>

Notes and Action Points:

<u>Banksman to assist with all traffic movemet on site</u>
<u>Extra Care while Trucks Entery or Exityng Site.</u>
<u>Guards Call to Site 1 am to Talk to Security, they had been</u>
<u>called from neighbour through machine was working, rose</u>
<u>from Generator.</u>

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 20-2-08

Tool Box Talk  
Topics Covered:

Held By: Steve Hickey

START WORK DISCUSSION.	
Site Supervisor daily routine	JSA T01
Installation of Harris fencing	JSA T04
Trail pit works	JSA 15
Removal of Tank base & Surrounds (LMRA)	JSA T16

All personnel attending Toolbox Talk (including sub-contractors):

<u>Steve Hickey</u>		
<u>P. Gibson</u>		
<u>Mark Beal</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>wagons arriving to site.</u>
<u>2nd Excavators on site.</u>

Notes and Action Points:

<u>Banks men to assist with all vehical movement, Extra</u>
<u>care while wagons entering or exiting site.</u>
<u>Review JSA's</u>

Reviewed by:  
Safety Consultant

Signed:

Date:

Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 22-2-08

Tool Box Talk

Held By: Steve Kichey

Topics Covered:

START WORK DISCUSSION	
Site Supervisor Daily routine	JSA TOI,
Installation of Home fencing	JSA TCH,
Trail pit works	JSA IS,
Carry out LMPA prior to all tasks.	

All personnel attending Toolbox Talk (including sub-contractors):

<u>D. DeLuca</u>		
<u>Neil Bond</u>		
<u>R. Gibbons</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>vehicul movmet</u>
<u>Track machine on site</u>

Notes and Action Points:

<u>Barthman to assist with all vehicul movmet on site</u>
<u>2 no Barthmen while wagons entering or exiting site</u>

Reviewed by:  
Safety Consultant

Signed:  
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Date:  
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Contractor Management/Safety Officer

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**ESSO**  
**DAILY SITE SAFETY RECORD**

Date: 21-2-08

Tool Box Talk

Held By: Steve Hickey

Topics Covered:

START WORK DISCUSSION		
Site Supervisor daily routine	JSA	T01
Installation of Herms fencing	JSA	T04
Trail pit works	JSA	15
Cleaning of interceptor	JSA	T13
Removal of interceptor JSA17 LMRA.		

All personnel attending Toolbox Talk (including sub-contractors):

<u>D. Pelletier</u>		
<u>Phil Bell</u>		
<u>R. Gibbons</u>		

Hazard Spotting, Unsafe Acts, Near Misses (from previous day):

<u>Truck machine on site</u>
<u>Wagons entering or exiting site</u>
<u>Excavations</u>

Notes and Action Points:

<u>Banksman to assist with all vehicle movement</u>
<u>Extra Care while vehicles entering or exiting site.</u>
<u>Fence off all trail pits, no pit to be left unattended</u>
<u>Backfill as soon as EC has retrieved sampler.</u>

Reviewed by:  
Safety Consultant

Signed:  
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Date:  
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## 5. DESCRIPTION OF URS ACTIVITIES

The tasks typically undertaken while URS staff are on site during the demolition and remediation of sites may include the following:

- Mobilisation;
- Pre Work meetings;
- Groundwater sampling
- Observations of UST removal;
- Test Pit Investigations;
- Supervision and Validation of Remedial Excavations.

### 5.1. Mobilisation

Upon arrival at the site at the start of each workday, *URS staff will conduct a daily safety check before they commence site work (see Appendix B).*

Any items in an unsafe condition will be rectified or replaced prior to work commencing with remedial actions noted on the rear of the daily safety checklist.

Site works will not proceed until all necessary equipment has been checked and is available for use.

### 5.2. Pre Work Meetings

Tasks typically completed by URS staff during Pre Start Meetings may include:

- Review of existing environmental reports;
- Review of site boundary drawings;
- Review of underground services drawings; and
- Site walkover.

### 5.3. Groundwater Sampling

Tasks typically completed by URS staff during groundwater sampling may include the following:

- Checking all wells for the presence of separate phase hydrocarbons;
- Gauging water levels in wells;

- Purging water from each wells; and
- Collection of groundwater samples.

#### **5.4. Observation of Tank Removals**

Tasks typically completed by URS staff during the removal of underground storage tanks by the Demolition Contractor may include the following:

- Visual inspection of UST's as removed by demolition contractor
- Recording evidence of hydrocarbon impacts to soil and groundwater;
- Collection of soil samples for environmental analyses.

#### **5.5. Test Pit Investigations**

Tasks typically completed by URS staff during the excavation of test pits by the Demolition Contractor may include the following:

- Completing the relevant elements of the underground services check procedure;
- Observing the excavation of test pits;
- Recording observations of soil and groundwater; and
- Collection of soil samples for environmental analyses.

#### **5.6. Remedial Excavations**

Tasks typically completed by URS staff during remedial excavations by the Demolition Contractor may include the following:

- Completing the relevant elements of the underground services check procedure;
- Observation of remedial excavations;
- Recording observations of hydrocarbon impact to soil and groundwater; and
- Collection of soil samples for environmental analyses.

## 6. SITE HAZARDS

Based on the available site information and the works described in the previous section, the following potential hazards have been identified.

- Chemical Hazards;
- Physical Hazards;
- Human Hazards; and
- Biological Hazards.

The mitigation measures required to reduce the risk associated with each hazard are detailed in the Task Hazard Analysis (see section 7).

### 6.1. Chemical Hazards

The site was operated as a retail petrol station for several years prior to decommissioning.

The following chemicals are typically encountered on this type of site.

- Petrol;
- Diesel;
- Benzene (and other volatile compounds);
- MTBE; and
- Hydrocarbon oils.

The physical properties and characteristics of each chemical are tabulated below.

Contaminant	OEL <sup>II</sup>	TWA <sup>II</sup>	IDLH <sup>III</sup>	UNIT	Symptoms of exposure <sup>1</sup>	Other Comments
<b>Volatile Compounds<sup>2</sup></b>						
Petrol			Ca		Headache, nausea, dizziness, blurred vision	
Benzene	5	0.1	500	ppm	Headache, nausea, tremors, fatigue	Known carcinogen
Toluene	50	100	500	ppm	Headache, nausea, dizziness & fatigue	Can penetrate intact skin
Ethylbenzene	100	100	800	ppm		
Xylene	N/A	100	900	ppm	Headache, nausea & fatigue	Can penetrate intact skin
<b>Non Volatile Compounds<sup>3</sup></b>						
PAH	N/A	N/A	N/A	N/A		Present in diesel
Mineral Oil	N/A	N/A	N/A	N/A		Present in diesel
Diesel	N/A	N/A	N/A	N/A	Headache, nausea, dizziness, uncoordination, vomiting	
Used Motor Oil	N/A	N/A	N/A	N/A	Nausea, vomiting, diarrhoea	

- I. NAOSH - national authority for occupational safety and health code of practice (2002)
- II. NIOSH - 8 hour time weighted average
- III. NIOSH - immediately dangerous to life/health.

**The above information indicates that benzene is the critical contaminant of concern.**

**6.2. Physical Hazards**

The following physical hazards may be encountered during the works:

**Hazards associated with driving vehicles** – Access to the site will require driving where road works, heavy traffic, bad weather and poor visibility may be encountered.

**Heavy Equipment Operation** - Operation of heavy equipment during excavation and tank removal activities presents a potential "run over" or collision hazard to personnel.

<sup>1</sup> Symptoms from NIOSH Pocket Guide to Chemical Hazards.

**Underground Services** – Excavations may encounter underground services including site facilities (tanks, supply lines) or off-site utilities (e.g. power, gas).

**Fire/Explosion** – the hydrocarbon products previously stored on site were flammable and the possibility exists for these compounds to be present in liquid or vapour phases.

**Overhead Services** - Overhead power lines pose a danger of shock or electrocution if the power line is contacted or severed during site operations.

**Overhead Hazards** – Demolition activities may be underway involving the pulling down of site canopies and/or buildings. The potential exists for tools, equipment or debris to fall to the ground.

**Slips, trips and falls** – The works will require the breaking out of site surfaces resulting in open trenches, pits, and holes; muddy, slippery or unstable surfaces; and equipment and debris on the ground.

**Excavations/Trenches** - Open excavations and trenches will be present during the site activities.

**Manual handling** – The handling of objects such as manhole covers, pumps and hoses pose the potential for back and soft tissue injuries.

**Crush injuries** – The handling of objects such as manhole covers, pumps and hoses pose the potential for hand and foot crush injuries.

**Noise** – Site equipment may generate noise levels.

**Confined Spaces** – Although there is no requirement to enter manholes or tanks, these features are still classified as Confined Spaces.

**Poor Light** – Staff may be required to undertake works in poor light or conditions of darkness.

### 6.3. Human Hazards

The following human hazards may be encountered during the works:

**Exposure to Climate** – Staff may be required to work outside in cold, wet or hot conditions.

**Fatigue** – Workers may be subject to fatigue (particularly during emergency responses).

### 6.4. Biological Hazards

The following biological hazards may be encountered during the works:

**Exposure to Pathogens** – Pathogens such as Lymes disease or Tetanus may be present in soils or drains at the site.

**Needles** – Discarded hypodermic syringes and other sharps may be present at the site.

**Animals** – Animals encountered at the site may carry disease (rabbits) or attack (dogs).



## **7. TASK HAZARD ANALYSIS**

A risk assessment has been undertaken for the proposed environmental works that will directly involve URS staff.

This involved assessment of the hazards associated with individual work tasks and identifying mitigation measures that reduce the risk associated with each hazard.

Project personnel should be aware of these general hazards involved with each task and should implement the relevant mitigation measures whenever required.

It is noted that the Demolition Contractor may implement some risk mitigation measures while they occupy demolition sites. For example, the Demolition Contractor typically supplies fencing and barriers, welfare facilities, fire extinguishers, etc.

Other activities shall be undertaken on the site that will not involve URS staff (e.g. demolition). A hazard analysis has not been completed for these tasks as such assessment is the responsibility of the Principal Contractor.

### **7.1. Risk Assessment Table**

The risk assessment completed for the proposed works is tabulated below.

This table identifies hazards associated with particular tasks, the risk level and the relevant risk mitigation measures to be carried out to reduce the risk to a low level.

Hazard	Work Activities where Hazard present	Risk Level	Risk Mitigation Measures
Contact with Buried Services	<ul style="list-style-type: none"> <li>• Tank Removal</li> <li>• Test Pitting</li> <li>• Remedial Excavation</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Follow excavation procedure (see section 12)</li> <li>• Check with utility companies for underground service plans</li> <li>• Scanning subcontractor to complete full scan for underground services. The lines of services will be marked using paint, etc. The plans arising from this scan shall be reviewed prior to any excavation. This drawing should be minimum A2 size and colour.</li> <li>• All services shall be assumed alive unless proven otherwise</li> <li>• All staff, machine operators and sub-contractors will be fully briefed before they begin work.</li> <li>• Inspect site for evidence of services (e.g. manholes, surface scars)</li> <li>• All sampling locations to be checked by CAT scan in all modes.</li> <li>• If excavation required near services, hand or vacuum excavation to 1.2m depth should be carried out.</li> </ul>
Contact with Overhead Services	<ul style="list-style-type: none"> <li>• Tank Removal</li> <li>• Test Pitting</li> <li>• Remedial Excavation</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Work that will require plant to be in the vicinity of overhead services is to be identified during pre start work meeting</li> <li>• Maintain minimum 7m clearance from any overhead electrical services when lifting or excavating (remember to consider swing arc of boom).</li> <li>• If machinery must be closer than 7m, site supervisor to arrange isolation, goalposts or similar protective measures.</li> <li>• Movements of visiting vehicles and plant are to be controlled. Barriers and warning signs will be continuously monitored to ensure that they remain intact and in place.</li> <li>• If an excavator or other equipment is required to pass beneath protected overhead cables, the driver must get out, look up to assess the power lines and then proceed with care.</li> </ul>

Hazard	Work Activities where Hazard present	Risk Level	Risk Mitigation Measures
Contact with Plant	<ul style="list-style-type: none"> <li>• All tasks</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure site is securely fenced and gates are closed</li> <li>• Use barriers and cones to clearly mark out work areas where machinery working</li> <li>• Unload/back machinery under supervision of banksman</li> <li>• Brief operator/supervisor on environmental requirements before commencing work</li> <li>• Personnel shall remain in the field of vision of machine operators while machinery is moving.</li> <li>• Only approach machinery when operator gives signal.</li> <li>• High visibility vest to be worn.</li> <li>• Maintain safe distance from all plant (check swing arc).</li> </ul>
Collapse of Excavation	<ul style="list-style-type: none"> <li>• Tank Removal</li> <li>• Test Pitting</li> <li>• Remedial Excavation</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Excavations to be located/orientated to minimise undermining of structures.</li> <li>• Evaluate ground conditions from existing reports before excavation commences.</li> <li>• Limit the dimensions of excavations to minimum required to meet project objectives (e.g. test pits 1m x 2.5m)</li> <li>• During excavation of test pits, barriers to be used on at least 2 sides (i.e. barricade sides away from excavator and spoil heap).</li> <li>• All staff to stand outside barriers and spoil heap</li> <li>• No sampling from excavation, sample from spoil heap or bucket instead.</li> <li>• Be aware of any evidence of collapse (i.e. tension cracks)</li> <li>• Spoil and materials will be stacked back from the edges of excavations</li> <li>• Backfill excavations as work progresses (do not leave open unless absolutely necessary)</li> <li>• All excavations left open to be fully enclosed by site fencing</li> <li>• Backfill and compact all excavations to leave a level and firm surface.</li> </ul>

Hazard	Work Activities where Hazard present	Risk Level	Risk Mitigation Measures
Contact with Contaminated Materials (Liquid and Solid Phase)	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Minimise contact with contaminated materials through the use of tools and equipment (e.g. bailers).</li> <li>Wear appropriate PPE (see section 10).</li> <li>All solid waste arising from works (including disposable PPE) will be disposed appropriately (this may require waste classification to be completed if potential exists for haz waste).</li> <li>Staff shall follow personal decontamination procedures prior to leaving site (see section 13).</li> <li>No drinking, eating or smoking within the work area. Drinking, eating and smoking shall only be allowed after the removal of PPE and personal decontamination.</li> <li>In the event that the presence of unknown substances is suspected or observed, unknown odours are experienced, or unusual symptoms are experienced (such as headache or nausea), work should be suspended, the work area evacuated immediately and the project team notified.</li> </ul>
Contact with Contaminated Materials (Vapour Phase)	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Wear appropriate PPE (see section 10).</li> <li>Conduct ongoing monitoring for presence of vapours using calibrated PID</li> <li>If PID reading exceed action levels, stop work and retire to allow vapours to dissipate, review work methods</li> <li>If possible, stand upwind of potential sources, test pits, etc</li> <li>Breathing zone of staff to be kept away from potential sources (i.e. don't bend down and place head in or near tank opening, do not sniff soil).</li> <li>In the event that the presence of unknown substances is suspected or observed, unknown odours are experienced, or unusual symptoms are experienced (such as headache or nausea), work should be suspended, the work area evacuated immediately and the SSO notified</li> </ul>

Hazard	Work Activities where Hazard present	Risk Level	Risk Mitigation Measures
Fire/ Explosion	<ul style="list-style-type: none"> <li>All times</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Diesel powered equipment should be used in preference to petrol driven machinery. Petrol driven equipment has more potential to act as an ignition source. Petrol driven machinery that is required on-site should be fitted with spark arresters.</li> <li>Ignition sources of any kind (including non-intrinsically safe electrical equipment and mobile phones) shall not be permitted on site.</li> <li>No smoking or naked lights on the site.</li> <li>Keep Fire Extinguishers (Type B (E) Dry Chemical) on site.</li> <li>Confirm location of emergency stop / power mains supply switch if available</li> </ul>
Slips, Trips & Falls	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Be aware of condition of site, scan for trip hazards before entry</li> <li>Don personal safety boots before entering site</li> <li>Limit hoses, tools and other trip hazards to minimum required.</li> <li>Equipment not in use should be stowed on vehicles.</li> <li>Be aware of kerbs and debris, step over or walk around</li> <li>Be aware of slippery conditions when if wet.</li> <li>All equipment will be placed in vehicle or treatment plant when not in use.</li> <li>Staff shall ensure that site is in safe condition, including:               <ul style="list-style-type: none"> <li>All manholes and hatches securely in place.</li> <li>All excavations backfilled or fenced.</li> <li>No sediments or wastes are present at the surface.</li> </ul> </li> </ul>
High Noise	<ul style="list-style-type: none"> <li>Breaking out concrete</li> <li>When heavy equipment in use</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Be aware that site equipment or site activities may produce elevated noise levels under certain conditions (e.g. breaking out concrete).</li> <li>Foam earplugs or defenders are to be available on site.</li> </ul>
Manual handling issues (e.g. back injury)	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Be aware of potential back injuries; use correct procedures for lifting, bending and handling equipment.</li> <li>Lifting irons and bars are to be used for lifting manhole covers x.</li> <li>If difficulty arises in opening a jammed manhole, assistance will be sought from the second person on site to loosen and lift the cover.</li> </ul>
Biological Hazards	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Medium</li> </ul>	<ul style="list-style-type: none"> <li>Ensure all cuts, abrasions, etc are treated as soon as they occur, are kept covered and kept clean.</li> <li>Wash hands before eating, drinking or leaving site.</li> </ul>



Hazard	Work Activities where Hazard present	Risk Level	Risk Mitigation Measures
Proximity to confined space	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Low</li> </ul>	<ul style="list-style-type: none"> <li>If staff should fall ill during or after the Site work period, the nature of the work undertaken will be brought to the attention of their GP.</li> <li>Excavations, manholes, tanks and chambers should be regarded as confined spaces.</li> <li>Do not enter any confined space</li> <li>Do any inspection or work from outside of manholes or chambers (i.e. reach in with tools). Reaching into these spaces is allowed, as there is no risk of entanglement, collapse or entrapment. However, the personal breathing zone of staff to be kept away from hatch of collection vessels</li> </ul>
Crush Injuries	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Low</li> </ul>	<ul style="list-style-type: none"> <li>When opening manholes, use appropriate lifters or similar tools</li> <li>Body parts (including hands and feet) should never be placed between under manholes or similar heavy items.</li> <li>Care to be taken when opening and closing manholes to ensure body and tools are clear of pinch points.</li> </ul>
Overhead Hazards	<ul style="list-style-type: none"> <li>During demolition</li> </ul>	<ul style="list-style-type: none"> <li>Low</li> </ul>	<ul style="list-style-type: none"> <li>While work is being carried out on canopy and similar high structures, URS staff shall stand well clear</li> <li>When tanks and other equipment is being lifted by mobile plant, URS staff shall stand well clear.</li> <li>During test pitting and excavation, staff shall remain outside the swing arc of mobile plant.</li> <li>All staff shall wear hard hats.</li> </ul>
Unauthorised people entering site (Security)	<ul style="list-style-type: none"> <li>All site activities</li> </ul>	<ul style="list-style-type: none"> <li>Low</li> </ul>	<ul style="list-style-type: none"> <li>Staff shall ensure that gates are closed and locked (unless gates are under fulltime supervision).</li> <li>Be aware of higher level of personal security during darkness.</li> <li>Lock gates when working to prevent unauthorised entry.</li> <li>Contact Security Company or local Police in event of security issue arising.</li> </ul>





**ABB Retail Petrol Station Decommissioning**  
 Site Safety Plan – Priority Service Station

Hazard	Work Activities where Hazard present	Risk Level	Risk Mitigation Measures
Vehicle Accident	<ul style="list-style-type: none"> <li>• Driving to site</li> <li>• At site</li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> <li>• Low</li> </ul>	<ul style="list-style-type: none"> <li>• Complete daily safety checklist.</li> <li>• Vehicles shall be roadworthy and in good mechanical order.</li> <li>• Vehicles shall be taxed and insured in accordance with legislation.</li> <li>• Seat belts shall be worn at all times.</li> <li>• Driver shall be fully licensed and comply with all relevant driving and safety regulations.</li> <li>• Driver shall not operate vehicle when fatigued or under the influence of alcohol or medication.</li> <li>• Driver to ensure that all equipment is securely stowed before travel.</li> <li>• Road rules to be obeyed at all times; do not speed or drive overloaded vehicle.</li> <li>• Individuals operating a vehicle will not be permitted to use mobile phones while vehicle is moving.</li> <li>• Vehicle to be parked outside of the site well clear of site gates.</li> </ul>
Exposure to Climate	<ul style="list-style-type: none"> <li>• All site activities</li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure dressed appropriately for prevailing conditions</li> <li>• Adequate food and drink to be available following personal decontamination (see Section 13)</li> </ul>
Fatigue	<ul style="list-style-type: none"> <li>• All site activities</li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> </ul>	<ul style="list-style-type: none"> <li>• Special attention should be paid to fatigue.</li> <li>• Take adequate rest and meal breaks.</li> <li>• Do not drive or operate machinery when fatigued.</li> </ul>
Poor Light	<ul style="list-style-type: none"> <li>• All site activities</li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> </ul>	<ul style="list-style-type: none"> <li>• Work at night is not to be undertaken unless authorised by Project Manager.</li> <li>• Ensure all site compound lighting is functioning.</li> <li>• Additional temporary lighting should also be available (e.g. torches).</li> </ul>

## **7.2. Risk Assessment of Additional Tasks**

URS may be requested to carry out occasional tasks that fall outside the scope of work and risk assessments described above.

If activities not addressed by this document are required, there shall be prior consultation with the URS Project Manager and Safety Manager and a revised risk assessment for the additional tasks can be completed.

For one-off minor tasks (e.g. less than 1 day), this risk assessment may be documented in an Additional Task Risk Assessment Form.

These Additional Task Risk Assessment forms (*see Appendix D*) may be used to assess risks associated with one-off additional tasks and describe the relevant risk mitigation measures

## **8. IMPLEMENTATION OF LOSS PREVENTION SYSTEM**

URS is implementing the Esso Loss Prevention System (LPS) on this project.

LPS training is being gradually rolled out to URS project staff and selected subcontractors.

Two key elements of the LPS system that will be completed as part of the requirements of this site safety plan are the Job Safety Analysis and the Self Performance Self Assessment.

### **8.1. Job Safety Analysis**

A Job Safety Analysis (JSA) shall be completed for each major task undertaken by URS or our subcontractors.

The format of the JSA shall be in accordance with templates supplied by ABB.

URS staff and subcontractors shall review and update (if required) relevant JSA's as part of the site induction recorded in **Appendix I**.

JSA's shall be documented and included in the project safety file.

### **8.2. Self Performance Self Assessment**

URS staff and subcontractors shall complete a Self Performance Self Assessment (SPSA) prior to starting each work tasks.

The SPSA is a form of last minute risk assessment to assess risks associated with the task to be completed, analysing how to reduce the risk and acting to ensure that the work is to be completed safely.

The process of completing an SPSA is recorded on a prompt card that is issued to all LPS trained staff and should be held on site (**See Appendix H**).

Completion of a SPSA is not documented.

**9. GENERAL SITE RULES**

- The Demolition Site Supervisor shall induct all URS staff and sub-contractor at the start of their first visit.
- The Demolition Site Supervisor must be present during all works.
- The site gates or similar access shall be kept shut and locked unless under direct supervision.
- No mobile phones are permitted in work areas. Mobile phones may only be stored and used in the site office.
- Eating, drinking and chewing gum are prohibited in the contaminated or potentially contaminated area. These activities are only permitted in the site office.
- Personnel will wash their hands and faces thoroughly with soap and water prior to eating, drinking, or smoking.
- Smoking is prohibited in all areas of the site. No matches or lighters are permitted on the site.
- Alcohol consumption is prohibited during work hours. Excessive drinking is strongly discouraged at all times while the team is in the field. Use of prescription medications that impair judgement or affect motor skill and all illegal drugs are also prohibited.
- Personnel will avoid contact with potentially contaminated substances. Do not walk through puddles, pools, mud, etc. Avoid, whenever possible, kneeling, leaning, or sitting on contaminated surfaces. Do not place monitoring equipment on potentially contaminated surfaces (i.e., the ground, etc.)
- All field staff should remain alert to potentially dangerous situations in which they should not become involved (i.e., note the presence of strong, irritating, or nauseating odours, etc.).
- Only those vehicles and the equipment required to complete work tasks should be permitted within the site (e.g. excavators). URS staff should only drive onto site to deliver and/or pick up equipment and shall do so only with the permission of the Demolition Site Supervisor. All non-essential vehicles should remain off-site
- Contaminated protective equipment, such as respirators, hoses, boots, and disposable protective clothing, will not be removed from the site or decontamination area until it has been cleaned or packaged for disposal.
- Splashing of contaminated materials should be prevented.

- Field crew members should be familiar with the physical characteristics of the site operations including:
  - Accessibility to equipment and vehicles;
  - Wind direction in relation to the contaminated area;
  - Areas of known or suspected contamination;
  - Site access; and
  - Nearest water sources.
- All wastes generated by URS activities at the site will be placed in skips, bags or bins for appropriate off-site disposal.

## 10. PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following personal protective equipment (PPE) shall be worn during site activities:

### *At all times*

- Hard hat;
- Safety shoes or boots (protective cap and midsole to BS EN 345 or international equivalent);
- Work garments with long sleeves and long pants (i.e. arms and legs covered); and
- High visibility jackets or vest.
- Safety Goggles

### *When opening hatches and manholes*

- As above; plus
- Heavy-duty rubber or similar gloves.

### *When exposed to potentially contaminated water (e.g. gauging water levels)*

- As above; plus
- Heavy-duty rubber or similar gloves.

### *When supervising the breaking out of sealed surfaces (e.g. breaking out concrete)*

- As above; plus
- Hearing Protection; and
- Safety glasses (to BS EN 166 or international equivalent).

The above items of PPE are standard equipment issued to all staff.

All PPE shall be marked with the CE European standard mark.

The standard PPE shall be donned prior to the activities described above and prior to entering the work zone if works have commenced.

Hearing protection will be available when working in high noise environment (for example during pump operation). As a general rule, if normal conversation can't be heard 500mm away due to high noise, hearing protection should be worn.



## 11. CONTROLLING EXPOSURES TO CHEMICALS

### 11.1. General

Engineering controls and safe work practices (e.g. elimination of the source of contamination, ventilation equipment, working upwind, limiting exposure time) must be the primary control for air contaminants.

On this project, exposure to chemical in solid, liquid and vapour phase may be expected.

The following measures help minimise the inhalation (breathing), ingestion (through the mouth), skin absorption or injection (breaking through the skin) of chemical compounds.

- Minimise contact with contaminated materials (e.g. use PID to screen rather than "sniff" samples);
- Uses appropriate PPE to prevent contact with contaminated materials; and
- No drinking or eating within the work area (drinking and eating shall only be allowed in the mess area after the removal of PPE and personal decontamination).

The potential for exposure to chemical vapours is greatest in excavations, vessels and similar unventilated spaces. Under no circumstances should any excavation, manhole, vessel or other confined space be entered during these works.

All staff should ensure that their personal breathing zones are kept away from manholes or vessel openings (i.e. keep head well clear of these openings).

In the event that the presence of unknown substances is suspected or observed, unknown odours are experienced, or unusual symptoms are experienced (such as headache or nausea), work should be suspended and the emergency procedures followed (see Section 16).

Be aware of dust levels. If excessive dust is generated during the works, staff may wear a dust mask.

Be aware for potential asbestos hazard (e.g. fibrous materials). If encountered stop work and notify site supervisor and URS project manager

**11.2. Monitoring For Vapours**

URS staff will undertake occasional monitoring for volatile organic vapours in the breathing space of site staff. These monitoring results will be used to evaluate any recommended changes to work practices.

The monitoring equipment must be calibrated in accordance with the manufacturer's instructions and noted in the field book or on the Pre work checklist. Action levels and response criteria are presented below. Initial monitoring is conducted on a regular basis in the work area. All readings are to be recorded in the field book.

<b>ACTION LEVEL</b>	<b>TIME PERIOD</b>	<b>ACTION</b>
1 ppm	15 minutes	Stop work; retire from source area to allow vapours to dissipate. If vapours do not dissipate, contact project manager to review field procedures and health and safety plan.
15 ppm	1 minute	

**12. EXCAVATION SAFETY**

The following procedure shall apply for the excavation of test pits and remedial excavations.

**12.1. Underground Services*****Prior to commencement***

- The site supervisor and URS staff shall review the all available information sources concerning underground services. These sources shall include utility company drawings and the scanning company service drawing.
- The scanning company drawing should be at least A2 size and in colour.
- All services shown on drawings should be treated as live until confirmed otherwise.
- The site supervisor will scan the entire site with a CAT using all three modes if possible. Any discrepancy with available drawings will be noted and excavation will not commence until discrepancy is rectified.
- All service location should be marked with paint.

***Prior to excavation at a given location***

- The footprint of the excavation shall be CAT scanned
- Concrete or other surface shall be broken out
- The footprint of the excavation will be CAT scanned again. Any suspect signals should be investigated by hand digging
- All staff shall be aware for evidence of underground services. This evidence may include presence of backfill, bedding materials or warning tapes.

**12.2. Excavation Safety**

Prior to excavation, the Site supervisor shall barricade the working area and erect safety signs.

Most excavations will be carried out using mechanical tracked excavators; any breaking of concrete or similar surfaces will be carried out using machine mounted hydraulic breakers

The excavator will set spoil to one side of the excavations to allow access around the excavation and to minimise potential for collapsing the excavation

The following guidelines will apply to limit the potential for collapse of excavations:

- Excavations will be located/orientated to minimise undermining of adjacent structures.
- Ground conditions and potential stability issues will be assessed from existing reports before excavation commences.
- Limit the dimensions of excavations to minimum required to meet project objectives (e.g. test pits 1m x 2.5m)
- During excavation of test pits, barriers should be used on at least 2 sides (i.e. barricade sides away from excavator and spoil heap).
- All staff should stand outside barriers and spoil heap
- Staff shall not enter any excavations. Samples shall not be collected directly from the excavations, sample from spoil heap or bucket instead.
- Be aware of any evidence of collapse (i.e. tension cracks)
- Backfill excavations as work progresses (do not leave open unless absolutely necessary)
- All excavations left open to be fully enclosed by site fencing
- Backfill and compact all excavations to leave a level and firm surface.

### 12.3. Safety around Heavy Plant

Operation of heavy equipment during excavation activities presents a potential "run over" or collision hazard to personnel. The hazards associated with heavy equipment can be effectively eliminated if personnel maintain a constant visual or verbal contact with the equipment operator.

Never assume that the equipment operator sees you; make eye contact and use hand signals to inform the operator of your intent.

Never walk directly in back of, or to the side of, heavy equipment without the operator's knowledge.

On the site, other plant and motor vehicles may be a hazard. Be aware of the movements of vehicles onto and off the site.

**13. DECONTAMINATION****13.1. Personal Hygiene**

The Demolition Contractor will provide a site compound that includes office/mess room, wash facilities and toilet.

Potable water is available on site from the source indicated by the Demolition Contractor.

Soap and disposable towels are kept in the site compound.

Only water supplies and toilets provided as part of site compound shall be used, do not use facilities inside station buildings.

**13.2. Personal Decontamination**

The following steps will be followed before site staff eat, drink or leave the site.

- Wash or remove boots. Scrub boots with a stiff bristle brush and water if required.
- Remove gloves.
- Remove coveralls if worn.
- Remove hardhat and eye protection.
- Wash hands, wash face if required.

**13.3. Equipment Decontamination**

When all work activities have been completed, any tools or equipment that may have been in contact with contaminated materials will be appropriately decontaminated or properly disposed of.

It is expected that all tools will be constructed of non-porous, non-absorbent materials. This will aid the decontamination process. Any tool or part of a tool that is made of a porous/absorbent material will be discarded and disposed of as a waste if it cannot be properly decontaminated.



**14. MANUAL HANDLING**

Care will be taken at all times during lifting operations including the opening of manhole covers and access hatches.

All site staff shall be trained in these safe lifting procedures.

The procedures include the following.

- Get help when lifting heavy loads. Lift items of more than 20kg using a two-person lift.
- When moving heavy objects, such as manhole covers, use a mechanical means of assistance such a manhole lifter.
- Plan the lift. If lifting a heavy object, plan the route and where to place the object. In addition, plan communication signals to be used (i.e., "1,2,3, lift," etc.)
- Wear safety shoes or boots that are in good condition and supply traction when performing lifts.
- Keep your back straight and head aligned during the lift, and use your legs to lift the load – do not twist or bend from the waist. Keep the load in front of you – do not lift or carry objects from the side.
- Keep the heavy part of the load close to your body to help maintain your balance.

**15. TRAINING**

As the works on the site may continue over a period of several weeks, the possibility exists that a number of different site staff will work at the site.

The Site Supervisor must induct all URS staff on their first visit to the site.

URS staff undertaking site works should be trained as follows:

- URS 24 hour Hazardous Site (or equivalent);
- URS 8 hour Hazardous Waste Refresher (completed within the previous year);
- Induction to this Site Safety Plan;
- Loss Prevention Systems Induction;
- Manual Handling Procedures;
- CAT scanning;
- Safe Pass or UK equivalent.

The URS Regional Leader shall be responsible for ensuring all site staff have completed this training prior to undertaking work at the site.

## 16. EMERGENCY PROCEDURES

### 16.1. Emergency Equipment

The following emergency equipment is available at the site. The location of this equipment shall be pointed out to all staff during initial site induction.

#### *Fire Extinguisher*

A fire extinguisher will be located inside the Demolition Contractors site compound.

Only attempt to fight fire if safe to do so and an escape route is available.

In event of any fire, notify local fire brigade.

#### *Eye Wash*

A bottle-type eyewash or potable water supply is located in the site compound.

In the event of a contaminated water or foreign object entering a workers eye, they will use the bottle wash or potable water to rinse the eye thoroughly.

Medical advice should be sought immediately if eye irritation persists following rinse.

#### *First Aid Kit*

First aid kit is located inside the site compound.

This kit should be used to ensure all cuts and abrasions are cleaned and covered immediately.

Medical advice should be sought following initial first aid if the injury is more serious than a simple cut abrasion or similar superficial injury.

### 16.2. Emergency Procedures

An emergency is defined as an unexpected or uncontrolled event that causes personal injury and/or damage to the facility.

Emergencies may include personal injury, car accident, fire, explosion or an uncontrolled chemical emission.

The following procedure should be followed in the event of an emergency:

- All work shall cease immediately and the site supervisor informed.
- Other occupants of the site shall be informed of the nature of the emergency (due to the small size of the site this can be done verbally).

- In the event of fire, extinguishers may be used only if safe to do so and only if a clear escape route is available.
- If an immediate danger to personnel exists, the site shall be evacuated to the nominated assembly point.
- If an injured person can be removed from immediate danger without risk of further injury to the injured person and other personnel, then this should be done.
- The Site Supervisor shall ensure that the appropriate emergency services are contacted immediately.
- The Site Supervisor shall arrange the transport of any injured persons to the nearest hospital.
- When all emergency actions have been taken and it is safe to do so, the site staff shall notify the URS and ABB project contacts (see section 16.3).

The emergency assembly point shall be outside the main gate of the site. This location shall be pointed out to staff during induction.

Following an emergency situation, works will not recommence until authorised by Site Supervisor.

**16.3. Emergency Contacts**

**In emergency, contact Fire Service/Police/Ambulance by dialling 999**

<b>Agency</b>	<b>Contact</b>	<b>City</b>	<b>Telephone Number(s)</b>
Fire Brigade	Emergency Services	Dublin	999 or 112
Petroleum Officer	Dun-Laoghaire-Rathdown County Council	Level 3, County Hall, Marine Road, Dun Laoghaire	01 205 4700
Police	Emergency Services	Dublin	999 or 112
Ambulance	Emergency Services	Dublin	999 or 112
Hospital	St. Vincent's University Hospital	Elm Park, Dublin 4	01 2774000

The Project Team contacts are listed in Section 3.5 of this site safety plan.

#### **16.4. Nearest Emergency Hospital**

The nearest hospital with an emergency department is St. Vincent's University Hospital, Elm Park, Dublin 4.

Map and directions held in site office.

The route to the hospital is shown on Figure 3.

The telephone number for the hospital is +353 1 2774000.

#### **16.5. Reporting of Accidents and Emergencies**

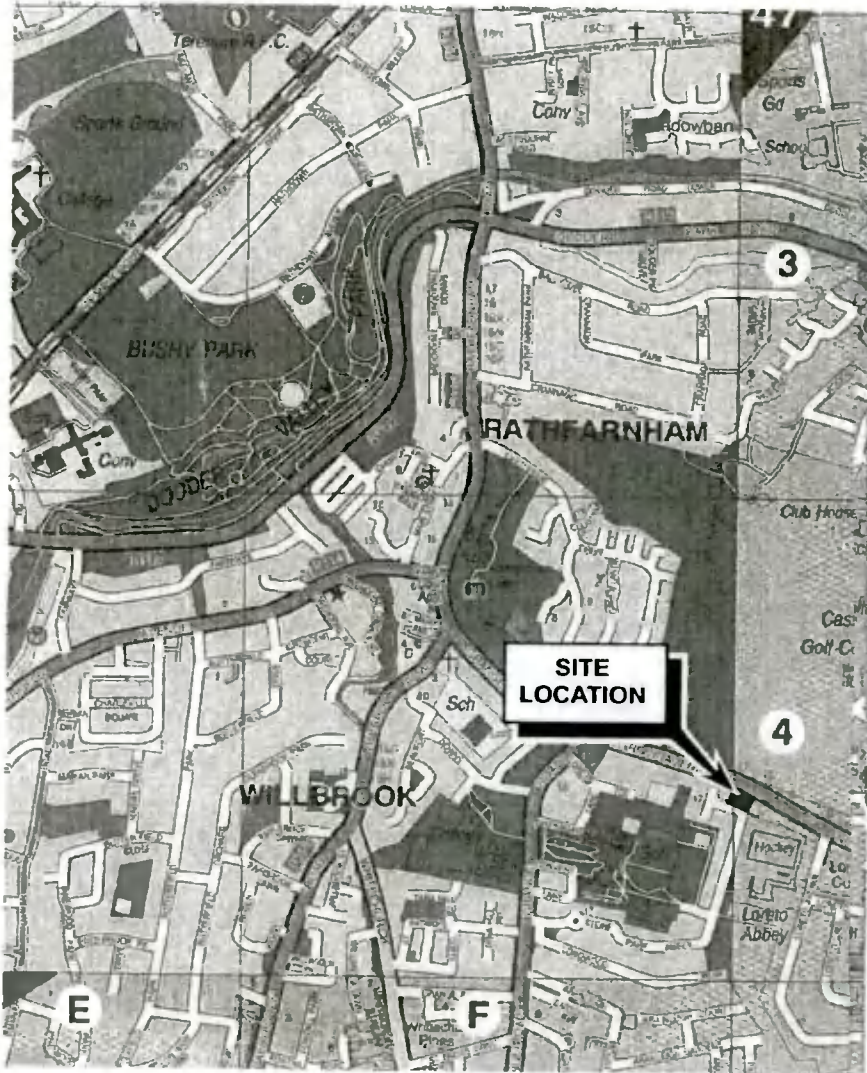
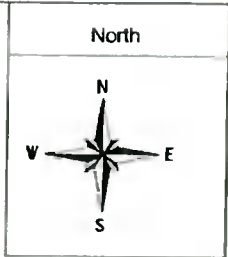
All accidents, emergencies, dangerous occurrences and near misses shall be reported, in the first instance, to the URS Project Manager by the URS Site engineer.

*The URS Site Engineer shall be responsible for completing and submitting URS and Esso accident report forms (see Appendix F), which will then be forwarded to the Project Manager for review.*

The Project Manager shall also be responsible for passing all relevant information to the URS Regional Health and Safety Manager in the event that the Regional Health and Safety Manager has to report an incident to the Health and Safety Executive.

## Figure 1 - Site Location





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CLIENT  
**ABB LTD.**

PROJECT LOCATION  
**ENVIRONMENTAL SITE ASSESSMENT  
PRIORY SERVICE STATION  
NUTGROVE AVENUE, RATHFARNHAM, DUBLIN**

DRAWING TITLE  
**FIGURE 1 - SITE LOCATION PLAN**

ENVIRONMENTAL CONSULTANTS



Veagh Court, 6-8 Harcourt Road, Dublin2  
TEL +353 1 4155100 FAX +353 1 4155101

DRAWN HG	TRACED	CHECKED CG	APPROVED CGDUB	DATE 10.05.06
SCALE 1:15,000	Job No. <b>45078281</b>			REV. A

## **Figure 2 - General Site Layout**



## **Figure 3 - Route to Hospital**





**Appendix G: Laboratory Certificates (on  
CD Attached)**







1950





Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

Job Number: 06/05016/01/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

Matrix: SOLID  
 Location: PRIORY SS  
 Client Contact: Clare Glanville

Sample Identity	PRIO_BH 01_2.0	PRIO_BH 02_0.5	PRIO_BH 03_3.5	PRIO_BH 04_1.8	PRIO_BH 05_3.5	PRIO_BH0 6_1.6				Method Code	LoD/Units
Depth (m)	2.0	0.5	3.5	1.8	3.5	1.6					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL					
Sampled Date	22.03.06	20.03.06	21.03.06	21.03.06	21.03.06	22.03.06					
Sample Received Date	24.03.06	24.03.06	24.03.06	24.03.06	24.03.06	24.03.06					
Batch	1	1	1	1	1	1					
Sample Number(s)	4-6	10-12	28-30	34-36	49-51	55-57					
GRO (C4-C12)	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
NTBE	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup>	<10 ug/kg
Benzene	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Toluene	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Ethyl benzene	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
m & p Xylene	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
o Xylene	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Aliphatics C5-C6	<10	<10	<10	<10	<10	<10				TM089	<10 ug/kg
Aliphatics >C6-C8	<10	<10	<10	<10	<10	<10				TM089	<10 ug/kg
Aliphatics >C8-C10	<10	<10	<10	<10	<10	<10				TM089	<10 ug/kg
Aliphatics >C10-C12	<10	<10	<10	<10	<10	<10				TM089	<10 ug/kg
Aliphatics >C12-C16	726	313	634	641	337	353				TM061 <sup>#</sup>	<100 ug/kg
Aliphatics >C16-C21	1290	357	153	112	371	265				TM061 <sup>#</sup>	<100 ug/kg
Aliphatics >C21-C35	157	661	631	521	904	222				TM061 <sup>#</sup>	<100 ug/kg
Total Aliphatics C5-C35	2173	1331	1418	1274	1612	840				TM61/89	<100 ug/kg
Aromatics C6-C7	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Aromatics >C7-C8	<10	<10	<10	<10	<10	<10				TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Aromatics >EC8-EC10	<10	<10	<10	<10	<10	<10				TM089	<10 ug/kg
Aromatics >EC10-EC12	<10	<10	<10	<10	<10	<10				TM089	<10 ug/kg
Aromatics >EC12-EC16	102	153	195	104	353	156				TM061 <sup>#</sup>	<100 ug/kg
Aromatics >EC16-EC21	<100	242	138	148	142	214				TM061 <sup>#</sup>	<100 ug/kg
Aromatics >EC21-EC35	<100	1836	<100	1248	264	440				TM061 <sup>#</sup>	<100 ug/kg
Total Aromatics C6-C35	102	2231	333	1500	759	810				TM61/89	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	2275	3562	1751	2774	2371	1650				TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 31.03.2006



Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/05016/01/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** SOLID  
**Location:** PRIORY SS  
**Client Contact:** Clare Glanville

Sample Identity	PRIO_BH 01_2.0	PRIO_BH 02_0.5	PRIO_BH 03_3.5	PRIO_BH 04_1.8	PRIO_BH 05_3.5	PRIO_BH 6_1.6					Method Code	LoD/Units
Depth (m)	2.0	0.5	3.5	1.8	3.5	1.6						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL						
Sampled Date	22.03.06	20.03.06	21.03.06	21.03.06	21.03.06	22.03.06						
Sample Received Date	24.03.06	24.03.06	24.03.06	24.03.06	24.03.06	24.03.06						
Batch	1	1	1	1	1	1						
Sample Number(s)	4-6	10-12	28-30	34-36	49-51	55-57						
<b>PAH by GCMS</b>												
Naphthalene	651	1053	1674	316	1358	330					TM074 <sup>#</sup>	<10 ug/kg
Acenaphthylene	28	22	48	10	46	19					TM074 <sup>#M</sup>	<5 ug/kg
Acenaphthene	86	99	108	56	89	57					TM074 <sup>#M</sup>	<14 ug/kg
Fluorene	62	66	75	37	45	47					TM074 <sup>#M</sup>	<12 ug/kg
Phenanthrene	44	288	49	34	42	44					TM074 <sup>#M</sup>	<21 ug/kg
Anthracene	9	103	11	<9	<9	<9					TM074 <sup>#M</sup>	<9 ug/kg
Fluoranthene	<25	772	<25	<25	<25	<25					TM074 <sup>#M</sup>	<25 ug/kg
Pyrene	<22	647	<22	<22	<22	<22					TM074 <sup>#M</sup>	<22 ug/kg
Benz(a)anthracene	<12	336	<12	<12	18	<12					TM074 <sup>#M</sup>	<12 ug/kg
Chrysene	<10	469	<10	<10	18	<10					TM074 <sup>#M</sup>	<10 ug/kg
Benzo(b)fluoranthene	<16	251	<16	<16	<16	<16					TM074 <sup>#M</sup>	<16 ug/kg
Benzo(k)fluoranthene	<25	258	<25	<25	<25	<25					TM074 <sup>#M</sup>	<25 ug/kg
Benzo(a)pyrene	<12	292	<12	<12	<12	<12					TM074 <sup>#M</sup>	<12 ug/kg
Indeno(123cd)pyrene	<11	141	<11	<11	<11	<11					TM074 <sup>#M</sup>	<11 ug/kg
Dibenzo(ah)anthracene	<8	55	<8	<8	<8	<8					TM074 <sup>#M</sup>	<8 ug/kg
Benzo(ghi)perylene	<10	160	<10	<10	<10	<10					TM074 <sup>#M</sup>	<10 ug/kg
PAH 16 Total	880	5012	1965	453	1616	497					TM074 <sup>#</sup>	<25 ug/kg

All results expressed on a dry weight basis.

Date 31.03.2006



# ALcontrol Geochem Analytical Services

## Table Of Results - Appendix

Job Number: 06/05016/01/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

**Report Key :**

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10<sup>-7</sup>

NDP No Determination Possible \* Subcontracted test  
 NFD No Fibres Detected » Result previously reported (Incremental reports only)  
 # ISO 17025 accredited M MCERTS Accredited  
 PFD Possible Fibres Detected EC Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

**Summary of Method Codes contained within report :**

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample <sup>1</sup>	Surrogate Corrected
TM050	Method 5310B, AWWA/APHA, 20th Ed., 1999 / DIN EN 13137	Total Organic Carbon determination by combustion method	✓		DRY	
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)	✓		DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓		DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓	✓	DRY	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)			WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓	✓	WET	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer	✓		DRY	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer	✓	✓	DRY	
TM133	BS 1377: Part 3 1990	Determination of pH in Soil and Water using the GLpH pH Meter	✓	✓	WET	
TM61/89		see TM061 and TM089 for details			WET	

<sup>1</sup> Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.









Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/05016/01/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** LIQUID  
**Location:** PRIORY SS  
**Client Contact:** Clare Glanville

Sample Identity	PRIO_DUP	PRIO_MW01	PRIO_MW02	PRIO_MW03	PRIO_MW04	PRIO_MW05	PRIO_MW06				Method Code	LOD/Units
Depth (m)												
Sample Type	WATER	WATER	WATER	WATER	WATER	WATER	WATER					
Sampled Date	30.03.06	30.03.06	30.03.06	30.03.06	30.03.06	30.03.06	30.03.06					
Sample Received Date	03.04.06	03.04.06	03.04.06	03.04.06	03.04.06	03.04.06	03.04.06					
Batch	2	2	2	2	2	2	2					
Sample Number(s)	91-94	67-70	71-74	75-78	79-82	83-86	87-90					
<b>PAH by GCMS</b>												
Naphthalene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Acenaphthylene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Acenaphthene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Fluorene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Phenanthrene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Anthracene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Fluoranthene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Pyrene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Benzo(a)anthracene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Chrysene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Benzo(b)fluoranthene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Benzo(k)fluoranthene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Benzo(a)pyrene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Indeno(123cd)pyrene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Dibenzo(ah)anthracene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
Benzo(ghi)perylene	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l
PAH 16 Total	<10	<10	<10	<10	<10	<10	<10				TM074	<10 ng/l

Date 07.04.2006





# ALcontrol Geochem Analytical Services

## Table Of Results - Appendix

**Job Number:** 06/05016/01/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Report Key :**

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10<sup>-7</sup>

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFID	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

**Summary of Method Codes contained within report :**

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample <sup>1</sup>	Surrogate Corrected
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)			NA	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS			NA	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)			NA	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		NA	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓		NA	
TM127	Method 3112B, AWWA/APHA, 20th Ed., 1999	The Determination of Trace Level Mercury in Aqueous Media and Soil Extracts by Atomic Absorption Spectroscopy	✓		NA	
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS	✓		NA	
TM61/89		see TM061 and TM089 for details			NA	

<sup>1</sup> Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.







Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** SOLID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PR10_BH 07_0.5	PR10_BH 08_0.5	PR10_BH 09_0.5							Method Code	LoD/Units
Depth (m)	0.5	0.5	0.5								
Sample Type	SOIL	SOIL	SOIL								
Sampled Date	16.05.06	16.05.06	16.05.06								
Sample Received Date	16.05.06	16.05.06	16.05.06								
Batch	1	1	1								
Sample Number(s)	1-4	5-8	9-12								
GRO (C4-C12)	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
MTBE	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
Benzene	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
Toluene	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
Ethyl benzene	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
m & p Xylene	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
o Xylene	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
Aliphatics C5-C6	<10	<10	<10							TM089	<10 ug/kg
Aliphatics >C6-C8	<10	<10	<10							TM089	<10 ug/kg
Aliphatics >C8-C10	<10	<10	<10							TM089	<10 ug/kg
Aliphatics >C10-C12	<10	<10	<10							TM089	<10 ug/kg
Aliphatics >C12-C16	233	1041	311							TM061 <sup>M</sup>	<100 ug/kg
Aliphatics >C16-C21	366	364	149							TM061 <sup>M</sup>	<100 ug/kg
Aliphatics >C21-C35	2919	20057	1855							TM061 <sup>M</sup>	<100 ug/kg
Total Aliphatics C5-C35	3518	21462	2315							TM61/89	<100 ug/kg
Aromatics C6-C7	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
Aromatics >C7-C8	<10	<10	<10							TM089 <sup>M</sup>	<10 ug/kg
Aromatics >EC8-EC10	<10	<10	<10							TM089	<10 ug/kg
Aromatics >EC10-EC12	<10	<10	<10							TM089	<10 ug/kg
Aromatics >EC12-EC16	107	300	<100							TM061 <sup>M</sup>	<100 ug/kg
Aromatics >EC16-EC21	178	285	175							TM061 <sup>M</sup>	<100 ug/kg
Aromatics >EC21-EC35	1688	4117	280							TM061 <sup>M</sup>	<100 ug/kg
Total Aromatics C6-C35	1973	4702	455							TM61/89	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	5491	26164	2770							TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 24.05.2006



Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** SOLID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PR10_BH 07_0.5	PR10_BH 08_0.5	PR10_BH 09_0.5								Method Code	LoD/Units
Depth (m)	0.5	0.5	0.5									
Sample Type	SOIL	SOIL	SOIL									
Sampled Date	16.05.06	16.05.06	16.05.06									
Sample Received Date	16.05.06	16.05.06	16.05.06									
Batch	1	1	1									
Sample Number(s)	1-4	5-8	9-12									
<b>PAH by GCMS</b>												
Naphthalene	375	657	186								TM074 <sup>#</sup>	<10 ug/kg
Acenaphthylene	17	42	13								TM074 <sup>#</sup> <sub>M</sub>	<5 ug/kg
Acenaphthene	<14	29	<14								TM074 <sup>#</sup> <sub>M</sub>	<14 ug/kg
Fluorene	36	47	30								TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Phenanthrene	204	249	80								TM074 <sup>#</sup> <sub>M</sub>	<21 ug/kg
Anthracene	28	68	15								TM074 <sup>#</sup> <sub>M</sub>	<9 ug/kg
Fluoranthene	69	698	51								TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg
Pyrene	64	669	46								TM074 <sup>#</sup> <sub>M</sub>	<22 ug/kg
Benzo(a)anthracene	75	428	32								TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Chrysene	83	492	33								TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Benzo(b)fluoranthene	52	378	27								TM074 <sup>#</sup> <sub>M</sub>	<16 ug/kg
Benzo(k)fluoranthene	48	146	<25								TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg
Benzo(a)pyrene	55	478	32								TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Indeno(123cd)pyrene	61	306	30								TM074 <sup>#</sup> <sub>M</sub>	<11 ug/kg
Dibenzo(ab)anthracene	26	142	11								TM074 <sup>#</sup> <sub>M</sub>	<8 ug/kg
Benzo(ghi)perylene	80	365	42								TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
PAH 16 Total	1273	5194	628								TM074 <sup>#</sup>	<25 ug/kg

All results expressed on a dry weight basis.

Date 24.05.2006



# ALcontrol Geochem Analytical Services

## Table Of Results - Appendix

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Report Key :**

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10<sup>-7</sup>

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFD	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

**Summary of Method Codes contained within report :**

Method No.	Reference	Description	Accredited	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample <sup>1</sup>	Surrogate Corrected
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)	✓			DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓			DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓		✓	DRY	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)				WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓			WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		✓	WET	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓			WET	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓		✓	WET	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer	✓		✓	DRY	
TM61/89		see TM061 and TM089 for details				WET	

<sup>1</sup> Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.











Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

Job Number: 06/08230/02/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

Matrix: SOLID  
 Location: PRIORY S/S  
 Client Contact: Clare Glanville

Sample Identity	PRIO-BH07	PRIO-BH08	PRIO-BH09								Method Code	LoD/Units
Depth (m)	2.5	2.5	2.5									
Sample Type	SOIL	SOIL	SOIL									
Sampled Date	20.05.06	20.05.06	20.05.06									
Sample Received Date	25.05.06	25.05.06	25.05.06									
Batch	2	2	2									
Sample Number(s)	16-18	21-23	29-31									
GRO (C4-C12)	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
MTBE	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Benzene	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Toluene	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Ethyl benzene	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
m & p Xylenc	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
o Xylene	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Aliphatics C5-C6	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Aliphatics >C6-C8	<10	<10	<10								TM089	<10 ug/kg
Aliphatics >C8-C10	<10	<10	<10								TM089	<10 ug/kg
Aliphatics >C10-C12	<10	<10	<10								TM089	<10 ug/kg
Aliphatics >C12-C16	101	304	156								TM089	<10 ug/kg
Aliphatics >C16-C21	<100	<100	<100								TM061 <sup>M</sup>	<100 ug/kg
Aliphatics >C21-C35	<100	221	241								TM061 <sup>M</sup>	<100 ug/kg
Total Aliphatics C5-C35	101	525	397								TM061 <sup>M</sup>	<100 ug/kg
Aromatics C6-C7	<10	<10	<10								TM61/89	<100 ug/kg
Aromatics >C7-C8	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Aromatics >EC8-EC10	<10	<10	<10								TM089 <sup>M</sup>	<10 ug/kg
Aromatics >EC10-EC12	<10	<10	<10								TM089	<10 ug/kg
Aromatics >EC12-EC16	<100	<100	<100								TM089	<10 ug/kg
Aromatics >EC16-EC21	<100	119	<100								TM061 <sup>M</sup>	<100 ug/kg
Aromatics >EC21-EC35	<100	13258	101								TM061 <sup>M</sup>	<100 ug/kg
Total Aromatics C6-C35	<100	13377	101								TM061 <sup>M</sup>	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	101	13902	498								TM61/89	<100 ug/kg
											TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 14.06.2006

Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** SOLID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PRIO-BH07	PRIO-BH08	PRIO-BH09								Method Code	LOD/Units
Depth (m)	2.5	2.5	2.5									
Sample Type	SOIL	SOIL	SOIL									
Sampled Date	20.05.06	20.05.06	20.05.06									
Sample Received Date	25.05.06	25.05.06	25.05.06									
Batch	2	2	2									
Sample Number(s)	16-18	21-23	29-31									
<b>PAH by GCMS</b>												
Naphthalene	52	-	-								TM074 <sup>#</sup>	<10 ug/kg
Acenaphthylene	<5	-	-								TM074 <sup>#</sup> <sub>M</sub>	<5 ug/kg
Acenaphthene	20	-	-								TM074 <sup>#</sup> <sub>M</sub>	<14 ug/kg
Fluorene	20	-	-								TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Phenanthrene	80	-	-								TM074 <sup>#</sup> <sub>M</sub>	<21 ug/kg
Anthracene	18	-	-								TM074 <sup>#</sup> <sub>M</sub>	<9 ug/kg
Fluoranthene	71	-	-								TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg
Pyrene	62	-	-								TM074 <sup>#</sup> <sub>M</sub>	<22 ug/kg
Benzo(a)anthracene	46	-	-								TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Chrysene	46	-	-								TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Benzo(b)fluoranthene	27	-	-								TM074 <sup>#</sup> <sub>M</sub>	<16 ug/kg
Benzo(k)fluoranthene	27	-	-								TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg
Benzo(a)pyrene	27	-	-								TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Indeno(123cd)pyrene	<11	-	-								TM074 <sup>#</sup> <sub>M</sub>	<11 ug/kg
Dibenzo(ah)anthracene	10	-	-								TM074 <sup>#</sup> <sub>M</sub>	<8 ug/kg
Benzo(ghi)perylene	20	-	-								TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
PAH 16 Total	526	-	-								TM074 <sup>#</sup>	<25 ug/kg

All results expressed on a dry weight basis.

Date 14.06.2006



# ALcontrol Geochem Analytical Services

## Table Of Results - Appendix

Job Number: 06/08230/02/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

**Report Key :**

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10<sup>-7</sup>

NDP No Determination Possible \* Subcontracted test  
 NFD No Fibres Detected » Result previously reported (Incremental reports only)  
 # ISO 17025 accredited M MCERTS Accredited  
 PFD Possible Fibres Detected EC Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

**Summary of Method Codes contained within report :**

Method No.	Reference	Description	Accredited	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample <sup>1</sup>	Surrogate Corrected
TM050	Method 5310B, AWWA/APHA, 20th Ed., 1999 / DIN EN 13137	Total Organic Carbon determination by combustion method	✓			DRY	
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)	✓			DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓			DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓	✓		DRY	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)				WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓			WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓	✓		WET	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer	✓	✓		DRY	
TM133	BS 1377: Part 3 1990	Determination of pH in Soil and Water using the GLpH pH Meter	✓	✓		WET	
TM61/89		see TM061 and TM089 for details				WET	

<sup>1</sup> Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.









Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 > Shown on prev. report

Job Number: 06/08230/02/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

Matrix: SOLID  
 Location: PRIORY S/S  
 Client Contact: Clare Glanville

Sample Identity	PRIO-BH07										Method Code	LoD/Units
Depth (m)	2.5											
Sample Type	SOIL											
Sampled Date	20.05.06											
Sample Received Date	25.05.06											
Batch	2											
Sample Number(s)	16-18											
GRO (C4-C12)	<10										TM089 <sup>M</sup>	<10 ug/kg
MTBE	<10										TM089 <sup>M</sup>	<10 ug/kg
Benzene	<10										TM089 <sup>M</sup>	<10 ug/kg
Toluene	<10										TM089 <sup>M</sup>	<10 ug/kg
Ethyl benzene	<10										TM089 <sup>M</sup>	<10 ug/kg
m & p Xylene	<10										TM089 <sup>M</sup>	<10 ug/kg
o Xylene	<10										TM089 <sup>M</sup>	<10 ug/kg
Aliphatics C5-C6	<10										TM089	<10 ug/kg
Aliphatics >C6-C8	<10										TM089	<10 ug/kg
Aliphatics >C8-C10	<10										TM089	<10 ug/kg
Aliphatics >C10-C12	<10										TM089	<10 ug/kg
Aliphatics >C12-C16	101										TM061 <sup>*</sup>	<100 ug/kg
Aliphatics >C16-C21	<100										TM061 <sup>*</sup>	<100 ug/kg
Aliphatics >C21-C35	<100										TM061 <sup>*</sup>	<100 ug/kg
Total Aliphatics C5-C35	101										TM61/89	<100 ug/kg
Aromatics C6-C7	<10										TM089 <sup>M</sup>	<10 ug/kg
Aromatics >C7-C8	<10										TM089 <sup>M</sup>	<10 ug/kg
Aromatics >EC8-EC10	<10										TM089	<10 ug/kg
Aromatics >EC10-EC12	<10										TM089	<10 ug/kg
Aromatics >EC12-EC16	<100										TM061 <sup>*</sup>	<100 ug/kg
Aromatics >EC16-EC21	<100										TM061 <sup>*</sup>	<100 ug/kg
Aromatics >EC21-FC35	<100										TM061 <sup>*</sup>	<100 ug/kg
Total Aromatics C6-C35	<100										TM61/89	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	101										TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 31.05.2006

Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

# ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** SOLID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PRIO BH07										Method Code	LOD/Units
Depth (m)	2.5											
Sample Type	SOIL											
Sampled Date	20.05.06											
Sample Received Date	25.05.06											
Batch	2											
Sample Number(s)	16-18											
<b>PAH by GCMS</b>												
Naphthalene	52										TM074 <sup>#</sup>	<10 ug/kg
Acenaphthylene	<5										TM074 <sup>#M</sup>	<5 ug/kg
Acenaphthene	20										TM074 <sup>#M</sup>	<14 ug/kg
Fluorene	20										TM074 <sup>#M</sup>	<12 ug/kg
Phenanthrene	80										TM074 <sup>#M</sup>	<21 ug/kg
Anthracene	18										TM074 <sup>#M</sup>	<9 ug/kg
Fluoranthene	71										TM074 <sup>#M</sup>	<25 ug/kg
Pyrene	62										TM074 <sup>#M</sup>	<22 ug/kg
Benzo(a)anthracene	46										TM074 <sup>#M</sup>	<12 ug/kg
Chrysene	46										TM074 <sup>#M</sup>	<10 ug/kg
Benzo(b)fluoranthene	27										TM074 <sup>#M</sup>	<16 ug/kg
Benzo(k)fluoranthene	27										TM074 <sup>#M</sup>	<25 ug/kg
Benzo(a)pyrene	27										TM074 <sup>#M</sup>	<12 ug/kg
Indeno(123cd)pyrene	<11										TM074 <sup>#M</sup>	<11 ug/kg
Dibenzo(ah)anthracene	10										TM074 <sup>#M</sup>	<8 ug/kg
Benzo(ghi)perylene	20										TM074 <sup>#M</sup>	<10 ug/kg
PAH 16 Total	526										TM074 <sup>#</sup>	<25 ug/kg

All results expressed on a dry weight basis.

Date 31.05.2006



# ALcontrol Geochem Analytical Services

## Table Of Results - Appendix

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Report Key :**

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFD	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

**Summary of Method Codes contained within report :**

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample <sup>1</sup>	Surrogate Corrected
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)	✓		DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓		DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS	✓	✓	DRY	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)			WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓	✓	WET	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer	✓	✓	DRY	
TM61/89		see TM061 and TM089 for details			WET	

<sup>1</sup> Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.







Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

# ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** LIQUID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PRIO - DUP01	PRIO - MW07	PRIO - MW08	PRIO - MW09	TRIP BLANK						Method Code	Lob/Units
Depth (m)	-	-	-	-	-							
Sample Type	WATER	WATER	WATER	WATER	WATER							
Sampled Date	26.05.06	26.05.06	26.05.06	26.05.06	26.05.06							
Sample Received Date	30.05.06	30.05.06	30.05.06	30.05.06	30.05.06							
Batch	3	3	3	3	3							
Sample Number(s)	44-47	32-35	36-39	40-43	48							
PRO (C4-C12)	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
MTBE	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
Benzene	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
Toluene	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
Ethyl benzene	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
m & p Xylene	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
o Xylene	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
Aliphatics C5-C6	<10	<10	<10	<10	-						TM089	<10 ug/l
Aliphatics >C6-C8	<10	<10	<10	<10	-						TM089	<10 ug/l
Aliphatics >C8-C10	<10	<10	<10	<10	-						TM089	<10 ug/l
Aliphatics >C10-C12	<10	<10	<10	<10	-						TM089	<10 ug/l
Aliphatics >C12-C16	<10	<10	<10	<10	-						TM061	<10 ug/l
Aliphatics >C16-C21	<10	<10	<10	<10	-						TM061	<10 ug/l
Aliphatics >C21-C35	<10	<10	<10	<10	-						TM061	<10 ug/l
Total Aliphatics C5-C35	<10	<10	<10	<10	-						TM61/89	<10 ug/l
Aromatics C6-C7	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
Aromatics >C7-C8	<10	<10	<10	<10	-						TM089 <sup>#</sup>	<10 ug/l
Aromatics >EC8-EC10	<10	<10	<10	<10	-						TM089	<10 ug/l
Aromatics >EC10-EC12	<10	<10	<10	<10	-						TM089	<10 ug/l
Aromatics >EC12-EC16	<10	<10	<10	<10	-						TM061	<10 ug/l
Aromatics >EC16-EC21	<10	<10	<10	<10	-						TM061	<10 ug/l
Aromatics >EC21-EC35	<10	<10	<10	<10	-						TM061	<10 ug/l
Total Aromatics C6-C35	<10	<10	<10	<10	-						TM61/89	<10 ug/l
TH (Aliphatics and Aromatics C5-C35)	<10	<10	<10	<10	-						TM61/89	<10 ug/l

Date 08.06.2006

Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

# ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** LIQUID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PRIO - DUP01	PRIO - MW07	PRIO - MW08	PRIO - MW09	TRIP BLANK					Method Code	LoD/Units
Depth (m)	-	-	-	-	-						
Sample Type	WATER	WATER	WATER	WATER	WATER						
Sampled Date	26.05.06	26.05.06	26.05.06	26.05.06	26.05.06						
Sample Received Date	30.05.06	30.05.06	30.05.06	30.05.06	30.05.06						
Batch	3	3	3	3	3						
Sample Number(s)	44-47	32-35	36-39	40-43	48						
GRO (C4-C12)	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
Benzene	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
Toluene	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
Ethyl benzene	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
m & p Xylene	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
o Xylene	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
MTBE	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
Aliphatics C5-C6	-	-	-	-	<10					TM089	<10 ug/l
Aliphatics >C6-C8	-	-	-	-	<10					TM089	<10 ug/l
Aliphatics >C8-C10	-	-	-	-	<10					TM089	<10 ug/l
Aliphatics >C10-C12	-	-	-	-	<10					TM089	<10 ug/l
Total Aliphatics C5-C12	-	-	-	-	<10					TM089	<10 ug/l
Aromatics C6-C7	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
Aromatics >C7-C8	-	-	-	-	<10					TM089 <sup>#</sup>	<10 ug/l
Aromatics >EC8-EC10	-	-	-	-	<10					TM089	<10 ug/l
Aromatics >EC10-EC12	-	-	-	-	<10					TM089	<10 ug/l
Total Aromatics C6-C12	-	-	-	-	<10					TM089	<10 ug/l

Date 08.06.2006



Validated   
 Preliminary

# ALcontrol Geochem Analytical Services

## Table Of Results

# ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

**Job Number:** 06/08230/02/01  
**Client:** URS Ireland Limited  
**Client Ref. No.:**

**Matrix:** LIQUID  
**Location:** PRIORY S/S  
**Client Contact:** Clare Glanville

Sample Identity	PRIO - DUP01	PRIO - MW07	PRIO - MW08	PRIO - MW09	TRIP BLANK						Method Code	LoD/Units
Depth (m)	-	-	-	-	-							
Sample Type	WATER	WATER	WATER	WATER	WATER							
Sampled Date	26.05.06	26.05.06	26.05.06	26.05.06	26.05.06							
Sample Received Date	30.05.06	30.05.06	30.05.06	30.05.06	30.05.06							
Batch	3	3	3	3	3							
Sample Number(s)	44-47	32-35	36-39	40-43	48							
<b>PAH by GCMS</b>												
Naphthalene	<10	<10	<10	<10	-						TM074	<10 ng/l
Acenaphthylene	<10	<10	<10	<10	-						TM074	<10 ng/l
Acenaphthene	<10	<10	<10	<10	-						TM074	<10 ng/l
Fluorene	<10	<10	<10	<10	-						TM074	<10 ng/l
Phenanthrene	<10	<10	<10	<10	-						TM074	<10 ng/l
Anthracene	<10	<10	<10	<10	-						TM074	<10 ng/l
Fluoranthene	<10	<10	<10	<10	-						TM074	<10 ng/l
Pyrene	<10	<10	<10	<10	-						TM074	<10 ng/l
Benz(a)anthracene	<10	<10	<10	<10	-						TM074	<10 ng/l
Chrysene	<10	<10	<10	<10	-						TM074	<10 ng/l
Benzo(b)fluoranthene	<10	<10	<10	<10	-						TM074	<10 ng/l
Benzo(k)fluoranthene	<10	<10	<10	<10	-						TM074	<10 ng/l
Benzo(a)pyrene	<10	<10	<10	<10	-						TM074	<10 ng/l
Indeno(123cd)pyrene	<10	<10	<10	<10	-						TM074	<10 ng/l
Dibenzo(ah)anthracene	<10	<10	<10	<10	-						TM074	<10 ng/l
Benzo(ghi)perylene	<10	<10	<10	<10	-						TM074	<10 ng/l
PAH 16 Total	<10	<10	<10	<10	-						TM074	<10 ng/l

Date 08.06.2006





# ALcontrol Geochem Analytical Services

## Table Of Results - Appendix

Job Number: 06/08230/02/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

**Report Key :**

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10<sup>-7</sup>

NDP No Determination Possible \* Subcontracted test  
 NFD No Fibres Detected » Result previously reported (Incremental reports only)  
 # ISO 17025 accredited M MCERTS Accredited  
 PFD Possible Fibres Detected EC Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

**Summary of Method Codes contained within report :**

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample <sup>1</sup>	Surrogate Corrected
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)			NA	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS			NA	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)			NA	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		NA	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓		NA	
TM127	Method 3112B. AWWA/APHA, 20th Ed., 1999	The Determination of Trace Level Mercury in Aqueous Media and Soil Extracts by Atomic Absorption Spectroscopy	✓		NA	
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS	✓		NA	
TM61/89		see TM061 and TM089 for details			NA	

<sup>1</sup> Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.











Validated   
 Preliminary

# ALcontrol Laboratories Analytical Services

## Table Of Results

# ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

Job Number: 08/01512/02/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

Matrix: SOLID  
 Location: PRIORITY S/S  
 Client Contact: Edel O' Hannelly

Sample Identity	PRIO_BFO I									Method Code	LoD/Units
Depth (m)											
Sample Type	SOLID										
Sampled Date	21.01.08										
Sample Received Date	23.01.08										
Batch	1										
Sample Number(s)	7-9										
Antimony	2.2									TM129	<1.5 mg/kg
Arsenic	6									TM129 <sup>#</sup> <sub>M</sub>	<3.0 mg/kg
Barium	87									TM129 <sup>#</sup> <sub>M</sub>	<6.0 mg/kg
Beryllium	<0.4									TM129	<0.4 mg/kg
Cadmium	0.9									TM129	<0.3 mg/kg
Chromium	35									TM129 <sup>#</sup> <sub>M</sub>	<4.5 mg/kg
Copper	22									TM129 <sup>#</sup>	<6 mg/kg
Lead	32									TM129 <sup>#</sup> <sub>M</sub>	<2 mg/kg
Mercury	<0.6									TM129 <sup>#</sup> <sub>M</sub>	<0.6 mg/kg
Molybdenum	2.9									TM129 <sup>#</sup> <sub>M</sub>	<0.6 mg/kg
Nickel	36									TM129 <sup>#</sup> <sub>M</sub>	<0.9 mg/kg
Selenium	<3									TM129 <sup>#</sup> <sub>M</sub>	<3 mg/kg
Vanadium	34									TM129 <sup>#</sup> <sub>M</sub>	<1.5 mg/kg
Zinc	77									TM129 <sup>#</sup> <sub>M</sub>	<2.5 mg/kg
ANC at pH4	2.6									TM182 <sup>#</sup>	<0.03 mol/kg
ANC at pH6	0.33									TM182 <sup>#</sup>	<0.03 mol/kg
Total Organic Carbon	6.4									TM132 <sup>#</sup> <sub>M</sub>	<0.2 %
Flashpoint	>70									PENDING	Degrees C
Loss on Ignition	1.6									TM018 <sup>#</sup> <sub>M</sub>	<0.3 %
pH Value	8.67									TM133 <sup>#</sup> <sub>M</sub>	<1.00 pH Unit
EPH (DRO) (C10-C40)	<35									TM061 <sup>#</sup> <sub>M</sub>	<35 mg/kg
EPH (DRO) (C10-C40) % Surrogate Recovery	110									TM061 <sup>#</sup> <sub>M</sub>	%
Mineral Oil	27									TM061 <sup>#</sup>	<1 mg/kg
Mineral Oil % Surrogate Recovery	92									TM061 <sup>#</sup>	%
GRO (C4-C10)	<10									TM089	<10 ug/kg
GRO (C10-C12)	<10									TM089	<10 ug/kg
Benzene	<10									TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Toluene	<10									TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Ethyl benzene	<10									TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
m & p Xylene	<10									TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg
o Xylene	<10									TM089 <sup>#</sup> <sub>M</sub>	<10 ug/kg

All results expressed on a dry weight basis.

Date 04.02.2008



Validated   
 Preliminary

# ALcontrol Laboratories Analytical Services

## Table Of Results

\* ISO 17025 accredited  
 M MCERTS accredited  
 \* Subcontracted test  
 » Shown on prev. report

Job Number: 08/01512/02/01  
 Client: URS Ireland Limited  
 Client Ref. No.:

Matrix: SOLID  
 Location: PRIORY S/S  
 Client Contact: Edel O' Hannelly

Sample Identity	PRIO_BFO 1											Method Code	Lod/Units
Depth (m)													
Sample Type	SOLID												
Sampled Date	21.01.08												
Sample Received Date	23.01.08												
Batch	1												
Sample Number(s)	7-9												
<b>PAH by GCMS</b>													
Naphthalene	89											TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Acenaphthylene	<5											TM074 <sup>#</sup> <sub>M</sub>	<5 ug/kg
Acenaphthene	40											TM074 <sup>#</sup> <sub>M</sub>	<14 ug/kg
Fluorene	24											TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Phenanthrene	81											TM074 <sup>#</sup> <sub>M</sub>	<21 ug/kg
Anthracene	12											TM074 <sup>#</sup> <sub>M</sub>	<9 ug/kg
Fluoranthene	89											TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg
Pyrene	74											TM074 <sup>#</sup> <sub>M</sub>	<22 ug/kg
Benzo(a)anthracene	37											TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Chrysene	72											TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
Benzo(b)fluoranthene	52											TM074 <sup>#</sup> <sub>M</sub>	<16 ug/kg
Benzo(k)fluoranthene	33											TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg
Benzo(a)pyrene	28											TM074 <sup>#</sup> <sub>M</sub>	<12 ug/kg
Indeno(123cd)pyrene	22											TM074 <sup>#</sup> <sub>M</sub>	<11 ug/kg
Dibenzo(ah)anthracene	10											TM074 <sup>#</sup> <sub>M</sub>	<8 ug/kg
Benzo(ghi)perylene	32											TM074 <sup>#</sup> <sub>M</sub>	<10 ug/kg
PAH 16 Total	700											TM074 <sup>#</sup> <sub>M</sub>	<25 ug/kg

All results expressed on a dry weight basis.

Date 04.02.2008



