Appendix C

Tabulated Results Tables

COCs

NATA Laboratory Reports

escription	Aldrin +Dieldrin	Chlordane	DDT+DDE +DDD	DDT	DDD	DDE	Endosulfan	Endrin	Heptachlor TEQ^H	HCB	Methoxychlor	Chloropyrifos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Nitrate	Nitrite	A
OCP Impacted Soil - Vertical Delineation																							
n, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
red brown, clayey nd	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05							NT				
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
red brown, clayey nd	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
nd yellow brown, ndy gravel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
OCP Impacted Soil - Hotspot Removal																							
, gravelly sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
, gravelly sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
, gravelly sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
, gravelly sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT							NT				
, gravelly sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
vn, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											

escription	Aldrin +Dieldrin	Chlordane	DDT+DDE +DDD	DDT	DDD	DDE	Endosulfan	Endrin	Heptachlor TEQ[H]	HCB	Methoxychlor	Chloropyrifos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Nitrate	Nitrite	A
n, silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
, clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT								NT			
	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT											
Validation Sampling - Vertical Mixing																							
n clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
clayey sand	0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05								NT			
clayey sand	0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
y clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
elly clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
y clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
n clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											

Description	Aldrin +Dieldrin	Chlordane	DDT+DDE +DDD	DDT	DDD	DDE	Endosulfan	Endrin	Heptachlor TEQ[H]	HCB	Methoxychlor	Chloropyrifos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Nitrate	Nitrite	A
velly clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
y clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
y clayey sand	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
elly clayey sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
y clayey sand	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
sandy gravel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
velly silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05							NT				
velly silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
velly silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
velly silty sand	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
velly silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
velly silty sand	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05											
	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.05											
	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05											
Assessment and Remediation Criteria																							
L A	6	50	240	-	-	-	270	10	6	10	300	160	100	20	12%	6000	300	40	400	7400	130000	7800	
evel	0.35	4	-	1.7	2.3	34	-	-	4	-	-	-	NC										

epoxide concentration and the heptachlor concentration
creening Levels
e listed directly above
e listed directly above

OCP Impacted Soil - Stockpiles of Soil from Hotspot Excavations																																					
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	7	<0.04	<1	2	14	<0.1	1	<1	<1	1	<2	<1	NT	Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NTT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	3	<0.4	<1	5	9	<0.1	3	2	<1	1	<2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NTT
OCP Impacted Soil - Stockpiles of Soil from Topsoil Stripping																																					
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	3	<0.4	<1	12	9	<0.1	6	14	<1	1	<2	<1	NT	Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	5	<0.4	<1	5	7	<0.1	2	3	<1	<1	<2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	8	<0.4	<1	8	14	<0.1	3	8	<1	1	2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Imported Fill Material for Backfilling Hotspot Excavations																																					
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	6	<0.4	<1	3	10	<0.1	2	4	1	<1	<2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2	<0.4	<1	5	8	<0.1	4	2	<1	1	<2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	15	<0.4	<1	5	21	<0.1	3	<1	<1	<1	<2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	6	<0.4	<1	4	12	<0.1	3	19	<1	<1	<2	<1		Nil	<0.5	<5	<4	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<2
Waste Categorisation Criteria																																					
NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	20	3	1	100	300	1	60	200	40	50	10	10	NC	20	1	1	60	100	1000			1	NC	NC	NC	NC	7
4	50	NC	NC	NC	NC	NC	1.2	NC	NC	NC	500	100	500	5000	1500	75	3000	35000	1000	500	50	180		100	5	10	560	650	10000			4	NC	NC	NC	NC	70
16	50	NC	NC	NC	NC	NC	4.8	NC	NC	NC	2000	400	2000	20000	6000	300	12000	140000	4000	NC	200	720		400	20	320	2200	2600	40000			16	NC	NC	NC	NC	240

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

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Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	PO No.: 125882
Project Mgr: Jessica Paulsen	Envirolab Quote No. : 2016-R00C5
Sampler: Jessica Paulsen	Date results required:
Address: PO Box 36858 Winnellie NT 0820	Or choose: standard *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 Mob:	Report format: esdat / equis /
Email: jessica.paulsen@douglaspartners.com.au & darwin.admin@douglaspartners.com.au	Lab Comments:

Laboratories
Job No.- 185249
Date Rec.- 1-9
Time Rec.- 1115
Rec By - MC
TAT Req - SAME / 1 / 2 / 3 / STD
Temp - cool / ambient
Cooling - Ice / Ice pack / None
Sample Seal - Yes / No

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep							Provide as much information about the sample as you can
1	HSR/TP20/S1		31/8/16	S					—										
2	HSR/TP20/S2		↓	↓					—										
3	HSR/TP20/S3								—										
4	HSR/TP20/S4								—										
5	HSR/TP20/B								—										
6	HSR/TP29/SP1				1	1	1												bag for asb. ID
7	HSR/TP29/SP2					1													bag for asb. ID
8	HSR/TP01/S1								—										
9	HSR/TP01/S2								—										
10	HSR/TP01/S3								—										
11	HSR/TP01/S4								—										
12	HSR/TP01/B								—										
13	HSR/TP01/SP1		↓	↓	1	1	1												bag for asb. ID

FAST T.A.T. PLS
100% surcharge.

Relinquished by (Company):	Douglas Partners Pty Ltd	Received by (Company):	ELS
Print Name:	Jessica Paulsen	Print Name:	Meredith
Date & Time:	31/8/16 ≈1pm	Date & Time:	1-9-16
Signature:		Signature:	

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: (if applicable)
Transported by: Hand delivered / courier

CHAIN OF COUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	Client Project Name / Number / Site etc (ie report title):
Contact Person: Jessica Paulsen	78156.02 Humpty Doo
Project Mgr: Jessica Paulsen	PO No.: 125882
Sampler: Jessica Paulsen	Envirolab Quote No.: 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	Date results required: Or choose: standard *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 Mob:	Report format: esdat / equis /
Email: jessica.paulsen@douglaspartners.com.au & darwin.admin@douglaspartners.com.au	Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep								Provide as much information about the sample as you can
14	HSR/TP01 / SP2		31/8/16	S		1														bag for asb 10.
15	VD/TP10 / 0.1		↓	↓		1														
16	VD/TP10 /0.25					1														
17	VD/TP10 /0.5					1														
18	VD/TP10/1.0					1														
19	VD/TP17/0.1					1														
20	VD /TP17 /0.25					1														
21	VD/TP17 /0.5					1														
22	VD/TP17 /1.0					1														
23	VD/TP18 /0.1					1														
24	VD/TP18 /0.25					1														
25	VD/TP18 /0.5					1														
26	VD/TP18 / 1.0		↓	↓		1														

FAST TAT 24 100% surcharge

Relinquished by (Company): Douglas Partners Pty Ltd	Received by (Company): ELS	*Lab use only:*
Print Name: Jessica Paulsen	Print Name: Meredith	Samples Received: Cool or Ambient (circle one)
Date & Time: 31/8/16 =1pm	Date & Time: 1-9-16	Temperature Received at: (if applicable)
Signature:	Signature:	Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	
Project Mgr: Jessica Paulsen	PO No.: 125882
Sampler: Jessica Paulsen	Envirolab Quote No. : 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	Date results required: Or choose: standard *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 Mob:	Report format: esdat / equis /
Email: jessica.paulsen@douglaspartners.com.au & darwin.admin@douglaspartners.com.au	Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep								Provide as much information about the sample as you can
27	Rep 1 / 310816		31/8/16	S					1			[illegible]								
28	Rep 2 / 310816		↓	↓																HOLD PLS
29	Rep 3 / 310816											1								
30	Rep 4 / 310816																			HOLD PLS
31	Rep 5 / 310816											1								

FAST TAT PLS. SURCHARGE. 100%

Relinquished by (Company):	Douglas Partners Pty Ltd	Received by (Company):	ELS
Print Name:	Jessica Paulsen	Print Name:	Meredith
Date & Time:	31/8/16 ≈1pm	Date & Time:	1-9-16
Signature:		Signature:	

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: (if applicable)
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd
Contact Person: Jessica Paulsen
Project Mgr: Jessica Paulsen
Sampler: Andrew Gane
Address: PO Box 36858 Winnellie NT 0820
Phone: 08 8948 680 Mob:
Email: andrew.gane@douglaspartners.com.au
darwin.admin@douglaspartners.com.au

Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo
PO No.: 125899
Envirolab Quote No. : 2016-R00C5
Date results required: 1 DAY
Or choose: ~~standard~~
Note: Inform lab in advance if urgent turnaround is required - surcharges apply
Report format: esdat / equis /
Lab Comments:

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep							Provide as much information about the sample as you can
1	VM/S1	–	19/9/16	S		1													
2	TSSP/S1	–	19/9/16	S	1	1													
3	TSSP/S2	–	19/9/16	S		1													
4	TSSP/S3	–	19/9/16	S		1													

FAST TAT
100% SURCHARGE
RLS

ENVIROLAB GROUP
Laboratories
Job No.- 186119
Date Rec - 21 9
Time Rec - 1115
Rec By -
TAT Req - SAME / 1 / 2 / 3 / STD
Temp - Cool / ambient
Cooling - Ice / Ice pack / None
Security Seal - Yes / No

Relinquished by (Company): Douglas Partners Pty Ltd
Print Name: Andrew Gane
Date & Time: 19/9/16 13:30pm.
Signature:

Received by (Company): ELS – DARWIN
Print Name: SALLY HORSNELL
Date & Time: 20/09/16 9.00am.
Signature:

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: 17.5 (if applicable)
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	
Project Mgr: Jessica Paulsen	PO No.:
Sampler: Andrew Gane	Envirolab Quote No. : 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	Date results required: Or choose: FAST TAT (100%) *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 Mob:	Report format: esdat / equis /
Email: andrew.gane@douglaspartners.com.au darwin.admin@douglaspartners.com.au	Lab Comments:

Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep								Comments
1 ✓	TSSP/S4	-	21/9/16	S	1	1														Provide as much information about the sample as you can
2 ✓	TSSP/S5	-	21/9/16	S		1														
3 ✓	TSSP/S6	-	21/9/16	S		1														
4 ✓	TSSP/S7	-	21/9/16	S		1														
5 ✓	TSSP/S8	-	21/9/16	S		1														
6 ✓	TSSP/S9	-	21/9/16	S		1														
7 ✓	TSSP/S10	-	21/9/16	S		1														
8 ✓	TSSP/S11	-	21/9/16	S		1														
9 ✓	TSSP/S12	-	21/9/16	S		1														
		-	21/9/16	S																
		-	21/9/16	S																
		-	21/9/16	S																
		-	21/9/16	S																

mpl Laboratories / envirolab GROUP
Job No.- 156202
Date Rec - 22-9
Time Rec - 1135
Rec By - MC
TAT Req - SAME / 1 / 2 / 3 / STD
Temp - Cool / Ambient
Cooling - Ice / Ice pack / None
Security Seal - Yes / No

Relinquished by (Company):	Douglas Partners Pty Ltd	Received by (Company): ELS - DARWN
Print Name:	Vaness Harrington	Print Name: SALLY HORSNELL
Date & Time:	21/9/16	Date & Time: 21/09/16 3:30PM
Signature:	Harrington	Signature:

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: 13 (if applicable)
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	
Project Mgr: Jessica Paulsen	PO No.: 128702
Sampler: Andrew Gane	Envirolab Quote No. : 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	Date results required: Or choose: FAST TAT *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 Mob: 0411 205 400	Report format: esdat / equis /
Email: andrew.gane@douglaspartners.com.au darwin.admin@douglaspartners.com.au	Lab Comments:

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep							Provide as much information about the sample as you can
1	TSSP/S13	-	27/9/16	S	1	1													
2	VM/S2	-	23/9/16	S		1													
3	VM/S3	-	23/9/16	S		1													
4	VM/S4	-	23/9/16	S		1													
5	VM/S5	-	23/9/16	S		1													
6	VM/S6	-	23/9/16	S		1													
7	VM/S7	-	27/9/16	S		1													
8	VM/S8	-	27/9/16	S		1													
9	VM/S9	-	27/9/16	S		1													
10	VM/S10	-	27/9/16	S		1													
11	VM/S11	-	27/9/16	S		1													
12	VM/S12	-	27/9/16	S		1													
13	VM/S13	-	27/9/16	S		1													

Envirolab Laboratories
Job No.- 156517
Date Rec - 29-9
Time Rec - 1230
Rec By - MC
TAT Req - SAME / 2 / 3 / STD
Temp - Cool / Ambient
Cooling - Ice / Ice Pack / None
Security Seal - Yes / No

Relinquished by (Company):	Douglas Partners Pty Ltd	Received by (Company):	ELS - DARWIN
Print Name:	Andrew Gane	Print Name:	SALLY HORSNELL
Date & Time:	27/9/16, 18:30	Date & Time:	28/09/16 12:00PM
Signature:		Signature:	

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: (if applicable)
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	**Client Project Name / Number / Site etc (ie report title):** 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	
Project Mgr: Jessica Paulsen	**PO No.:** 128702
Sampler: Andrew Gane	**Envirolab Quote No. :** 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	**Date results required:** Or choose: FAST TAT *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 **Mob:** 0411 205 400	**Report format:** esdat / equis /
Email: andrew.gane@douglaspartners.com.au darwin.admin@douglaspartners.com.au	**Lab Comments:**

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep								Provide as much information about the sample as you can
14	VM/S14	-	27/9/16	S		1														
15	VM/S15	-	27/9/16	S		1														
16	VM/S16	-	27/9/16	S		1														
17	VM/S17	-	27/9/16	S		1														
18	VM/S18	-	27/9/16	S		1														
19	VM/S19	-	27/9/16	S		1														
20	VM/S20	-	27/9/16	S		1														
21	VM/S21	-	27/9/16	S		1														
22	VM/S22	-	27/9/16	S		1														
23	VM/S23	-	27/9/16	S		1														
24	VM/S24	-	27/9/16	S		1														
25	VM/S25	-	27/9/16	S		1														
26	VM/S26	-	27/9/16	S		1														

Relinquished by (Company):	Douglas Partners Pty Ltd	**Received by (Company):**	ELS DARWIN
Print Name:	Andrew Gane	**Print Name:**	SALLY HORSNELL
Date & Time:	27/9/16, 18:30	**Date & Time:**	28/09/16. 12:00PM.
Signature:		**Signature:**	

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: (if applicable)
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	**Client Project Name / Number / Site etc (ie report title):** 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	
Project Mgr: Jessica Paulsen	**PO No.: 128702**
Sampler: Andrew Gane	**Envirolab Quote No. :** 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	**Date results required:** Or choose: FAST TAT *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 **Mob:** 0411 205 400	**Report format: esdat / equis /**
Email: andrew.gane@douglaspartners.com.au darwin.admin@douglaspartners.com.au	**Lab Comments:**

Sample information					Tests Required															Comment
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep								Provide as n information ab sample as yo
27	270916Rep1	-	27/9/16	S		1														
28	270916Rep2	-	27/9/16	S		1														
29	270916Rep3	-	27/9/16	S		1														
30	Fill/SP1	-	27/9/16	S	1															
31	Fill/SP2	-	27/9/16	S	1															
32	230916Rep1	-	23/9/16	S		1														
		-																		
		-																		
		-																		
		-																		
		-																		
		-																		
		-																		

Relinquished by (Company):	Douglas Partners Pty Ltd	**Received by (Company):**	ELS – DARWIN
Print Name:	Andrew Gane	**Print Name:**	SALLY HORSNELL
Date & Time:	27/9/16 18:30	**Date & Time:**	29/09/16 12:00 PM
Signature:		**Signature:**	

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: **(if applicable)**
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd	Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo
Contact Person: Jessica Paulsen	
Project Mgr: Jessica Paulsen	PO No.: ~~128702~~ 128703
Sampler: Andrew Gane	Envirolab Quote No. : 2016-R00C5
Address: PO Box 36858 Winnellie NT 0820	Date results required: Or choose: fast TAT *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 08 8948 680 Mob: 0411 205 400	Report format: esdat / equis /
Email: andrew.gane@douglaspartners.com.au darwin.admin@douglaspartners.com.au	Lab Comments:

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep							Provide as much information about the sample as you can
1	VM/S27	–	3/10	S		1													
2	VM/S28	–	"	"		1													
3	VM/S29	–	"	"		1													
4	VM/S30	–	"	"		1													
5	VM/S31	–	"	"		1													
6	VM/S32	–	"	"		1													
7	031016REP1	–	"	"		1													
8	031016REP3	–	"	"		1													
9	FILL/SP3	–	"	"	1														
10	FILL/SP4	–	"	"	1														
	PTO																		

Relinquished by (Company):	Douglas Partners Pty Ltd	Received by (Company):	ELS MPL
Print Name:	Andrew Gane	Print Name:	Robert
Date & Time:	4/10/16	Date & Time:	5/10/16
Signature:		Signature:	

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: (if applicable)
Transported by: Hand delivered / courier

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: Douglas Partners Pty Ltd

Contact Person: Jessica Paulsen

Project Mgr: Jessica Paulsen

Sampler: Andrew Gane

Address: PO Box 36858 Winnellie NT 0820

Phone: 08 8948 680 Mob: 0411 205 400

Email: andrew.gane@douglaspartners.com.au
darwin.admin@douglaspartners.com.au

Client Project Name / Number / Site etc (ie report title): 78156.02 Humpty Doo

PO No.: ~~128702~~ 128703

Envirolab Quote No. : 2016-R00C5

Date results required:

Or choose: fast TAT

Note: Inform lab in advance if urgent turnaround is required - surcharges apply

Report format: esdat / equis /

Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	IWRG 621 Clean Fill Screen	OCP & OPP Low Level	Asbestos ID	8 Metals	OCP Low Level	Nitrogen Suite	Metals as per Clean Fill Screen	OCP & OPP Low Level - QA Rep								Provide as much information about the sample as you can
11	TSSP/S14	–	3/10	S		1														
12	TSSP/S15	–	3/10	S		1														
13	TSSP/S16		3/10	S		1														
14	TSSP/S17		3/10	S		1														

Relinquished by (Company): Douglas Partners Pty Ltd

Print Name: Andrew Gane

Date & Time: 4/10/16

Signature:

Received by (Company): ELS

Print Name:

Date & Time:

Signature:

Lab use only:

Samples Received: Cool or Ambient (circle one)

Temperature Received at: (if applicable)

Transported by: Hand delivered / courier

16-18 Hayden Court, Myaree, Western Australia 6154
PO Box 4023 Myaree BC, Western Australia 6950
tel: +61 8 9317 2505
email: lab@mpl.com.au
envirolab.com.au
Envirolab Services (WA) Pty Ltd trading as
MPL Laboratories | ABN 53 140 099 207

INTERIM REPORT 185219

Client:
Douglas Partners NT
PO Box 36858
Winnellie
NT 0821

Attention: Jessica Paulsen

Sample log in details:

Your Reference:	**78156.02 Humpty Doo**
No. of samples:	31 Soil
Date samples received:	01/09/2016
Date completed instructions received:	01/09/2016
Location:	

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last pages of this report for any comments relating to the results.

Report Details:

Date results requested by:	8/09/16
Date of Preliminary Report:	6/09/16
Issue Date:	6/09/16 {Interim Report Date}

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Accredited for compliance with ISO/IEC 17025 - Testing
Tests not covered by NATA are denoted with *.

Results Approved By:

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-1 HSR/TP20/S1 31/08/2016 Soil	185219-2 HSR/TP20/S2 31/08/2016 Soil	185219-3 HSR/TP20/S3 31/08/2016 Soil	185219-4 HSR/TP20/S4 31/08/2016 Soil	185219-5 HSR/TP20/B 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	108	94	90	96	102

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-7 HSR/TP20/SP 2 31/08/2016 Soil	185219-8 HSR/TP01/S1 31/08/2016 Soil	185219-9 HSR/TP01/S2 31/08/2016 Soil	185219-10 HSR/TP01/S3 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	0.02	0.14	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	96	94	102	108	100

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-11 HSR/TP01/S4 31/08/2016 Soil	185219-12 HSR/TP01/B 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil	185219-14 HSR/TP01/SP 2 31/08/2016 Soil	185219-15 VD/TP10/0.1 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	06/09/2016	05/09/2016	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	102	106	102	100	94

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-16 VD/TP10/0.25 31/08/2016 Soil	185219-17 VD/TP10/0.5 31/08/2016 Soil	185219-18 VD/TP10/1.0 31/08/2016 Soil	185219-19 VD/TP17/0.1 31/08/2016 Soil	185219-20 VD/TP17/0.25 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	100	102	98	92	86

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-21 VD/TP17/0.5 31/08/2016 Soil	185219-22 VD/TP17/1.0 31/08/2016 Soil	185219-23 VD/TP18/0.1 31/08/2016 Soil	185219-24 VD/TP18/0.25 31/08/2016 Soil	185219-25 VD/TP18/0.5 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	104	102	108	102	102

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-26 VD/TP18/1.0 31/08/2016 Soil	185219-27 Rep 1/310816 31/08/2016 Soil	185219-29 Rep 3/310816 31/08/2016 Soil	185219-31 Rep 5/310816 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	101	101	101	102

Organophosphorus Pesticides						
Our Reference:	UNITS	185219-6	185219-7	185219-13	185219-14	185219-15
Your Reference	----------	HSR/TP20/SP 1	HSR/TP20/SP 2	HSR/TP01/SP 1	HSR/TP01/SP 2	VD/TP10/0.1
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	05/09/2016	06/09/2016	05/09/2016	05/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	96	94	102	100	94

Organophosphorus Pesticides						
Our Reference:	UNITS	185219-16	185219-17	185219-18	185219-19	185219-20
Your Reference	----------	VD/TP10/0.25	VD/TP10/0.5	VD/TP10/1.0	VD/TP17/0.1	VD/TP17/0.25
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	100	102	98	92	86

Organophosphorus Pesticides						
Our Reference:	UNITS	185219-21	185219-22	185219-23	185219-24	185219-25
Your Reference	----------	VD/TP17/0.5	VD/TP17/1.0	VD/TP18/0.1	VD/TP18/0.25	VD/TP18/0.5
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016	05/09/2016	05/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	104	102	108	103	102

Organophosphorus Pesticides				
Our Reference:	UNITS	185219-26	185219-29	185219-31
Your Reference	----------	VD/TP18/1.0	Rep 3/310816	Rep 5/310816
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil
Date extracted	-	05/09/2016	05/09/2016	05/09/2016
Date analysed	-	05/09/2016	05/09/2016	05/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	101	101	102

Miscellaneous Inorg - soil			
Our Reference:	UNITS	185219-6	185219-13
Your Reference	----------	HSR/TP20/SP 1	HSR/TP01/SP 1
Date Sampled	----------	31/08/2016	31/08/2016
Type of sample		Soil	Soil
Date prepared	-	06/09/2016	06/09/2016
Date analysed	-	06/09/2016	06/09/2016
Chromium (VI)	mg/kg	<1	<1
Total Cyanide	mg/kg	<0.5	<0.5
Total Fluoride	mg/kg		

12 metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date digested	-	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016
Arsenic	mg/kg	7	3
Cadmium	mg/kg	<0.4	<0.4
Copper	mg/kg	2	5
Lead	mg/kg	14	9
Mercury	mg/kg	<0.1	<0.1
Molybdenum	mg/kg	<1	<1
Nickel	mg/kg	1	3
Tin	mg/kg	1	1
Selenium	mg/kg	<2	<2
Silver	mg/kg	<1	<1
Zinc	mg/kg	<1	2

Speciated Phenols in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	06/09/2016
Phenol	mg/kg	<0.2	<0.2
2-Chlorophenol	mg/kg	<0.2	<0.2
4-Chloro-3-methylphenol	mg/kg	<5	<5
2-Methylphenol	mg/kg	<0.2	<0.2
3/4-Methylphenol	mg/kg	<0.4	<0.4
2-Nitrophenol	mg/kg	<0.2	<0.2
2,4-Dimethylphenol	mg/kg	<0.2	<0.2
2,4-Dichlorophenol	mg/kg	<0.2	<0.2
2,6-Dichlorophenol	mg/kg	<0.2	<0.2
2,4,5-Trichlorophenol	mg/kg	<0.2	<0.2
2,4,6-Trichlorophenol	mg/kg	<0.2	<0.2
2,4-Dinitrophenol	mg/kg	<4	<4
4-Nitrophenol	mg/kg	<4	<4
2,3,4,6-Tetrachlorophenol	mg/kg	<0.2	<0.2
2-Methyl-4,6-dinitrophenol	mg/kg	<10	<10
Pentachlorophenol	mg/kg	<5	<5
Surrogate Phenol-d_6	%	100	101

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	06/09/2016
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	06/09/2016
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Total Positive PAHs	mg/kg	NO +VE PAHS	NO +VE PAHS
p-Terphenyl-D_{14}	%	97	101

vTRH(C6-C10)/MBTEXN in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	6/09/2016	6/09/2016
Date analysed	-	6/09/2016	6/09/2016
$TRHC_6 - C_9$	mg/kg	<25	<25
$TRHC_6 - C_{10}$	mg/kg	<25	<25
$TRHC_6$-C_{10} less BTEX (F1)	mg/kg	<25	<25
MTBE	mg/kg	<0.5	<0.5
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	90

svTRH(C10-C36) in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	06/09/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100
TRH>C$_{10}$ - C$_{16}$	mg/kg	<50	<50
TRH>C$_{10}$-C$_{16}$ less N (F2)	mg/kg	<50	<50
TRH>C$_{16}$ - C$_{34}$	mg/kg	<100	<100
TRH>C$_{34}$ - C$_{40}$	mg/kg	<100	<100
Surrogate o-Terphenyl	%	92	92

VHC's in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	6/09/2016	6/09/2016
Date analysed	-	6/09/2016	6/09/2016
Dichlorodifluoromethane	mg/kg	<1.0	<1.0
Chloromethane	mg/kg	<1.0	<1.0
Vinyl Chloride	mg/kg	<1.0	<1.0
Bromomethane	mg/kg	<1.0	<1.0
Chloroethane	mg/kg	<1.0	<1.0
Trichlorofluoromethane	mg/kg	<1.0	<1.0
1,1-Dichloroethene	mg/kg	<1.0	<1.0
trans-1,2-dichloroethene	mg/kg	<1.0	<1.0
1,1-dichloroethane	mg/kg	<1.0	<1.0
cis-1,2-dichloroethene	mg/kg	<1.0	<1.0
Bromochloromethane	mg/kg	<1.0	<1.0
Chloroform	mg/kg	<1.0	<1.0
2,2-dichloropropane	mg/kg	<1.0	<1.0
1,2-dichloroethane	mg/kg	<1.0	<1.0
1,1,1-trichloroethane	mg/kg	<1.0	<1.0
1,1-dichloropropene	mg/kg	<1.0	<1.0
Carbon tetrachloride	mg/kg	<1.0	<1.0
Dibromomethane	mg/kg	<1.0	<1.0
1,2-dichloropropane	mg/kg	<1.0	<1.0
Trichloroethene	mg/kg	<1.0	<1.0
Bromodichloromethane	mg/kg	<1.0	<1.0
trans-1,3-dichloropropene	mg/kg	<1.0	<1.0
cis-1,3-dichloropropene	mg/kg	<1.0	<1.0
1,1,2-trichloroethane	mg/kg	<1.0	<1.0
1,3-dichloropropane	mg/kg	<1.0	<1.0
Dibromochloromethane	mg/kg	<1.0	<1.0
1,2-dibromoethane	mg/kg	<1.0	<1.0
Tetrachloroethene	mg/kg	<1.0	<1.0
1,1,1,2-tetrachloroethane	mg/kg	<1.0	<1.0
Chlorobenzene	mg/kg	<1.0	<1.0
Bromoform	mg/kg	<1.0	<1.0
1,1,2,2-tetrachloroethane	mg/kg	<1.0	<1.0
1,2,3-trichloropropane	mg/kg	<1.0	<1.0
Bromobenzene	mg/kg	<1.0	<1.0
2-chlorotoluene	mg/kg	<1.0	<1.0
4-chlorotoluene	mg/kg	<1.0	<1.0
1,3-dichlorobenzene	mg/kg	<1.0	<1.0
1,4-dichlorobenzene	mg/kg	<1.0	<1.0

VHC's in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
1,2-dichlorobenzene	mg/kg	<1.0	<1.0
1,2-dibromo-3-chloropropane	mg/kg	<1.0	<1.0
1,2,4-trichlorobenzene	mg/kg	<1.0	<1.0
Hexachlorobutadiene	mg/kg	<1.0	<1.0
1,2,3-trichlorobenzene	mg/kg	<1.0	<1.0
Surrogate Dibromofluorometha	%	99	102
Surrogate aaa-Trifluorotoluene	%	100	90
Surrogate Toluene-d_8	%	105	106
Surrogate 4-Bromofluorobenz	%	97	96

SVCH's in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-6 HSR/TP20/SP 1 31/08/2016 Soil	185219-13 HSR/TP01/SP 1 31/08/2016 Soil
Date extracted	-	05/09/2016	05/09/2016
Date analysed	-	06/09/2016	06/09/2016
1,3-Dichlorobenzene	mg/kg	<0.5	<0.5
1,4-Dichlorobenzene	mg/kg	<0.5	<0.5
1,2-Dichlorobenzene	mg/kg	<0.5	<0.5
Hexachloroethane	mg/kg	<0.5	<0.5
1,2,3-Trichlorobenzene	mg/kg	<0.5	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5
1,3,5-Trichlorobenzene	mg/kg	<0.5	<0.5
1,2,3,5 & 1,2,4,5- Tetrachlorobenzene	mg/kg	<0.5	<0.5
1,2,3,4-Tetrachlorobenzene	mg/kg	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	<2	<2
Hexachlorobutadiene	mg/kg	<0.5	<0.5
Pentachlorobenzene	mg/kg	<0.5	<0.5
Hexachlorobenzene (HCB)	mg/kg	<0.5	<0.5
p-Terphenyl-D_{14}	%	97	101

Moisture						
Our Reference:	UNITS	185219-1	185219-2	185219-3	185219-4	185219-5
Your Reference	----------	HSR/TP20/S1	HSR/TP20/S2	HSR/TP20/S3	HSR/TP20/S4	HSR/TP20/B
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	5/09/2016	5/09/2016	5/09/2016	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Moisture	%	10	11	10	12	14

Moisture						
Our Reference:	UNITS	185219-6	185219-7	185219-8	185219-9	185219-10
Your Reference	----------	HSR/TP20/SP 1	HSR/TP20/SP 2	HSR/TP01/S1	HSR/TP01/S2	HSR/TP01/S3
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	5/09/2016	5/09/2016	5/09/2016	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Moisture	%	10	13	12	11	12

Moisture						
Our Reference:	UNITS	185219-11	185219-12	185219-13	185219-14	185219-15
Your Reference	----------	HSR/TP01/S4	HSR/TP01/B	HSR/TP01/SP 1	HSR/TP01/SP 2	VD/TP10/0.1
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	5/09/2016	5/09/2016	5/09/2016	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Moisture	%	9.9	14	9.5	12	8.2

Moisture						
Our Reference:	UNITS	185219-16	185219-17	185219-18	185219-19	185219-20
Your Reference	----------	VD/TP10/0.25	VD/TP10/0.5	VD/TP10/1.0	VD/TP17/0.1	VD/TP17/0.25
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	5/09/2016	5/09/2016	5/09/2016	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Moisture	%	8.8	8.5	11	7.8	9.0

Moisture						
Our Reference:	UNITS	185219-21	185219-22	185219-23	185219-24	185219-25
Your Reference	----------	VD/TP17/0.5	VD/TP17/1.0	VD/TP18/0.1	VD/TP18/0.25	VD/TP18/0.5
Date Sampled	----------	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	5/09/2016	5/09/2016	5/09/2016	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Moisture	%	9.4	13	4.3	6.3	6.3

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	185219-26 VD/TP18/1.0 31/08/2016 Soil	185219-27 Rep 1/310816 31/08/2016 Soil	185219-29 Rep 3/310816 31/08/2016 Soil	185219-31 Rep 5/310816 31/08/2016 Soil
Date prepared	-	5/09/2016	5/09/2016	5/09/2016	5/09/2016
Date analysed	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Moisture	%	6.7	15	13	6.2

Asbestos ID - soils			
Our Reference:	UNITS	185219-6	185219-13
Your Reference	----------	HSR/TP20/SP 1	HSR/TP01/SP 1
Date Sampled	----------	31/08/2016	31/08/2016
Type of sample		Soil	Soil
Date analysed	-	06/09/2016	06/09/2016
Sample Weight	g	145	90
Sample Description	-	Soil	Soil
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ORG-005/012	Organochlorine Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
ORG-015	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS or GC-MS/MS.
ORG-008/015	Organophosphorus Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
INORG-118	Hexavalent Chromium by Ion Chromatographic separation and colourimetric determination.
INORG-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Ext-054	Analysed by Envirolab Services Sydney, accreditation number 2901
METALS-020	Metals in soil and water by ICP-OES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
ORG-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-012	For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-004	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ORG-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
ORG-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.

Method ID	Methodology Summary
ORG-013/014	VOC's in soil by methanolic extraction and water directly by purge and trap GCMS
INORG-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques, including Synthetic Mineral Fibres and Organic Fibres as per Australian Standard 4964-2004.

QUALITY CONTROL Low Level OCP in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	185219-1	05/09/2016 || 05/09/2016	185219-1	05/09/2016
Date analysed	-			06/09/2016	185219-1	05/09/2016 || 05/09/2016	185219-1	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	108%
b-BHC	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	114%
Lindane (g-BHC)	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	99%
Aldrin	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	111%
Heptachlor Epoxide	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	111%
g-Chlordane	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	107%
Dieldrin	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	107%
Endrin	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	111%
p,p`-DDD	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	108%
b-Endosulphan	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	185219-1	98%
Methoxychlor	mg/kg	0.01	ORG-012	<0.01	185219-1	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-005/012	100	185219-1	108 || 106 || RPD: 2	185219-1	100%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	[NT]	[NT]	185219-1	05/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]	185219-1	05/09/2016
Dichlorovos	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	185219-1	104%
Ronnel	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
Fenitrothion	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	185219-1	87%
Malathion	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	185219-1	106%
Parathion-ethyl	mg/kg	0.05	ORG-008/015	<0.05	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	185219-1	88%
Bromophos ethyl	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	0.05	ORG-015	<0.05	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-008/015	100	[NT]	[NT]	185219-1	100%

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			06/09/2016	[NT]	[NT]	185219-1	06/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]	185219-1	06/09/2016
Chromium (VI)	mg/kg	1	INORG-118	<1	[NT]	[NT]	185219-1	105%
Total Cyanide	mg/kg	0.5	INORG-014	[NT]	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	50	Ext-054	<50	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			5/09/2016	[NT]	[NT]	185219-1	06/09/2016
Date analysed	-			6/09/2016	[NT]	[NT]	185219-1	06/09/2016
Arsenic	mg/kg	2	METALS-020	<2	[NT]	[NT]	185219-1	112%
Cadmium	mg/kg	0.4	METALS-020	<0.4	[NT]	[NT]	185219-1	110%
Copper	mg/kg	1	METALS-020	<1	[NT]	[NT]	185219-1	116%
Lead	mg/kg	1	METALS-020	<1	[NT]	[NT]	185219-1	112%
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	185219-1	106%

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Molybdenum	mg/kg	1	METALS-020	<1	[NT]	[NT]	[NR]	[NR]
Nickel	mg/kg	1	METALS-020	<1	[NT]	[NT]	185219-1	117%
Tin	mg/kg	1	METALS-020	<1	[NT]	[NT]	[NR]	[NR]
Selenium	mg/kg	2	METALS-020	<2	[NT]	[NT]	[NR]	[NR]
Silver	mg/kg	1	METALS-020	<1	[NT]	[NT]	[NR]	[NR]
Zinc	mg/kg	1	METALS-020	<1	[NT]	[NT]	185219-1	114%
QUALITY CONTROL Speciated Phenols in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	[NT]	[NT]		05/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]		06/09/2016
Phenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]		104%
2-Chlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]		108%
4-Chloro-3-methylphenol	mg/kg	5	ORG-012	<5	[NT]	[NT]	[NR]	[NR]
2-Methylphenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]		91%
3/4-Methylphenol	mg/kg	0.4	ORG-012	<0.4	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,6-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]		105%
2,4,5-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4,6-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dinitrophenol	mg/kg	4	ORG-012	<4	[NT]	[NT]	[NR]	[NR]
4-Nitrophenol	mg/kg	4	ORG-012	<4	[NT]	[NT]	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2-Methyl-4,6-dinitrophenol	mg/kg	10	ORG-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachlorophenol	mg/kg	5	ORG-012	<5	[NT]	[NT]	[NR]	[NR]
Surrogate Phenol-d_6	%		ORG-012	86	[NT]	[NT]		97%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	[NT]	[NT]	185219-1	05/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]	185219-1	06/09/2016
Arochlor 1016	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	185219-1	113%
Arochlor 1260	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	[NT]	[NT]	185219-1	05/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]	185219-1	06/09/2016
Naphthalene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	185219-1	104%
Acenaphthylene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	185219-1	106%
Phenanthrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	185219-1	109%
Anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	185219-1	103%
Pyrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	185219-1	108%
Benzo(a)anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	185219-1	111%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	ORG-012	<0.05	[NT]	[NT]	185219-1	102%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	100	[NT]	[NT]	185219-1	100%

QUALITY CONTROL vTRH(C6-C10)/MBTEXN in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/09/2016	[NT]	[NT]	185219-1	06/09/2016
Date analysed	-			6/09/2016	[NT]	[NT]	185219-1	06/09/2016
TRHC$_6$ - C$_9$	mg/kg	25	ORG-016	<25	[NT]	[NT]	185219-1	98%
TRHC$_6$ - C$_{10}$	mg/kg	25	ORG-016	<25	[NT]	[NT]	185219-1	98%
MTBE	mg/kg	0.5	ORG-016	<0.5	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	ORG-016	<0.2	[NT]	[NT]	185219-1	95%
Toluene	mg/kg	0.5	ORG-016	<0.5	[NT]	[NT]	185219-1	98%
Ethylbenzene	mg/kg	1	ORG-016	<1	[NT]	[NT]	185219-1	98%
m+p-xylene	mg/kg	2	ORG-016	<2	[NT]	[NT]	185219-1	99%
o-xylene	mg/kg	1	ORG-016	<1	[NT]	[NT]	185219-1	100%
Naphthalene	mg/kg	1	ORG-016	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		ORG-016	90	[NT]	[NT]	185219-1	86%

QUALITY CONTROL svTRH(C10-C36) in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	[NT]	[NT]	185219-1	05/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]	185219-1	06/09/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	ORG-003	<50	[NT]	[NT]	185219-1	83%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	185219-1	77%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	185219-1	91%
TRH>C$_{10}$ - C$_{16}$	mg/kg	50	ORG-003	<50	[NT]	[NT]	185219-1	80%
TRH>C$_{16}$ - C$_{34}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	185219-1	77%
TRH>C$_{34}$ - C$_{40}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	185219-1	85%
Surrogate o-Terphenyl	%		ORG-003	97	[NT]	[NT]	185219-1	97%

QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/09/2016	[NT]	[NT]		06/09/2016
Date analysed	-			6/09/2016	[NT]	[NT]		06/09/2016
Dichlorodifluoromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		86%
trans-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
1,1-dichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
cis-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroform	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		85%
2,2-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		83%
1,1,1-trichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Dibromomethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Trichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		89%
Bromodichloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		87%
trans-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		86%
1,2-dibromoethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		87%
1,1,1,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromoform	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]		85%
1,2-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		ORG-013/014	101	[NT]	[NT]		101%
Surrogate aaa-Trifluorotoluene	%		ORG-014	90	[NT]	[NT]		91%
Surrogate Toluene-d_8	%		ORG-013/014	105	[NT]	[NT]		104%
Surrogate 4-Bromofluorobenz	%		ORG-013/014	94	[NT]	[NT]		98%

QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/09/2016	[NT]	[NT]		05/09/2016
Date analysed	-			06/09/2016	[NT]	[NT]		06/09/2016
1,3-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]		110%
1,2-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]		112%
1,3,5-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3,4-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	2	ORG-012	<2	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Pentachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachlorobenzene (HCB)	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	100	[NT]	[NT]		100%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			[NT]	185219-1	5/09/2016 || 5/09/2016	[NR]	[NR]
Date analysed	-			[NT]	185219-1	6/09/2016 || 6/09/2016	[NR]	[NR]
Moisture	%	0.1	INORG-008	[NT]	185219-1	10 || 10 || RPD: 0	[NR]	[NR]

QUALITY CONTROL Asbestos ID - soils	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date analysed	-			[NT]	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	185219-11	05/09/2016 || 05/09/2016	185219-1	05/09/2016
Date analysed	-	185219-11	05/09/2016 || 05/09/2016	185219-1	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	185219-11	<0.01 || <0.01	185219-1	107%
b-BHC	mg/kg	185219-11	<0.01 || <0.01	185219-1	102%
Lindane (g-BHC)	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	185219-11	<0.01 || <0.01	185219-1	95%
Aldrin	mg/kg	185219-11	<0.01 || <0.01	185219-1	124%
Heptachlor Epoxide	mg/kg	185219-11	<0.01 || <0.01	185219-1	95%

QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
g-Chlordane	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	185219-11	<0.01 || <0.01	185219-1	109%
Dieldrin	mg/kg	185219-11	<0.01 || <0.01	185219-1	97%
Endrin	mg/kg	185219-11	<0.01 || <0.01	185219-1	90%
p,p`-DDD	mg/kg	185219-11	<0.01 || <0.01	185219-1	115%
b-Endosulphan	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	185219-11	<0.01 || <0.01	185219-1	114%
Methoxychlor	mg/kg	185219-11	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%	185219-11	102 || 88 || RPD: 15	185219-1	109%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	185219-1	05/09/2016
Date analysed	-	[NT]	[NT]	185219-1	05/09/2016
Dichlorovos	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	185219-1	100%
Chlorpyrifos methyl	mg/kg	[NT]	[NT]	185219-1	87%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Fenitrothion	mg/kg	[NT]	[NT]	185219-1	84%
Malathion	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	[NT]	[NT]	185219-1	102%
Parathion-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	185219-1	97%
Bromophos ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%	[NT]	[NT]	185219-1	109%

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	[NR]	[NR]
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Chromium (VI)	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Cyanide	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	[NR]	[NR]
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Arsenic	mg/kg	[NT]	[NT]	[NR]	[NR]
Cadmium	mg/kg	[NT]	[NT]	[NR]	[NR]
Copper	mg/kg	[NT]	[NT]	[NR]	[NR]
Lead	mg/kg	[NT]	[NT]	[NR]	[NR]
Mercury	mg/kg	[NT]	[NT]	[NR]	[NR]
Molybdenum	mg/kg	[NT]	[NT]	[NR]	[NR]
Nickel	mg/kg	[NT]	[NT]	[NR]	[NR]
Tin	mg/kg	[NT]	[NT]	[NR]	[NR]
Selenium	mg/kg	[NT]	[NT]	[NR]	[NR]
Silver	mg/kg	[NT]	[NT]	[NR]	[NR]
Zinc	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL SVCH's in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	[NT]	[NT]
Date analysed	-	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	[NT]	[NT]
Hexachloroethane	mg/kg	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	[NT]	[NT]
1,3,5-Trichlorobenzene	mg/kg	[NT]	[NT]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	[NT]	[NT]
1,2,3,4-Tetrachlorobenzene	mg/kg	[NT]	[NT]
Hexachlorocyclopentadiene	mg/kg	[NT]	[NT]
Hexachlorobutadiene	mg/kg	[NT]	[NT]
Pentachlorobenzene	mg/kg	[NT]	[NT]
Hexachlorobenzene (HCB)	mg/kg	[NT]	[NT]
p-Terphenyl-D_{14}	%	[NT]	[NT]

QUALITY CONTROL Moisture	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	185219-11	5/09/2016 || 5/09/2016	[NR]	[NR]
Date analysed	-	185219-11	6/09/2016 || 6/09/2016	[NR]	[NR]
Moisture	%	185219-11	9.9 || 9.9 || RPD: 0	[NR]	[NR]
QUALITY CONTROL Asbestos ID - soils	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date analysed	-	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	185219-21	05/09/2016 || 05/09/2016	185219-2	05/09/2016
Date analysed	-	185219-21	05/09/2016 || 05/09/2016	185219-2	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
b-BHC	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Lindane (g-BHC)	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Aldrin	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Heptachlor Epoxide	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
g-Chlordane	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Dieldrin	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Endrin	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
p,p`-DDD	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
b-Endosulphan	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
Methoxychlor	mg/kg	185219-21	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%	185219-21	104 || 110 || RPD: 6	[NR]	[NR]

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	185219-21	05/09/2016 || 05/09/2016	185219-2	05/09/2016
Date analysed	-	185219-21	05/09/2016 || 05/09/2016	185219-2	05/09/2016
Dichlorovos	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Ronnel	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Malathion	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Parathion-ethyl	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Bromophos ethyl	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	185219-21	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%	185219-21	104 || 110 || RPD: 6	[NR]	[NR]
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	[NR]	[NR]
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Chromium (VI)	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Cyanide	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	[NR]	[NR]
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Arsenic	mg/kg	[NT]	[NT]	[NR]	[NR]
Cadmium	mg/kg	[NT]	[NT]	[NR]	[NR]
Copper	mg/kg	[NT]	[NT]	[NR]	[NR]
Lead	mg/kg	[NT]	[NT]	[NR]	[NR]
Mercury	mg/kg	[NT]	[NT]	[NR]	[NR]
Molybdenum	mg/kg	[NT]	[NT]	[NR]	[NR]
Nickel	mg/kg	[NT]	[NT]	[NR]	[NR]
Tin	mg/kg	[NT]	[NT]	[NR]	[NR]
Selenium	mg/kg	[NT]	[NT]	[NR]	[NR]
Silver	mg/kg	[NT]	[NT]	[NR]	[NR]
Zinc	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Speciated Phenols in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	[NT]	[NT]
Date analysed	-	[NT]	[NT]
Phenol	mg/kg	[NT]	[NT]
2-Chlorophenol	mg/kg	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	[NT]	[NT]
2-Methylphenol	mg/kg	[NT]	[NT]
3/4-Methylphenol	mg/kg	[NT]	[NT]
2-Nitrophenol	mg/kg	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]
2,6-Dichlorophenol	mg/kg	[NT]	[NT]
2,4,5-Trichlorophenol	mg/kg	[NT]	[NT]
2,4,6-Trichlorophenol	mg/kg	[NT]	[NT]
2,4-Dinitrophenol	mg/kg	[NT]	[NT]
4-Nitrophenol	mg/kg	[NT]	[NT]
2,3,4,6-Tetrachlorophenol	mg/kg	[NT]	[NT]
2-Methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]
Pentachlorophenol	mg/kg	[NT]	[NT]
Surrogate Phenol-d_6	%	[NT]	[NT]

QUALITY CONTROL SVCH's in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	[NT]	[NT]
Date analysed	-	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	[NT]	[NT]
Hexachloroethane	mg/kg	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	[NT]	[NT]
1,3,5-Trichlorobenzene	mg/kg	[NT]	[NT]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	[NT]	[NT]
1,2,3,4-Tetrachlorobenzene	mg/kg	[NT]	[NT]
Hexachlorocyclopentadiene	mg/kg	[NT]	[NT]
Hexachlorobutadiene	mg/kg	[NT]	[NT]
Pentachlorobenzene	mg/kg	[NT]	[NT]
Hexachlorobenzene (HCB)	mg/kg	[NT]	[NT]
p-Terphenyl-D_{14}	%	[NT]	[NT]

QUALITY CONTROL Moisture	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	185219-21	5/09/2016 || 5/09/2016	[NR]	[NR]
Date analysed	-	185219-21	6/09/2016 || 6/09/2016	[NR]	[NR]
Moisture	%	185219-21	9.4 || 9.4 || RPD: 0	[NR]	[NR]
QUALITY CONTROL Asbestos ID - soils	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date analysed	-	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	185219-22	05/09/2016
Date analysed	-	[NT]	[NT]	185219-22	05/09/2016
Hexachlorobenzene (HCB)	mg/kg	[NT]	[NT]	[NR]	[NR]
a-BHC	mg/kg	[NT]	[NT]	185219-22	96%
b-BHC	mg/kg	[NT]	[NT]	185219-22	95%
Lindane (g-BHC)	mg/kg	[NT]	[NT]	[NR]	[NR]
d-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Heptachlor	mg/kg	[NT]	[NT]	185219-22	87%
Aldrin	mg/kg	[NT]	[NT]	185219-22	108%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	185219-22	90%
g-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Endosulphan	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	mg/kg	[NT]	[NT]	185219-22	98%
Dieldrin	mg/kg	[NT]	[NT]	185219-22	91%
Endrin	mg/kg	[NT]	[NT]	185219-22	83%
p,p`-DDD	mg/kg	[NT]	[NT]	185219-22	103%
b-Endosulphan	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	185219-22	104%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%	[NT]	[NT]	185219-22	103%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	185219-22	05/09/2016
Date analysed	-	[NT]	[NT]	185219-22	05/09/2016
Dichlorovos	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	185219-22	93%
Chlorpyrifos methyl	mg/kg	[NT]	[NT]	185219-22	79%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Fenitrothion	mg/kg	[NT]	[NT]	185219-22	78%
Malathion	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	[NT]	[NT]	185219-22	93%
Parathion-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	185219-22	91%
Bromophos ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%	[NT]	[NT]	185219-22	103%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	185219-6	06/09/2016 || 06/09/2016	[NR]	[NR]
Date analysed	-	185219-6	06/09/2016 || 06/09/2016	[NR]	[NR]
Chromium (VI)	mg/kg	185219-6	<1 || <1	[NR]	[NR]
Total Cyanide	mg/kg	185219-6	<0.5 || <0.5	[NR]	[NR]
Total Fluoride	mg/kg	185219-6	[NT] || [NT]	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	[NR]	[NR]
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Arsenic	mg/kg	[NT]	[NT]	[NR]	[NR]
Cadmium	mg/kg	[NT]	[NT]	[NR]	[NR]
Copper	mg/kg	[NT]	[NT]	[NR]	[NR]
Lead	mg/kg	[NT]	[NT]	[NR]	[NR]
Mercury	mg/kg	[NT]	[NT]	[NR]	[NR]
Molybdenum	mg/kg	[NT]	[NT]	[NR]	[NR]
Nickel	mg/kg	[NT]	[NT]	[NR]	[NR]
Tin	mg/kg	[NT]	[NT]	[NR]	[NR]
Selenium	mg/kg	[NT]	[NT]	[NR]	[NR]
Silver	mg/kg	[NT]	[NT]	[NR]	[NR]
Zinc	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Speciated Phenols in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	[NT]	[NT]
Date analysed	-	[NT]	[NT]
Phenol	mg/kg	[NT]	[NT]
2-Chlorophenol	mg/kg	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	[NT]	[NT]
2-Methylphenol	mg/kg	[NT]	[NT]
3/4-Methylphenol	mg/kg	[NT]	[NT]
2-Nitrophenol	mg/kg	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]
2,6-Dichlorophenol	mg/kg	[NT]	[NT]
2,4,5-Trichlorophenol	mg/kg	[NT]	[NT]
2,4,6-Trichlorophenol	mg/kg	[NT]	[NT]
2,4-Dinitrophenol	mg/kg	[NT]	[NT]
4-Nitrophenol	mg/kg	[NT]	[NT]
2,3,4,6-Tetrachlorophenol	mg/kg	[NT]	[NT]
2-Methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]
Pentachlorophenol	mg/kg	[NT]	[NT]
Surrogate Phenol-d_6	%	[NT]	[NT]

QUALITY CONTROL SVCH's in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	[NT]	[NT]
Date analysed	-	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	[NT]	[NT]
Hexachloroethane	mg/kg	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	[NT]	[NT]
1,3,5-Trichlorobenzene	mg/kg	[NT]	[NT]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	[NT]	[NT]
1,2,3,4-Tetrachlorobenzene	mg/kg	[NT]	[NT]
Hexachlorocyclopentadiene	mg/kg	[NT]	[NT]
Hexachlorobutadiene	mg/kg	[NT]	[NT]
Pentachlorobenzene	mg/kg	[NT]	[NT]
Hexachlorobenzene (HCB)	mg/kg	[NT]	[NT]
p-Terphenyl-D_{14}	%	[NT]	[NT]

QUALITY CONTROL Moisture	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	[NR]	[NR]
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Moisture	%	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Asbestos ID - soils	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date analysed	-	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	185219-13	06/09/2016
Date analysed	-	[NT]	[NT]	185219-13	06/09/2016
Chromium (VI)	mg/kg	[NT]	[NT]	185219-13	96%
Total Cyanide	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	[NR]	[NR]

Report Comments:

Asbestos Signatories:

Asbestos was analysed by Approved Identifier: Lalanee Rupasinghe
Airborne fibres were analysed by Approved Counter: Not applicable for this job

Definitions:

NT: Not tested NA: Test not required INS: Insufficient sample for this test PQL: Practical Quantitation Limit
<: Less than >: Greater than RPD: Relative Percent Difference LCS: Laboratory Control Sample
NS: Not Specified NEPM: National Environmental Protection Measure NR: Not Reported

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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MPL Laboratories | ABN 53 140 099 207

CERTIFICATE OF ANALYSIS 186119

Client:
Douglas Partners NT
PO Box 36858
Winnellie
NT 0821

Attention: Jessica Paulsen

Sample log in details:

Your Reference:	**78156.02 Humpty Doo**
No. of samples:	4 Soil
Date samples received:	21/09/2016
Date completed instructions received:	21/09/2016
Location:	

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last pages of this report for any comments relating to the results.

Report Details:

Date results requested by:	22/09/16
Date of Preliminary Report:	Not issued
Issue Date:	22/09/16

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025 - Testing
Tests not covered by NATA are denoted with *.

Results Approved By:

David Williams
Group Organics Manager

Joshua Lim
Operations Manager

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186119-1 VM/S1 19/09/2016 Soil	186119-2 TSSP/S1 19/09/2016 Soil	186119-3 TSSP/S2 19/09/2016 Soil	186119-4 TSSP/S3 19/09/2016 Soil
Date extracted	-	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Date analysed	-	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	0.02	0.02	0.02
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	109	95	100	115

Organophosphorus Pesticides Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186119-1 VM/S1 19/09/2016 Soil	186119-2 TSSP/S1 19/09/2016 Soil	186119-3 TSSP/S2 19/09/2016 Soil	186119-4 TSSP/S3 19/09/2016 Soil
Date extracted	-	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Date analysed	-	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	109	95	100	115

Miscellaneous Inorg - soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date prepared	-	21/09/2016
Date analysed	-	21/09/2016
Chromium (VI)	mg/kg	<1
Total Cyanide	mg/kg	<0.5
Fluoride	mg/kg	<0.5

12 metals in soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date digested	-	21/09/2016
Date analysed	-	22/09/2016
Arsenic	mg/kg	3
Cadmium	mg/kg	<0.4
Copper	mg/kg	12
Lead	mg/kg	9
Mercury	mg/kg	<0.1
Molybdenum	mg/kg	<1
Nickel	mg/kg	6
Tin	mg/kg	1
Selenium	mg/kg	<2
Silver	mg/kg	<1
Zinc	mg/kg	14

vTRH(C6-C10)/MBTEXN in soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	21/09/2016
$TRHC_6$ - C_9	mg/kg	<25
$TRHC_6$ - C_{10}	mg/kg	<25
$TRHC_6$-C_{10} less BTEX (F1)	mg/kg	<25
MTBE	mg/kg	<0.5
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	87

svTRH(C10-C36) in soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	22/09/2016
$TRHC_{10}$ - C_{14}	mg/kg	<50
$TRHC_{15}$ - C_{28}	mg/kg	<100
$TRHC_{29}$ - C_{36}	mg/kg	<100
$TRH{>}C_{10}$ - C_{16}	mg/kg	<50
$TRH{>}C_{10}$-C_{16} less N (F2)	mg/kg	<50
$TRH{>}C_{16}$ - C_{34}	mg/kg	<100
$TRH{>}C_{34}$ - C_{40}	mg/kg	<100
Surrogate o-Terphenyl	%	98

VHC's in soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	21/09/2016
Dichlorodifluoromethane	mg/kg	<1.0
Chloromethane	mg/kg	<1.0
Vinyl Chloride	mg/kg	<1.0
Bromomethane	mg/kg	<1.0
Chloroethane	mg/kg	<1.0
Trichlorofluoromethane	mg/kg	<1.0
1,1-Dichloroethene	mg/kg	<1.0
trans-1,2-dichloroethene	mg/kg	<1.0
1,1-dichloroethane	mg/kg	<1.0
cis-1,2-dichloroethene	mg/kg	<1.0
Bromochloromethane	mg/kg	<1.0
Chloroform	mg/kg	<1.0
2,2-dichloropropane	mg/kg	<1.0
1,2-dichloroethane	mg/kg	<1.0
1,1,1-trichloroethane	mg/kg	<1.0
1,1-dichloropropene	mg/kg	<1.0
Carbon tetrachloride	mg/kg	<1.0
Dibromomethane	mg/kg	<1.0
1,2-dichloropropane	mg/kg	<1.0
Trichloroethene	mg/kg	<1.0
Bromodichloromethane	mg/kg	<1.0
trans-1,3-dichloropropene	mg/kg	<1.0
cis-1,3-dichloropropene	mg/kg	<1.0
1,1,2-trichloroethane	mg/kg	<1.0
1,3-dichloropropane	mg/kg	<1.0
Dibromochloromethane	mg/kg	<1.0
1,2-dibromoethane	mg/kg	<1.0
Tetrachloroethene	mg/kg	<1.0
1,1,1,2-tetrachloroethane	mg/kg	<1.0
Chlorobenzene	mg/kg	<1.0
Bromoform	mg/kg	<1.0
1,1,2,2-tetrachloroethane	mg/kg	<1.0
1,2,3-trichloropropane	mg/kg	<1.0
Bromobenzene	mg/kg	<1.0
2-chlorotoluene	mg/kg	<1.0
4-chlorotoluene	mg/kg	<1.0
1,3-dichlorobenzene	mg/kg	<1.0
1,4-dichlorobenzene	mg/kg	<1.0
1,2-dichlorobenzene	mg/kg	<1.0

VHC's in soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
1,2-dibromo-3-chloropropane	mg/kg	<1.0
1,2,4-trichlorobenzene	mg/kg	<1.0
Hexachlorobutadiene	mg/kg	<1.0
1,2,3-trichlorobenzene	mg/kg	<1.0
Surrogate Dibromofluorometha	%	99
Surrogate aaa-Trifluorotoluene	%	86
Surrogate Toluene-d_8	%	101
Surrogate 4-Bromofluorobenz	%	99

SVCH's in Soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	21/09/2016
1,3-Dichlorobenzene	mg/kg	<0.5
1,4-Dichlorobenzene	mg/kg	<0.5
1,2-Dichlorobenzene	mg/kg	<0.5
Hexachloroethane	mg/kg	<0.5
1,2,3-Trichlorobenzene	mg/kg	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5
1,3,5-Trichlorobenzene	mg/kg	<0.5
1,2,3,5 & 1,2,4,5- Tetrachlorobenzene	mg/kg	<0.5
1,2,3,4-Tetrachlorobenzene	mg/kg	<0.5
Hexachlorocyclopentadiene	mg/kg	<2
Hexachlorobutadiene	mg/kg	<0.5
Pentachlorobenzene	mg/kg	<0.5
Hexachlorobenzene (HCB)	mg/kg	<0.5
p-Terphenyl-D_{14}	%	95

PAHs in Soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	21/09/2016
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Total Positive PAHs	mg/kg	NO +VE PAHS
p-Terphenyl-D_{14}	%	95

PCBs in Soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	21/09/2016
Arochlor 1016	mg/kg	<0.1
Arochlor 1221	mg/kg	<0.1
Arochlor 1232	mg/kg	<0.1
Arochlor 1242	mg/kg	<0.1
Arochlor 1248	mg/kg	<0.1
Arochlor 1254	mg/kg	<0.1
Arochlor 1260	mg/kg	<0.1

Speciated Phenols in Soil		
Our Reference:	UNITS	186119-2
Your Reference	----------	TSSP/S1
Date Sampled	----------	19/09/2016
Type of sample		Soil
Date extracted	-	21/09/2016
Date analysed	-	21/09/2016
Phenol	mg/kg	<0.2
2-Chlorophenol	mg/kg	<0.2
4-Chloro-3-methylphenol	mg/kg	<5
2-Methylphenol	mg/kg	<0.2
3/4-Methylphenol	mg/kg	<0.4
2-Nitrophenol	mg/kg	<0.2
2,4-Dimethylphenol	mg/kg	<0.2
2,4-Dichlorophenol	mg/kg	<0.2
2,6-Dichlorophenol	mg/kg	<0.2
2,4,5-Trichlorophenol	mg/kg	<0.2
2,4,6-Trichlorophenol	mg/kg	<0.2
2,4-Dinitrophenol	mg/kg	<4
4-Nitrophenol	mg/kg	<4
2,3,4,6-Tetrachlorophenol	mg/kg	<0.2
2-Methyl-4,6-dinitrophenol	mg/kg	<10
Pentachlorophenol	mg/kg	<5
Surrogate Phenol-d_6	%	85

Moisture					
Our Reference:	UNITS	186119-1	186119-2	186119-3	186119-4
Your Reference	----------	VM/S1	TSSP/S1	TSSP/S2	TSSP/S3
Date Sampled	----------	19/09/2016	19/09/2016	19/09/2016	19/09/2016
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Date analysed	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Moisture	%	9.7	14	17	14

Method ID	Methodology Summary
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ORG-005/012	Organochlorine Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
ORG-015	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS or GC-MS/MS.
ORG-008/015	Organophosphorus Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
INORG-118	Hexavalent Chromium by Ion Chromatographic separation and colourimetric determination.
INORG-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
INORG-026	Fluoride determined by ion selective electrode (ISE) based on APHA latest edition, 4500-F-C. Soils reported from a 1:5 water extract unless otherwise specified.
METALS-020	Metals in soil and water by ICP-OES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
ORG-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
ORG-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
ORG-013/014	VOC's in soil by methanolic extraction and water directly by purge and trap GCMS
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-012	For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-004	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.

Method ID	Methodology Summary
ORG-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
INORG-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.

QUALITY CONTROL Low Level OCP in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Hexachlorobenzene (HCB)	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	100%
b-BHC	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	111%
Lindane (g-BHC)	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	92%
Aldrin	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	100%
Heptachlor Epoxide	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	103%
g-Chlordane	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	107%
Dieldrin	mg/kg	0.01	ORG-012	<0.01	186119-2	0.02 || 0.02 || RPD: 0	LCS-1	106%
Endrin	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	113%
p,p`-DDD	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	120%
b-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	LCS-1	125%
Methoxychlor	mg/kg	0.01	ORG-012	<0.01	186119-2	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-005/012	108	186119-2	95 || 109 || RPD: 14	LCS-1	127%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Dichlorovos	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	LCS-1	97%
Ronnel	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	LCS-1	96%
Malathion	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	LCS-1	104%
Parathion-ethyl	mg/kg	0.05	ORG-008/015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	LCS-1	111%
Bromophos ethyl	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	0.05	ORG-015	<0.05	186119-2	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-008/015	108	186119-2	95 || 109 || RPD: 14	LCS-1	127%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			22/09/2016	186119-2	21/09/2016 || 22/09/2016	LCS-1	22/09/2016
Date analysed	-			22/09/2016	186119-2	21/09/2016 || 22/09/2016	LCS-1	22/09/2016
Chromium (VI)	mg/kg	1	INORG-118	<1	186119-2	<1 || <1	LCS-1	103%
Total Cyanide	mg/kg	0.5	INORG-014	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
Fluoride	mg/kg	0.5	INORG-026	<0.5	186119-2	<0.5 || [N/T]	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			22/09/2016	186119-2	22/09/2016 || 22/09/2016	LCS-1	22/09/2016
Arsenic	mg/kg	2	METALS-020	<2	186119-2	3 || 3 || RPD: 0	LCS-1	103%
Cadmium	mg/kg	0.4	METALS-020	<0.4	186119-2	<0.4 || <0.4	LCS-1	105%
Copper	mg/kg	1	METALS-020	<1	186119-2	12 || 12 || RPD: 0	LCS-1	101%
Lead	mg/kg	1	METALS-020	<1	186119-2	9 || 10 || RPD: 11	LCS-1	99%
Mercury	mg/kg	0.1	Metals-021	<0.1	186119-2	<0.1 || <0.1	LCS-1	100%

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Molybdenum	mg/kg	1	METALS-020	<1	186119-2	<1 || <1	LCS-1	119%
Nickel	mg/kg	1	METALS-020	<1	186119-2	6 || 5 || RPD: 18	LCS-1	102%
Tin	mg/kg	1	METALS-020	<1	186119-2	1 || 2 || RPD: 67	LCS-1	112%
Selenium	mg/kg	2	METALS-020	<2	186119-2	<2 || <2	LCS-1	97%
Silver	mg/kg	1	METALS-020	<1	186119-2	<1 || <1	[NR]	[NR]
Zinc	mg/kg	1	METALS-020	<1	186119-2	14 || 14 || RPD: 0	LCS-1	105%
QUALITY CONTROL vTRH(C6-C10)/MBTEXN in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
$TRHC_6$ - C_9	mg/kg	25	ORG-016	<25	186119-2	<25 || <25	LCS-1	81%
$TRHC_6$ - C_{10}	mg/kg	25	ORG-016	<25	186119-2	<25 || <25	LCS-1	81%
MTBE	mg/kg	0.5	ORG-016	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
Benzene	mg/kg	0.2	ORG-016	<0.2	186119-2	<0.2 || <0.2	LCS-1	90%
Toluene	mg/kg	0.5	ORG-016	<0.5	186119-2	<0.5 || <0.5	LCS-1	92%
Ethylbenzene	mg/kg	1	ORG-016	<1	186119-2	<1 || <1	LCS-1	87%
m+p-xylene	mg/kg	2	ORG-016	<2	186119-2	<2 || <2	LCS-1	83%
o-xylene	mg/kg	1	ORG-016	<1	186119-2	<1 || <1	LCS-1	86%
Naphthalene	mg/kg	1	ORG-016	<1	186119-2	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		ORG-016	92	186119-2	87 || 88 || RPD: 1	LCS-1	85%

QUALITY CONTROL svTRH(C10-C36) in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	22/09/2016 || 22/09/2016	LCS-1	22/09/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	ORG-003	<50	186119-2	<50 || <50	LCS-1	80%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	ORG-003	<100	186119-2	<100 || <100	LCS-1	81%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	ORG-003	<100	186119-2	<100 || <100	LCS-1	82%
TRH>C$_{10}$ - C$_{16}$	mg/kg	50	ORG-003	<50	186119-2	<50 || <50	LCS-1	81%
TRH>C$_{16}$ - C$_{34}$	mg/kg	100	ORG-003	<100	186119-2	<100 || <100	LCS-1	82%
TRH>C$_{34}$ - C$_{40}$	mg/kg	100	ORG-003	<100	186119-2	<100 || <100	LCS-1	100%
Surrogate o-Terphenyl	%		ORG-003	97	186119-2	98 || 97 || RPD: 1	LCS-1	84%
QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Dichlorodifluoromethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Chloromethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Vinyl Chloride	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Bromomethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Chloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	83%
cis-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Bromochloromethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Chloroform	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	83%
2,2-dichloropropane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	81%
1,1,1-trichloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	83%
1,1-dichloropropene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Carbon tetrachloride	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Dibromomethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Trichloroethene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	93%
Bromodichloromethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	84%
trans-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]

QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Dibromochloromethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	87%
1,2-dibromoethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Tetrachloroethene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	90%
1,1,1,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Chlorobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Bromoform	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	82%
1,1,2,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Bromobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
2-chlorotoluene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
4-chlorotoluene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	LCS-1	84%
1,2-dichlorobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	ORG-014	<1.0	186119-2	<1.0 || <1.0	[NR]	[NR]
Surrogate Dibromofluorometha	%		ORG-013/014	100	186119-2	99 || 101 || RPD: 2	LCS-1	97%
Surrogate aaa-Trifluorotoluene	%		ORG-014	91	186119-2	86 || 88 || RPD: 2	LCS-1	94%
Surrogate Toluene-d_8	%		ORG-013/014	102	186119-2	101 || 103 || RPD: 2	LCS-1	104%
Surrogate 4-Bromofluorobenz	%		ORG-013/014	98	186119-2	99 || 97 || RPD: 2	LCS-1	105%
QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
1,3-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	LCS-1	93%
1,2-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
Hexachloroethane	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
1,2,3-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	LCS-1	93%
1,3,5-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
1,2,3,4-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]

QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Hexachlorocyclopentadiene	mg/kg	2	ORG-012	<2	186119-2	<2 || <2	[NR]	[NR]
Hexachlorobutadiene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
Pentachlorobenzene	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
Hexachlorobenzene (HCB)	mg/kg	0.5	ORG-012	<0.5	186119-2	<0.5 || <0.5	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	108	186119-2	95 || 109 || RPD: 14	LCS-1	127%
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Naphthalene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	LCS-1	92%
Acenaphthylene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	LCS-1	96%
Phenanthrene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	LCS-1	100%
Anthracene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	LCS-1	109%
Pyrene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	LCS-1	115%
Benzo(a)anthracene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	LCS-1	98%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	ORG-012	<0.05	186119-2	<0.05 || <0.05	LCS-1	95%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	ORG-012	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	108	186119-2	95 || 109 || RPD: 14	LCS-1	127%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Arochlor 1016	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
Arochlor 1260	mg/kg	0.1	ORG-006	<0.1	186119-2	<0.1 || <0.1	[NR]	[NR]
QUALITY CONTROL Speciated Phenols in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Date analysed	-			21/09/2016	186119-2	21/09/2016 || 21/09/2016	LCS-1	21/09/2016
Phenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	LCS-1	92%
2-Chlorophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	LCS-1	88%
4-Chloro-3-methylphenol	mg/kg	5	ORG-012	<5	186119-2	<5 || <5	[NR]	[NR]
2-Methylphenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	LCS-1	83%
3/4-Methylphenol	mg/kg	0.4	ORG-012	<0.4	186119-2	<0.4 || <0.4	[NR]	[NR]
2-Nitrophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
2,6-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	LCS-1	87%
2,4,5-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
2,4,6-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
2,4-Dinitrophenol	mg/kg	4	ORG-012	<4	186119-2	<4 || <4	[NR]	[NR]
4-Nitrophenol	mg/kg	4	ORG-012	<4	186119-2	<4 || <4	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	mg/kg	0.2	ORG-012	<0.2	186119-2	<0.2 || <0.2	[NR]	[NR]
2-Methyl-4,6-dinitrophenol	mg/kg	10	ORG-012	<10	186119-2	<10 || <10	[NR]	[NR]
Pentachlorophenol	mg/kg	5	ORG-012	<5	186119-2	<5 || <5	[NR]	[NR]
Surrogate Phenol-d_6	%		ORG-012	78	186119-2	85 || 77 || RPD: 10	LCS-1	85%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			21/09/2016
Date analysed	-			22/09/2016
Moisture	%	0.1	INORG-008	<0.10

Report Comments:

Asbestos Signatories:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Airborne fibres were analysed by Approved Counter: Not applicable for this job

Definitions:

NT: Not tested NA: Test not required INS: Insufficient sample for this test PQL: Practical Quantitation Limit
<: Less than >: Greater than RPD: Relative Percent Difference LCS: Laboratory Control Sample
NS: Not Specified NEPM: National Environmental Protection Measure NR: Not Reported

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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CERTIFICATE OF ANALYSIS 186202

Client:
Douglas Partners NT
PO Box 36858
Winnellie
NT 0821

Attention: Andrew Gane

Sample log in details:

Your Reference:	**78156.02 Humpty Doo**
No. of samples:	9 Soil
Date samples received:	22/09/2016
Date completed instructions received:	22/09/2016
Location:	

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last pages of this report for any comments relating to the results.

Report Details:

Date results requested by:	23/09/16
Date of Preliminary Report:	Not issued
Issue Date:	23/09/16

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025 - Testing
Tests not covered by NATA are denoted with *.

Results Approved By:

Todd Lee
Laboratory Manager

David Williams
Group Organics Manager

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186202-1 TSSP/S4 21/09/2016 Soil	186202-2 TSSP/S5 21/09/2016 Soil	186202-3 TSSP/S6 21/09/2016 Soil	186202-4 TSSP/S7 21/09/2016 Soil	186202-5 TSSP/S8 21/09/2016 Soil
Date extracted	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Date analysed	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	0.03	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	93	104	98	96	107

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186202-6 TSSP/S9 21/09/2016 Soil	186202-7 TSSP/S10 21/09/2016 Soil	186202-8 TSSP/S11 21/09/2016 Soil	186202-9 TSSP/S12 21/09/2016 Soil
Date extracted	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Date analysed	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	0.01	0.06	0.01	0.03
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	100	100	107	111

Organophosphorus Pesticides						
Our Reference:	UNITS	186202-1	186202-2	186202-3	186202-4	186202-5
Your Reference	----------	TSSP/S4	TSSP/S5	TSSP/S6	TSSP/S7	TSSP/S8
Date Sampled	----------	21/09/2016	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Date analysed	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	93	104	98	96	107

Organophosphorus Pesticides					
Our Reference:	UNITS	186202-6	186202-7	186202-8	186202-9
Your Reference	----------	TSSP/S9	TSSP/S10	TSSP/S11	TSSP/S12
Date Sampled	----------	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Date analysed	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	100	100	107	111

Miscellaneous Inorg - soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date prepared	-	22/09/2016
Date analysed	-	22/09/2016
Chromium (VI)	mg/kg	<1
Total Cyanide	mg/kg	<0.5
Fluoride	mg/kg	<0.5

12 metals in soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date digested	-	22/09/2016
Date analysed	-	23/09/2016
Arsenic	mg/kg	5
Cadmium	mg/kg	<0.4
Copper	mg/kg	5
Lead	mg/kg	7
Mercury	mg/kg	<0.1
Molybdenum	mg/kg	<1
Nickel	mg/kg	2
Tin	mg/kg	<1
Selenium	mg/kg	<2
Silver	mg/kg	<1
Zinc	mg/kg	3

vTRH(C6-C10)/MBTEXN in soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
$TRHC_6$ - C_9	mg/kg	<25
$TRHC_6$ - C_{10}	mg/kg	<25
$TRHC_6$-C_{10} less BTEX (F1)	mg/kg	<25
MTBE	mg/kg	<0.5
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	103

svTRH(C10-C36) in soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
$TRHC_{10}$ - C_{14}	mg/kg	<50
$TRHC_{15}$ - C_{28}	mg/kg	<100
$TRHC_{29}$ - C_{36}	mg/kg	<100
$TRH{>}C_{10}$ - C_{16}	mg/kg	<50
$TRH{>}C_{10}$-C_{16} less N (F2)	mg/kg	<50
$TRH{>}C_{16}$ - C_{34}	mg/kg	<100
$TRH{>}C_{34}$ - C_{40}	mg/kg	<100
Surrogate o-Terphenyl	%	99

VHC's in soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
Dichlorodifluoromethane	mg/kg	<1.0
Chloromethane	mg/kg	<1.0
Vinyl Chloride	mg/kg	<1.0
Bromomethane	mg/kg	<1.0
Chloroethane	mg/kg	<1.0
Trichlorofluoromethane	mg/kg	<1.0
1,1-Dichloroethene	mg/kg	<1.0
trans-1,2-dichloroethene	mg/kg	<1.0
1,1-dichloroethane	mg/kg	<1.0
cis-1,2-dichloroethene	mg/kg	<1.0
Bromochloromethane	mg/kg	<1.0
Chloroform	mg/kg	<1.0
2,2-dichloropropane	mg/kg	<1.0
1,2-dichloroethane	mg/kg	<1.0
1,1,1-trichloroethane	mg/kg	<1.0
1,1-dichloropropene	mg/kg	<1.0
Carbon tetrachloride	mg/kg	<1.0
Dibromomethane	mg/kg	<1.0
1,2-dichloropropane	mg/kg	<1.0
Trichloroethene	mg/kg	<1.0
Bromodichloromethane	mg/kg	<1.0
trans-1,3-dichloropropene	mg/kg	<1.0
cis-1,3-dichloropropene	mg/kg	<1.0
1,1,2-trichloroethane	mg/kg	<1.0
1,3-dichloropropane	mg/kg	<1.0
Dibromochloromethane	mg/kg	<1.0
1,2-dibromoethane	mg/kg	<1.0
Tetrachloroethene	mg/kg	<1.0
1,1,1,2-tetrachloroethane	mg/kg	<1.0
Chlorobenzene	mg/kg	<1.0
Bromoform	mg/kg	<1.0
1,1,2,2-tetrachloroethane	mg/kg	<1.0
1,2,3-trichloropropane	mg/kg	<1.0
Bromobenzene	mg/kg	<1.0
2-chlorotoluene	mg/kg	<1.0
4-chlorotoluene	mg/kg	<1.0
1,3-dichlorobenzene	mg/kg	<1.0
1,4-dichlorobenzene	mg/kg	<1.0
1,2-dichlorobenzene	mg/kg	<1.0

VHC's in soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
1,2-dibromo-3-chloropropane	mg/kg	<1.0
1,2,4-trichlorobenzene	mg/kg	<1.0
Hexachlorobutadiene	mg/kg	<1.0
1,2,3-trichlorobenzene	mg/kg	<1.0
Surrogate Dibromofluorometha	%	97
Surrogate aaa-Trifluorotoluene	%	103
Surrogate Toluene-d_8	%	103
Surrogate 4-Bromofluorobenz	%	95

SVCH's in Soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
1,3-Dichlorobenzene	mg/kg	<0.5
1,4-Dichlorobenzene	mg/kg	<0.5
1,2-Dichlorobenzene	mg/kg	<0.5
Hexachloroethane	mg/kg	<0.5
1,2,3-Trichlorobenzene	mg/kg	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5
1,3,5-Trichlorobenzene	mg/kg	<0.5
1,2,3,5 & 1,2,4,5- Tetrachlorobenzene	mg/kg	<0.5
1,2,3,4-Tetrachlorobenzene	mg/kg	<0.5
Hexachlorocyclopentadiene	mg/kg	<2
Hexachlorobutadiene	mg/kg	<0.5
Pentachlorobenzene	mg/kg	<0.5
Hexachlorobenzene (HCB)	mg/kg	<0.5
p-Terphenyl-D_{14}	%	93

PAHs in Soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Total Positive PAHs	mg/kg	NO +VE PAHS
p-Terphenyl-D_{14}	%	93

PCBs in Soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
Arochlor 1016	mg/kg	<0.1
Arochlor 1221	mg/kg	<0.1
Arochlor 1232	mg/kg	<0.1
Arochlor 1242	mg/kg	<0.1
Arochlor 1248	mg/kg	<0.1
Arochlor 1254	mg/kg	<0.1
Arochlor 1260	mg/kg	<0.1

Speciated Phenols in Soil		
Our Reference:	UNITS	186202-1
Your Reference	----------	TSSP/S4
Date Sampled	----------	21/09/2016
Type of sample		Soil
Date extracted	-	22/09/2016
Date analysed	-	22/09/2016
Phenol	mg/kg	<0.2
2-Chlorophenol	mg/kg	<0.2
4-Chloro-3-methylphenol	mg/kg	<5
2-Methylphenol	mg/kg	<0.2
3/4-Methylphenol	mg/kg	<0.4
2-Nitrophenol	mg/kg	<0.2
2,4-Dimethylphenol	mg/kg	<0.2
2,4-Dichlorophenol	mg/kg	<0.2
2,6-Dichlorophenol	mg/kg	<0.2
2,4,5-Trichlorophenol	mg/kg	<0.2
2,4,6-Trichlorophenol	mg/kg	<0.2
2,4-Dinitrophenol	mg/kg	<4
4-Nitrophenol	mg/kg	<4
2,3,4,6-Tetrachlorophenol	mg/kg	<0.2
2-Methyl-4,6-dinitrophenol	mg/kg	<10
Pentachlorophenol	mg/kg	<5
Surrogate Phenol-d_6	%	83

Moisture						
Our Reference:	UNITS	186202-1	186202-2	186202-3	186202-4	186202-5
Your Reference	----------	TSSP/S4	TSSP/S5	TSSP/S6	TSSP/S7	TSSP/S8
Date Sampled	----------	21/09/2016	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Date analysed	-	23/09/2016	23/09/2016	23/09/2016	23/09/2016	23/09/2016
Moisture	%	6.6	4.1	12	3.8	8.4

Moisture					
Our Reference:	UNITS	186202-6	186202-7	186202-8	186202-9
Your Reference	----------	TSSP/S9	TSSP/S10	TSSP/S11	TSSP/S12
Date Sampled	----------	21/09/2016	21/09/2016	21/09/2016	21/09/2016
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	22/09/2016	22/09/2016	22/09/2016	22/09/2016
Date analysed	-	23/09/2016	23/09/2016	23/09/2016	23/09/2016
Moisture	%	6.3	6.7	8.7	7.2

Method ID	Methodology Summary
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ORG-005/012	Organochlorine Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
ORG-015	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS or GC-MS/MS.
ORG-008/015	Organophosphorus Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
INORG-118	Hexavalent Chromium by Ion Chromatographic separation and colourimetric determination.
INORG-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
INORG-026	Fluoride determined by ion selective electrode (ISE) based on APHA latest edition, 4500-F-C. Soils reported from a 1:5 water extract unless otherwise specified.
METALS-020	Metals in soil and water by ICP-OES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
ORG-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
ORG-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
ORG-013/014	VOC's in soil by methanolic extraction and water directly by purge and trap GCMS
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-012	For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-004	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.

Method ID	Methodology Summary
ORG-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
INORG-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.

QUALITY CONTROL Low Level OCP in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	186202-8	22/09/2016 || 22/09/2016	LCS-1	22/09/2016
Date analysed	-			22/09/2016	186202-8	22/09/2016 || 22/09/2016	LCS-1	22/09/2016
Hexachlorobenzene (HCB)	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	89%
b-BHC	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	92%
Lindane (g-BHC)	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	89%
Aldrin	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	96%
Heptachlor Epoxide	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	99%
g-Chlordane	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	98%
Dieldrin	mg/kg	0.01	ORG-012	<0.01	186202-8	0.01 || 0.02 || RPD: 67	LCS-1	99%
Endrin	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	109%
p,p`-DDD	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	112%
b-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	LCS-1	101%
Methoxychlor	mg/kg	0.01	ORG-012	<0.01	186202-8	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-005/012	123	186202-8	107 || 98 || RPD: 9	LCS-1	113%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	186202-8	22/09/2016 || 22/09/2016	LCS-1	22/09/2016
Date analysed	-			22/09/2016	186202-8	22/09/2016 || 22/09/2016	LCS-1	22/09/2016
Dichlorovos	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	LCS-1	96%
Ronnel	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	LCS-1	101%
Malathion	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	LCS-1	102%
Parathion-ethyl	mg/kg	0.05	ORG-008/015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	LCS-1	124%
Bromophos ethyl	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	0.05	ORG-015	<0.05	186202-8	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-008/015	123	186202-8	107 || 98 || RPD: 9	LCS-1	113%

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Chromium (VI)	mg/kg	1	INORG-118	<1	[NT]	[NT]	LCS-1	102%
Total Cyanide	mg/kg	0.5	INORG-014	[NT]	[NT]	[NT]	[NR]	[NR]
Fluoride	mg/kg	0.5	INORG-026	<0.5	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			23/09/2016	[NT]	[NT]	LCS-1	23/09/2016
Arsenic	mg/kg	2	METALS-020	<2	[NT]	[NT]	LCS-1	107%
Cadmium	mg/kg	0.4	METALS-020	<0.4	[NT]	[NT]	LCS-1	106%
Copper	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	105%
Lead	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	104%
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	LCS-1	102%

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Molybdenum	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	122%
Nickel	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	106%
Tin	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	116%
Selenium	mg/kg	2	METALS-020	<2	[NT]	[NT]	LCS-1	103%
Silver	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	104%
Zinc	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	109%
QUALITY CONTROL vTRH(C6-C10)/MBTEXN in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
$TRHC_6 - C_9$	mg/kg	25	ORG-016	<25	[NT]	[NT]	LCS-1	89%
$TRHC_6 - C_{10}$	mg/kg	25	ORG-016	<25	[NT]	[NT]	LCS-1	89%
MTBE	mg/kg	0.5	ORG-016	<0.5	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	ORG-016	<0.2	[NT]	[NT]	LCS-1	91%
Toluene	mg/kg	0.5	ORG-016	<0.5	[NT]	[NT]	LCS-1	93%
Ethylbenzene	mg/kg	1	ORG-016	<1	[NT]	[NT]	LCS-1	87%
m+p-xylene	mg/kg	2	ORG-016	<2	[NT]	[NT]	LCS-1	83%
o-xylene	mg/kg	1	ORG-016	<1	[NT]	[NT]	LCS-1	85%
Naphthalene	mg/kg	1	ORG-016	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		ORG-016	90	[NT]	[NT]	LCS-1	88%

QUALITY CONTROL svTRH(C10-C36) in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	ORG-003	<50	[NT]	[NT]	LCS-1	115%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	115%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	106%
TRH>C$_{10}$ - C$_{16}$	mg/kg	50	ORG-003	<50	[NT]	[NT]	LCS-1	113%
TRH>C$_{16}$ - C$_{34}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	116%
TRH>C$_{34}$ - C$_{40}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	100%
Surrogate o-Terphenyl	%		ORG-003	96	[NT]	[NT]	LCS-1	84%
QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Dichlorodifluoromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	87%
cis-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroform	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	85%
2,2-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	75%
1,1,1-trichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	82%
1,1-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Dibromomethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Trichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	93%
Bromodichloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	85%
trans-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Dibromochloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	88%
1,2-dibromoethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	93%
1,1,1,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromoform	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	86%
1,1,2,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	87%
1,2-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		ORG-013/014	94	[NT]	[NT]	LCS-1	95%
Surrogate aaa-Trifluorotoluene	%		ORG-014	90	[NT]	[NT]	LCS-1	88%
Surrogate Toluene-d_8	%		ORG-013/014	103	[NT]	[NT]	LCS-1	103%
Surrogate 4-Bromofluorobenz	%		ORG-013/014	97	[NT]	[NT]	LCS-1	103%
QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
1,3-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	LCS-1	91%
1,2-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	LCS-1	95%
1,3,5-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3,4-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Hexachlorocyclopentadiene	mg/kg	2	ORG-012	<2	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Pentachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachlorobenzene (HCB)	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	123	[NT]	[NT]	LCS-1	113%
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Naphthalene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	89%
Acenaphthylene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	89%
Phenanthrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	95%
Anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	100%
Pyrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	104%
Benzo(a)anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	94%
Benzo(b,j +k)fluoranthene	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	ORG-012	<0.05	[NT]	[NT]	LCS-1	93%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	123	[NT]	[NT]	LCS-1	113%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Arochlor 1016	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	LCS-1	94%
Arochlor 1260	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Speciated Phenols in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Date analysed	-			22/09/2016	[NT]	[NT]	LCS-1	22/09/2016
Phenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	93%
2-Chlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	89%
4-Chloro-3-methylphenol	mg/kg	5	ORG-012	<5	[NT]	[NT]	[NR]	[NR]
2-Methylphenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	90%
3/4-Methylphenol	mg/kg	0.4	ORG-012	<0.4	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,6-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	83%
2,4,5-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4,6-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dinitrophenol	mg/kg	4	ORG-012	<4	[NT]	[NT]	[NR]	[NR]
4-Nitrophenol	mg/kg	4	ORG-012	<4	[NT]	[NT]	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2-Methyl-4,6-dinitrophenol	mg/kg	10	ORG-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachlorophenol	mg/kg	5	ORG-012	<5	[NT]	[NT]	[NR]	[NR]
Surrogate Phenol-d_6	%		ORG-012	74	[NT]	[NT]	LCS-1	87%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			22/09/2016
Date analysed	-			23/09/2016
Moisture	%	0.1	INORG-008	<0.10

Report Comments:

Asbestos Signatories:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Airborne fibres were analysed by Approved Counter: Not applicable for this job

Definitions:

NT: Not tested NA: Test not required INS: Insufficient sample for this test PQL: Practical Quantitation Limit
<: Less than >: Greater than RPD: Relative Percent Difference LCS: Laboratory Control Sample
NS: Not Specified NEPM: National Environmental Protection Measure NR: Not Reported

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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CERTIFICATE OF ANALYSIS 186517

Client:
Douglas Partners NT
PO Box 36858
Winnellie
NT 0821

Attention: Andrew Gane

Sample log in details:

Your Reference:	**78156.02 Humpty Doo**
No. of samples:	32 Soil
Date samples received:	29/09/2016
Date completed instructions received:	29/09/2016
Location:	

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last pages of this report for any comments relating to the results.

Report Details:

Date results requested by:	3/10/16
Date of Preliminary Report:	Not issued
Issue Date:	3/10/16

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025 - Testing
Tests not covered by NATA are denoted with *.

Results Approved By:

Joshua Lim
Operations Manager

ACCREDITED FOR TECHNICAL COMPETENCE

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-2 VM/S2 23/09/2016 Soil	186517-3 VM/S3 23/09/2016 Soil	186517-4 VM/S4 23/09/2016 Soil	186517-5 VM/S5 23/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	0.03	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	99	97	93	93	95

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-6 VM/S6 23/09/2016 Soil	186517-7 VM/S7 27/09/2016 Soil	186517-8 VM/S8 27/09/2016 Soil	186517-9 VM/S9 27/09/2016 Soil	186517-10 VM/S10 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	0.25
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	101	95	88	96	101

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-11 VM/S11 27/09/2016 Soil	186517-12 VM/S12 27/09/2016 Soil	186517-13 VM/S13 27/09/2016 Soil	186517-14 VM/S14 27/09/2016 Soil	186517-15 VM/S15 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	0.10	<0.01	<0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	95	97	96	92	97

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-16 VM/S16 27/09/2016 Soil	186517-17 VM/S17 27/09/2016 Soil	186517-18 VM/S18 27/09/2016 Soil	186517-19 VM/S19 27/09/2016 Soil	186517-20 VM/S20 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	0.08
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	102	99	98	98	96

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-21 VM/S21 27/09/2016 Soil	186517-22 VM/S22 27/09/2016 Soil	186517-23 VM/S23 27/09/2016 Soil	186517-24 VM/S24 27/09/2016 Soil	186517-25 VM/S25 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	0.03	<0.01	0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	96	103	98	102	101

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-26 VM/S26 27/09/2016 Soil	186517-27 270916Rep1 27/09/2016 Soil	186517-28 270916Rep2 27/09/2016 Soil	186517-29 270916Rep3 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	100	82	98	101	95

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-31 Fill/SP2 27/09/2016 Soil	186517-32 230916Rep1 23/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01
Dieldrin	mg/kg	<0.01	0.05
Endrin	mg/kg	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01
p-Terphenyl-D_{14}	%	102	93

Organophosphorus Pesticides						
Our Reference:	UNITS	186517-1	186517-2	186517-3	186517-4	186517-5
Your Reference	----------	TSSP/S13	VM/S2	VM/S3	VM/S4	VM/S5
Date Sampled	----------	27/09/2016	23/09/2016	23/09/2016	23/09/2016	23/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	99	97	93	93	95

Organophosphorus Pesticides						
Our Reference:	UNITS	186517-6	186517-7	186517-8	186517-9	186517-10
Your Reference	----------	VM/S6	VM/S7	VM/S8	VM/S9	VM/S10
Date Sampled	----------	23/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	101	95	88	96	101

Organophosphorus Pesticides						
Our Reference:	UNITS	186517-11	186517-12	186517-13	186517-14	186517-15
Your Reference	----------	VM/S11	VM/S12	VM/S13	VM/S14	VM/S15
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	96	97	96	92	97

Organophosphorus Pesticides						
Our Reference:	UNITS	186517-16	186517-17	186517-18	186517-19	186517-20
Your Reference	----------	VM/S16	VM/S17	VM/S18	VM/S19	VM/S20
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	102	99	98	98	96

Organophosphorus Pesticides						
Our Reference:	UNITS	186517-21	186517-22	186517-23	186517-24	186517-25
Your Reference	----------	VM/S21	VM/S22	VM/S23	VM/S24	VM/S25
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	96	103	98	102	101

Organophosphorus Pesticides						
Our Reference:	UNITS	186517-26	186517-27	186517-28	186517-29	186517-30
Your Reference	----------	VM/S26	270916Rep1	270916Rep2	270916Rep3	Fill/SP1
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	100	82	98	101	95

Organophosphorus Pesticides Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-31 Fill/SP2 27/09/2016 Soil	186517-32 230916Rep1 23/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016
Dichlorovos	mg/kg	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05
p-Terphenyl-D_{14}	%	102	93

Miscellaneous Inorg - soil				
Our Reference:	UNITS	186517-1	186517-30	186517-31
Your Reference	----------	TSSP/S13	Fill/SP1	Fill/SP2
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016
Chromium (VI)	mg/kg	<1	<1	<1
Total Cyanide	mg/kg	<0.5	<0.5	<0.5
Fluoride	mg/kg	<0.5	0.8	<0.5

12 metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date digested	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016
Arsenic	mg/kg	8	6	2
Cadmium	mg/kg	<0.4	<0.4	<0.4
Copper	mg/kg	8	3	5
Lead	mg/kg	14	10	8
Mercury	mg/kg	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	1	<1
Nickel	mg/kg	3	2	4
Tin	mg/kg	1	<1	1
Selenium	mg/kg	2	<2	<2
Silver	mg/kg	<1	<1	<1
Zinc	mg/kg	8	4	2

vTRH(C6-C10)/MBTEXN in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016
$TRHC_6 - C_9$	mg/kg	<25	<25	<25
$TRHC_6 - C_{10}$	mg/kg	<25	<25	<25
$TRHC_6-C_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25
MTBE	mg/kg	<0.5	<0.5	<0.5
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-xylene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	87	89	89

svTRH(C10-C36) in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	29/09/2016	29/09/2016	29/09/2016
$TRHC_{10}$ - C_{14}	mg/kg	<50	<50	<50
$TRHC_{15}$ - C_{28}	mg/kg	<100	<100	<100
$TRHC_{29}$ - C_{36}	mg/kg	<100	<100	<100
$TRH>C_{10}$ - C_{16}	mg/kg	<50	<50	<50
$TRH>C_{10}$-C_{16} less N (F2)	mg/kg	<50	<50	<50
$TRH>C_{16}$ - C_{34}	mg/kg	<100	<100	<100
$TRH>C_{34}$ - C_{40}	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	96	97	92

VHC's in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016
Dichlorodifluoromethane	mg/kg	<1.0	<1.0	<1.0
Chloromethane	mg/kg	<1.0	<1.0	<1.0
Vinyl Chloride	mg/kg	<1.0	<1.0	<1.0
Bromomethane	mg/kg	<1.0	<1.0	<1.0
Chloroethane	mg/kg	<1.0	<1.0	<1.0
Trichlorofluoromethane	mg/kg	<1.0	<1.0	<1.0
1,1-Dichloroethene	mg/kg	<1.0	<1.0	<1.0
trans-1,2-dichloroethene	mg/kg	<1.0	<1.0	<1.0
1,1-dichloroethane	mg/kg	<1.0	<1.0	<1.0
cis-1,2-dichloroethene	mg/kg	<1.0	<1.0	<1.0
Bromochloromethane	mg/kg	<1.0	<1.0	<1.0
Chloroform	mg/kg	<1.0	<1.0	<1.0
2,2-dichloropropane	mg/kg	<1.0	<1.0	<1.0
1,2-dichloroethane	mg/kg	<1.0	<1.0	<1.0
1,1,1-trichloroethane	mg/kg	<1.0	<1.0	<1.0
1,1-dichloropropene	mg/kg	<1.0	<1.0	<1.0
Carbon tetrachloride	mg/kg	<1.0	<1.0	<1.0
Dibromomethane	mg/kg	<1.0	<1.0	<1.0
1,2-dichloropropane	mg/kg	<1.0	<1.0	<1.0
Trichloroethene	mg/kg	<1.0	<1.0	<1.0
Bromodichloromethane	mg/kg	<1.0	<1.0	<1.0
trans-1,3-dichloropropene	mg/kg	<1.0	<1.0	<1.0
cis-1,3-dichloropropene	mg/kg	<1.0	<1.0	<1.0
1,1,2-trichloroethane	mg/kg	<1.0	<1.0	<1.0
1,3-dichloropropane	mg/kg	<1.0	<1.0	<1.0
Dibromochloromethane	mg/kg	<1.0	<1.0	<1.0
1,2-dibromoethane	mg/kg	<1.0	<1.0	<1.0
Tetrachloroethene	mg/kg	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane	mg/kg	<1.0	<1.0	<1.0
Chlorobenzene	mg/kg	<1.0	<1.0	<1.0
Bromoform	mg/kg	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	mg/kg	<1.0	<1.0	<1.0
1,2,3-trichloropropane	mg/kg	<1.0	<1.0	<1.0
Bromobenzene	mg/kg	<1.0	<1.0	<1.0
2-chlorotoluene	mg/kg	<1.0	<1.0	<1.0
4-chlorotoluene	mg/kg	<1.0	<1.0	<1.0
1,3-dichlorobenzene	mg/kg	<1.0	<1.0	<1.0
1,4-dichlorobenzene	mg/kg	<1.0	<1.0	<1.0
1,2-dichlorobenzene	mg/kg	<1.0	<1.0	<1.0

VHC's in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
1,2-dibromo-3-chloropropane	mg/kg	<1.0	<1.0	<1.0
1,2,4-trichlorobenzene	mg/kg	<1.0	<1.0	<1.0
Hexachlorobutadiene	mg/kg	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene	mg/kg	<1.0	<1.0	<1.0
Surrogate Dibromofluorometha	%	98	97	98
Surrogate aaa-Trifluorotoluene	%	84	85	86
Surrogate Toluene-d_8	%	96	96	96
Surrogate 4-Bromofluorobenz	%	99	102	99

SVCH's in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016
1,3-Dichlorobenzene	mg/kg	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	mg/kg	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	mg/kg	<0.5	<0.5	<0.5
Hexachloroethane	mg/kg	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	mg/kg	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5	<0.5
1,3,5-Trichlorobenzene	mg/kg	<0.5	<0.5	<0.5
1,2,3,5 & 1,2,4,5- Tetrachlorobenzene	mg/kg	<0.5	<0.5	<0.5
1,2,3,4-Tetrachlorobenzene	mg/kg	<0.5	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	<2	<2	<2
Hexachlorobutadiene	mg/kg	<0.5	<0.5	<0.5
Pentachlorobenzene	mg/kg	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	mg/kg	<0.5	<0.5	<0.5
p-Terphenyl-D_{14}	%	99	95	101

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	NO +VE PAHS	NO +VE PAHS	NO +VE PAHS
p-Terphenyl-D_{14}	%	99	95	102

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1

Speciated Phenols in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186517-1 TSSP/S13 27/09/2016 Soil	186517-30 Fill/SP1 27/09/2016 Soil	186517-31 Fill/SP2 27/09/2016 Soil
Date extracted	-	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	01/10/2016	01/10/2016	01/10/2016
Phenol	mg/kg	<0.2	<0.2	<0.2
2-Chlorophenol	mg/kg	<0.2	<0.2	<0.2
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5
2-Methylphenol	mg/kg	<0.2	<0.2	<0.2
3/4-Methylphenol	mg/kg	<0.4	<0.4	<0.4
2-Nitrophenol	mg/kg	<0.2	<0.2	<0.2
2,4-Dimethylphenol	mg/kg	<0.2	<0.2	<0.2
2,4-Dichlorophenol	mg/kg	<0.2	<0.2	<0.2
2,6-Dichlorophenol	mg/kg	<0.2	<0.2	<0.2
2,4,5-Trichlorophenol	mg/kg	<0.2	<0.2	<0.2
2,4,6-Trichlorophenol	mg/kg	<0.2	<0.2	<0.2
2,4-Dinitrophenol	mg/kg	<4	<4	<4
4-Nitrophenol	mg/kg	<4	<4	<4
2,3,4,6-Tetrachlorophenol	mg/kg	<0.2	<0.2	<0.2
2-Methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10
Pentachlorophenol	mg/kg	<5	<5	<5
Surrogate Phenol-d_6	%	92	76	106

Moisture						
Our Reference:	UNITS	186517-1	186517-2	186517-3	186517-4	186517-5
Your Reference	----------	TSSP/S13	VM/S2	VM/S3	VM/S4	VM/S5
Date Sampled	----------	27/09/2016	23/09/2016	23/09/2016	23/09/2016	23/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Moisture	%	16	3.9	5.5	3.9	7.7

Moisture						
Our Reference:	UNITS	186517-6	186517-7	186517-8	186517-9	186517-10
Your Reference	----------	VM/S6	VM/S7	VM/S8	VM/S9	VM/S10
Date Sampled	----------	23/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Moisture	%	5.5	11	12	13	14

Moisture						
Our Reference:	UNITS	186517-11	186517-12	186517-13	186517-14	186517-15
Your Reference	----------	VM/S11	VM/S12	VM/S13	VM/S14	VM/S15
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Moisture	%	13	15	16	15	11

Moisture						
Our Reference:	UNITS	186517-16	186517-17	186517-18	186517-19	186517-20
Your Reference	----------	VM/S16	VM/S17	VM/S18	VM/S19	VM/S20
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Moisture	%	9.8	15	16	16	14

Moisture						
Our Reference:	UNITS	186517-21	186517-22	186517-23	186517-24	186517-25
Your Reference	----------	VM/S21	VM/S22	VM/S23	VM/S24	VM/S25
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Moisture	%	15	13	12	13	14

Moisture						
Our Reference:	UNITS	186517-26	186517-27	186517-28	186517-29	186517-30
Your Reference	----------	VM/S26	270916Rep1	270916Rep2	270916Rep3	Fill/SP1
Date Sampled	----------	27/09/2016	27/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2016	29/09/2016	29/09/2016	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Moisture	%	9.1	15	12	14	8.9

Moisture			
Our Reference:	UNITS	186517-31	186517-32
Your Reference	----------	Fill/SP2	230916Rep1
Date Sampled	----------	27/09/2016	23/09/2016
Type of sample		Soil	Soil
Date prepared	-	29/09/2016	29/09/2016
Date analysed	-	30/09/2016	30/09/2016
Moisture	%	13	5.8

Method ID	Methodology Summary
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ORG-005/012	Organochlorine Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
ORG-015	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS or GC-MS/MS.
ORG-008/015	Organophosphorus Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
INORG-118	Hexavalent Chromium by Ion Chromatographic separation and colourimetric determination.
INORG-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
INORG-026	Fluoride determined by ion selective electrode (ISE) based on APHA latest edition, 4500-F-C. Soils reported from a 1:5 water extract unless otherwise specified.
METALS-020	Metals in soil and water by ICP-OES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
ORG-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
ORG-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
ORG-013/014	VOC's in soil by methanolic extraction and water directly by purge and trap GCMS
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-012	For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-004	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.

Method ID	Methodology Summary
ORG-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
INORG-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.

QUALITY CONTROL Low Level OCP in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			01/10/2016	186517-1	01/10/2016 || 01/10/2016	LCS-1	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	92%
b-BHC	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	116%
Lindane (g-BHC)	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	72%
Aldrin	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	73%
Heptachlor Epoxide	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	82%
g-Chlordane	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	91%
Dieldrin	mg/kg	0.01	ORG-012	<0.01	186517-1	0.03 || 0.03 || RPD: 0	LCS-1	90%
Endrin	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
p,p`-DDD	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	99%
b-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	LCS-1	102%
Methoxychlor	mg/kg	0.01	ORG-012	<0.01	186517-1	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-005/012	88	186517-1	99 || 106 || RPD: 7	LCS-1	115%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			01/10/2016	186517-1	01/10/2016 || 01/10/2016	LCS-1	01/10/2016
Dichlorovos	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	LCS-1	77%
Ronnel	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	LCS-1	73%
Malathion	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	LCS-1	81%
Parathion-ethyl	mg/kg	0.05	ORG-008/015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	LCS-1	87%
Bromophos ethyl	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	0.05	ORG-015	<0.05	186517-1	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-008/015	88	186517-1	99 || 106 || RPD: 7	LCS-1	115%

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			30/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	30/09/2016
Date analysed	-			03/10/2016	186517-1	30/09/2016 || 30/09/2016	LCS-1	03/10/2016
Chromium (VI)	mg/kg	1	INORG-118	<1	186517-1	<1 || <1	LCS-1	101%
Total Cyanide	mg/kg	0.5	INORG-014	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
Fluoride	mg/kg	0.5	INORG-026	<0.5	186517-1	<0.5 || [N/T]	[NR]	[NR]

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			30/09/2016	186517-1	30/09/2016 || 30/09/2016	LCS-1	30/09/2016
Arsenic	mg/kg	2	METALS-020	<2	186517-1	8 || 4 || RPD: 67	LCS-1	99%
Cadmium	mg/kg	0.4	METALS-020	<0.4	186517-1	<0.4 || <0.4	LCS-1	101%
Copper	mg/kg	1	METALS-020	<1	186517-1	8 || 11 || RPD: 32	LCS-1	104%
Lead	mg/kg	1	METALS-020	<1	186517-1	14 || 8 || RPD: 55	LCS-1	101%
Mercury	mg/kg	0.1	Metals-021	<0.1	186517-1	<0.1 || <0.1	LCS-1	103%

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Molybdenum	mg/kg	1	METALS-020	<1	186517-1	<1 || <1	LCS-1	112%
Nickel	mg/kg	1	METALS-020	<1	186517-1	3 || 3 || RPD: 0	LCS-1	106%
Tin	mg/kg	1	METALS-020	<1	186517-1	1 || 1 || RPD: 0	LCS-1	104%
Selenium	mg/kg	2	METALS-020	<2	186517-1	2 || <2	LCS-1	95%
Silver	mg/kg	1	METALS-020	<1	186517-1	<1 || <1	LCS-1	103%
Zinc	mg/kg	1	METALS-020	<1	186517-1	8 || 11 || RPD: 32	LCS-1	101%
QUALITY CONTROL vTRH(C6-C10)/MBTEXN in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			30/09/2016	186517-1	30/09/2016 || 30/09/2016	LCS-1	30/09/2016
$TRHC_6 - C_9$	mg/kg	25	ORG-016	<25	186517-1	<25 || <25	LCS-1	95%
$TRHC_6 - C_{10}$	mg/kg	25	ORG-016	<25	186517-1	<25 || <25	LCS-1	95%
MTBE	mg/kg	0.5	ORG-016	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
Benzene	mg/kg	0.2	ORG-016	<0.2	186517-1	<0.2 || <0.2	LCS-1	87%
Toluene	mg/kg	0.5	ORG-016	<0.5	186517-1	<0.5 || <0.5	LCS-1	92%
Ethylbenzene	mg/kg	1	ORG-016	<1	186517-1	<1 || <1	LCS-1	97%
m+p-xylene	mg/kg	2	ORG-016	<2	186517-1	<2 || <2	LCS-1	100%
o-xylene	mg/kg	1	ORG-016	<1	186517-1	<1 || <1	LCS-1	100%
Naphthalene	mg/kg	1	ORG-016	<1	186517-1	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		ORG-016	94	186517-1	87 || 88 || RPD: 1	LCS-1	94%

QUALITY CONTROL svTRH(C10-C36) in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	ORG-003	<50	186517-1	<50 || <50	LCS-1	86%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	ORG-003	<100	186517-1	<100 || <100	LCS-1	82%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	ORG-003	<100	186517-1	<100 || <100	LCS-1	86%
TRH>C$_{10}$ - C$_{16}$	mg/kg	50	ORG-003	<50	186517-1	<50 || <50	LCS-1	85%
TRH>C$_{16}$ - C$_{34}$	mg/kg	100	ORG-003	<100	186517-1	<100 || <100	LCS-1	84%
TRH>C$_{34}$ - C$_{40}$	mg/kg	100	ORG-003	<100	186517-1	<100 || <100	LCS-1	85%
Surrogate o-Terphenyl	%		ORG-003	99	186517-1	96 || 97 || RPD: 1	LCS-1	113%
QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			30/09/2016	186517-1	30/09/2016 || 30/09/2016	LCS-1	30/09/2016
Dichlorodifluoromethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Chloromethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Vinyl Chloride	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Bromomethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Chloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	88%
cis-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Bromochloromethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Chloroform	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	88%
2,2-dichloropropane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	84%
1,1,1-trichloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	85%
1,1-dichloropropene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Carbon tetrachloride	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Dibromomethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Trichloroethene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	91%
Bromodichloromethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	89%
trans-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]

QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Dibromochloromethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	87%
1,2-dibromoethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Tetrachloroethene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	85%
1,1,1,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Chlorobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Bromoform	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Bromobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
2-chlorotoluene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
4-chlorotoluene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	LCS-1	81%
1,2-dichlorobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	ORG-014	<1.0	186517-1	<1.0 || <1.0	[NR]	[NR]
Surrogate Dibromofluorometha	%		ORG-013/014	99	186517-1	98 || 101 || RPD: 3	LCS-1	102%
Surrogate aaa-Trifluorotoluene	%		ORG-014	91	186517-1	84 || 85 || RPD: 1	LCS-1	87%
Surrogate Toluene-d_8	%		ORG-013/014	96	186517-1	96 || 96 || RPD: 0	LCS-1	101%
Surrogate 4-Bromofluorobenz	%		ORG-013/014	101	186517-1	99 || 101 || RPD: 2	LCS-1	95%
QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			01/10/2016	186517-1	01/10/2016 || 01/10/2016	LCS-1	01/10/2016
1,3-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	LCS-1	95%
1,2-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
Hexachloroethane	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
1,2,3-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	LCS-1	89%
1,3,5-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
1,2,3,4-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]

QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Hexachlorocyclopentadiene	mg/kg	2	ORG-012	<2	186517-1	<2 || <2	[NR]	[NR]
Hexachlorobutadiene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
Pentachlorobenzene	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
Hexachlorobenzene (HCB)	mg/kg	0.5	ORG-012	<0.5	186517-1	<0.5 || <0.5	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	88	186517-1	99 || 106 || RPD: 7	LCS-1	115%
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			01/10/2016	186517-1	01/10/2016 || 01/10/2016	LCS-1	01/10/2016
Naphthalene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	LCS-1	88%
Acenaphthylene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	LCS-1	93%
Phenanthrene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	LCS-1	87%
Anthracene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	LCS-1	100%
Pyrene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	LCS-1	104%
Benzo(a)anthracene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	LCS-1	88%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	ORG-012	<0.05	186517-1	<0.05 || <0.05	LCS-1	87%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	ORG-012	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	88	186517-1	99 || 106 || RPD: 7	LCS-1	115%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			01/10/2016	186517-1	01/10/2016 || 01/10/2016	LCS-1	01/10/2016
Arochlor 1016	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	LCS-1	86%
Arochlor 1260	mg/kg	0.1	ORG-006	<0.1	186517-1	<0.1 || <0.1	[NR]	[NR]
QUALITY CONTROL Speciated Phenols in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/09/2016	186517-1	29/09/2016 || 29/09/2016	LCS-1	29/09/2016
Date analysed	-			01/10/2016	186517-1	01/10/2016 || 01/10/2016	LCS-1	01/10/2016
Phenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	LCS-1	75%
2-Chlorophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	LCS-1	77%
4-Chloro-3-methylphenol	mg/kg	5	ORG-012	<5	186517-1	<5 || <5	[NR]	[NR]
2-Methylphenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	LCS-1	72%
3/4-Methylphenol	mg/kg	0.4	ORG-012	<0.4	186517-1	<0.4 || <0.4	[NR]	[NR]
2-Nitrophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
2,6-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	LCS-1	74%
2,4,5-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
2,4,6-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
2,4-Dinitrophenol	mg/kg	4	ORG-012	<4	186517-1	<4 || <4	[NR]	[NR]
4-Nitrophenol	mg/kg	4	ORG-012	<4	186517-1	<4 || <4	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	mg/kg	0.2	ORG-012	<0.2	186517-1	<0.2 || <0.2	[NR]	[NR]
2-Methyl-4,6-dinitrophenol	mg/kg	10	ORG-012	<10	186517-1	<10 || <10	[NR]	[NR]
Pentachlorophenol	mg/kg	5	ORG-012	<5	186517-1	<5 || <5	[NR]	[NR]
Surrogate Phenol-d_6	%		ORG-012	98	186517-1	92 || 114 || RPD: 21	LCS-1	114%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			29/09/2016
Date analysed	-			30/09/2016
Moisture	%	0.1	INORG-008	<0.10

QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186517-11	29/09/2016 || 29/09/2016	LCS-2	29/09/2016
Date analysed	-	186517-11	01/10/2016 || 01/10/2016	LCS-2	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	186517-11	<0.01 || <0.01	LCS-2	89%
b-BHC	mg/kg	186517-11	<0.01 || <0.01	LCS-2	105%
Lindane (g-BHC)	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	186517-11	<0.01 || <0.01	LCS-2	74%
Aldrin	mg/kg	186517-11	<0.01 || <0.01	LCS-2	76%
Heptachlor Epoxide	mg/kg	186517-11	<0.01 || <0.01	LCS-2	83%
g-Chlordane	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	186517-11	<0.01 || <0.01	LCS-2	89%
Dieldrin	mg/kg	186517-11	0.10 || 0.13 || RPD: 26	LCS-2	85%
Endrin	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
p,p`-DDD	mg/kg	186517-11	<0.01 || <0.01	LCS-2	99%
b-Endosulphan	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	186517-11	<0.01 || <0.01	LCS-2	100%
Methoxychlor	mg/kg	186517-11	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%	186517-11	95 || 100 || RPD: 5	LCS-2	111%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186517-11	29/09/2016 || 29/09/2016	LCS-2	29/09/2016
Date analysed	-	186517-11	01/10/2016 || 01/10/2016	LCS-2	01/10/2016
Dichlorovos	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	186517-11	<0.05 || <0.05	LCS-2	77%
Ronnel	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	186517-11	<0.05 || <0.05	LCS-2	73%
Malathion	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	186517-11	<0.05 || <0.05	LCS-2	81%
Parathion-ethyl	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	186517-11	<0.05 || <0.05	LCS-2	87%
Bromophos ethyl	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	186517-11	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%	186517-11	96 || 100 || RPD: 4	LCS-2	111%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-2	30/09/2016
Date analysed	-	[NT]	[NT]	LCS-2	03/10/2016
Chromium (VI)	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Cyanide	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoride	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	LCS-2	29/09/2016
Date analysed	-	[NT]	[NT]	LCS-2	30/09/2016
Arsenic	mg/kg	[NT]	[NT]	[NR]	[NR]
Cadmium	mg/kg	[NT]	[NT]	[NR]	[NR]
Copper	mg/kg	[NT]	[NT]	[NR]	[NR]
Lead	mg/kg	[NT]	[NT]	[NR]	[NR]
Mercury	mg/kg	[NT]	[NT]	[NR]	[NR]
Molybdenum	mg/kg	[NT]	[NT]	[NR]	[NR]
Nickel	mg/kg	[NT]	[NT]	[NR]	[NR]
Tin	mg/kg	[NT]	[NT]	[NR]	[NR]
Selenium	mg/kg	[NT]	[NT]	[NR]	[NR]
Silver	mg/kg	[NT]	[NT]	[NR]	[NR]
Zinc	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186517-21	29/09/2016 || 29/09/2016	186517-2	29/09/2016
Date analysed	-	186517-21	01/10/2016 || 01/10/2016	186517-2	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	186517-21	<0.01 || <0.01	186517-2	95%
b-BHC	mg/kg	186517-21	<0.01 || <0.01	186517-2	117%
Lindane (g-BHC)	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	186517-21	<0.01 || <0.01	186517-2	72%
Aldrin	mg/kg	186517-21	<0.01 || <0.01	186517-2	77%
Heptachlor Epoxide	mg/kg	186517-21	<0.01 || <0.01	186517-2	89%
g-Chlordane	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	186517-21	<0.01 || <0.01	186517-2	97%
Dieldrin	mg/kg	186517-21	<0.01 || <0.01	186517-2	97%
Endrin	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
p,p`-DDD	mg/kg	186517-21	<0.01 || <0.01	186517-2	102%
b-Endosulphan	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	186517-21	<0.01 || <0.01	186517-2	110%
Methoxychlor	mg/kg	186517-21	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%	186517-21	96 || 101 || RPD: 5	186517-2	123%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186517-21	29/09/2016 || 29/09/2016	186517-2	29/09/2016
Date analysed	-	186517-21	01/10/2016 || 01/10/2016	186517-2	01/10/2016
Dichlorovos	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	186517-21	<0.05 || <0.05	186517-2	82%
Ronnel	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	186517-21	<0.05 || <0.05	186517-2	85%
Malathion	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	186517-21	<0.05 || <0.05	186517-2	85%
Parathion-ethyl	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	186517-21	<0.05 || <0.05	186517-2	93%
Bromophos ethyl	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	186517-21	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%	186517-21	96 || 101 || RPD: 5	186517-2	123%
QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	186517-22	29/09/2016
Date analysed	-	[NT]	[NT]	186517-22	01/10/2016
Hexachlorobenzene (HCB)	mg/kg	[NT]	[NT]	[NR]	[NR]
a-BHC	mg/kg	[NT]	[NT]	186517-22	102%
b-BHC	mg/kg	[NT]	[NT]	186517-22	120%
Lindane (g-BHC)	mg/kg	[NT]	[NT]	[NR]	[NR]
d-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Heptachlor	mg/kg	[NT]	[NT]	186517-22	71%
Aldrin	mg/kg	[NT]	[NT]	186517-22	76%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	186517-22	89%
g-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Endosulphan	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	mg/kg	[NT]	[NT]	186517-22	101%
Dieldrin	mg/kg	[NT]	[NT]	186517-22	96%
Endrin	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p`-DDD	mg/kg	[NT]	[NT]	186517-22	115%
b-Endosulphan	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	186517-22	114%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%	[NT]	[NT]	186517-22	125%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	186517-22	29/09/2016
Date analysed	-	[NT]	[NT]	186517-22	01/10/2016
Dichlorovos	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	[NT]	[NT]	186517-22	81%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Fenitrothion	mg/kg	[NT]	[NT]	186517-22	77%
Malathion	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	[NT]	[NT]	186517-22	87%
Parathion-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	186517-22	95%
Bromophos ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%	[NT]	[NT]	186517-22	125%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	186517-30	30/09/2016
Date analysed	-	[NT]	[NT]	186517-30	03/10/2016
Chromium (VI)	mg/kg	[NT]	[NT]	186517-30	75%
Total Cyanide	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoride	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	186517-30	29/09/2016
Date analysed	-	[NT]	[NT]	186517-30	30/09/2016
Arsenic	mg/kg	[NT]	[NT]	186517-30	93%
Cadmium	mg/kg	[NT]	[NT]	186517-30	90%
Copper	mg/kg	[NT]	[NT]	186517-30	111%
Lead	mg/kg	[NT]	[NT]	186517-30	94%
Mercury	mg/kg	[NT]	[NT]	186517-30	111%
Molybdenum	mg/kg	[NT]	[NT]	186517-30	90%
Nickel	mg/kg	[NT]	[NT]	186517-30	128%
Tin	mg/kg	[NT]	[NT]	186517-30	95%
Selenium	mg/kg	[NT]	[NT]	186517-30	76%
Silver	mg/kg	[NT]	[NT]	186517-30	102%
Zinc	mg/kg	[NT]	[NT]	186517-30	91%

QUALITY CONTROL VHC's in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	186517-30	29/09/2016
Date analysed	-	[NT]	[NT]	186517-30	30/09/2016
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	[NT]	[NT]	186517-30	91%
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroform	mg/kg	[NT]	[NT]	186517-30	92%
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	[NT]	[NT]	186517-30	87%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	186517-30	89%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichloroethene	mg/kg	[NT]	[NT]	186517-30	96%
Bromodichloromethane	mg/kg	[NT]	[NT]	186517-30	92%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	mg/kg	[NT]	[NT]	186517-30	91%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	mg/kg	[NT]	[NT]	186517-30	89%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	186517-30	85%

QUALITY CONTROL VHC's in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%	[NT]	[NT]	186517-30	103%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	186517-30	85%
Surrogate Toluene-d8	%	[NT]	[NT]	186517-30	103%
Surrogate 4-Bromofluorobenz	%	[NT]	[NT]	186517-30	96%

Report Comments:

Asbestos Signatories:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Airborne fibres were analysed by Approved Counter: Not applicable for this job

Definitions:

NT: Not tested NA: Test not required INS: Insufficient sample for this test PQL: Practical Quantitation Limit
<: Less than >: Greater than RPD: Relative Percent Difference LCS: Laboratory Control Sample
NS: Not Specified NEPM: National Environmental Protection Measure NR: Not Reported

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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CERTIFICATE OF ANALYSIS 186836

Client:
Douglas Partners NT
PO Box 36858
Winnellie
NT 0821

Attention: Andrew Gane

Sample log in details:

Your Reference:	**78156.02 Humpty Doo**
No. of samples:	14 Soil
Date samples received:	05/10/2016
Date completed instructions received:	05/10/2016
Location:	

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last pages of this report for any comments relating to the results.

Report Details:

Date results requested by:	7/10/16
Date of Preliminary Report:	Not issued
Issue Date:	7/10/16

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Accredited for compliance with ISO/IEC 17025 - Testing
Tests not covered by NATA are denoted with *.

Results Approved By:

Joshua Lim
Operations Manager

ACCREDITED FOR TECHNICAL COMPETENCE

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-1 VM/S27 03/10/2016 Soil	186836-2 VM/S28 03/10/2016 Soil	186836-3 VM/S29 03/10/2016 Soil	186836-4 VM/S30 03/10/2016 Soil	186836-5 VM/S31 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	<0.01	<0.01	0.08	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	102	84	104	107	103

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-6 VM/S32 03/10/2016 Soil	186836-7 031016REP1 03/10/2016 Soil	186836-8 031016REP3 03/10/2016 Soil	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	0.07	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	0.04	0.01	<0.01	<0.01
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	0.07	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	82	105	107	91	97

Low Level OCP in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-11 TSSP/S14 03/10/2016 Soil	186836-12 TSSP/S15 03/10/2016 Soil	186836-13 TSSP/S16 03/10/2016 Soil	186836-14 TSSP/S17 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Hexachlorobenzene (HCB)	mg/kg	<0.01	<0.01	<0.01	<0.01
a-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
b-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Lindane (g-BHC)	mg/kg	<0.01	<0.01	<0.01	<0.01
d-BHC	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor	mg/kg	<0.01	<0.01	<0.01	<0.01
Aldrin	mg/kg	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	mg/kg	<0.01	<0.01	<0.01	<0.01
g-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Chlordane	mg/kg	<0.01	<0.01	<0.01	<0.01
a-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDE	mg/kg	<0.01	<0.01	<0.01	<0.01
Dieldrin	mg/kg	<0.01	0.03	0.02	0.02
Endrin	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p`-DDD	mg/kg	<0.01	<0.01	<0.01	<0.01
b-Endosulphan	mg/kg	<0.01	<0.01	<0.01	<0.01
p,p'-DDT	mg/kg	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulphate	mg/kg	<0.01	<0.01	<0.01	<0.01
Methoxychlor	mg/kg	<0.01	<0.01	<0.01	<0.01
p-Terphenyl-D_{14}	%	100	107	110	101

Organophosphorus Pesticides						
Our Reference:	UNITS	186836-1	186836-2	186836-3	186836-4	186836-5
Your Reference	----------	VM/S27	VM/S28	VM/S29	VM/S30	VM/S31
Date Sampled	----------	03/10/2016	03/10/2016	03/10/2016	03/10/2016	03/10/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	102	84	104	107	103

Organophosphorus Pesticides						
Our Reference:	UNITS	186836-6	186836-7	186836-8	186836-9	186836-10
Your Reference	----------	VM/S32	031016REP1	031016REP3	FILL/SP3	FILL/SP4
Date Sampled	----------	03/10/2016	03/10/2016	03/10/2016	03/10/2016	03/10/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	82	105	107	91	97

Organophosphorus Pesticides					
Our Reference:	UNITS	186836-11	186836-12	186836-13	186836-14
Your Reference	----------	TSSP/S14	TSSP/S15	TSSP/S16	TSSP/S17
Date Sampled	----------	03/10/2016	03/10/2016	03/10/2016	03/10/2016
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Dichlorovos	mg/kg	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos methyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Ronnel	mg/kg	<0.05	<0.05	<0.05	<0.05
Fenitrothion	mg/kg	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	<0.05	<0.05	<0.05	<0.05
Parathion-ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	<0.05	<0.05	<0.05	<0.05
Bromophos ethyl	mg/kg	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	<0.05	<0.05	<0.05	<0.05
Azinphos methyl (Guthion)	mg/kg	<0.05	<0.05	<0.05	<0.05
p-Terphenyl-D_{14}	%	100	107	110	101

Miscellaneous Inorg - soil			
Our Reference:	UNITS	186836-9	186836-10
Your Reference	----------	FILL/SP3	FILL/SP4
Date Sampled	----------	03/10/2016	03/10/2016
Type of sample		Soil	Soil
Date prepared	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
Chromium (VI)	mg/kg	<1	<1
Total Cyanide	mg/kg	<0.5	<0.5
Fluoride	mg/kg	<0.5	<0.5

12 metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date digested	-	6/10/2016	6/10/2016
Date analysed	-	7/10/2016	7/10/2016
Arsenic	mg/kg	15	6
Cadmium	mg/kg	<0.4	<0.4
Copper	mg/kg	5	4
Lead	mg/kg	21	12
Mercury	mg/kg	<0.1	<0.1
Molybdenum	mg/kg	<1	<1
Nickel	mg/kg	3	3
Tin	mg/kg	<1	<1
Selenium	mg/kg	<2	<2
Silver	mg/kg	<1	<1
Zinc	mg/kg	<1	19

vTRH(C6-C10)/MBTEXN in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
$TRHC_6 - C_9$	mg/kg	<25	<25
$TRHC_6 - C_{10}$	mg/kg	<25	<25
$TRHC_6-C_{10}$ less BTEX (F1)	mg/kg	<25	<25
MTBE	mg/kg	<0.5	<0.5
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	94	92

svTRH(C10-C36) in soil			
Our Reference:	UNITS	186836-9	186836-10
Your Reference	----------	FILL/SP3	FILL/SP4
Date Sampled	----------	03/10/2016	03/10/2016
Type of sample		Soil	Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	06/10/2016	06/10/2016
$TRHC_{10}$ - C_{14}	mg/kg	<50	<50
$TRHC_{15}$ - C_{28}	mg/kg	<100	<100
$TRHC_{29}$ - C_{36}	mg/kg	<100	<100
$TRH>C_{10}$ - C_{16}	mg/kg	<50	<50
$TRH>C_{10}$-C_{16} less N (F2)	mg/kg	<50	<50
$TRH>C_{16}$ - C_{34}	mg/kg	<100	<100
$TRH>C_{34}$ - C_{40}	mg/kg	<100	<100
Surrogate o-Terphenyl	%	95	94

VHC's in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
Dichlorodifluoromethane	mg/kg	<1.0	<1.0
Chloromethane	mg/kg	<1.0	<1.0
Vinyl Chloride	mg/kg	<1.0	<1.0
Bromomethane	mg/kg	<1.0	<1.0
Chloroethane	mg/kg	<1.0	<1.0
Trichlorofluoromethane	mg/kg	<1.0	<1.0
1,1-Dichloroethene	mg/kg	<1.0	<1.0
trans-1,2-dichloroethene	mg/kg	<1.0	<1.0
1,1-dichloroethane	mg/kg	<1.0	<1.0
cis-1,2-dichloroethene	mg/kg	<1.0	<1.0
Bromochloromethane	mg/kg	<1.0	<1.0
Chloroform	mg/kg	<1.0	<1.0
2,2-dichloropropane	mg/kg	<1.0	<1.0
1,2-dichloroethane	mg/kg	<1.0	<1.0
1,1,1-trichloroethane	mg/kg	<1.0	<1.0
1,1-dichloropropene	mg/kg	<1.0	<1.0
Carbon tetrachloride	mg/kg	<1.0	<1.0
Dibromomethane	mg/kg	<1.0	<1.0
1,2-dichloropropane	mg/kg	<1.0	<1.0
Trichloroethene	mg/kg	<1.0	<1.0
Bromodichloromethane	mg/kg	<1.0	<1.0
trans-1,3-dichloropropene	mg/kg	<1.0	<1.0
cis-1,3-dichloropropene	mg/kg	<1.0	<1.0
1,1,2-trichloroethane	mg/kg	<1.0	<1.0
1,3-dichloropropane	mg/kg	<1.0	<1.0
Dibromochloromethane	mg/kg	<1.0	<1.0
1,2-dibromoethane	mg/kg	<1.0	<1.0
Tetrachloroethene	mg/kg	<1.0	<1.0
1,1,1,2-tetrachloroethane	mg/kg	<1.0	<1.0
Chlorobenzene	mg/kg	<1.0	<1.0
Bromoform	mg/kg	<1.0	<1.0
1,1,2,2-tetrachloroethane	mg/kg	<1.0	<1.0
1,2,3-trichloropropane	mg/kg	<1.0	<1.0
Bromobenzene	mg/kg	<1.0	<1.0
2-chlorotoluene	mg/kg	<1.0	<1.0
4-chlorotoluene	mg/kg	<1.0	<1.0
1,3-dichlorobenzene	mg/kg	<1.0	<1.0
1,4-dichlorobenzene	mg/kg	<1.0	<1.0
1,2-dichlorobenzene	mg/kg	<1.0	<1.0

VHC's in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
1,2-dibromo-3-chloropropane	mg/kg	<1.0	<1.0
1,2,4-trichlorobenzene	mg/kg	<1.0	<1.0
Hexachlorobutadiene	mg/kg	<1.0	<1.0
1,2,3-trichlorobenzene	mg/kg	<1.0	<1.0
Surrogate Dibromofluorometha	%	103	101
Surrogate aaa-Trifluorotoluene	%	92	91
Surrogate Toluene-d_8	%	102	100
Surrogate 4-Bromofluorobenz	%	97	100

SVCH's in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
1,3-Dichlorobenzene	mg/kg	<0.5	<0.5
1,4-Dichlorobenzene	mg/kg	<0.5	<0.5
1,2-Dichlorobenzene	mg/kg	<0.5	<0.5
Hexachloroethane	mg/kg	<0.5	<0.5
1,2,3-Trichlorobenzene	mg/kg	<0.5	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5
1,3,5-Trichlorobenzene	mg/kg	<0.5	<0.5
1,2,3,5 & 1,2,4,5- Tetrachlorobenzene	mg/kg	<0.5	<0.5
1,2,3,4-Tetrachlorobenzene	mg/kg	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	<2	<2
Hexachlorobutadiene	mg/kg	<0.5	<0.5
Pentachlorobenzene	mg/kg	<0.5	<0.5
Hexachlorobenzene (HCB)	mg/kg	<0.5	<0.5
p-Terphenyl-D_{14}	%	91	97

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Total Positive PAHs	mg/kg	NO +VE PAHS	NO +VE PAHS
p-Terphenyl-D_{14}	%	91	97

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1

Speciated Phenols in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	186836-9 FILL/SP3 03/10/2016 Soil	186836-10 FILL/SP4 03/10/2016 Soil
Date extracted	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
Phenol	mg/kg	<0.2	<0.2
2-Chlorophenol	mg/kg	<0.2	<0.2
4-Chloro-3-methylphenol	mg/kg	<5	<5
2-Methylphenol	mg/kg	<0.2	<0.2
3/4-Methylphenol	mg/kg	<0.4	<0.4
2-Nitrophenol	mg/kg	<0.2	<0.2
2,4-Dimethylphenol	mg/kg	<0.2	<0.2
2,4-Dichlorophenol	mg/kg	<0.2	<0.2
2,6-Dichlorophenol	mg/kg	<0.2	<0.2
2,4,5-Trichlorophenol	mg/kg	<0.2	<0.2
2,4,6-Trichlorophenol	mg/kg	<0.2	<0.2
2,4-Dinitrophenol	mg/kg	<4	<4
4-Nitrophenol	mg/kg	<4	<4
2,3,4,6-Tetrachlorophenol	mg/kg	<0.2	<0.2
2-Methyl-4,6-dinitrophenol	mg/kg	<10	<10
Pentachlorophenol	mg/kg	<5	<5
Surrogate Phenol-d_6	%	92	89

Moisture			
Our Reference:	UNITS	186836-9	186836-10
Your Reference	----------	FILL/SP3	FILL/SP4
Date Sampled	----------	03/10/2016	03/10/2016
Type of sample		Soil	Soil
Date prepared	-	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016
Moisture	%	4.7	5.3

Method ID	Methodology Summary
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ORG-005/012	Organochlorine Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
ORG-015	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS or GC-MS/MS.
ORG-008/015	Organophosphorus Pesticides in soil by DCM:Acetone extraction and water by DCM extraction with determination by GC-ECD/GC-MS.
INORG-118	Hexavalent Chromium by Ion Chromatographic separation and colourimetric determination.
INORG-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
INORG-026	Fluoride determined by ion selective electrode (ISE) based on APHA latest edition, 4500-F-C. Soils reported from a 1:5 water extract unless otherwise specified.
METALS-020	Metals in soil and water by ICP-OES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
ORG-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
ORG-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
ORG-013/014	VOC's in soil by methanolic extraction and water directly by purge and trap GCMS
ORG-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
ORG-012	For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-004	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.

Method ID	Methodology Summary
ORG-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
INORG-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.

QUALITY CONTROL Low Level OCP in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	186836-1	06/10/2016 || 06/10/2016	LCS-1	06/10/2016
Date analysed	-			07/10/2016	186836-1	07/10/2016 || 07/10/2016	LCS-1	07/10/2016
Hexachlorobenzene (HCB)	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	95%
b-BHC	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	115%
Lindane (g-BHC)	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	73%
Aldrin	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	78%
Heptachlor Epoxide	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	83%
g-Chlordane	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	101%
Dieldrin	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	95%
Endrin	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
p,p`-DDD	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	114%
b-Endosulphan	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	LCS-1	114%
Methoxychlor	mg/kg	0.01	ORG-012	<0.01	186836-1	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-005/012	80	186836-1	102 || 102 || RPD: 0	LCS-1	118%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	186836-1	06/10/2016 || 06/10/2016	LCS-1	06/10/2016
Date analysed	-			07/10/2016	186836-1	07/10/2016 || 07/10/2016	LCS-1	07/10/2016
Dichlorovos	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	LCS-1	72%
Ronnel	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	LCS-1	72%
Malathion	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	LCS-1	81%
Parathion-ethyl	mg/kg	0.05	ORG-008/015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	LCS-1	88%
Bromophos ethyl	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	0.05	ORG-015	<0.05	186836-1	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-008/015	80	186836-1	102 || 102 || RPD: 0	LCS-1	118%

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			05/10/2016	[NT]	[NT]	LCS-1	05/10/2016
Date analysed	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
Chromium (VI)	mg/kg	1	INORG-118	<1	[NT]	[NT]	LCS-1	112%
Total Cyanide	mg/kg	0.5	INORG-014	[NT]	[NT]	[NT]	[NR]	[NR]
Fluoride	mg/kg	0.5	INORG-026	[NT]	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			6/10/2016	[NT]	[NT]	LCS-1	6/10/2016
Date analysed	-			7/10/2016	[NT]	[NT]	LCS-1	7/10/2016
Arsenic	mg/kg	2	METALS-020	<2	[NT]	[NT]	LCS-1	104%
Cadmium	mg/kg	0.4	METALS-020	<0.4	[NT]	[NT]	LCS-1	101%
Copper	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	106%
Lead	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	104%
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	LCS-1	118%

QUALITY CONTROL 12 metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Molybdenum	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	108%
Nickel	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	107%
Tin	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	109%
Selenium	mg/kg	2	METALS-020	<2	[NT]	[NT]	LCS-1	105%
Silver	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	108%
Zinc	mg/kg	1	METALS-020	<1	[NT]	[NT]	LCS-1	105%
QUALITY CONTROL vTRH(C6-C10)/MBTEXN in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/10/2016	[NT]	[NT]	LCS-1	6/10/2016
Date analysed	-			7/10/2016	[NT]	[NT]	LCS-1	7/10/2016
TRHC$_6$ - C$_9$	mg/kg	25	ORG-016	<25	[NT]	[NT]	LCS-1	95%
TRHC$_6$ - C$_{10}$	mg/kg	25	ORG-016	<25	[NT]	[NT]	LCS-1	95%
MTBE	mg/kg	0.5	ORG-016	<0.5	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	ORG-016	<0.2	[NT]	[NT]	LCS-1	96%
Toluene	mg/kg	0.5	ORG-016	<0.5	[NT]	[NT]	LCS-1	98%
Ethylbenzene	mg/kg	1	ORG-016	<1	[NT]	[NT]	LCS-1	94%
m+p-xylene	mg/kg	2	ORG-016	<2	[NT]	[NT]	LCS-1	93%
o-xylene	mg/kg	1	ORG-016	<1	[NT]	[NT]	LCS-1	93%
Naphthalene	mg/kg	1	ORG-016	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		ORG-016	97	[NT]	[NT]	LCS-1	106%

QUALITY CONTROL svTRH(C10-C36) in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
Date analysed	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	ORG-003	<50	[NT]	[NT]	LCS-1	94%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	85%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	91%
TRH>C$_{10}$ - C$_{16}$	mg/kg	50	ORG-003	<50	[NT]	[NT]	LCS-1	88%
TRH>C$_{16}$ - C$_{34}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	88%
TRH>C$_{34}$ - C$_{40}$	mg/kg	100	ORG-003	<100	[NT]	[NT]	LCS-1	85%
Surrogate o-Terphenyl	%		ORG-003	97	[NT]	[NT]	LCS-1	89%
QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/10/2016	[NT]	[NT]	LCS-1	6/10/2016
Date analysed	-			7/10/2016	[NT]	[NT]	LCS-1	7/10/2016
Dichlorodifluoromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	99%
cis-1,2-dichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroform	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	100%
2,2-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	102%
1,1,1-trichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	101%
1,1-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Dibromomethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Trichloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	106%
Bromodichloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	103%
trans-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VHC's in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Dibromochloromethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	105%
1,2-dibromoethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	101%
1,1,1,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromoform	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Bromobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	LCS-1	102%
1,2-dichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	ORG-014	<1.0	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		ORG-013/014	101	[NT]	[NT]	LCS-1	102%
Surrogate aaa-Trifluorotoluene	%		ORG-014	95	[NT]	[NT]	LCS-1	104%
Surrogate Toluene-d_8	%		ORG-013/014	100	[NT]	[NT]	LCS-1	99%
Surrogate 4-Bromofluorobenz	%		ORG-013/014	99	[NT]	[NT]	LCS-1	101%

QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
Date analysed	-			07/10/2016	[NT]	[NT]	LCS-1	07/10/2016
1,3-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	LCS-1	102%
1,2-Dichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	LCS-1	90%
1,3,5-Trichlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
1,2,3,4-Tetrachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL SVCH's in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Hexachlorocyclopentadiene	mg/kg	2	ORG-012	<2	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Pentachlorobenzene	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
Hexachlorobenzene (HCB)	mg/kg	0.5	ORG-012	<0.5	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	80	[NT]	[NT]	LCS-1	118%
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
Date analysed	-			07/10/2016	[NT]	[NT]	LCS-1	07/10/2016
Naphthalene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	91%
Acenaphthylene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	100%
Phenanthrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	91%
Anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	115%
Pyrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	120%
Benzo(a)anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	LCS-1	101%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	ORG-012	<0.05	[NT]	[NT]	LCS-1	93%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	ORG-012	<0.1	[NT]	[NT]	[NR]	[NR]
p-Terphenyl-D_{14}	%		ORG-012	80	[NT]	[NT]	LCS-1	118%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
Date analysed	-			07/10/2016	[NT]	[NT]	LCS-1	07/10/2016
Arochlor 1016	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	LCS-1	92%
Arochlor 1260	mg/kg	0.1	ORG-006	<0.1	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Speciated Phenols in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	[NT]	[NT]	LCS-1	06/10/2016
Date analysed	-			07/10/2016	[NT]	[NT]	LCS-1	07/10/2016
Phenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	78%
2-Chlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	79%
4-Chloro-3-methylphenol	mg/kg	5	ORG-012	<5	[NT]	[NT]	[NR]	[NR]
2-Methylphenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	77%
3/4-Methylphenol	mg/kg	0.4	ORG-012	<0.4	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,6-Dichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	LCS-1	78%
2,4,5-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4,6-Trichlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2,4-Dinitrophenol	mg/kg	4	ORG-012	<4	[NT]	[NT]	[NR]	[NR]
4-Nitrophenol	mg/kg	4	ORG-012	<4	[NT]	[NT]	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	mg/kg	0.2	ORG-012	<0.2	[NT]	[NT]	[NR]	[NR]
2-Methyl-4,6-dinitrophenol	mg/kg	10	ORG-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachlorophenol	mg/kg	5	ORG-012	<5	[NT]	[NT]	[NR]	[NR]
Surrogate Phenol-d_6	%		ORG-012	86	[NT]	[NT]	LCS-1	93%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			06/10/2016
Date analysed	-			07/10/2016
Moisture	%	0.1	INORG-008	<0.10

QUALITY CONTROL Low Level OCP in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	07/10/2016
Hexachlorobenzene (HCB)	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
a-BHC	mg/kg	186836-9	<0.01 || <0.01	186836-10	93%
b-BHC	mg/kg	186836-9	<0.01 || <0.01	186836-10	117%
Lindane (g-BHC)	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
d-BHC	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
Heptachlor	mg/kg	186836-9	<0.01 || <0.01	186836-10	81%
Aldrin	mg/kg	186836-9	<0.01 || <0.01	186836-10	83%
Heptachlor Epoxide	mg/kg	186836-9	<0.01 || <0.01	186836-10	87%
g-Chlordane	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
a-Chlordane	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
a-Endosulphan	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
p,p'-DDE	mg/kg	186836-9	<0.01 || <0.01	186836-10	97%
Dieldrin	mg/kg	186836-9	<0.01 || <0.01	186836-10	94%
Endrin	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
p,p`-DDD	mg/kg	186836-9	<0.01 || <0.01	186836-10	109%
b-Endosulphan	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
p,p'-DDT	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
Endosulfan Sulphate	mg/kg	186836-9	<0.01 || <0.01	186836-10	105%
Methoxychlor	mg/kg	186836-9	<0.01 || <0.01	[NR]	[NR]
p-Terphenyl-D_{14}	%	186836-9	91 || 99 || RPD: 8	186836-10	107%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	07/10/2016
Dichlorovos	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Diazinon	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos methyl	mg/kg	186836-9	<0.05 || <0.05	186836-10	81%
Ronnel	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Fenitrothion	mg/kg	186836-9	<0.05 || <0.05	186836-10	80%
Malathion	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Chlorpyrifos	mg/kg	186836-9	<0.05 || <0.05	186836-10	88%
Parathion-ethyl	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Ethion	mg/kg	186836-9	<0.05 || <0.05	186836-10	95%
Bromophos ethyl	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Dimethoate	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
Azinphos methyl (Guthion)	mg/kg	186836-9	<0.05 || <0.05	[NR]	[NR]
p-Terphenyl-D_{14}	%	186836-9	91 || 99 || RPD: 8	186836-10	107%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	186836-9	06/10/2016 || 06/10/2016	186836-10	05/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	06/10/2016
Chromium (VI)	mg/kg	186836-9	<1 || <1	[NR]	[NR]
QUALITY CONTROL 12 metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	186836-9	6/10/2016 || 6/10/2016	186836-10	6/10/2016
Date analysed	-	186836-9	7/10/2016 || 7/10/2016	186836-10	7/10/2016
Arsenic	mg/kg	186836-9	15 || 19 || RPD: 24	186836-10	100%
Cadmium	mg/kg	186836-9	<0.4 || <0.4	186836-10	98%
Copper	mg/kg	186836-9	5 || 5 || RPD: 0	186836-10	109%
Lead	mg/kg	186836-9	21 || 26 || RPD: 21	186836-10	99%
Mercury	mg/kg	186836-9	<0.1 || <0.1	186836-10	128%
Molybdenum	mg/kg	186836-9	<1 || <1	186836-10	94%
Nickel	mg/kg	186836-9	3 || 3 || RPD: 0	186836-10	111%
Tin	mg/kg	186836-9	<1 || <1	186836-10	111%
Selenium	mg/kg	186836-9	<2 || <2	186836-10	95%
Silver	mg/kg	186836-9	<1 || <1	186836-10	108%
Zinc	mg/kg	186836-9	<1 || 1	186836-10	110%

QUALITY CONTROL vTRH(C6-C10)/MBTEXN in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	6/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	7/10/2016
$TRHC_6$ - C_9	mg/kg	186836-9	<25 || <25	186836-10	91%
$TRHC_6$ - C_{10}	mg/kg	186836-9	<25 || <25	186836-10	91%
MTBE	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
Benzene	mg/kg	186836-9	<0.2 || <0.2	186836-10	94%
Toluene	mg/kg	186836-9	<0.5 || <0.5	186836-10	96%
Ethylbenzene	mg/kg	186836-9	<1 || <1	186836-10	89%
m+p-xylene	mg/kg	186836-9	<2 || <2	186836-10	88%
o-xylene	mg/kg	186836-9	<1 || <1	186836-10	89%
Naphthalene	mg/kg	186836-9	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	186836-9	94 || 92 || RPD: 2	186836-10	99%
QUALITY CONTROL svTRH(C10-C36) in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
$TRHC_{10}$ - C_{14}	mg/kg	186836-9	<50 || <50	186836-10	93%
$TRHC_{15}$ - C_{28}	mg/kg	186836-9	<100 || <100	186836-10	85%
$TRHC_{29}$ - C_{36}	mg/kg	186836-9	<100 || <100	186836-10	91%
$TRH>C_{10}$ - C_{16}	mg/kg	186836-9	<50 || <50	186836-10	86%
$TRH>C_{16}$ - C_{34}	mg/kg	186836-9	<100 || <100	186836-10	87%
$TRH>C_{34}$ - C_{40}	mg/kg	186836-9	<100 || <100	186836-10	85%
Surrogate o-Terphenyl	%	186836-9	95 || 84 || RPD: 12	186836-10	94%
QUALITY CONTROL VHC's in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	6/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	7/10/2016
Dichlorodifluoromethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Chloromethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Vinyl Chloride	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Bromomethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Chloroethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Trichlorofluoromethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,1-Dichloroethene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,1-dichloroethane	mg/kg	186836-9	<1.0 || <1.0	186836-10	96%
cis-1,2-dichloroethene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Bromochloromethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Chloroform	mg/kg	186836-9	<1.0 || <1.0	186836-10	98%

QUALITY CONTROL VHC's in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
2,2-dichloropropane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,2-dichloroethane	mg/kg	186836-9	<1.0 || <1.0	186836-10	100%
1,1,1-trichloroethane	mg/kg	186836-9	<1.0 || <1.0	186836-10	99%
1,1-dichloropropene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Carbon tetrachloride	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Dibromomethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,2-dichloropropane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Trichloroethene	mg/kg	186836-9	<1.0 || <1.0	186836-10	105%
Bromodichloromethane	mg/kg	186836-9	<1.0 || <1.0	186836-10	100%
trans-1,3-dichloropropene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,3-dichloropropane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Dibromochloromethane	mg/kg	186836-9	<1.0 || <1.0	186836-10	102%
1,2-dibromoethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Tetrachloroethene	mg/kg	186836-9	<1.0 || <1.0	186836-10	98%
1,1,1,2-tetrachloroethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Chlorobenzene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Bromoform	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Bromobenzene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
2-chlorotoluene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
4-chlorotoluene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	186836-9	<1.0 || <1.0	186836-10	95%
1,2-dichlorobenzene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Hexachlorobutadiene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	186836-9	<1.0 || <1.0	[NR]	[NR]
Surrogate Dibromofluorometha	%	186836-9	103 || 104 || RPD: 1	186836-10	105%
Surrogate aaa-Trifluorotoluene	%	186836-9	92 || 95 || RPD: 3	186836-10	98%
Surrogate Toluene-d_8	%	186836-9	102 || 102 || RPD: 0	186836-10	103%
Surrogate 4-Bromofluorobenz	%	186836-9	97 || 102 || RPD: 5	186836-10	101%

QUALITY CONTROL SVCH's in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	07/10/2016
1,3-Dichlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	186836-9	<0.5 || <0.5	186836-10	99%
1,2-Dichlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
Hexachloroethane	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
1,2,3-Trichlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	186836-9	<0.5 || <0.5	186836-10	91%
1,3,5-Trichlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
1,2,3,4-Tetrachlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	186836-9	<2 || <2	[NR]	[NR]
Hexachlorobutadiene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
Pentachlorobenzene	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
Hexachlorobenzene (HCB)	mg/kg	186836-9	<0.5 || <0.5	[NR]	[NR]
p-Terphenyl-D_{14}	%	186836-9	91 || 99 || RPD: 8	186836-10	107%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	07/10/2016
Naphthalene	mg/kg	186836-9	<0.1 || <0.1	186836-10	91%
Acenaphthylene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	186836-9	<0.1 || <0.1	186836-10	96%
Phenanthrene	mg/kg	186836-9	<0.1 || <0.1	186836-10	89%
Anthracene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	186836-9	<0.1 || <0.1	186836-10	105%
Pyrene	mg/kg	186836-9	<0.1 || <0.1	186836-10	107%
Benzo(a)anthracene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	186836-9	<0.1 || <0.1	186836-10	96%
Benzo(b,j+k)fluoranthene	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	186836-9	<0.05 || <0.05	186836-10	92%
Indeno(1,2,3-c,d)pyrene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
p-Terphenyl-D_{14}	%	186836-9	91 || 99 || RPD: 8	186836-10	107%

QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	07/10/2016
Arochlor 1016	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Arochlor 1221	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	186836-9	<0.1 || <0.1	186836-10	92%
Arochlor 1260	mg/kg	186836-9	<0.1 || <0.1	[NR]	[NR]
QUALITY CONTROL Speciated Phenols in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	186836-9	06/10/2016 || 06/10/2016	186836-10	06/10/2016
Date analysed	-	186836-9	07/10/2016 || 07/10/2016	186836-10	07/10/2016
Phenol	mg/kg	186836-9	<0.2 || <0.2	186836-10	80%
2-Chlorophenol	mg/kg	186836-9	<0.2 || <0.2	186836-10	85%
4-Chloro-3-methylphenol	mg/kg	186836-9	<5 || <5	[NR]	[NR]
2-Methylphenol	mg/kg	186836-9	<0.2 || <0.2	186836-10	88%
3/4-Methylphenol	mg/kg	186836-9	<0.4 || <0.4	[NR]	[NR]
2-Nitrophenol	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
2,6-Dichlorophenol	mg/kg	186836-9	<0.2 || <0.2	186836-10	73%
2,4,5-Trichlorophenol	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
2,4,6-Trichlorophenol	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
2,4-Dinitrophenol	mg/kg	186836-9	<4 || <4	[NR]	[NR]
4-Nitrophenol	mg/kg	186836-9	<4 || <4	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	mg/kg	186836-9	<0.2 || <0.2	[NR]	[NR]
2-Methyl-4,6-dinitrophenol	mg/kg	186836-9	<10 || <10	[NR]	[NR]
Pentachlorophenol	mg/kg	186836-9	<5 || <5	[NR]	[NR]
Surrogate Phenol-d_6	%	186836-9	92 || 94 || RPD: 2	186836-10	101%

Report Comments:

Asbestos Signatories:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Airborne fibres were analysed by Approved Counter: Not applicable for this job

Definitions:

NT: Not tested NA: Test not required INS: Insufficient sample for this test PQL: Practical Quantitation Limit
<: Less than >: Greater than RPD: Relative Percent Difference LCS: Laboratory Control Sample
NS: Not Specified NEPM: National Environmental Protection Measure NR: Not Reported

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1622424**	Page	: 1 of 5
Client	: **DOUGLAS PARTNERS PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR ANDREW GANE	Contact	: John Pickering
Address	: PO BOX 36858 WINNELLIE NT, AUSTRALIA 0821	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 8948 6800	Telephone	: +61 7 3552 8634
Project	: 78156.02 Humpty Doo	Date Samples Received	: 07-Oct-2016 10:45
Order number	: ----	Date Analysis Commenced	: 07-Oct-2016
C-O-C number	: ----	Issue Date	: 10-Oct-2016 12:48
Sampler	: ANDREW GANE		
Site	: ----		
Quote number	: ----		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	031016Rep2	031016Rep4	----	----	----
			Client sampling date / time	03-Oct-2016 09:00	03-Oct-2016 09:30	----	----	----
Compound	CAS Number	LOR	Unit	ES1622424-001	ES1622424-002	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1	%	4.2	8.9	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	----	----
4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.05	----	----	----
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	----	----	----
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	----	----	----
Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	031016Rep2	031016Rep4	----	----	----
			Client sampling date / time	03-Oct-2016 09:00	03-Oct-2016 09:30	----	----	----
Compound	CAS Number	LOR	Unit	ES1622424-001	ES1622424-002	--------	--------	--------
				Result	Result	----	----	----
EP068B: Organophosphorus Pesticides (OP) - Continued								
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	----	----	----
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	----	----	----
Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	----	----	----
Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**111**	**98.8**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**103**	**99.6**	----	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143

Appendix D

QA/QC Data Quality Assessment

Douglas Partners
Geotechnics / Environment / Groundwater

ATTACHMENT D

QUALITY ASSURANCE/QUALITY CONTROL
Lot 3, Freds Pass Road, Humpty Doo

1. DATA QUALITY OBJECTIVES

Data quality objectives (DQO) were developed for the soil sampling undertaken to ensure the integrity and reproducibility of the tests and to provide a check on the potential for cross-contamination during the sampling process.

The procedures undertaken to achieve the DQO included deployment of trained personnel familiar with soil and groundwater sampling techniques. Laboratory QA/QC testing was carried out by the primary laboratory (Envirolab Group) and a secondary laboratory (ALS Environmental), both of which are NATA-accredited laboratories.

Quality Assurance (QA) was maintained by:

- compliance with a Project Quality Plan written for the objectives of the study;
- using qualified environmental scientists and engineers to undertake the field supervision and sampling;
- following the DP operating procedures for soil sampling, field testing and decontamination as presented in Table D1 below; and
- using National Association of Testing Authorities (NATA)-registered laboratories for sample testing that utilise standard laboratory methods (including in-house tests) of the US EPA, the APHA and Australian Standards.

Table D1: Field Procedures

Abbreviation	Procedure Name
FPM LOG	Logging
FPM DECONT	Decontamination of Personnel and Equipment
FPM ENVID	Sample Identification, Handling, Transport and Storage of Contaminated Samples
FPM ENVSAMP	Sampling of Contaminated Soils and Sludges
FPM PIDETC	Operation of Field Analysers

(From Douglas Partners Field Procedures Manual)

2. DATA QUALITY INDICATORS

The analysis of quality control (QC) duplicate samples and laboratory in-house QA/QC procedures was assessed against the following data quality indicators (DQIs):

- conformance with specified holding times;

- accuracy of spiked sample recoveries within the acceptable range (70-130% for inorganic contaminants/metals and 60-140% organics);
- field duplicates/replicates collected at a minimum frequency of one each for every 20 samples;
- field split duplicates/replicates collected at a minimum frequency of one each for every 20 samples;
- field and laboratory duplicate and replicate samples should have a precision average of +/- 50% relative percent difference (RPD) – see further comments in Section 3; and
- concentration of contaminants in laboratory reagents and blanks should be below the practical quantitation limits.

3. FIELD QUALITY ASSURANCE / QUALITY CONTROL

DP split nine soil samples into two during field procedures and sent both samples to the primary laboratory for analysis without any indication of their duplication. Both sets of soil samples were generally analysed for the same parameters. This procedure is known as blind duplicate sampling.

DP also split two soil samples into three during field procedures and sent the samples for analysis without any indication of their duplication. Two samples were sent to the primary laboratory and one sample was sent to the secondary laboratory. All three soil samples were generally analysed for the same parameters. This procedure is known as check duplicate sampling.

A measure of laboratory precision was obtained by calculating the relative percent difference (RPD) between duplicate pairs, as shown in equation (1) below. DP generally adopts a RPD criterion of between less than 50% as being acceptable, depending on the contaminant.

$$\%RPD = \frac{|C_{original} - C_{duplicate}|}{Average(C_{original}, C_{duplicate})} \times 100 \qquad (1)$$

Of the eleven blind and split duplicates tested during this assessment, eight recorded RPD values of 0% for all contaminants. The other three had RPD values of 100%, 120% and 133% for dieldrin and one of these had a RPD of 150% for endosulfan. However, it should be noted that the differences in test results for these three were only 0.02 mg/kg, 0.03 mg/kg and 0.04 mg/kg (see Section 4 for further details).

In accordance with the current NEPM, samples with an RPD of greater than 30% were subject to review of laboratory methods. If DP then considered that laboratory methods were appropriate, the RPD limit of 50% was adopted. For the three results with RPD exceedences (see above) it is noted that the reported contaminant levels were less than 10 times the laboratory reporting limit, which is also considered acceptable.

During this soil investigation, a total of 80 primary samples were analysed, plus nine blind duplicate samples and two split duplicate samples. No trip blank or rinsate blanks were collected or analysed. The ratio of blind duplicates to primary samples was greater than one per 10 samples, as well as one per 20 samples as recommended in AS4482.1 and it is therefore considered adequate for this investigation. The ratio of split duplicates to blind duplicates was greater than one per 10 samples, which is also considered adequate for this investigation. DP acknowledges that the recommended frequencies of blanks were not met during the soil sampling.

4. DETAILS OF SOIL ANALYSIS

A summary of the QC soil sampling programme is provided in Table D2 below:

Table D2: QC Soil Sampling Programme

Sample Dates	No. of Primary Samples	No. of Blind Dups	Acceptable (Y/N)	No. of Check Dups	Acceptable (Y/N)	No. of Trip Blanks	No. of Rinsate Blanks	Acceptable (Y/N)
31.8.16 to 03.10.16	80	9	Y	2	Y	0	0	N

4.1 Blind Duplicate Samples

In sample pairs where both results are below the laboratory limit of reporting (LOR), DP considers a calculated RPD of zero to be valid.

The results of blind duplicate testing for soil samples are provided in Table D3 below.

Table D3: Soil Blind Duplicate Analysis

Sample ID	Analyte								
	Aldrin + Dieldrin	Chlordane	DDT+DDE DDD	Endosulfan	Endrin	Heptachlor TEQ*	HCB	Methoxychlor	Chloropyrifos
VD/TP10/1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Rep3 31082016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0
VD/TP18/0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Rep5 31082016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0
HSR/TP20/B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Rep1 31082016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0
VM/S6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
230916Rep1	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	133	0	0	0	0	0	0	0	0
VM/S21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
270916Rep1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0
VM/S23	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
270916Rep2	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	100	0	0	0	0	0	0	0	0
VM/S25	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
270916Rep3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0
VM/S29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
031016Rep3	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0

Table D3 Continued

Sample ID	Analyte								
	Aldrin + Dieldrin	Chlordane	DDT+DDE DDD	Endosulfan	Endrin	Heptachlor TEQ*	HCB	Methoxychlor	Chloropyrifos
VM/S32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
031016Rep1	0.04	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.05
RPD (%)	120	0	0	150	0	0	0	0	0

Results in mg/kg unless otherwise stated
* Sum of twice the heptachlor epoxide concentration and the heptachlor concentration

The majority of RPDs are below the 50% criterion and are therefore considered acceptable.

In the cases where the RPD is above 50%, it should be noted that the reported contaminant levels were less than 10 times the laboratory reporting limit, and therefore they are also considered acceptable.

4.2 Split Duplicate Samples

The results of split duplicate testing for soil samples are provided in Table D4 below.

Table D4: Soil Split Duplicate Analysis

Sample ID	Analyte								
	Aldrin + Dieldrin	Chlordane	DDT+DDE DDD	Endosulfan	Endrin	Heptachlor TEQ*	HCB	Methoxychlor	Chloropyrifos
VM/S29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
031016Rep3	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
031016Rep4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD (%)	0	0	0	0	0	0	0	0	0
VM/S32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
031016Rep1	0.04	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.05
031016Rep2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD (%)	120	0	0	150	0	0	0	0	0

As for the blind duplicates, most of the RPDs are below the 50% criterion and are therefore considered acceptable. Where the RPD is above 50%, the reported contaminant levels are less than 10 times the laboratory reporting limit, and the variations in results represente small diffrecnes between small numbers. On this basis, the resultsare considered acceptable.

4.2 Trip and Rinsate Blanks

No trip or rinsate blanks were collected or analysed during this investigation. The absence of trip blanks is not considered to compromise the quality of data because volatile contaminants, which are most likely to cause cross contamination in transit, were not part of the contaminants of potential concern for which there was analysis. Equipment rinsate blanks were not collected because samples were retrieved by hand from the centre of the excavator bucket, with a new, disposable pair of nitrile gloves used to collect each sample. Accordingly, the possibility of cross-contamination between sampling locations was minimised as far as practicable.

5. LABORATORY QUALITY ASSURANCE / QUALITY CONTROL

Quality Control (QC) of the laboratory program was measured by the following means:

- method blanks – the laboratory ran reagent blanks to confirm the equipment and standards used were uncontaminated;
- laboratory duplicates – the laboratory split samples internally and conducted tests on separate extracts; and
- laboratory spikes – samples were spiked by the laboratory with a known concentration of contaminants and subsequently tested for recovery.

5.1 Method Blanks

All method blanks from Envirolab and ALS returned results below the laboratory reporting limit and are therefore acceptable.

5.2 Laboratory Duplicates

The RPD between duplicate pairs is calculated to measure laboratory precision.

Envirolab laboratory RPDs ranged from 0% to 15% and were within acceptable ranges.

5.3 Laboratory Spikes

Envirolab adopts an acceptable range of 70% to 130% for recovery of inorganics and metals, and 50% to 140% for organics.

Envirolab laboratory spike results ranged from 77% to 117% and were within Envirolab acceptable ranges.

6. QA/QC CONCLUSIONS

Overall the accuracy and precision of the soil testing procedures, as inferred by the QA/QC data, is considered by DP to be of sufficient standard to enable the data, as reported by the NATA accredited laboratories, Envirolab and ALS, to be used by DP for interpretation of site contamination conditions.

DP acknowledges that the frequency of trip blanks and equipment rinsate blanks did not conform with the QC requirements outlined in AS4482.1-2005 and that these QC samples should have been collected at the frequency outlined in DP's RAP, dated 16 May 2016. However, given that the blind and split duplicate analysis results (and a large proportion of the other primary soil results) were below the laboratory LOR or had acceptable RPD values, it is considered that the overall results are not affected. Particularly, with contaminant concentrations generally below the laboratory LOR, the possibility of cross contamination of samples either during samples or in transport is considered negligible.

Appendix G - Permission from the client to conduct audit

Chris Rigby

From: Linda Henning <LindaH@masterplan.com.au>
Sent: Thursday, 16 October 2014 3:19 PM
To: Katrina Rope
Cc: John Throssell; Geoff Metcalfe; tony.whear@jacaan.com.au; Shauna Wild
Subject: RE: (1229) FW: Lot 3 (110) Freds Pass Road, Hundred of Strangways .
Attachments: GHD Environmental Audit Fee Proposal.pdf

CompleteRepository: 4322261
Description: Environmental Audit Lot 3 Freds Pass Road
JobNo: 22261
OperatingCentre: 43
RepoEmail: 4322261@ghd.com
RepoType: Job

Dear Katrina

Please find attached the signed engagement. I copy Tony Whear in on this email. He is your contact for further negotiations and arrangements on when, how and where the assessment will take place.

Kind regards

Linda Henning
lindah@masterplan.com.au

MASTERPLAN
Town + Country Planners
M 0413 832 601
P 08 8942 2600

Website | Facebook

From: Katrina Rope [Katrina.Rope@ghd.com]
Sent: Thursday, 2 October 2014 8:07 AM
To: Linda Henning
Cc: John Throssell; Geoff Metcalfe
Subject: RE: (1229) FW: Lot 3 (110) Freds Pass Road, Hundred of Strangways .

Morning Linda

Please find attached the GHD proposal for the environmental audit of your clients property at Lot 3 Freds Pass Road.

As discussed yesterday, if you need anything or would like to discuss further please do not hesitate to contact me on my mobile 0402835802.

Have a lovely day.

Katrina

Regards

Katrina Rope
Senior Environmental Scientist
Contamination Assessment and Remediation

GHD **Accomplish More Together**
T: 08 8982 0146 | V: 430146 | M: +61 402 835 802 | E: katrina.rope@ghd.com
Level 5, 66 Smith Street, Darwin NT 0812 | http://www.ghd.com/
Water | Energy & Resources | Environment | Property & Buildings | Transportation

From: Katrina Rope
Sent: Wednesday, 1 October 2014 3:11 PM
To: 'LindaH@masterplan.com.au'
Subject: RE: (1229) FW: Lot 3 (110) Freds Pass Road, Hundred of Strangways .

Hi Linda

Just letting you know that I will get our proposal to you in the morning.

Have a wonderful afternoon

Katrina

Regards

Katrina Rope
Senior Environmental Scientist
Contamination Assessment and Remediation

GHD **Accomplish More Together**
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Water | Energy & Resources | Environment | Property & Buildings | Transportation

From: Linda Henning <LindaH@masterplan.com.au>
Date: 1 October 2014 8:47:36 am AEST
To: John Throssell <John.Throssell@ghd.com>
Subject: (1229) FW: Lot 3 (110) Freds Pass Road, Hundred of Strangways .

Hi John

Thank you – it sounds perfect. Once I receive it I will discuss with the client and let you know the outcome.

Acer Forester Engineers can do the assessment or ground tests. Is there a specific way it needs to be done, or do you think they will know how to assess soil tests. Surely there is a difference in taking samples, test and assess it, than just taking the samples.

Your advice are appreciated.

Linda Henning
lindah@masterplan.com.au

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Website | Facebook

From: John Throssell [mailto:John.Throssell@ghd.com]
Sent: Monday, 29 September 2014 6:20 PM
To: Linda Henning
Cc: Katrina Rope; Kate Finch; Robyn Madsen
Subject: RE: 1229 FW: Lot 3 (110) Freds Pass Road, Hundred of Strangways .

Hi Linda,
I tried to call earlier, but just to update you:

1. We are in the process of preparing a proposal for the completion of an Environmental audit. The proposal will include a scope of work and fee estimate for the audit.
2. The proposal will be provided by our Darwin office and you should receive it by the end of the week.
3. Did you have a consultant in mind for the site assessment? GHD can also provide you a proposal for this work, but clearly we can't be retained for both tasks.

If you have any questions I'll be contactable on my mobile or you can contact Katrina Rope in our Darwin office 89820146, or Kate Finch on 8982 0164.
Best regards,

John Throssell
Environmental Auditor (appointed pursuant to the Environmental Protection Act 1970)

GHD
T: 61 3 8687 8658 | V: 318658 | M: 61 413 456 364 | E: john.throssell@ghd.com
180 Lonsdale Street Melbourne VIC 3000 Australia | www.ghd.com
WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

From: Linda Henning [mailto:LindaH@masterplan.com.au]
Sent: Monday, 29 September 2014 3:05 PM
To: John Throssell
Subject: 1229 FW: Lot 3 (110) Freds Pass Road, Hundred of Strangways .

Good day John

Our discussion last week in relation to the Condition precedent relating to certification of land being suitable for its intended use- see attached. You explained the process to me in terms of the assessment being done and then the auditor who have to verify the assessment after soil tests etc.
Would it be possible to provide me with a fee proposal as well as scope of works in order to advice the client as soon as possible. The client is in a desperate hurry and wants to try and start works prior to the rains!

Kind regards

Linda Henning
lindah@masterplan.com.au

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From: Linda Henning
Sent: Thursday, 25 September 2014 4:28 PM
To: Linda Henning
Subject: Lot 3 (110) Freds Pass Road, Hundred of Strangways .

Good day

Item 5, Condition Precedent 4 in this attachment refers. “Prior to the commencement of works a qualified person, under section 68 of the Waste Management and Pollution Control Act, is to provide certification that the site is suitable for its intended use(s), to the satisfaction of the consent authority on the advice of the NT Environment Protection Authority”

Can you please provide me with a fee proposal and time schedule for the above certification?

Please let me know if you need additional information.

Kind regards

Linda Henning
lindah@masterplan.com.au

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Appendix H - Photographs: 20 April 2017, Audit Verification Visit

Photo 1: View northwest at northern boundary of SD Zone, adjacent to Freds Pass Road

Photo 2: View northwest from southeast corner of SD Zone

Photo 3: View north from southeast corner of SD Zone

Photo 4: View west from southeast corner of SD Zone

Photo 5: View northeast from southwest corner of SD Zone, adjacent to Beaumont Road

Photo 6: View north from southwest corner of SD Zone, adjacent to Beaumont Road

Photo 7: View east from southwest corner of SD Zone, adjacent to Beaumont Road

Photo 8: View northwest from central MD Zone

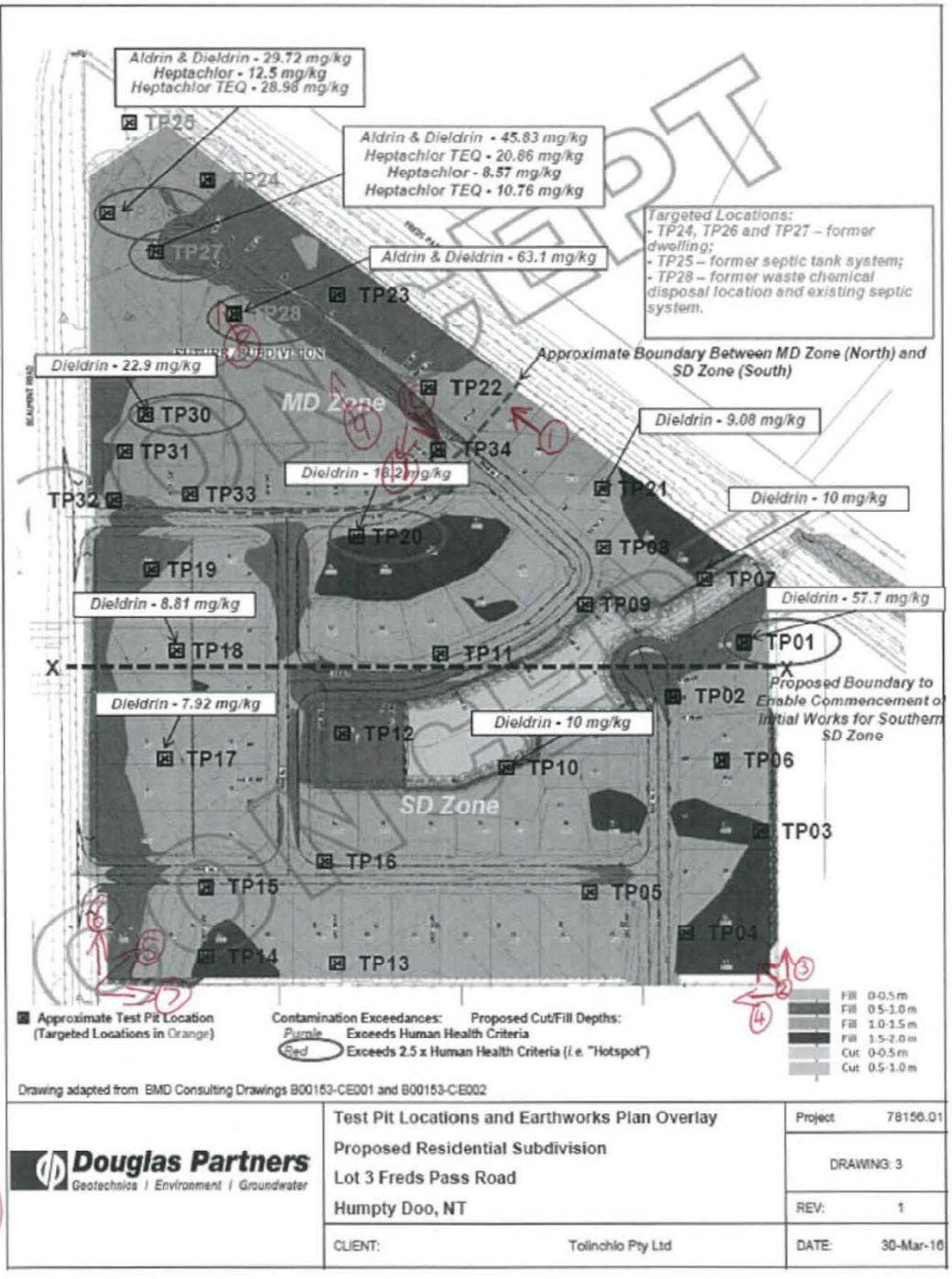
Photo 9: View northwest from central-southern MD Zone to intersection of Beaumont Road and Freds Pass Road

Photo 10: View southeast from central-southern MD Zone

Photo 11: View south from central-southern MD Zone, showing remaining site infrastructure comprising small building and an elevated water tank

GHD

Field Briefing Sheet



Drawing adapted from BMD Consulting Drawings B00153-CE001 and B00153-CE002

Douglas Partners Geotechnics / Environment / Groundwater	Test Pit Locations and Earthworks Plan Overlay Proposed Residential Subdivision Lot 3 Freds Pass Road Humpty Doo, NT	Project 78156.01 DRAWING: 3 REV: 1
	CLIENT: Tolinchio Pty Ltd	DATE: 30-Mar-16

N

Appendix I - Earthworks Plans

REVISION IN PROGRESS

BMD consulting

- CIVIL ENGINEERS
- STRUCTURAL ENGINEERS
- PROJECT MANAGERS

Client: FAITH CONSTRUCTIONS

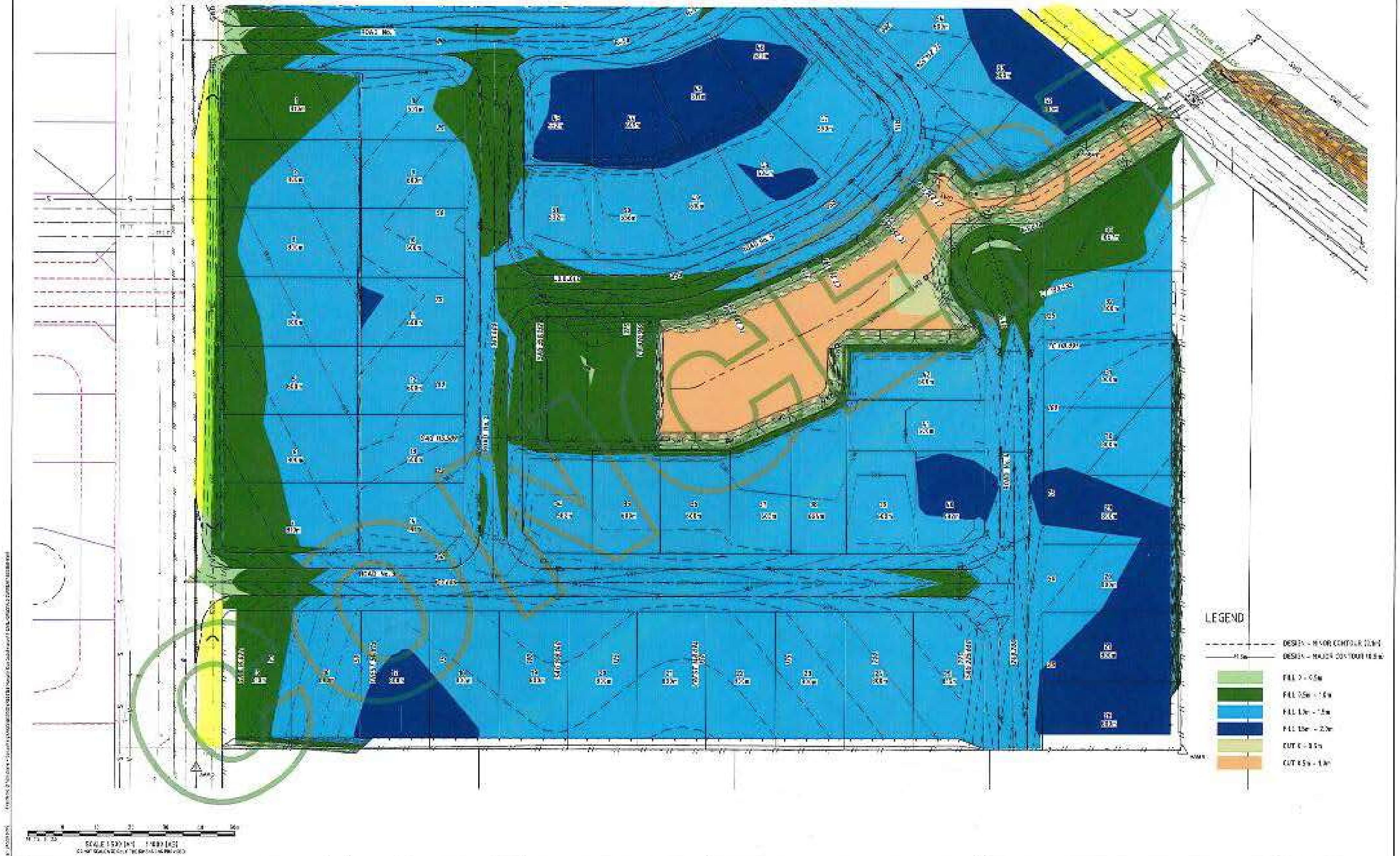
Project: 110 FREDS PASS ROAD, HUMPTY DOO

Title: EARTHWORKS MANAGEMENT PLAN
SHEET 1 OF 2

Datum: AHD
PSM:
RL:
MGA) COORD:

NOT FOR CONSTRUCTION

Project No: B00153
Drawing No: CE001
Rev: C



BMD consulting
- CIVIL ENGINEERS
- STRUCTURAL ENGINEERS
- PROJECT MANAGERS

FAITH CONSTRUCTIONS

110 FREDS PASS ROAD, HUMPTY DOO

EARTHWORKS MANAGEMENT PLAN
SHEET 2 OF 2

AHD
PSM
RL
(MGA) COORD

NOT FOR CONSTRUCTION

B00153-CE002 C

Appendix J - City of Darwin Tip Receipts

CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002005-SB.2
Voucher No:

Time In: 2/02/2017 1:32:25 PM
Time Out: 2/02/2017 1:32:25 PM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste CLEANFILL - STAGE 3 Each Items	Qty	Price NA Price
GROSS Weight:		75.00t
TARE Weight:		29.91t
NET Weight:		45.09t
Chargeable Weight:		Min.Chrg
Council Fee:		$0.00
EPA Levy:		$0.00
GST :		$0.00
Temporary Acc:		$0.00
Total Price:		$0.00

Payments:
ROUNDING $0.00
Total Amount Tendered: $0.00
Change Given: $0.00

Driver:
MANUAL TICKET
Operator: Dennis

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50001908-SB
Voucher No:

Time In: 2/02/2017 10:53:06 AM
Time Out: 2/02/2017 10:53:06 AM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste CLEANFILL Each Items	Qty	Price NA Price
GROSS Weight:		73.00t
TARE Weight:		29.91t
NET Weight:		43.09t
Chargeable Weight:		Min.Chrg
Council Fee:		$0.00
EPA Levy:		$0.00
GST :		$0.00
Temporary Acc:		$0.00
Total Price:		$0.00

Payments:
ROUNDING $0.00
Total Amount Tendered: $0.00
Change Given: $0.00

Driver:
MANUAL TICKET
Operator: Michael

š0002169~œ

CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50001857-SB
Voucher No:

Time In: 2/02/2017 9:05:38 AM
Time Out: 2/02/2017 9:05:38 AM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste CLEANFILL - STAGE 3 Each Items	Qty	Price NA Price
GROSS Weight:		74.00t
TARE Weight:		29.91t
NET Weight:		44.09t
Chargeable Weight:		Min.Chrg
Council Fee:		$0.00
EPA Levy:		$0.00
GST :		$0.00
Temporary Acc:		$0.00
Total Price:		$0.00

Payments:
ROUNDING $0.00
Total Amount Tendered: $0.00
Change Given: $0.00

Driver:
MANUAL TICKET
Operator: Michael

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002134-SB
Voucher No:

Time In: 3/02/2017 8:16:20 AM
Time Out: 3/02/2017 8:16:20 AM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste		Price
CLEANFILL		NA
Each Items	Qty	Price

GROSS Weight:	76.20t
TARE Weight:	29.91t
NET Weight:	46.29t

Chargeable Weight:	Min.Chrg
Council Fee:	$0.00
EPA Levy:	$0.00
GST :	$0.00
Temporary Acc:	$0.00
Total Price:	$0.00

Payments:	
ROUNDING	$0.00
Total Amount Tendered:	$0.00
Change Given:	$0.00

Driver:
MANUAL TICKET
Operator: Dennis

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002102-SB
Voucher No:

Time In: 2/02/2017 5:20:03 PM
Time Out: 2/02/2017 5:20:03 PM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste		Price
CLEANFILL		NA
Each Items	Qty	Price

GROSS Weight:	75.18t
TARE Weight:	29.91t
NET Weight:	45.27t

Chargeable Weight:	Min.Chrg
Council Fee:	$0.00
EPA Levy:	$0.00
GST :	$0.00
Temporary Acc:	$0.00
Total Price:	$0.00

Payments:	
ROUNDING	$0.00
Total Amount Tendered:	$0.00
Change Given:	$0.00

Driver:
MANUAL TICKET
Operator: Dennis

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002067-SB
Voucher No:

Time In: 2/02/2017 3:29:42 PM
Time Out: 2/02/2017 3:29:42 PM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste		Price
CLEANFILL - STAGE 3		NA
Each Items	Qty	Price

GROSS Weight:	74.42t
TARE Weight:	29.91t
NET Weight:	44.51t

Chargeable Weight:	Min.Chrg
Council Fee:	$0.00
EPA Levy:	$0.00
GST :	$0.00
Temporary Acc:	$0.00
Total Price:	$0.00

Payments:	
ROUNDING	$0.00
Total Amount Tendered:	$0.00
Change Given:	$0.00

Driver:
MANUAL TICKET
Operator: Dennis

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002427-SB
Voucher No:

Time In: 3/02/2017 4:30:48 PM
Time Out: 3/02/2017 4:30:48 PM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste		Price
CLEANFILL		NA
Each Items	Qty	Price

GROSS Weight:	72.90t
TARE Weight:	29.91t
NET Weight:	42.99t

Chargeable Weight:	Min.Chrg
Council Fee:	$0.00
EPA Levy:	$0.00
GST :	$0.00
Temporary Acc:	$0.00
Total Price:	$0.00

Payments:	
ROUNDING	$0.00
Total Amount Tendered:	$0.00
Change Given:	$0.00

Driver:
MANUAL TICKET
Operator: Michael

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002196-SB
Voucher No:

Time In: 3/02/2017 10:12:03 AM
Time Out: 3/02/2017 10:12:03 AM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste		Price
CLEANFILL		NA
Each Items	Qty	Price

GROSS Weight:	74.78t
TARE Weight:	29.91t
NET Weight:	44.87t

Chargeable Weight:	Min.Chrg
Council Fee:	$0.00
EPA Levy:	$0.00
GST :	$0.00
Temporary Acc:	$0.00
Total Price:	$0.00

Payments:	
ROUNDING	$0.00
Total Amount Tendered:	$0.00
Change Given:	$0.00

Driver:
MANUAL TICKET
Operator: Dennis

23/0431

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002490-SB
Voucher No:

Time In: 4/02/2017 11:08:38 AM
Time Out: 4/02/2017 11:08:38 AM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste Price
CLEANFILL - STAGE 3 NA
Each Items Qty Price

GROSS Weight: 76.68t
TARE Weight: 29.91t
NET Weight: 46.77t

Chargeable Weight: Min.Chrg
Council Fee: $0.00
EPA Levy: $0.00
GST : $0.00
Temporary Acc: $0.00
==========
Total Price: $0.00
==========

Payments:
ROUNDING $0.00
Total Amount Tendered: $0.00
Change Given: $0.00

Driver:
MANUAL TICKET
Operator: Trainee

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CITY OF DARWIN

Tax Invoice

Shoal Bay

Phone: 08 89450877

ABN: 11503313301

Ticket No: 50002461-SB.2
Voucher No:

Time In: 4/02/2017 9:04:07 AM
Time Out: 4/02/2017 9:04:07 AM

Vehicle Rego: 932297-DOUBLE

Client: CASH SALES
Order Number:
Contract:

Weighed Waste Price
CLEANFILL - STAGE 3 NA
Each Items Qty Price

GROSS Weight: 75.94t
TARE Weight: 29.91t
NET Weight: 46.03t

Chargeable Weight: Min.Chrg
Council Fee: $0.00
EPA Levy: $0.00
GST : $0.00
Temporary Acc: $0.00
==========
Total Price: $0.00
==========

Payments:
ROUNDING $0.00
Total Amount Tendered: $0.00
Change Given: $0.00

Driver:
MANUAL TICKET
Operator: Trainee

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Appendix K - Glossary of terms

“Act”	the Environment Protection Act 1970 as amended
ANZECC	Australian and New Zealand Environment and Conservation Council, a council of ministers responsible for environment in state and federal government including the NZ national government.
ANZECC B	concentration guidelines for contaminants issued by ANZECC in 1992 which, when exceeded, indicate that investigation of the impact of the contaminant on beneficial use (on the environment) is necessary
Assessment of site contamination	a set of formal methods for assessing to the extent practicable the nature, extent and levels of existing contamination and the actual or potential risk to human health or the environment on or off-site from that contamination.
Environmental auditor	means a person appointed under section 53S of the Environment Protection Act as an environmental auditor for the purposes of that Act.
Background level	the level of an indicator (measured in a manner and at a location specified by the Authority) in the surface waters of the segment outside the influence of any waste discharge containing a measurable level of that indicator.
Beneficial use	beneficial use in relation to assessment of contaminated land means a use of the environment or any element or segment of the environment which: (a) is conducive to public benefit, welfare, safety, health or aesthetic enjoyment, and which requires protection from the effects of waste discharges, emissions or deposits, or (b) is declared in State environment protection policy to be a beneficial use.
Contaminant	a chemical of man-made origin that has been added to soil or groundwater
Contamination	the condition of land or water where any chemical substance or waste has been added at above background level and represents, or potentially represents, an adverse health or environmental impact.
Dutch Intervention Levels	concentration guidelines issued by the Dutch government in 2000 which, if exceeded, indicate that remediation may be necessary
Dutch Target Level	concentration guidelines issued by the Dutch government in 2000, which, if exceeded, indicate that there may be some contamination.
Environmental audit overlay (EAO)	environmental audit overlay, an overlay in a planning scheme that is meant to indicate that the land is potentially contaminated. An EAO can only be removed by completion of an environmental audit.
Ecological risk assessment	a set of formal, scientific methods for defining and estimating the probabilities and magnitudes of adverse impacts on plants, animals and/or the ecology of a specified area posed by a particular stressor(s) and frequency of exposure to the stressor(s). (Stressors include release of chemicals, other human actions and natural catastrophes).
Element of the environment	in relation to the assessment of contaminated land element means any of the principal constituent parts of the environment including waters, atmosphere, land, vegetation, climate, odour, aesthetics, fish and wildlife.
EPA	Environment Protection Authority of Victoria (“Authority”)
Exceedance	an instance where the concentration of a substance in soil or groundwater exceeds a nominated guideline
Fill material	soil (sand, clay and silt), gravel or rock with contaminant concentrations less than those specified in Table 1 of EPA Publication 448-1 entitled “Classification of Wastes”.
Groundwater	any water contained in or occurring in a geological structure or formation

Health risk assessment	the process of estimating the potential impact of a chemical, biological or physical agent on a specified human population system under a specific set of conditions.
Investigation level	the concentration of a contaminant above which further appropriate investigation and evaluation will be required.
MAHs	monocyclic aromatic compounds, namely benzene, chlorinated benzenes, chlorinated phenols, phenol, toluene and xylene
mg/kg	milligram per kilogram, the measure of concentration of a contaminant or naturally occurring chemical in soil, normally expressed as mg per kg of oven dry soil
mg/L	milligram per litre, the measure of concentration of a contaminant or naturally occurring chemical in water
Ministers Direction No 1	the Direction issued by the Minister responsible for planning in 1992 which states that if potentially contaminated land is to be rezoned by a Council to a sensitive use, then Council should satisfy itself that the land is suitable for that use and should this by ordering an Environmental Audit.
Potentially contaminated land	means land used or known to have been used for:(a) industry, (b) mining, (c) storage of chemicals, gas, wastes or liquid fuel (if not ancillary to another use of the land).
Prescribed wastes	wastes listed in the Environment Protection (Prescribed Waste) Regulations
Regulations	a regulation made under the “Act”.
Segment of the environment	segment in relation to the environment means any portion or portions of the environment expressed in terms of volume, space, area, quantity, quality or time or any combination thereof.
Sensitive use	in relation to Ministers Direction No 1, sensitive use means residential use, a child-care centre, a preschool centre or a primary school
SEPP	State environment protection policy