

TABLE LR1:
SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE CENTRAL PLANT AREA
Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB and Asbestos
(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CBH104*	CBH104	CBH105	CBH106	CBH106	CBH107	SS1
Material		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		20-Feb-08	20-Feb-08	20-Feb-08	20-Feb-08	20-Feb-08	20-Feb-08	5-May-08
Depth (m)		0.0-0.1	0.5-0.6	0.18-0.28	0.2-0.4	1.0-1.5	0.0-0.1	0.0-0.05
Soil Type		Topsoil/Fill	Fill	Fill	Fill	Estuarine?	Fill - Roadbase	Fill
HEAVY METALS (TOTAL)								
Arsenic	500 ¹	7	9.9	8	-	12	4.6	6.3
Cadmium	100 ¹	< 0.3	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5
Chromium (III)	600,000 ¹	14	16	16	-	17	13	26
Copper	5000 ¹	49	18	18	-	16	140	64
Lead	1500 ¹	14	17	22	-	8.8	< 5	61
Mercury	75 ¹	< 0.05	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1
Nickel	3000 ¹	14	13	11	-	17	7.5	15
Zinc	35000 ¹	14	68	58	-	49	110	130
TOTAL PETROLEUM HYDROCARBONS								
C6 - C9 Fraction	65 ²	-	< 20	< 20	-	< 20	< 20	< 20
C10 - C14 Fraction		-	< 50	< 50	-	< 50	< 50	< 50
C15 - C28 Fraction		-	< 100	< 100	-	< 100	< 100	< 100
C29 - C36 Fraction		-	< 100	< 100	-	< 100	< 100	< 100
Total C10-C36	1000 ²	-	ND	ND	-	ND	ND	ND
BTEX								
Benzene	1 ²	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05
Toluene	130 ²	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05
Ethylbenzene	50 ²	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05
Total Xylene	25 ²	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05
POLYCYCLIC AROMATIC HYDROCARBONS**								
Benzo(a)pyrene	5 ¹	-	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1
Total PAHs	100 ¹	-	ND	ND	-	ND	ND	0.4
ORGANOCHLORINE PESTICIDES								
Aldrin + Dieldrin	50 ¹	-	ND	-	-	-	ND	ND
Chlordane	250 ¹	-	< 0.1	-	-	-	< 0.1	< 0.1
DDT + DDE + DDD	1000 ¹	-	ND	-	-	-	ND	ND
Heptachlor	50 ¹	-	< 0.05	-	-	-	< 0.05	< 0.05
Other OCP		-	ND	-	-	-	ND	ND
TOTAL OPP		-	ND	-	-	-	ND	ND
TOTAL PCB	50 ¹	-	ND	-	-	-	ND	ND
ASBESTOS	ND ³	-	ND	ND	ND	-	ND	ND

NOTES:

Bold

Concentration exceeds the respective threshold concentration

¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)

² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.

* Results recorded in duplicate sample QC100 and presented in SGS batch 59084

** Total PAHs is the sum of detectable concentrations of individual PAH compounds

ND Not Detected

- Not Analysed

See original laboratory reports for detection limits

TABLE LR2:
SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE WESTERN PLANT AREA

Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH

(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CBH1	CBH1*	CBH2	CBH2	CBH3	CBH3	CBH4	CBH5	CBH5	CBH9	CBH10	CBH10	CBH11	CBH11	CBH11	CBH12	CBH13	CBH13	CBH100	CBH101	CBH101	CBH102	CBH103	CBH103	CBH103	
Material		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	4-Sep-2007	4-Sep-2007	4-Sep-2007	4-Sep-2007	4-Sep-2007	4-Sep-2007	19-Feb-08	19-Feb-08	19-Feb-08	19-Feb-08	20-Feb-08	20-Feb-08	20-Feb-08	
Depth (m)		0.0-0.1	0.5-0.8	0.0-0.1	0.5-0.8	0.0-0.1	0.3-0.4	0.0-0.1	0.0-0.1	0.5-0.7	0.0-0.15	0.0-0.1	0.3-0.6	0.2-0.4	0.6-0.7	0.8-1.0	0.5-0.6	0.0-0.2	0.4-0.5	0.0-0.1	0.0-0.1	0.5-0.95	0.0-0.1	0.0-0.1	0.1-0.2	0.5-0.9	
Soil Type		Topsoil	Alluvial	Topsoil	Alluvial	Fill - Coalwash	Former Topsoil	Topsoil	Topsoil	Alluvial	Fill	Topsoil/Fill	Topsoil	Fill	Alluvial	Fill	Fill	Fill	Fill	Topsoil/Alluvial	Topsoil Fill	Alluvial	Fill - Roadbase	Fill - Roadbase	Fill - Roadbase	Fill	
HEAVY METALS (TOTAL)																											
Arsenic	500 ¹	14	11	14	6.5	6.1	-	14	16	-	3.7	9.2	-	4.7	4.3	-	4.9	9.3	4.8	8.5	< 2	-	< 2	-	7.4	12	
Cadmium	100 ¹	< 0.5	0.3	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	
Chromium (III)	600,000 ¹	23	19	31	12	17	-	22	25	-	5.9	20	-	39	18	-	8	22	160	22	8.1	-	13	-	11	20	
Copper	5000 ¹	23	19	26	9.4	27	-	21	27	-	160	60	-	60	14	-	6	79	130	19	230	-	150	-	18	21	
Lead	1500 ¹	16	17	8.5	< 5	20	-	54	10	-	< 5	11	-	< 5	8.3	-	9.7	9.3	< 5	27	< 5	-	< 5	-	12	13	
Mercury	75 ¹	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	0.1	< 0.1	-	< 0.1	-	< 0.1	< 0.1	
Nickel	3000 ¹	17	16	21	7.9	26	-	19	19	-	< 5	13	-	< 5	< 5	-	< 5	11	5	16	7.3	-	< 5	-	6.5	16	
Zinc	35000 ¹	72	49	230	21	450	-	48	64	-	55	48	-	29	9.3	-	11	66	29	61	80	-	33	-	47	49	
TOTAL PETROLEUM HYDROCARBONS																											
C6 - C9 Fraction	65 ²	< 20	< 20	< 20	< 20	< 20	-	< 20	< 20	-	< 20	< 20	-	< 20	< 20	-	< 20	< 20	< 20	< 20	< 20	< 20	< 20	-	< 20	< 20	
C10 - C14 Fraction		< 50	< 50	< 50	< 50	< 50	-	< 50	< 50	-	< 50	< 50	-	< 50	< 50	-	< 50	< 50	< 50	< 50	< 50	< 50	< 50	-	< 50	< 50	
C15 - C28 Fraction		< 100	< 100	< 100	< 100	< 100	-	< 100	< 100	-	< 100	< 100	-	< 100	< 100	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	-	< 100	< 100	
C29 - C36 Fraction		< 100	< 100	110	< 100	120	-	< 100	< 100	-	< 100	< 100	-	< 100	< 100	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	-	110	< 100	
Total C10-C36	1000 ²	ND	ND	110	ND	120	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	-	110	ND	
BTEX																											
Benzene	1 ²	< 0.05	< 0.5	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	
Toluene	130 ²	< 0.05	< 0.5	< 0.05	< 0.05	< 0.1	-	< 0.05	< 0.1	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	
Ethylbenzene	50 ²	< 0.05	< 0.5	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	
Total Xylene	25 ²	< 0.05	< 1.5	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	
POLYCYCLIC AROMATIC HYDROCARBONS**																											
Benzo(a)pyrene	5 ¹	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	-	< 0.1	< 0.1
Total PAHs	100 ¹	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	-	1.4	ND	
ORGANOCHLORINE PESTICIDES																											
Aldrin + Dieldrin	50 ¹	< 0.1	< 0.1	-	-	-	< 0.1	-	-	< 0.1	-	-	< 0.1	-	-	< 0.1	-	-	-	ND	-	-	-	ND	-	ND	
Chlordane	250 ¹	< 0.1	< 0.1	-	-	-	< 0.1	-	-	< 0.1	-	-	< 0.1	-	-	< 0.1	-	-	-	< 0.1	-	-	-	< 0.1	-	< 0.1	
DDT + DDE + DDD	1000 ¹	< 0.15	< 0.3	-	-	-	< 0.15	-	-	< 0.15	-	-	< 0.15	-	-	< 0.15	-	-	-	ND	-	-	-	ND	-	ND	
Heptachlor	50 ¹	< 0.05	< 0.1	-	-	-	< 0.05	-	-	< 0.05	-	-	< 0.05	-	-	< 0.05	-	-	-	< 0.05	-	-	-	< 0.05	-	< 0.05	
Other OCP		ND	ND	-	-	-	ND	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	-	-	ND	-	ND	
TOTAL OPP		ND	ND	-	-	-	ND	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	-	-	ND	-	ND	
TOTAL PCB	50 ¹	ND	ND	ND	-	ND	-	ND	ND	-	ND	ND	-	ND	-	-	ND	-	-	ND	-	-	-	-	ND	ND	
ASBESTOS	ND ³	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	ND	ND	ND	-	ND	-	ND	-	
pH		5.1	5.9	8.6	7.6	6.9	-	5.1	5.3	-	9.0	6.8	-	9.4	4.4	-	3.8	8.5	11.0	-	-	-	-	-	-	-	

NOTES:

Bold

Concentration exceeds the respective threshold concentration

¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)

² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.

* Results recorded in duplicate sample QC1 and presented in SGS batch 54985. Primary sample not tested.

** Total PAHs is the sum of detectable concentrations of individual PAH compounds

ND Not Detected

Not Analysed

See original laboratory reports for detection limits

TABLE LR3:
SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE EASTERN PLANT AREA
Heavy Metals, TPH, BTEX, PAH, OCP, PCB, Asbestos and pH
(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CBH6	CBH6	CBH7	CBH7	CBH8	CBH8
Material		Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007	3-Sep-2007
Depth (m)		0.0-0.1	0.4-0.6	0.0-0.1	0.6-0.7	0.0-0.2	0.5-0.8
Soil Type		Fill	Topsoil	Fill	Alluvial	Fill	Alluvial
HEAVY METALS (TOTAL)							
Arsenic	500 ¹	3.9	12	3.5	12	6.5	11
Cadmium	100 ¹	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium (III)	600,000 ¹	9.5	19	8.1	21	13	18
Copper	5000 ¹	95	18	< 5	20	< 5	16
Lead	1500 ¹	< 5	8.6	9.9	7.5	9.9	9.5
Mercury	75 ¹	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	3000 ¹	5	17	< 5	20	< 5	15
Zinc	35000 ¹	31	46	6.7	51	16	44
TOTAL PETROLEUM HYDROCARBONS							
C6 - C9 Fraction	65 ²	< 20	< 20	< 20	< 20	< 20	< 20
C10 - C14 Fraction		< 50	< 50	< 50	< 50	< 50	< 50
C15 - C28 Fraction		< 100	< 100	< 100	< 100	< 100	< 100
C29 - C36 Fraction		< 100	< 100	< 100	< 100	< 100	< 100
Total C10-C36	1000 ²	ND	ND	ND	ND	ND	ND
BTEX							
Benzene	1 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	130 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	50 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Xylene	25 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
POLYCYCLIC AROMATIC HYDROCARBONS*							
Benzo(a)pyrene	5 ¹	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total PAHs	100 ¹	ND	ND	ND	ND	ND	ND
ORGANOCHLORINE PESTICIDES							
Aldrin + Dieldrin	50 ¹	-	-	-	-	-	-
Chlordane	250 ¹	-	-	-	-	-	-
DDT + DDE + DDD	1000 ¹	-	-	-	-	-	-
Heptachlor	50 ¹	-	-	-	-	-	-
Other OCP		-	-	-	-	-	-
TOTAL PCB	50 ¹	-	-	-	ND	ND	-
ASBESTOS	ND ³	ND	ND	ND	ND	ND	ND
pH		4.8	5.2	3.2	5.6	2.7	7.7

NOTES:

Bold

Concentration exceeds the respective threshold concentration

¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)

² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.

* Total PAHs is the sum of detectable concentrations of individual PAH compounds

ND Not Detected

- Not Analysed

See original laboratory reports for detection limits

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE PROPOSED PACKING PLANT

Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH

(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CBH17	CBH18	CBH19	CBH20	CBH21	CTP2	CTP3	CTP4	CTP5	CTP6	CTP7	CTP8	CTP10	CTP12	CTP13	CTP13	CTP14	CTP14	
Material		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		04-Sep-07	04-Sep-07	04-Sep-07	04-Sep-07	04-Sep-07	21-Feb-08	21-Feb-08	21-Feb-08	22-Feb-08	22-Feb-08	22-Feb-08	22-Feb-08	22-Feb-08	22-Feb-08	22-Feb-08	25-Feb-08	25-Feb-08	25-Feb-08	25-Feb-08
Depth (m)		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.05-0.15	0.5-0.6	0.05-0.15	0.05-0.15	0.6-0.7
Soil Type		Alluvial	Topsoil	Topsoil	Topsoil	Topsoil	Alluvial	Alluvial	Alluvial	Fill	Topsoil	Topsoil	Topsoil	Topsoil	Topsoil	Topsoil	Alluvial	Topsoil	Alluvial	
HEAVY METALS (TOTAL)																				
Arsenic	500 ¹	7.1	-	-	-	-	7.2	18	11	<2	<2	<2	3.4	6.7	8.1	5	8.1	8.3	3.6	
Cadmium	100 ¹	< 0.5	-	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chromium (III)	600,000 ¹	13	-	-	-	-	15	18	19	7.2	10	13	17	20	24	21	27	28	21	
Copper	5000 ¹	12	-	-	-	-	15	16	16	8.1	< 5	< 5	7.9	24	22	24	33	27	19	
Lead	1500 ¹	23	-	-	-	-	16	22	23	28	18	11	9	27	31	44	15	63	13	
Mercury	75 ¹	< 0.1	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Nickel	3000 ¹	5.8	-	-	-	-	11	14	13	< 5	< 5	< 5	10	15	16	23	15	17	17	
Zinc	35000 ¹	42	-	-	-	-	43	49	44	53	26	16	23	76	97	70	67	140	52	
TOTAL PETROLEUM HYDROCARBONS																				
C6 - C9 Fraction	65 ²	< 20	-	-	-	-	< 20	-	-	< 20	< 20	-	< 20	-	-	-	-	< 20	< 20	
C10 - C14 Fraction		< 50	-	-	-	-	< 50	-	-	< 50	< 50	-	< 50	-	-	-	-	< 50	< 50	
C15 - C28 Fraction		< 100	-	-	-	-	< 100	-	-	< 100	< 100	-	< 100	-	-	-	-	< 100	< 100	
C29 - C36 Fraction		< 100	-	-	-	-	< 100	-	-	< 100	< 100	-	< 100	-	-	-	-	< 100	< 100	
Total C10-C36	1000 ²	ND	-	-	-	-	ND	-	-	ND	ND	-	ND	-	-	-	-	ND	ND	
BTEX																				
Benzene	1 ²	< 0.05	-	-	-	-	< 0.05	-	-	< 0.05	< 0.05	-	< 0.05	-	-	-	-	< 0.05	< 0.05	
Toluene	130 ²	< 0.05	-	-	-	-	< 0.05	-	-	< 0.05	< 0.05	-	< 0.05	-	-	-	-	< 0.05	< 0.05	
Ethylbenzene	50 ²	< 0.05	-	-	-	-	< 0.05	-	-	< 0.05	< 0.05	-	< 0.05	-	-	-	-	< 0.05	< 0.05	
Total Xylene	25 ²	< 0.05	-	-	-	-	< 0.05	-	-	< 0.05	< 0.05	-	< 0.05	-	-	-	-	< 0.05	< 0.05	
POLYCYCLIC AROMATIC HYDROCARBONS*																				
Benzo(a)pyrene	5 ¹	< 0.1	-	-	< 0.1	< 0.1	-	< 0.1	-	< 0.1	< 0.1	-	< 0.1	-	-	-	-	< 0.1	< 0.1	
Total PAHs	100 ¹	ND	-	-	ND	ND	-	ND	-	ND	ND	-	ND	-	-	-	-	ND	ND	
ORGANOCHLORINE PESTICIDES																				
Aldrin + Dieldrin	50 ¹	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	250 ¹	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
DDT + DDE + DDD	1000 ¹	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor	50 ¹	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Other OCP		-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TOTAL OPP		-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TOTAL PCB	50 ¹	-	-	-	-	-	ND**	-	-	-	-	-	-	-	-	-	-	-	-	
ASBESTOS	ND ³	ND	-	-	ND	ND	-	ND	-	ND	ND	-	ND	-	-	-	-	ND	-	
pH		5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTES:

Bold

- Concentration exceeds the respective threshold concentration
- ¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)
- ² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites
- ³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.
- * Total PAHs is the sum of detectable concentrations of individual PAH compounds
- ** Results recorded in duplicate sample QC1 and presented in SGS batch 59084. Primary sample not tested for this analyte.
- ND Not Detected
- Not Analysed
- See original laboratory reports for detection limits

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE PROPOSED PACKING PLANT

Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH

(All results in mg/kg)

Sample ID Material Date of Sampling Depth (m)	THRESHOLD CONCENTRATION	CTP15	CTP16	CTP27	CTP28	CTP28A	CTP30
		Soil 25-Feb-08 0.05-0.15	Soil 25-Feb-08 0.5-0.6	Soil 8-Apr-08 0.0-0.1	Soil 9-Apr-08 0.0-0.1	Soil 9-Apr-08 0.0-0.05	Soil 5-May-08 0.0-0.1
Soil Type		Topsoil	Alluvial	Alluvial/ Topsoil	Topsoil	Fibre Cement	Topsoil
HEAVY METALS (TOTAL)							
Arsenic	500 ¹	7.9	7.6	19	34	-	9.3
Cadmium	100 ¹	< 0.5	< 0.5	< 0.5	0.6	-	< 0.5
Chromium (III)	600,000 ¹	33	21	42	14	-	18
Copper	5000 ¹	17	18	37	23	-	21
Lead	1500 ¹	37	12	210	64	-	19
Mercury	75 ¹	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1
Nickel	3000 ¹	16	18	9.3	6.6	-	13
Zinc	35000 ¹	60	49	280	300	-	51
TOTAL PETROLEUM HYDROCARBONS							
C6 - C9 Fraction	65 ²	< 20	< 20	< 20	< 20	-	-
C10 - C14 Fraction		< 50	< 50	< 50	410	-	-
C15 - C28 Fraction		< 100	< 100	530	3400	-	-
C29 - C36 Fraction		< 100	< 100	210	1400	-	-
Total C10-C36	1000 ²	ND	ND	740	5210	-	-
BTEX							
Benzene	1 ²	< 0.05	< 0.05	< 0.05	< 0.05	-	-
Toluene	130 ²	< 0.05	< 0.05	< 0.05	< 0.05	-	-
Ethylbenzene	50 ²	< 0.05	< 0.05	< 0.05	< 0.05	-	-
Total Xylene	25 ²	< 0.05	< 0.05	< 0.05	< 0.05	-	-
POLYCYCLIC AROMATIC HYDROCARBONS*							
Benzo(a)pyrene	5 ¹	< 0.1	< 0.1	-	< 0.1	-	-
Total PAHs	100 ¹	ND	ND	-	ND	-	-
ORGANOCHLORINE PESTICIDES							
Aldrin + Dieldrin	50 ¹	ND	ND	ND	ND	-	ND
Chlordane	250 ¹	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1
DDT + DDE + DDD	1000 ¹	ND	ND	ND	ND	-	ND
Heptachlor	50 ¹	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05
Other OCP		ND	ND	ND	ND	-	ND
TOTAL OPP		ND	ND	ND	ND	-	ND
TOTAL PCB	50 ¹	ND**	-	-	-	-	-
ASBESTOS	ND ³	ND	-	-	ND	Chrysotile	-
pH		-	-	-	-	-	-

NOTES:

Bold Concentration exceeds the respective threshold concentration¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.

* Total PAHs is the sum of detectable concentrations of individual PAH compounds

** Results recorded in duplicate sample QC301 and presented in MGT batch 222542. Primary sample not tested for this analyte.

ND Not Detected

* Not Analysed

See original laboratory reports for detection limits

TABLE LR5:
SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE
PROPOSED FIRE SERVICES AND GAS FACILITY
Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH
(All results in mg/kg)

Sample ID		CBH15	CBH29	CBH31
Material		Soil	Soil	Soil
Date of Sampling	THRESHOLD	39329	39573	39573
Depth (m)	CONCENTRATION	0.0-0.2	0.0-0.1	0.0-0.1
Soil Type		Topsoil	Fill	Fill
HEAVY METALS (TOTAL)				
Arsenic	500 ¹	11	12	7.9
Cadmium	100 ¹	< 0.5	< 0.5	< 0.5
Chromium (III)	600,000 ¹	18	19	17
Copper	5000 ¹	24	20	15
Lead	1500 ¹	15	17	12
Mercury	75 ¹	< 0.1	< 0.1	< 0.1
Nickel	3000 ¹	14	16	11
Zinc	35000 ¹	58	57	35
TOTAL PETROLEUM HYDROCARBONS				
C6 - C9 Fraction	65 ²	< 20	-	-
C10 - C14 Fraction		< 50	-	-
C15 - C28 Fraction		< 100	-	-
C29 - C36 Fraction		< 100	-	-
Total C10-C36	1000 ²	ND	-	-
BTEX				
Benzene	1 ²	< 0.05	-	-
Toluene	130 ²	< 0.05	-	-
Ethylbenzene	50 ²	< 0.05	-	-
Total Xylene	25 ²	< 0.05	-	-
POLYCYCLIC AROMATIC HYDROCARBONS*				
Benzo(a)pyrene	5 ¹	-	-	-
Total PAHs	100 ¹	-	-	-
ORGANOCHLORINE PESTICIDES				
Aldrin + Dieldrin	50 ¹	ND	ND	ND
Chlordane	250 ¹	< 0.1	< 0.1	< 0.1
DDT + DDE + DDD	1000 ¹	ND	ND	ND
Heptachlor	50 ¹	< 0.05	< 0.05	< 0.05
Other OCP		ND	ND	ND
TOTAL OPP		ND	-	-
TOTAL PCB	50 ¹	-	-	-
ASBESTOS	ND ³	-	-	-
pH		5	-	-

NOTES:

Bold Concentration exceeds the respective threshold concentration

¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)

² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.

* Total PAHs is the sum of detectable concentrations of individual PAH compounds

ND Not Detected

- Not Analysed

See original laboratory reports for detection limits

TABLE LR6:

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE PROPOSED WATER TREATMENT AND FILTRATION PLANT (AREA NEAR POND 7)

Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH

(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CBH22
Material		Soil
Date of Sampling		04-Sep-07
Depth (m)		0.0-0.2
Soil Type		Topsoil
HEAVY METALS (TOTAL)		
Arsenic	500 ¹	14
Cadmium	100 ¹	< 0.5
Chromium (III)	600,000 ¹	23
Copper	5000 ¹	21
Lead	1500 ¹	11
Mercury	75 ¹	< 0.1
Nickel	3000 ¹	16
Zinc	35000 ¹	47
TOTAL PETROLEUM HYDROCARBONS		
C6 - C9 Fraction	65 ²	< 20
C10 - C14 Fraction		< 50
C15 - C28 Fraction		< 100
C29 - C36 Fraction		< 100
Total C10-C36	1000 ²	ND
BTEX		
Benzene	1 ²	< 0.05
Toluene	130 ²	< 0.05
Ethylbenzene	50 ²	< 0.05
Total Xylene	25 ²	< 0.05
POLYCYCLIC AROMATIC HYDROCARBONS*		
Benzo(a)pyrene	5 ¹	-
Total PAHs	100 ¹	-
ORGANOCHLORINE PESTICIDES		
Aldrin + Dieldrin	50 ¹	ND
Chlordane	250 ¹	< 0.1
DDT + DDE + DDD	1000 ¹	ND
Heptachlor	50 ¹	< 0.05
Other OCP		ND
TOTAL OPP		ND
TOTAL PCB	50 ¹	-
ASBESTOS	ND ³	-
pH		6.9

NOTES:

Bold

Concentration exceeds the respective threshold concentration

¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.^{*} Total PAHs is the sum of detectable concentrations of individual PAH compoundsND Not Detected⁻ Not Analysed

See original laboratory reports for detection limits

TABLE LR7:

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE PROPOSED PIPELINE ROUTES 1 AND 3

Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH

(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CBH110	CBH111	CBH112	CBH113	CBH114	CBH115	CBH116	CBH118	CBH119	CTP17	CTP18	CTP18	CTP19
Material		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		12-Mar-08	12-Mar-08	12-Mar-08	12-Mar-08	12-Mar-08	12-Mar-08	12-Mar-08	12-Mar-08	11-Apr-08	11-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08
Depth (m)		0.0-0.06	0.0-0.06	0.0-0.06	0.0-0.06	0.0-0.06	0.0-0.06	0.0-0.06	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.5-0.6	0.0-0.1
Soil Type		Topsoil/Fill	Topsoil	Topsoil	Topsoil/Fill	Topsoil/Fill	Topsoil	Topsoil/Fill	Topsoil/Fill	Topsoil	Fill/Ballast	Fill/Ballast	Fill/Ballast	Fill/Ballast
HEAVY METALS (TOTAL)														
Arsenic	500 ¹	7.1	8.6	11	6.6	9.6	13	14	6	11	< 2	-	< 2	< 2
Cadmium	100 ¹	< 0.5	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5
Chromium (III)	600,000 ¹	21	18	17	15	19	21	20	22	24	12	-	96	6.4
Copper	5000 ¹	24	18	17	8	11	14	17	8	20	100	-	< 5	180
Lead	1500 ¹	11	14	19	9.9	14	17	17	15	32	26	-	8.2	11
Mercury	75 ¹	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Nickel	3000 ¹	11	14	13	5.7	9.3	13	17	9	23	12	-	< 5	9.2
Zinc	35000 ¹	42	54	73	26	44	36	54	33	81	100	-	< 5	100
TOTAL PETROLEUM HYDROCARBONS														
C6 - C9 Fraction	65 ²	-	-	-	-	-	-	-	-	-	< 20	-	< 20	< 20
C10 - C14 Fraction		-	-	-	-	-	-	-	-	-	< 50	-	< 50	< 50
C15 - C28 Fraction		-	-	-	-	-	-	-	-	-	< 100	-	< 100	150
C29 - C36 Fraction		-	-	-	-	-	-	-	-	-	< 100	-	< 100	< 100
Total C10-C36	1000 ²	-	-	-	-	-	-	-	-	-	ND	-	ND	150
BTEX														
Benzene	1 ²	-	-	-	-	-	-	-	-	-	< 0.05	-	< 0.05	< 0.05
Toluene	130 ²	-	-	-	-	-	-	-	-	-	< 0.05	-	< 0.05	< 0.05
Ethylbenzene	50 ²	-	-	-	-	-	-	-	-	-	< 0.05	-	< 0.05	< 0.05
Total Xylene	25 ²	-	-	-	-	-	-	-	-	-	< 0.05	-	< 0.05	< 0.05
POLYCYCLIC AROMATIC HYDROCARBONS⁴														
Benzo(a)pyrene	5 ¹	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
Total PAHs	100 ¹	-	-	-	-	-	-	-	-	-	-	-	ND	-
ORGANOCHLORINE PESTICIDES														
Aldrin + Dieldrin	50 ¹	ND	ND	ND	ND	ND	ND	ND	-	-	ND	ND	ND	ND
Chlordane	250 ¹	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	< 0.1	< 0.1	< 0.1	< 0.1
DDT + DDE + DDD	1000 ¹	ND	ND	ND	ND	ND	ND	ND	-	-	ND	ND	ND	ND
Heptachlor	50 ¹	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.05	< 0.05
Other OCP		ND	ND	ND	ND	ND	ND	ND	-	-	ND	ND	ND	ND
TOTAL OPP		ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-
TOTAL PCB	50 ¹	-	-	-	-	-	-	-	-	-	-	-	-	-
ASBESTOS	ND ³	-	-	-	-	-	-	-	-	-	ND	ND	ND	ND
pH		-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

Bold

Concentration exceeds the respective threshold concentration

¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.⁴ Total PAHs is the sum of detectable concentrations of individual PAH compounds

ND Not Detected

- Not Analysed

See original laboratory reports for detection limits

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE PROPOSED PIPELINE ROUTES 1 AND 3

Heavy Metals, TPH, BTEX, PAH, OCP, OPP, PCB, Asbestos and pH

(All results in mg/kg)

Sample ID	THRESHOLD CONCENTRATION	CTP20	CTP21	CTP22	CTP23	CTP24	CTP25	CTP25
		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08
Depth (m)		0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	1.0-1.1
Soil Type		Fill/Ballast	Fill/Ballast	Fill/Ballast	Fill/Ballast	Fill/Ballast	Fill/Topsoil	Fill/Topsoil
HEAVY METALS (TOTAL)								
Arsenic	500 ¹	< 2	< 2	< 2	< 2	< 2	< 2	9.5
Cadmium	100 ¹	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium (III)	600,000 ¹	11	< 5	< 5	6.2	17	25	26
Copper	5000 ¹	100	170	220	390	180	970	13
Lead	1500 ¹	22	18	9.2	6.3	8.8	130	17
Mercury	75 ¹	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	3000 ¹	12	< 5	6.1	6.9	5.4	17	9.1
Zinc	35000 ¹	120	57	59	54	85	1900	42
TOTAL PETROLEUM HYDROCARBONS								
C6 - C9 Fraction	65 ²	< 20	< 20	< 20	< 20	< 20	-	-
C10 - C14 Fraction		< 50	< 50	< 50	< 50	< 50	-	-
C15 - C28 Fraction		< 100	< 100	< 100	< 100	580	-	-
C29 - C36 Fraction		< 100	< 100	< 100	< 100	180	-	-
Total C10-C36	1000 ²	ND	ND	ND	ND	ND	-	-
BTEX								
Benzene	1 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
Toluene	130 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
Ethylbenzene	50 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
Total Xylene	25 ²	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
POLYCYCLIC AROMATIC HYDROCARBONS*								
Benzo(a)pyrene	5 ¹	-	-	-	-	-	-	-
Total PAHs	100 ¹	-	-	-	-	-	-	-
ORGANOCHLORINE PESTICIDES								
Aldrin + Dieldrin	50 ¹	ND	ND	ND	ND	ND	ND	ND
Chlordane	250 ¹	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DDT + DDE + DDD	1000 ¹	ND	ND	ND	ND	ND	ND	ND
Heptachlor	50 ¹	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Other OCP		ND	ND	ND	ND	ND	ND	ND
TOTAL OPP								
		-	-	-	-	-	-	-
TOTAL PCB								
	50 ¹	-	-	-	-	-	-	-
ASBESTOS								
	ND ³	ND	ND	ND	ND	ND	-	-
pH								
		-	-	-	-	-	-	-

NOTES:

Bold Concentration exceeds the respective threshold concentration¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme 2nd Edition and NEPM (1999) (Commercial/Industrial - NEHF F)² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites³ On the advice of the NSW Department of Health, the NSW EPA have advised NSW Site Auditors (Site Auditors Meeting 1 March 2000) that "no asbestos in the soil at the surface is permitted". The phrase 'at the surface' has not been defined.

* Total PAHs is the sum of detectable concentrations of individual PAH compounds

ND Not Detected

- Not Analysed

See original laboratory reports for detection limits

TABLE LR8:
SUMMARY OF LABORATORY RESULTS FOR GROUNDWATER
(All results in ug/L, unless otherwise stated)

Sample ID	THRESHOLD CONCENTRATION		MW1/CBH108*
Material			Groundwater
Date of Sampling			10-Apr-08
HEAVY METALS			
Arsenic	13 ^{1a}	7 ³	< 1
Cadmium	0.2	2 ³	< 0.2
Chromium	1.0 ^{1b}	50 ³	< 1
Copper	12.6 ^{1c}	2000 ³	5
Lead	90.8 ^{1c}	10 ³	26
Mercury	0.06 ^{1c}	1 ³	<0.1
Nickel	99 ^{1c}	20 ³	19
Zinc	72 ^{1c}	30 ³	130
TOTAL PETROLEUM HYDROCARBONS			
C6 - C9 Fraction			< 20
C10 - C14 Fraction			< 50
C15 - C28 Fraction			< 100
C29 - C36 Fraction			< 100
Total C6-C36	325 ²		ND
BTEX			
Benzene	950 ¹	1 ³	< 1
Toluene	180 ^{1d}	800 ³	< 1
Ethylbenzene	80 ^{1d}	300 ³	< 2
Total Xylene	75 ^{1d}	600 ³	< 2
POLYCYCLIC AROMATIC HYDROCARBONS			
Naphthalene	16 ¹		< 0.1
Phenanthrene	0.6 ^{1d}		< 0.1
Anthracene	0.01 ^{1d}		< 0.1
Fluoranthene	1 ^{1d}		< 0.1
Benzo(a)pyrene	0.1 ^{1d}	0.01 ³	< 0.1
Other PAHs			ND
ORGANOCHLORINE PESTICIDES			
DDE	0.03 ^{1d}		< 0.1
DDT	0.006 ¹		< 0.1
Aldrin	0.001 ^{1d}		< 0.1
Chlordane	0.03 ¹		< 0.5
Dieldrin	0.01 ^{1d}		< 0.1
Endrin	0.01 ¹		< 0.1
Heptachlor	0.01 ¹		< 0.1
Toxophene	0.01 ¹		< 0.5
Other OCPs			ND
Others			
Ammonia as N	900 ¹	500 ³	70
Total Phosphate		3000 ³	150
Nitrate (as N)	700 ¹		50
Nitrite (as N)			< 20
Sulphate (mg/L)			280
Total Dissolved solids (mg/L)			2600
Total Kjeldahl Nitrogen (N)	500 ¹		700
Hardness (mg/L)			450
FAECAL COLIFORMS (cfu/100mL)	150 ^{1f} /1000 ^{1g}		< 2
FIELD MEASUREMENTS**			
pH (Units)	6.5-8.0 ¹		4.79
Electrical conductivity (uS/cm)	125-2200 ¹		3540
Temp (oC)			20.1

NOTES:

Concentration exceeds the Threshold Criteria for Protection of Freshwater Aquatic Ecosystems
Concentration exceeds drinking water criteria

¹ Based on ANZECC/ARMCANZ (2000), Australian and New Zealand Guidelines For Fresh and Marine Water Quality (Fresh water, South Eastern Australia, slightly to moderately disturbed system, 95%-99% of species protected)

^{1a} Criteria for Arsenic V in fresh water whereas our results are for total arsenic

^{1b} Criteria for chromium VI

^{1c} Guideline for mercury (inorganic)

^{1d} Low reliability trigger values

^{1e} Modified trigger values based on hardness

^{1f} Guidelines for recreational water quality and aesthetics, primary contact (eg. swimming and bathing)

^{1g} Guidelines for recreational water quality and aesthetics secondary contact (eg. boating and fishing)

² Based on Dutch Ministry of Housing, Spatial Planning and the Environment (2000) Investigation levels for mineral oils

³ Based on NHMRC/ARMCANZ (2004) Australian Drinking Water Guidelines

^{*} Due to slow groundwater recovery groundwater was sampled on the 8/4/08 and 10/4/08

^{**} Measurements recorded during groundwater sampling on the 10/4/08

ND Not Detected

See original laboratory reports for detection limits

TABLE LR9:
SUMMARY OF ASS LABORATORY RESULTS FOR THE CENTRAL PLANT AREA
SPOCAS and Scr

Sample ID	CBH104 ALLUVIAL/ ESTUARINE	CBH105 ALLUVIAL/ ESTUARINE	CBH106 ALLUVIAL/ ESTUARINE	CBH107 ALLUVIAL/ ESTUARINE
Unit	Silty Sand	Clayey Silt	Clayey Silt	Clayey Sandy Silt
Material				
Date of Sampling	20/02/2008	20/02/2008	20/02/2008	20/02/2008
Depth (m)	0.9-1.0	2.0-2.1	1.0-1.5	1.5-2.0
Field pH	5.4	6.8	6.8	6.5
pH KCl	5.12	5.04	5.44	5.46
pH after oxidation	-	-	-	-
pH Shift	-	-	-	-
TAA (moles H+/ tonne)	18 ¹	10	7	6
TPA (moles H+/ tonne)	18 ¹	-	-	-
TSA (moles H+/ tonne)	-	-	-	-
S KCl (%)	0.08	0.07	0.07	0.06
S P (%)	-	-	-	-
S POS (%)	0.03 ¹	-	-	-
Scr (%)	0.03 ¹	<0.01	<0.01	0.01
Carbonate POS	-	-	-	-

NOTES:

¹ Concentration exceeds ASSMAC (1998) action level
Based on ASSMAC (1998) Acid Sulfate Soil Manual

Not Analysed

TAA Total Actual Acidity

TPA Total Potential Acidity

TSA Total Sulfur Acidity

sKCl Potassium chloride extractable sulfur

sP Peroxide Sulfur after peroxide digestion

s POS Peroxide Oxidisable sulfur

Scr Chromium reducible sulfur

Carbonate POS Carbonate alkalinity released by oxidation

**TABLE LR10:
SUMMARY OF ASS LABORATORY RESULTS FOR THE WESTERN PLANT AREA
SPOCAS and Scr**

Sample ID	CBH5	CBH13	CBH100	CBH101	CBH102	CBH103
Unit	ALLUVIAL	ALLUVIAL	TOPSOIL/ ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL
Material	Silty Clay	Clayey Silt	Silty Clay	Silty Clay	Silty Clay	Clayey Sand
Date of Sampling	3/09/2007	4/09/2008	19/02/2008	19/02/2008	19/02/2008	20/02/2008
Depth (m)	0.7-0.8	1.5-1.6	0.5-1.0	1.0-1.45	1.0-1.45	1.5-1.9
Field pH	-	-	5.6	5.5	5.4	5.6
pH KCl	4.65	4.29	5.26	4.57	4.79	4.92
pH after oxidation	6.33	6.20	-	-	-	-
pH Shift	-	-	-	-	-	-
TAA (moles H+ / tonne)	11	24	6	40	18	18
TPA (moles H+ / tonne)	2	4	-	-	-	-
TSA (moles H+ / tonne)	0	0	-	-	-	-
S KCl (%)	<0.01	<0.01	0.05	0.04	0.04	0.04
S P (%)	0.01	0.02	-	-	-	-
S POS (%)	<0.01	0.01	-	-	-	-
Scr (%)	-	-	0.01	0.01	<0.01	<0.01
Carbonate POS	-	-	-	-	-	-

NOTES:

¹ Concentration exceeds ASSMAC (1998) action level

¹ Based on ASSMAC (1998) Acid Sulfate Soil Manual

- Not Analysed

TAA Total Actual Acidity

TPA Total Potential Acidity

TSA Total Sulfur Acidity

S KCl Potassium chloride extractable sulfur

S P Peroxide Sulfur after peroxide digestion

S POS Peroxide Oxidisable sulfur

Scr Chromium reducible sulfur

Carbonate FOS Carbonate alkalinity released by oxidation

TABLE LR11:
SUMMARY OF ASS LABORATORY RESULTS FOR THE PROPOSED PACKING PLANT AREA
SPOCAS and Scr

Sample ID		CTP3	CTP4	CTP6	CTP11	CTP11	CTP11	CTP11	CTP11	CTP11	CTP12	CTP14	CTP16	CTP27	CTP27	CTP28	CTP30
Unit		ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL/ ESTUARINE	ALLUVIAL/ ESTUARINE	ALLUVIAL/ ESTUARINE	ALLUVIAL/ ESTUARINE	ALLUVIAL/ ESTUARINE	ALLUVIAL/ ESTUARINE	TOPSOIL	ALLUVIAL	ESTUARINE	TOPSOIL/ ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL
Material		Silty Clay	Silty Clay	Sandy Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Sand	Silty Clay	Silty Clay	Silty Clay	Clayey Silt
Date of Sampling		21/02/2008	21/02/2008	22/02/2008	22/02/2008	22/02/2008	22/02/2008	22/02/2008	22/02/2008	22/02/2008	22/02/2008	25/02/2008	25/02/2008	10/04/2008	10/04/2008	10/04/2008	5/05/2008
Depth (m)	Action Criteria	1.0-1.1	0.25-0.35	0.8-0.9	0.4-0.5	1.0-1.1	1.5-1.6	1.9-2.0	2.4-2.5	2.9-3.0	0.4-0.5	1.4-1.5	2.0-2.1	0.2-0.4	0.5-0.6	1.0-1.1	1.0-1.1
Field pH		4.7	4.9	5.4	4.9	5.0	5.1	5.4	5.0	5.3	4.8	5.8	4.3	-	-	-	4.9
pH KCl		3.96	4.46	4.70	4.08	4.58	4.26	4.51	4.09	4.16	4.48	4.40	4.22	3.98	4.23	3.56	4.46
pH after oxidation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Shift		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TAA (moles H+/ tonne)	18 ¹	67	28	22	123	37	86	55	94	79	46	85	11	98	23	72	33
TPA (moles H+/ tonne)	18 ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TSA (moles H+/ tonne)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S KCl (%)		0.24	0.11	0.24	0.01	0.01	0.04	0.24	0.36	0.13	0.35	0.09	0.09	<0.01	<0.01	<0.01	0.02
S P (%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S POS (%)	0.03 ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scr (%)	0.03 ¹	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.04	<0.01
Carbonate POS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- NOTES:
- Bold** Concentration exceeds ASSMAC (1998) action level
 - ¹ Based on ASSMAC (1998) Acid Sulfate Soil Manual
 - Not Analysed
 - ^{TAA} Total Actual Acidity
 - ^{TPA} Total Potential Acidity
 - ^{TSA} Total Sulfur Acidity
 - ^{S KCl} Potassium chloride extractable sulfur
 - ^{S P} Peroxide Sulfur after peroxide digestion
 - ^{S POS} Peroxide Oxidisable sulfur
 - ^{Scr} Chromium reducible sulfur
 - ^{Carbonate POS} Carbonate alkalinity released by oxidation

**TABLE LR12:
SUMMARY OF ASS LABORATORY RESULTS FOR THE PROPOSED GAS FACILITY & FIRE SERVICE AREA
SPOCAS and Scr**

Sample ID	Unit	Material	Date of Sampling	Depth (m)	CBH14	CBH15	CBH16	CBH16	CBH16/ ESTUARINE	CTP29	CTP29	CTP29	CTP31	CTP31
					ALLUVIAL/ Clayey Silt	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay	ALLUVIAL/ ESTUARINE Silty Clay
					4/09/2007	4/09/2007	4/09/2007	4/09/2007	4/09/2007	5/05/2008	5/05/2008	5/05/2008	5/05/2008	5/05/2008
					0.7-0.8	1.7-1.9	0.7-0.9	1.8-1.9	1.8-1.9	1.0-1.1	1.0-1.1	1.5-1.6	0.5-0.6	1.5-1.6
					-	-	-	-	-	4.8	4.8	5.2	6	5.5
					4.12	4.1	3.95	4.19	4.19	4.33	4.33	4.14	5.25	4.35
					6.14	5.79	5.77	5.1	5.1	-	-	-	-	-
					-	-	-	-	-	-	-	-	-	-
					58	73	51	80	80	63	63	60	6	47
					9	22	21	87	87	-	-	-	-	-
					0	0	0	7	7	-	-	-	-	-
					<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.03	0.03	0.02	0.02
					0.03	0.05	0.04	0.08	0.08	-	-	-	-	-
					0.03	0.05	0.04	0.07	0.07	-	-	-	-	-
					-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01
					-	-	-	-	-	-	-	-	-	-

NOTES:

Concentration exceeds ASSMAC (1998) action level

¹ Based on ASSMAC (1998) Acid Sulfate Soil Manual

- Not Analysed

TAA Total Actual Acidity

TPA Total Potential Acidity

TSA Total Sulfur Acidity

S_{KCL} Potassium chloride extractable sulfur

S_P Peroxide Sulfur after peroxide digestion

S_{POS} Peroxide Oxidisable sulfur

Scr Chromium reducible sulfur

Carbonate POS Carbonate alkalinity released by oxidation

**TABLE LR13:
SUMMARY OF ASS LABORATORY RESULTS FOR THE PROPOSED TREATMENT AND FILTRATION PLANT (NEAR POND 7)
SPOCAS**

Sample ID	CBH22	CBH22
Unit	ALLUVIAL/ ESTUARINE	ALLUVIAL
Material	Clayey Sand	Sandy Silty Clay
Date of Sampling	4/09/2007	4/09/2007
Depth (m)	0.8-0.9	2.6-2.7
Field pH	-	-
pH KCl	4.66	4.05
pH after oxidation	6.14	6.13
pH Shift	-	-
TAA (moles H+ / tonne)	8	19
TPA (moles H+ / tonne)	8	6
TSA (moles H+ / tonne)	0	0
S KCl (%)	0.03	0.03
S P (%)	0.06	0.05
S POS (%)	0.03	0.02
SCr (%)	-	-
Carbonate POS	-	-

NOTES:

- 1** Concentration exceeds ASSMAC (1998) action level
- 1** Based on ASSMAC (1998) Acid Sulfate Soil Manual
- Not Analysed
- ^{TAA} Total Actual Acidity
- ^{TPA} Total Potential Acidity
- ^{TSA} Total Sulfur Acidity
- ^{S KCl} Potassium chloride extractable sulfur
- ^{S P} Peroxide Sulfur after peroxide digestion
- ^{S POS} Peroxide Oxidisable sulfur
- Carbonate POS Carbonate alkalinity released by oxidation

TABLE LR14:
SUMMARY OF ASS LABORATORY RESULTS FOR THE PROPOSED PIPELINE ROUTES
SPOCAS and Scr

Sample ID	CTP17	CTP18	CTP19	CTP20	CTP21	CTP22	CTP23	CBH115	CBH116	CBH117	CBH117	CBH118	CBH119
Unit	ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL	ALLUVIAL	FILL	TOPSOIL	ESTUARINE	ALLUVIAL	ALLUVIAL
Material	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Sand	Silty Clay	Silty Clay	Clayey Silt	Clayey Silt	Silty Clay	Silty Clay
Date of Sampling	9/04/2008	9/04/2008	9/04/2008	9/04/2008	9/04/2008	9/04/2008	9/04/2008	12/03/2008	12/03/2008	12/03/2008	12/03/2008	11/04/2008	11/04/2008
Depth (m)	1.5-1.6	1.5-1.6	1.5-1.6	1.5-1.6	1.5-1.6	1.5-1.6	1.5-1.6	0.5-0.55	0.5-0.55	0.0-0.08	0.9-0.95	0.5-0.6	1.4-1.5
Field pH	-	-	-	-	-	-	-	5.0	5.4	5.6	4.8	-	-
pH KCl	5.41	5.1	5.16	4.33	4.77	5.53	5.37	3.96	3.87	5.08	4.36	4.97	3.82
pH after oxidation	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Shift	-	-	-	-	-	-	-	-	-	-	-	-	-
TAA (moles H+/ tonne)	18 ¹	3	7	17	13	5	<1	30	67	28	8	23	39
TPA (moles H+/ tonne)	18 ¹	-	-	-	-	-	-	-	-	-	-	-	-
TSA (moles H+/ tonne)	-	-	-	-	-	-	-	-	-	-	-	-	-
S.KCl (%)	<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
S.P (%)	-	-	-	-	-	-	-	-	-	-	-	-	-
S.POS (%)	-	-	-	-	-	-	-	-	-	-	-	-	-
SCR	<0.01	<0.01	<0.01	<0.01	0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Carbonate POS	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

- ¹ Concentration exceeds ASSMAC (1998) action level
- ² Based on ASSMAC (1998) Acid Sulfate Soil Manual
- Not Analysed
- ¹⁶⁴ Total Actual Acidity
- ^{16A} Total Potential Acidity
- ^{15A} Total Sulfur Acidity
- ^{5 NCL} Potassium chloride extractable sulfur
- ^{5 P} Peroxide Sulfur after peroxide digestion
- ^{5 POS} Peroxide Oxidisable sulfur
- ^{5r} Chromium reducible sulfur
- ^{Carbonate POS} Carbonate alkalinity released by oxidation