OCTOBER 2008

PORT OPERATIONS

PORT HEDLAND
HARRIET POINT DREDGING PROJECT
REFERRAL DOCUMENT

Acid Sulphate Soil Management Plan

IRON ORE

bhpbilliton

Table of Contents

Tables

Figures

1 INTRODUCTION

1.1 PROJECT OVERVIEW

As part of the Rapid Growth Project 5 (RGP5), BHP Billiton Iron Ore (BHPBIO) is proposing to undertake the Harriet Point Dredging Project off Finucane Island, Port Hedland. The RGP5 will increase the throughput capacity of BHPBIO's Port Hedland operations to 205 Million tonnes per annum (Mtpa).

This Acid Sulphate Soil Management Plan (ASSMP) has been developed to mitigate the potential risks associated with the dredging of Potential Acid Sulphate Soil (PASS), in accordance Department of Environment and Conservation (DEC) guidelines.

The ASSMP takes into account the dredging methods to be adopted, the handling of the dredged materials and the disposal options for the PASS and Non Acid Sulphate Soils (NASS) material. The locations, construction and operation of the Dredged Material Management Areas (DMMA) are identified in this plan to assess management requirements and prepare monitoring programmes. Contingency requirements that may need to be implemented have also been addressed.

1.2 DREDGING REQUIREMENTS

The proposed dredging works involve the dredging of approximately 3.9 Million cubic metres (Mm^3) of material for two new berth pockets located between Stanley and Harriet Point and extensions of the existing departure channel and swing basin (**Figure 1**). Dredged material management will incorporate offshore disposal and onshore reclamation at the DMMA. It is expected that on completion of the proposed development, Harriet Point will accommodate vessels of approximately 250,000 dead weight tonnes (DWT).

In the Harriet Point Dredging Environmental Referral Document, two dredging scenarios have been identified. These scenarios were identified to assist in the environmental impact assessment and represented the best and worst case scenarios in terms of volume of PASS material for offshore disposal (i.e. 800,000 m^3 and 250,000 m^3). This management strategy is based on disposal of PASS material under saturated conditions to the ocean at Spoil Ground 'I' and disposal of NASS material to onshore DMMA B1, B2 and A.

The Port Hedland Port Authority (PHPA) has given approval to BHPBIO for the disposal of up to 800,000 m^3 of PASS at PHPA Spoil Ground 'I'. The proposed dredging works are summarised in **Table 1**.

Table 1 - Proposed Dredging Works

Dredging Requirements	Estimated PASS/NASS	Disposal/Reclamation Option	Management Action
Dredging volume = 3,900,000 m^3 (3.9 Mm^3)	Approval has been granted by PHPA for the disposal of up to 800, 000m^3 of PASS material at Spoil Ground I.	Offshore disposal management of PASS.	Selective cutting of Holocene mud.
	Up to 3,650,000 m^3 NASS.	Onshore reclamation management of NASS.	Pumping and extensive mixing of dredged slurry in DMMA.
Excess Water Discharge from DMMA	Up to 2,600m^3 per hour from NASS material within DMMA	Discharge from DMMA to Inner Harbour and Salmon Creek	Diversion to alternative DMMA.

Figure 1 Overview of Dredging Footprint and DMMA

2 OBJECTIVES AND SCOPE OF THE MANAGEMENT PLAN

2.1 OBJECTIVES

The objectives of this ASSMP are to:

- Assess the presence of ASS conditions within the proposed dredge footprint;
- Provide an operational methodology that will be used to reduce the potential risks to the environment that may result due to the disturbance of PASS material during dredging works; and
- Present an action plan to implement environmental monitoring and contingency methods during dredging works.

The environmental objective for ASS is to minimise the risk to the environment resulting from ASS and maintain and protect water quality for existing environmental values and ecosystem function.

2.2 LEGAL REQUIREMENTS AND GUIDELINES

Applicable legislation and guidelines for the management of ASS include:

- Acid Sulphate Soils Guideline Series (DoE 2006b);
- Acid Sulphate Soils Planning Bulletin No. 64 (WAPC 2003a);
- Contaminated Sites Management Series Guidelines including:
  - Treatment and Management of Disturbed Acid Sulphate Soil (DEC 2004); and
  - Dewatering Effluent and Groundwater Monitoring Guidance For Acid Sulphate Soil Areas (DEC 2006a); and
- National Strategy for the Management of Coastal Acid Sulphate Soils (ANZECC / ARMCANZ 2000).

2.3 SCOPE

In order to achieve the above objectives the following scope has been completed:

- Identification of the PASS conditions and assessment of potential impacts;
- Development of the onshore and offshore management measures:
  - Offshore disposal management measures: To ensure that PASS material is dredged and transported under saturated conditions for offshore disposal at Port Hedland Port Authority (PHPA) Spoil Ground 'I' and to ensure that the dredging methodology maximises the volume of PASS managed via offshore disposal; and,
  - Onshore reclamation management measures (NASS): It is planned that only NASS will be placed onshore in DMMA. Whilst highly unlikely, some residual PASS material may be brought onshore. The management of the potential risk of residual PASS reaching the onshore DMMA will be achieved through minimising the potential for residual PASS material to become oxidised. Monitoring will be employed to ensure that the excess water being discharged from the DMMA meets the action criteria outlined in the 'Dewatering Effluent and Groundwater Monitoring Guidance for Acid Sulphate Soil Areas' (DEC, 2006) guideline.
- An assessment of the residual risk posed by the proposed dredging.

3 ASSESSMENT OF ASS CONDITIONS

3.1 GENERAL

Desktop information collected from historical investigations conducted in the area and documentation available in the public domain (e.g. the Acid Sulphate Soil Risk Maps developed by the West Australian Planning Commission, Planning Bulletin 64), indicates that PASS may be present within the project footprint.

Field sampling investigations have been undertaken to identify the ASS conditions associated with the dredging, dredge material disposal to Spoil Ground 'I' and on-shore DMMA operations.

The assessment of ASS conditions was undertaken using analytical results of soil cores collected during geotechnical investigations and from surface sediment 'grab' samples analysed for PASS. Chemical analyses were conducted on core sub-samples using the ASS Chromium Reducible Sulphur (S_{Cr}) method and these results were assessed in conjunction with geotechnical logging records. The results of these investigations indicated that PASS occurs only within the Holocene mud and sand which is located within the top two metres of the seabed profile. These results are consistent with previous reports and historical documentation on dredging studies in the harbour.

A full geotechnical characterisation of proposed dredged material was undertaken to determine heavy metal concentrations within sediments. These results are outlined in 'Harriet Point Sampling and Analysis Plan Report – Land Disposal' (SKM, 2008a) and 'Harriet Point Sampling and Analysis Plan Results Report for Sea Disposal' (SKM, 2008b).

The key issues that have been addressed in this ASSMP include:

- the volume of PASS to be dredged;
- the volume of NASS to managed within DMMA;
- the distribution of PASS within the area to be dredged; and
- the neutralising capacity of the dredged material.

The volume of PASS expected to be contained within the Harriet Point dredging footprint is related to:

- The area of sediments containing PASS within the dredge footprint; and,
- The depth interval over which PASS is expected to occur within the areas delineated as containing PASS.

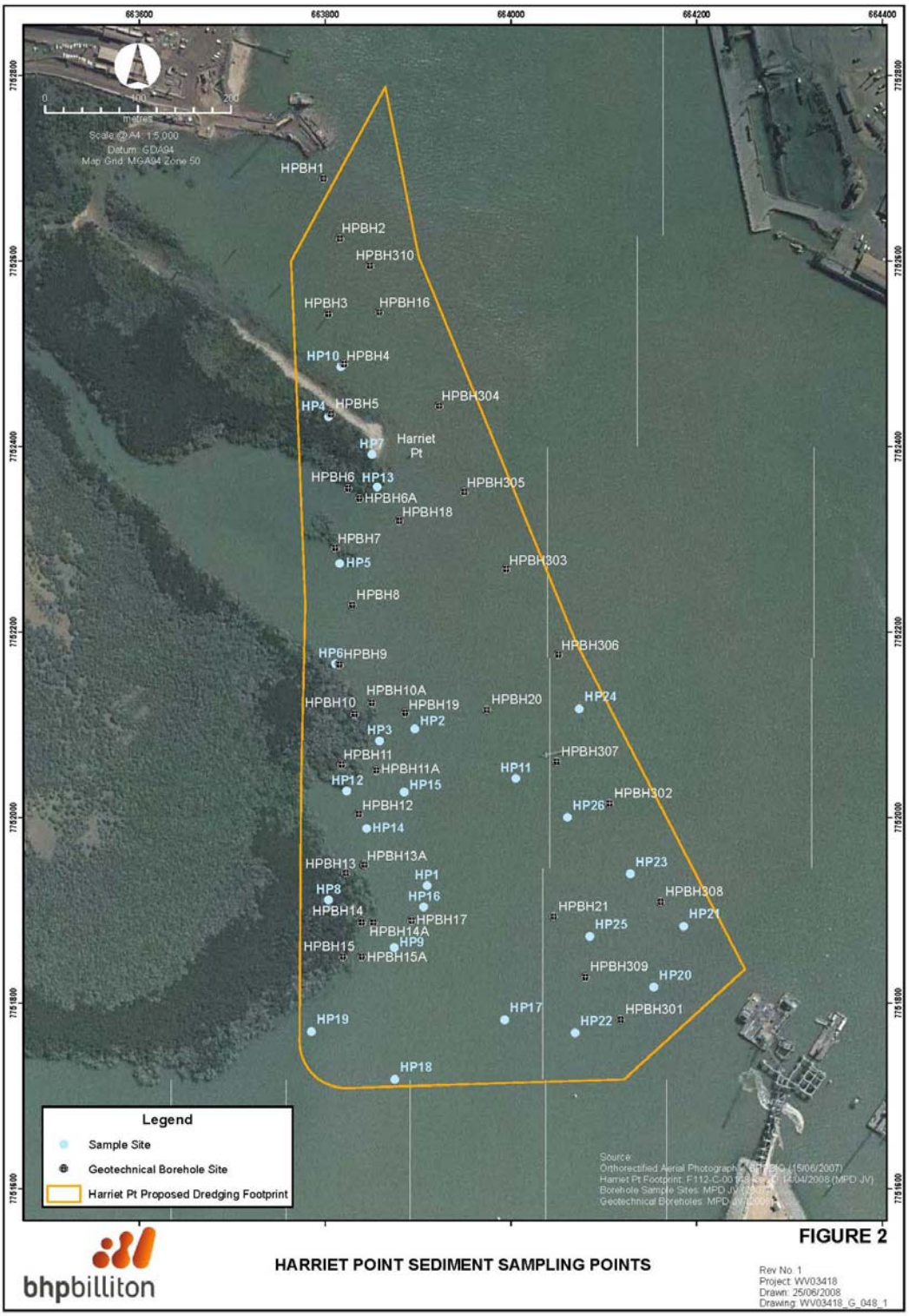


Figure 2 Harriet Point Sediment Sampling Points

3.2 CORE LOGS AND STRATIGRAPHY

The core descriptions indicate a generalised shallow subsurface profile, as outlined in **Table 2**. The sampling locations are shown in **Figure 2**.

Table 2 - General Geotechnical Core Sample Descriptions

Layer/Unit	Typical Elevation of Top of Layer (m. CD)	Typical Layer Thickness (m)	Description/Remarks
1	0 to 6	0.3	Marine Mud, typically dark brown to grey, sandy with some shell fragments, locally fine to medium sand.
2	6.4	6.5	Red beds – predominantly very weak to weak, red brown, weakly cemented calcareous sandstone, locally siltstone or claystone, locally with palygorskite.
3	13.9	5.5	Calcareous Conglomerate – medium to high strength, pinkish brown, very highly cemented, medium to coarse grained with predominantly clay matrix, variable authigenic carbonate concentration, locally with palygorskite.
4	19.4	Undetermined	Calcareous Sandstone – medium to high strength, reddish brown, highly cemented, fine to coarse grained, localised authigenic carbonate concentration.

(Coffey Geosciences 'Interim Geotechnical Report', 2008)

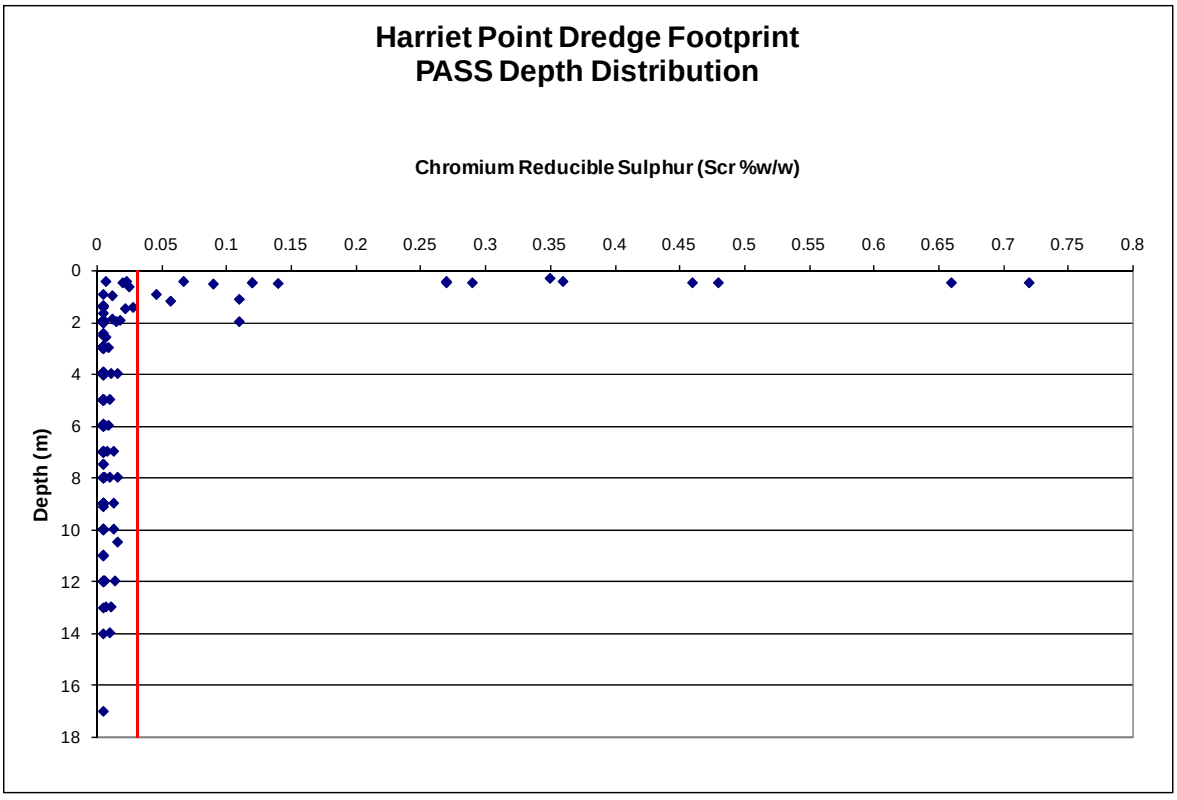
3.3 LABORATORY ANALYTICAL RESULTS

3.3.1 PASS

Laboratory analysis (conducted by NATA accredited laboratory) of samples taken from cored holes and near surface samples within the proposed dredge area footprint, have been assessed for the presence of ASS. Of the boreholes and locations sampled, a number of occurrences of PASS were detected, with some Chromium Reducible Sulphur (SCr) (PASS) values ranging from 0.057% to 0.73% (these levels are above the DEC action criteria of 0.03% w/w, for storage of ASS in above ground stockpiles). No Actual Acid Sulphate Soils (AASS) were detected in any of the sediment samples.

Figure 3 shows the vertical distribution of PASS reported for the boreholes and grab sample locations. The figure shows that all of the occurrences of PASS above the action criteria were located within the top 2.0 m of the profile, and these materials are to be placed at sea in Spoil Ground I. The residual materials which are dredged from below 2.0 m in the soil profile have PASS concentrations below 0.03%S w/w and are to be placed on-shore.

It should be noted that a sample recorded oxidisable sulphur content above the action criteria, below 2.0 m. This sample was reportedly taken at a depth of 4.0 m below sea bottom. The sampling location was re-sampled to confirm if this result was an anomaly due to its inconsistency with the other results. The re-sampling indicated that the sample did not exceed the action criteria and all PASS results that exceeded the action criteria were within the top 2.0 m of the seabed. The laboratory reports are presented in Appendix A.



Key: **DEC Action Criteria**

Figure 3 Depth Distribution of PASS (DEC criteria 0.03 S_{Cr} % w/w)

Calculations (worst case scenario) have been made to estimate residual PASS that could remain after the completion of the backhoe/grab dredge operations.

It has been calculated that a residual dispersed concentration of sulphur in the on-shore materials would be 0.0004 (% S w/w) or 70 times lower than the DEC criteria of 0.03 % S w/w. This is estimated by assuming that 2.5 % of the total estimated ASS in the dredge site is placed on-shore with the NASS (this is equivalent to a conservatively high estimate of 0.1 m thickness of PASS over an area of one half of the dredged footprint). A concentration of 0.1 % S w/w was assumed (approximately 60 % of the measured concentrations in samples of PASS are below this). Therefore on-shore disposal of the dredge material within the DMMA is highly unlikely to trigger DEC action criteria guidelines.

To implement a dredging plan (reflecting a conservative management approach) that would recover the majority of identified PASS for sea-disposal, PASS will be dredged from the top 2 m of the dredged materials and this volume has been estimated to be approximately 580,000 m^3 'in situ'. This volume of material is well within the PHPA allowance for disposal of 800,000 m^3 at the offshore Spoil Ground 'I'.

Whilst highly unlikely, some residual PASS contained within the NASS material may be placed into the onshore DMMA B1, B2 and A. The proposed dredging method of using an accurate mechanical dredge (grab dredge and/or backhoe dredge) to selectively cut the PASS bearing materials for sea dumping will greatly minimise the residual amount of PASS to be disposed onshore.

3.3.2 Acid Neutralising Capacity

Assessment of the acid neutralising capacity (ANC) of the surficial muds and the consolidated NASS materials beneath these has been made. The ANC of the soil samples ranged from near 0 to 21.7 (expressed as percent sulphur w/w). These values were associated with the shallower sands and muds at depths of 2 m or less. The depth distribution is given in **Figure 4.**

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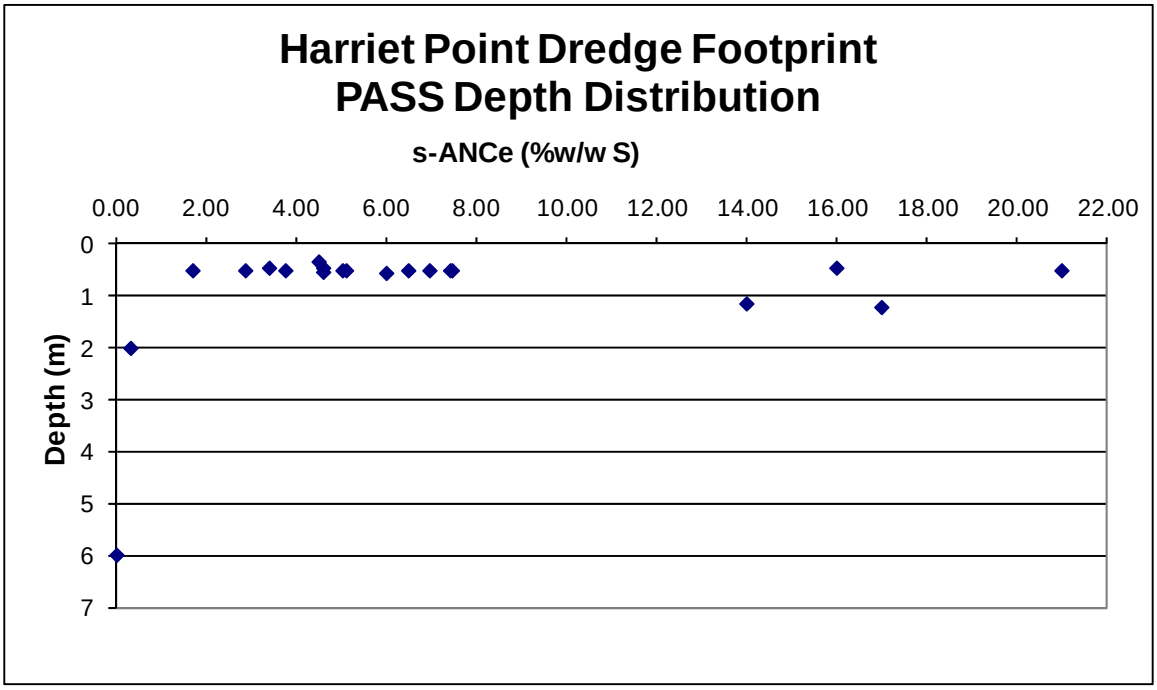

Figure 4 Depth Distribution of Acid Neutralising Capacity s-ANCe

The results show that the calcium carbonate concentrations of the samples are as high as 21.7 indicating that if calcium carbonate is of adequate particle size then this would neutralise any excess acidity generated. If the particle size of the calcium carbonate is large, then the effectiveness of the neutralisation would be reduced. The effectiveness of the calcium carbonate (determined by ANC in the laboratory) may be higher than experienced during dredging operations. This is due to the fact that the laboratory methods utilised for determined ANC involves the crushing of the calcareous material resulting in a smaller particle size distribution (PSD) than would be experienced during dredging operations. It is also expected that sea water will provide some neutralising capacity.

4 POTENTIAL IMPACTS

Oxidation of PASS material has the potential to impact on soil and water quality and may result in the release of sulphuric acid, iron and other heavy metals into the soil and water. This may potentially result in adverse impacts upon the receiving environment. The level of impact is dependent on the quantity of acid generated as well as the concentration, expressed as total and retained acidity.

The nature of the environment in the Port Hedland region can be described as having a high assimilative capacity for generated acidity. This is due to the:

- calcareous nature of the soil matrix which has an inherently high acid neutralising capacity;
- the neutralising capacity of seawater; and
- high dilution rates of ASS within the large volumes of land disposed NASS materials.

5 MANAGEMENT ACTION PLAN

Based on the PASS assessment in **Section 3** and potential impacts identified in **Section 4**, the management action plan is summarised in **Table 3** and the management measures are discussed in detail in **Sections 6 and 7.**

Table 3 –Management Action Plan Summary

Disposal Option	Action Plan	Environmental Monitoring and Contingency Method	Frequency and Monitoring Parameters
Offshore Disposal Management of PASS	▪ PASS material will be selectively cut using accurate mechanical dredging methods ▪ PASS material will be disposed of to Spoil Ground 'I' under saturated conditions ▪ It is expected that the maximum time between dredging and sea disposal will be less than 14 hours.	▪ No monitoring is required ▪ As a contingency measure, deck wash will be utilised to keep dredge material wet.	NA
Onshore DMMA Management of NASS	▪ NASS material will be placed onshore in DMMA.	▪ Whilst unlikely, should some residual PASS come onshore it will be dispersed within larger volumes of calcarenite and seawater, and this will neutralise any residual PASS material within DMMA ▪ Laboratory analysis will be undertaken to ensure AASS have not been generated if deemed necessary ▪ Should laboratory tests indicate AASS, contingency measures will be employed.	▪ S_{Cr} or SPOCAS will be conducted on a weekly basis on selective samples of solid material within DMMA.
Excess Water Discharge from DMMA	▪ NASS material will be placed onshore in DMMA.	▪ Excess water discharge will be monitored from fixed discharge points from within DMMA ▪ DEC specified water quality parameters will be monitored and compared to action criteria ▪ Should action criteria be exceeded, contingency measures may be employed; including diverting excess water discharge to alternative storage (other DMMA) and neutralisation processes will be employed.	▪ TTA (Total Titratable Acidity), pH monitored weekly to ensure ph>6 and TTA <40mg/L ▪ Should these parameters be exceeded neutralisation processed will be employed.

6 OFFSHORE DISPOSAL MANAGEMENT MEASURES

PASS material will be disposed to Spoil Ground 'I'. To ensure the effectiveness of this strategy the PASS material will be:

- Selectively cut using accurate mechanical dredging methods (grab dredge and/or backhoes dredge); and
- Placed in barges and kept saturated during transport and disposal. The material will be kept saturated by placing seawater over the material using the dredging equipment or using the deck wash (hoses that use seawater) on the barges. The expected maximum time between dredging the materials and sea disposal will be less than 14 hrs (4 hrs return trip to Spoil Ground 'I', plus 10 hrs to load with dredged material). This is less than the temporary stockpile handling time of 70 hrs recommended by the DEC, and in conjunction with the saturated conditions, it is unlikely to result in PASS oxidation and subsequent acid generation.

These measures will ensure that the risk of potential impacts occurring as a result of the dredging and management of PASS material is minor.

7 ONSHORE RECLAMATION MANAGEMENT MEASURES

7.1 INTRODUCTION

As indicated above, the risk of potential impacts resulting from the dredging of PASS material will be minimised by disposing of the PASS material offshore.

7.1.1 Onshore Management of Dredged Material

Non-Acid Sulphate Soils (NASS) will be pumped to DMMA B1, B2, and A. There is minimal risk of PASS occurring in the dredged material at levels requiring management or being oxidised giving rise to AASS.

Any residual PASS material will be mixed with the NASS material as a result of the dredging and spoil transport (via pipeline) process.

As described in **Section 3.3.2** there is also potential for the calcareous material to neutralise the effects of oxidation of the residual PASS, should this occur. Seawater will also provide some neutralising capacity.

7.1.2 Management of Excess Water Discharge from DMMA

Excess water from the DMMA will be discharged through fixed discharge points at each of the DMMA. The discharge water will be monitored to ensure it meets the action criteria outlined in Dewatering Effluent and Groundwater Monitoring Guidance For Acid Sulphate Soil Areas (DEC, 2006).

In addition, TTA, Electrical Conductivity (EC) and pH will be monitored weekly to ensure that water quality parameters are maintained at a pH > 6 and a TTA < 40 mg/L. Should the DEC action criteria be exceeded then contingency measures will be employed. This may include diverting dredged material to an alternative DMMA. If the monitoring results exceed DEC action criteria then this water will be neutralised in accordance with the DEC guidelines for the treatment and management of disturbed acid sulphate soils (DEC 2004).The neutralisation point would be located within the inflow to the alternative DMMA. The pH and TTA will then be re-measured for validation of neutralisation before final discharge to the harbour.

7.1.3 Management within DMMA

There is only a minor risk resulting from small amounts of residual PASS material being contained within NASS, in the DMMA. This is due to the fact that it will be dispersed within larger volumes of calcarenite materials. Any oxidation of PASS and acid generation would be small and potentially neutralised within the DMMA.

In order to verify this during the DMMA construction operations, the reclaimed material will be sampled and tested for ASS by carrying out confirmatory laboratory testing by NATA approved methods (such Chromium Reducible Sulphur suite or Suspension Peroxide Oxidation Combined Acidity and Sulphate suite) on a weekly basis.

BHPBIO will monitor for the presence of iron monosulphides and total acidity within the DMMA on an annual basis for five years following completion of the dredging. Should levels that required further management be detected, BHPBIO will investigate options to neutralise this material.

8 RESIDUAL RISK ASSESSMENT

An assessment of the risk posed by the dredging and management of the dredged material with respect to ASS has been undertaken based on BHP Billiton's Risk Management Guidelines (BHPBIO 2008a).

PASS material will be disposed of offshore, therefore the likelihood of impacts occurring is considered to be 'conceivable, but only under extreme circumstances' as defined in the BHPB Risk Guidelines. Any impacts are considered to be 'minor effects on the biological or physical environment' as defined in the BHPB guidelines. The residual risk (i.e. after the management measures proposed in the plan have been applied) has therefore been determined to be minor.

Impact	Risk Reduction Measures	Severity	Likelihood	Residual Risk
Potential impacts to the receiving environment from the dredging and management of PASS material.	**Primary** Selective cutting and disposal of PASS offshore under saturated conditions. **Monitoring and Contingency Measures** Weekly monitoring of discharge waters and dredge material within DMMA; Dilution of residual PASS within NASS material; Utilisation of the neutralisation capacity of the calcarenite material and seawater; and Excess water discharge to be managed via diversion to alternative DMMA and neutralisation processes if required.	2	0.03	0.06 (minor)

9 REFERENCES

Coffey Geosciences Interim Geotechnical Report, 2008.

Dewatering Effluent and Groundwater Monitoring Guidance for Acid Sulphate Soil Areas, The Department of Environment and Conservation, 2006.

SKM (2008a) Harriet Point Sampling and Analysis Plan Report – Land disposal

SKM (2008b) Harriet Point Sampling and Analysis Plan Results Report For Sea Disposal'

Treatment and management of disturbed acid sulfate soil, The Department of Environment and Conservation, 2004.

10 APPENDIX A LABORATORY CERTIFICATES

LABORATORY REPORT COVERSHEET

DATE:	21 December 2007
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Mr Mel Castle
YOUR REFERENCE:	Harriet Point and Nelson Point, Port Hedland
OUR REFERENCE:	PE014449
SAMPLES RECEIVED:	09/11/2007
SAMPLES/QUANTITY:	19 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Chromium suite testwork was carried out by our Cairns laboratory, report no. 57708

PAH and metals testwork was subcontracted to our Sydney laboratory, report no. 56442

The results in this report are preliminary only. Awaiting QA/QC checks.

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services, 10 Reid Road, Newburn, Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668
www.au.sgs.com

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference	Units	NPBH103	NPBH103	NPBH103	NPBH303	NPBH303
Our Reference		PE014449-1	PE014449-2	PE014449-3	PE014449-4	PE014449-5
Depth		1.28-1.33	3.1-3.15	0.45-0.50	0.45-0.50	1.1-1.50
Date Sampled		01/11/2007	01/11/2007	01/11/2007	05/11/2007	05/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Subcontracted (Sydney) - Soils						
Subcontracted (Cairns) - ASS						

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-6	PE014449-7	PE014449-8	PE014449-9	PE014449-10
Depth		1.14-1.24	2.0-2.24	3.0-3.06	4.0-4.06	5.0-5.07
Date Sampled		06/11/2007	06/11/2007	06/11/2007	06/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Subcontracted (Sydney) - Soils						
Subcontracted (Cairns) - ASS						

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-11	PE014449-12	PE014449-13	PE014449-14	PE014449-15
Depth		6.0-6.04	7.0-7.05	8.0-8.04	9.0-9.04	10.0-10.04
Date Sampled		07/11/2007	07/11/2007	07/11/2007	07/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Subcontracted (Sydney) - Soils						
Subcontracted (Cairns) - ASS						

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-16	PE014449-17	PE014449-18	PE014449-19
Depth		11.0-11.04	12.0-12.04	13.0-13.04	14.0-14.02
Date Sampled		07/11/2007	07/11/2007	07/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil
Subcontracted (Sydney) - Soils					
Subcontracted (Cairns) - ASS					

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference	Units	NPBH103	NPBH103	NPBH103	NPBH303	NPBH303
Our Reference		PE014449-1	PE014449-2	PE014449-3	PE014449-4	PE014449-5
Depth		1.28-1.33	3.1-3.15	0.45-0.50	0.45-0.50	1.1-1.50
Date Sampled		01/11/2007	01/11/2007	01/11/2007	05/11/2007	05/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Total Organic Carbon	% w/w	0.20	<0.05	1.00	0.90	0.40

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-6	PE014449-7	PE014449-8	PE014449-9	PE014449-10
Depth		1.14-1.24	2.0-2.24	3.0-3.06	4.0-4.06	5.0-5.07
Date Sampled		06/11/2007	06/11/2007	06/11/2007	06/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Total Organic Carbon	% w/w	0.20	<0.05	0.06	<0.05	<0.05

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-11	PE014449-12	PE014449-13	PE014449-14	PE014449-15
Depth		6.0-6.04	7.0-7.05	8.0-8.04	9.0-9.04	10.0-10.04
Date Sampled		07/11/2007	07/11/2007	07/11/2007	07/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	0.06

Your Reference	Units	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-16	PE014449-17	PE014449-18
Depth		11.0-11.04	12.0-12.04	13.0-13.04
Date Sampled		07/11/2007	07/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH103 PE014449-1 1.28-1.33 01/11/2007 Soil	NPBH103 PE014449-2 3.1-3.15 01/11/2007 Soil	NPBH103 PE014449-3 0.45-0.50 01/11/2007 Soil	NPBH303 PE014449-4 0.45-0.50 05/11/2007 Soil	NPBH303 PE014449-5 1.1-1.50 05/11/2007 Soil
Arsenic, As	mg/kg	6	<5	17	5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	0.4	<0.4	<0.4
Chromium, Cr	mg/kg	35	40	68	43	46
Cobalt, Co	mg/kg	<5	<5	10	<5	<5
Copper, Cu	mg/kg	19	9	26	12	14
Manganese, Mn	mg/kg	170	41	250	92	45
Lead, Pb	mg/kg	6	7	13	5	7
Nickel, Ni	mg/kg	16	12	30	14	22
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	30	6	89	15	14
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-6 1.14-1.24 06/11/2007 Soil	HPBH20 PE014449-7 2.0-2.24 06/11/2007 Soil	HPBH20 PE014449-8 3.0-3.06 06/11/2007 Soil	HPBH20 PE014449-9 4.0-4.06 06/11/2007 Soil	HPBH20 PE014449-10 5.0-5.07 07/11/2007 Soil
Arsenic, As	mg/kg	7	<5	5	5	6
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	26	60	50	48	55
Cobalt, Co	mg/kg	<5	<5	<5	5	5
Copper, Cu	mg/kg	9	11	15	7	11
Manganese, Mn	mg/kg	61	44	230	36	36
Lead, Pb	mg/kg	5	8	7	7	8
Nickel, Ni	mg/kg	10	21	23	20	19
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	8	12	14	9	11
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-11 6.0-6.04 07/11/2007 Soil	HPBH20 PE014449-12 7.0-7.05 07/11/2007 Soil	HPBH20 PE014449-13 8.0-8.04 07/11/2007 Soil	HPBH20 PE014449-14 9.0-9.04 07/11/2007 Soil	HPBH20 PE014449-15 10.0-10.04 07/11/2007 Soil
Arsenic, As	mg/kg	<5	6	6	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	50	51	74	31	25
Cobalt, Co	mg/kg	6	7	7	<5	<5
Copper, Cu	mg/kg	8	8	15	6	<5
Manganese, Mn	mg/kg	38	48	76	33	150
Lead, Pb	mg/kg	6	8	9	<5	<5
Nickel, Ni	mg/kg	32	26	33	8	9
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	12	12	17	6	<5
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-16 11.0-11.04 07/11/2007 Soil	HPBH20 PE014449-17 12.0-12.04 07/11/2007 Soil	HPBH20 PE014449-18 13.0-13.04 07/11/2007 Soil
Arsenic, As	mg/kg	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	21	23	29
Cobalt, Co	mg/kg	<5	<5	<5
Copper, Cu	mg/kg	<5	6	<5
Manganese, Mn	mg/kg	18	21	39
Lead, Pb	mg/kg	<5	<5	<5
Nickel, Ni	mg/kg	7	11	11
Silver, Ag	mg/kg	<5	<5	<5
Zinc, Zn	mg/kg	<5	5	5
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH103 PE014449-1 1.28-1.33 01/11/2007 Soil	NPBH103 PE014449-2 3.1-3.15 01/11/2007 Soil	NPBH103 PE014449-3 0.45-0.50 01/11/2007 Soil	NPBH303 PE014449-4 0.45-0.50 05/11/2007 Soil	NPBH303 PE014449-5 1.1-1.50 05/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
Pyrene	mg/kg	0.01	<0.01	0.03	0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	0.04	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	0.03	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	106	106	100	92	106

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-6 1.14-1.24 06/11/2007 Soil	HPBH20 PE014449-7 2.0-2.24 06/11/2007 Soil	HPBH20 PE014449-8 3.0-3.06 06/11/2007 Soil	HPBH20 PE014449-9 4.0-4.06 06/11/2007 Soil	HPBH20 PE014449-10 5.0-5.07 07/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	104	107	107	107	99

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-11 6.0-6.04 07/11/2007 Soil	HPBH20 PE014449-12 7.0-7.05 07/11/2007 Soil	HPBH20 PE014449-13 8.0-8.04 07/11/2007 Soil	HPBH20 PE014449-14 9.0-9.04 07/11/2007 Soil	HPBH20 PE014449-15 10.0-10.04 07/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	103	104	101	104	105

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-16 11.0-11.04 07/11/2007 Soil	HPBH20 PE014449-17 12.0-12.04 07/11/2007 Soil	HPBH20 PE014449-18 13.0-13.04 07/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	100	105	99

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference	Units	NPBH103	NPBH103	NPBH103	NPBH303	NPBH303
Our Reference		PE014449-1	PE014449-2	PE014449-3	PE014449-4	PE014449-5
Depth		1.28-1.33	3.1-3.15	0.45-0.50	0.45-0.50	1.1-1.50
Date Sampled		01/11/2007	01/11/2007	01/11/2007	05/11/2007	05/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-6	PE014449-7	PE014449-8	PE014449-9	PE014449-10
Depth		1.14-1.24	2.0-2.24	3.0-3.06	4.0-4.06	5.0-5.07
Date Sampled		06/11/2007	06/11/2007	06/11/2007	06/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1

Your Reference	Units	HPBH20	HPBH20	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-11	PE014449-12	PE014449-13	PE014449-14	PE014449-15
Depth		6.0-6.04	7.0-7.05	8.0-8.04	9.0-9.04	10.0-10.04
Date Sampled		07/11/2007	07/11/2007	07/11/2007	07/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1

Your Reference	Units	HPBH20	HPBH20	HPBH20
Our Reference		PE014449-16	PE014449-17	PE014449-18
Depth		11.0-11.04	12.0-12.04	13.0-13.04
Date Sampled		07/11/2007	07/11/2007	07/11/2007
Type of Sample		Soil	Soil	Soil
Monobutyltin #	ng/g	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH103 PE014449-1 1.28-1.33 01/11/2007 Soil	NPBH103 PE014449-2 3.1-3.15 01/11/2007 Soil	NPBH103 PE014449-3 0.45-0.50 01/11/2007 Soil	NPBH303 PE014449-4 0.45-0.50 05/11/2007 Soil	NPBH303 PE014449-5 1.1-1.50 05/11/2007 Soil
pH KCl	pH Units	8.9	7.4	8.8	9.1	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.009	<0.005	0.42	0.10	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	5.5	<5.0	260.000	63.000	<5.0
S_{HCl} #	% w/w					
S_{KCl} #	%w/w					
S_{NAS} #	%w/w					
ANCE	% $CaCO_3$					
s-ANCE	% w/w S	[NT]	[NT]	2.5	7.6	[NT]
a-ANCE	moles H^+/tonne	[NT]	[NT]	1,600.0	4,700.0	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	5	<5	<5	<5	<5
Verification s-Net Acidity	% w/w S	[NT]	[NT]	-1.3	-5.0	0.00
a- Net Acidity without ANCE	moles H^+/tonne	5	<5	260	63	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	[NT]	20	4.7	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-6 1.14-1.24 06/11/2007 Soil	HPBH20 PE014449-7 2.0-2.24 06/11/2007 Soil	HPBH20 PE014449-8 3.0-3.06 06/11/2007 Soil	HPBH20 PE014449-9 4.0-4.06 06/11/2007 Soil	HPBH20 PE014449-10 5.0-5.07 07/11/2007 Soil
pH KCl	pH Units	9.4	9.2	9.3	8.9	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.11	<0.005	<0.005	0.006	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	71.000	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	% w/w					
S_{KCl} #	%w/w					
S_{NAS} #	%w/w					
ANCE	% $CaCO_3$					
s-ANCE	% w/w S	14	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	9,000.0	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Verification s-Net Acidity	% w/w S	[NT]	-9.5	[NT]	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	71	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	5.3	[NT]	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-11 6.0-6.04 07/11/2007 Soil	HPBH20 PE014449-12 7.0-7.05 07/11/2007 Soil	HPBH20 PE014449-13 8.0-8.04 07/11/2007 Soil	HPBH20 PE014449-14 9.0-9.04 07/11/2007 Soil	HPBH20 PE014449-15 10.0-10.04 07/11/2007 Soil
pH KCl	pH Units	8.0	8.8	7.5	8.7	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.009	0.013	0.010	0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	5.5	8.1	6.3	<5.0	<5.0
S_{HCl} #	% w/w					
S_{KCl} #	%w/w					
S_{NAS} #	%w/w					
ANCE	% $CaCO_3$					
s- Net Acidity	% w/w S	<0.01	0.01	0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	5	8	6	<5	<5
a- Net Acidity without ANCE	moles H^+/tonne	5	8	6	<5	<5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH20 PE014449-16 11.0-11.04 07/11/2007 Soil	HPBH20 PE014449-17 12.0-12.04 07/11/2007 Soil	HPBH20 PE014449-18 13.0-13.04 07/11/2007 Soil	HPBH20 PE014449-19 14.0-14.02 07/11/2007 Soil
pH KCl	pH Units	9.6	8.9	9.5	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005	0.006	0.007	0.010
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	6.1
S_{HCl} #	% w/w				
S_{KCl} #	%w/w				
S_{NAS} #	%w/w				
ANCE	% $CaCO_3$				
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	6
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Sub-Samples Required			
Subcontracted (Sydney) - Soils			
Subcontracted (Cairns) - ASS			
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Metals in Soil			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/PEM-005
PAHs			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710
Benzo[*a*]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
TBT			
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	% w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	% w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014449

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

NOTES:

LOR - Limit of Reporting.

LABORATORY REPORT COVERSHEET

DATE: 28 December 2007

TO: Coffey Geotechnics Pty Ltd
PO Box 1530
OSBORNE PARK B.C. WA 6916

ATTENTION: Mr Mel Castle

YOUR REFERENCE: Harriet Point and Nelson Point, Port Hedland, RGP5

OUR REFERENCE: PE014481

SAMPLES RECEIVED: 07/12/2007

SAMPLES/QUANTITY: 5 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
TBT testwork was subcontracted to ARL, Welshpool, report no. A07/3452

Chromium suite testwork was carried out by our Cairns laboratory, report no. 58151

The results in this report are preliminary only. Awaiting QA/QC checks.

DAVID WILLIAMS
National Organic Manager

SAID HIRAD
Project/Validation Chemist

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services, 10 Reid Road, Newburn, Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668
www.au.sgs.com

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481

PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH304 PE014481-1 0.55-0.60 1/12/2007 Soil	HPBH304 PE014481-2 2.95-3.0 1/12/2007 Soil	HPBH305 PE014481-3 0.45-0.50 2/12/2007 Soil	HPBH305 PE014481-4 1.38-1.45 3/12/2007 Soil	HPBH306 PE014481-5 0.33-0.37 5/12/2007 Soil
Total Organic Carbon	% w/w	0.28	0.13	0.47	<0.05	0.48
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481

PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH304 PE014481-1 0.55-0.60 1/12/2007 Soil	HPBH304 PE014481-2 2.95-3.0 1/12/2007 Soil	HPBH305 PE014481-3 0.45-0.50 2/12/2007 Soil	HPBH305 PE014481-4 1.38-1.45 3/12/2007 Soil	HPBH306 PE014481-5 0.33-0.37 5/12/2007 Soil
Arsenic, As	mg/kg	7	<5	13	13	12
Cadmium, Cd	mg/kg	<0.4	<0.4	0.6	2.8	0.5
Chromium, Cr	mg/kg	46	36	77	170	70
Cobalt, Co	mg/kg	5	<5	10	18	9
Copper, Cu	mg/kg	13	<5	20	280	18
Manganese, Mn	mg/kg	130	22	220	1,500	200
Lead, Pb	mg/kg	5	<5	9	6	8
Nickel, Ni	mg/kg	20	17	36	180	32
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	26	7	53	82	53
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH304 PE014481-1 0.55-0.60 1/12/2007 Soil	HPBH304 PE014481-2 2.95-3.0 1/12/2007 Soil	HPBH305 PE014481-3 0.45-0.50 2/12/2007 Soil	HPBH305 PE014481-4 1.38-1.45 3/12/2007 Soil	HPBH306 PE014481-5 0.33-0.37 5/12/2007 Soil
Naphthalene	mg/kg	0.02	<0.01	<0.01	0.02	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	0.01	<0.01	0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	102	96	96	100	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481

PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH304 PE014481-1 0.55-0.60 1/12/2007 Soil	HPBH304 PE014481-2 2.95-3.0 1/12/2007 Soil	HPBH305 PE014481-3 0.45-0.50 2/12/2007 Soil	HPBH305 PE014481-4 1.38-1.45 3/12/2007 Soil	HPBH306 PE014481-5 0.33-0.37 5/12/2007 Soil
pH KCl	pH Units	9.1	7.6	8.8	7.5	8.8
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	% w/w	0.090	<0.005	0.36	<0.005	0.35
a-Chromium Reducible Sulphur	moles H^+/tonne	56.000	<5.0	230.000	<5.0	220.000
SHCl #	% w/w	[NT]	[NT]	[NT]	[NT]	[NT]
S KCl #	%w/w	[NT]	[NT]	[NT]	[NT]	[NT]
S NAS #	%w/w	[NT]	[NT]	[NT]	[NT]	[NT]
ANCE	% $CaCO_3$	19	[NT]	14	[NT]	14
s-ANCE	% w/w S	6.0	[NT]	4.6	[NT]	4.5
a-ANCE	moles H^+/tonne	3,800.0	[NT]	2,900.0	[NT]	2,800.0
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	% w/w S	-3.9	[NT]	-2.7	[NT]	-2.6
a- Net Acidity without ANCE	moles H^+/tonne	56	<5	230	<5	220
Liming Rate without ANCE	kg $CaCO_3$/tonne	4.2	[NT]	17	[NT]	16

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Metals in Soil			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/PEM-005
PAHs			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710
Benzo[a]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-710
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	% w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	% w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike
Total Organic Carbon	% w/w	-	PE014481-1	0.28 || -	PE014481-1	-
Monobutyltin #	ng/g	<1	PE014481-1	<1 || <1	PE014481-1	<0.5
Tributyltin #	ng/g	<1	PE014481-1	<1 || <1	PE014481-1	<0.5
Dibutyltin #	ng/g	<1	PE014481-1	<1 || <1	PE014481-1	<0.5
TBT (Normalised to 1% TOC)	ng/g	-	PE014481-1	<1.0 || <1.0	PE014481-1	-

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike
Arsenic, As	mg/kg	-	PE014481-1	7 || -	PE014481-1	-
Cadmium, Cd	mg/kg	-	PE014481-1	<0.4 || -	PE014481-1	-
Chromium, Cr	mg/kg	-	PE014481-1	46 || -	PE014481-1	-
Cobalt, Co	mg/kg	-	PE014481-1	5 || -	PE014481-1	-
Copper, Cu	mg/kg	-	PE014481-1	13 || -	PE014481-1	-
Manganese, Mn	mg/kg	-	PE014481-1	130 || -	PE014481-1	-
Lead, Pb	mg/kg	-	PE014481-1	5 || -	PE014481-1	-
Nickel, Ni	mg/kg	-	PE014481-1	20 || -	PE014481-1	-
Silver, Ag	mg/kg	-	PE014481-1	<5 || -	PE014481-1	-
Zinc, Zn	mg/kg	-	PE014481-1	26 || -	PE014481-1	-
Mercury, Hg	mg/kg	-	PE014481-1	<0.05 || <0.05	PE014481-1	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike
Naphthalene	mg/kg	<0.01	PE014481-1	0.02 || 0.04 || RPD: 67	PE014481-1	83 || 82 || RPD: 1
2-methylnaphthalene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
1-methylnaphthalene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
Acenaphthylene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
Acenaphthene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
Fluorene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	90 || 91 || RPD: 1
Phenanthrene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	90 || 92 || RPD: 2
Anthracene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
Fluoranthene	mg/kg	<0.01	PE014481-1	0.01 || <0.01	PE014481-1	-
Pyrene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	92 || 95 || RPD: 3
Benzo[*a*]anthracene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	94 || 96 || RPD: 2
Chrysene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE014481-1	<0.02 || <0.02	PE014481-1	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	94 || 93 || RPD: 1
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE014481-1	<0.01 || <0.01	PE014481-1	-
d14-p-terphenyl (surrogate)	% Rec.	104	PE014481-1	102 || 106 || RPD: 4	PE014481-1	86 || 88 || RPD: 2

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike
pH KCl	pH Units	-	PE014481-1	9.1 || -	PE014481-1	-
Titratable Actual Acidity (pH 6.5)	% w/w S	-	PE014481-1	<0.01 || <0.01	PE014481-1	-
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	-	PE014481-1	<5 || <5	PE014481-1	-
Chromium Reducible Sulphur (S_{Cr})	% w/w	-	PE014481-1	0.090 || -	PE014481-1	-
a-Chromium Reducible Sulphur	moles H^+/tonne	-	PE014481-1	56.000 || -	PE014481-1	-
S_{HCl} #	% w/w	-	[NT]	[NT]	PE014481-1	-
S KCl #	%w/w	-	[NT]	[NT]	PE014481-1	-
S NAS #	%w/w	-	[NT]	[NT]	PE014481-1	-
ANCE	% $CaCO_3$	-	PE014481-1	19 || -	PE014481-1	-
s-ANCE	% w/w S	-	PE014481-1	6.0 || -	PE014481-1	-
a-ANCE	moles H^+/tonne	-	PE014481-1	3800.0 || -	PE014481-1	-
s- Net Acidity	% w/w S	-	PE014481-1	<0.01 || -	PE014481-1	-
a- Net Acidity	moles H^+/tonne	-	PE014481-1	<5 || <5	PE014481-1	-
Liming Rate	kg $CaCO_3$ /tonne	-	[NT]	[NT]	PE014481-1	-
Verification s-Net Acidity	% w/w S	-	PE014481-1	-3.9 || -	PE014481-1	-
a- Net Acidity without ANCE	moles H^+/tonne	-	PE014481-1	56 || -	PE014481-1	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike
Liming Rate without ANCE	kg $CaCO_3$ /tonne	-	PE014481-1	4.2 || -	PE014481-1	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014481
PROJECT: Harriet Point and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

NOTES:

LOR - Limit of Reporting.
Liming rate calculated using a Fineness factor of 1.5 (which is equivalent to finely divided Ag Lime <0.5mm) and Neutralising Value (NV) of 100%.
If using Liming Material <100% NV, then Liming Rate can be adjusted as follows:
Actual Liming Rate =Calculated Liming Rate x 100 /NV of actual Liming Material

Bulk Density of Material of 1g/cm3 assumed.
If Bulk Density differs from 1g/cm3 then Liming Rate can be adjusted as follows:
Actual Liming Rate=Calculated Liming Rate x Actual Bulk Density.

LABORATORY REPORT COVERSHEET

DATE:	7 January 2008
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	Harriet Point and Nelson Point, Port Hedland
OUR REFERENCE:	PE014370
SAMPLES RECEIVED:	30/11/2007
SAMPLES/QUANTITY:	7 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

The results in this report are preliminary only. Awaiting QA/QC checks.

RICK STAKER
Business Development SEAP

DAVID WILLIAMS
National Organic Manager

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services, 10 Reid Road, Newburn, Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668
www.au.sgs.com

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-1 1.21-1.30 28/11/2007 Soil	HPBH19 PE014370-2 2.0-2.1 28/11/2007 Soil	HPBH19 PE014370-3 3.0-3.05 28/11/2007 Soil	HPBH19 PE014370-4 5.0-5.05 28/11/2007 Soil	HPBH19 PE014370-5 7.5-7.55 28/11/2007 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	0.06
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-6 9.0-9.05 28/11/2007 Soil	HPBH19 PE014370-7 12.0-12.1 28/11/2007 Soil
Total Organic Carbon	% w/w	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1
Dibutyltin #	ng/g	<1	<1
Tributyltin #	ng/g	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-1 1.21-1.30 28/11/2007 Soil	HPBH19 PE014370-2 2.0-2.1 28/11/2007 Soil	HPBH19 PE014370-3 3.0-3.05 28/11/2007 Soil	HPBH19 PE014370-4 5.0-5.05 28/11/2007 Soil	HPBH19 PE014370-5 7.5-7.55 28/11/2007 Soil
Arsenic, As	mg/kg	<5	<5	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	12	49	61	58	52
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	7	12	9	12	10
Manganese, Mn	mg/kg	67	41	51	55	42
Lead, Pb	mg/kg	<5	6	7	6	<5
Nickel, Ni	mg/kg	4	20	21	21	24
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	5	12	12	12	12
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-6 9.0-9.05 28/11/2007 Soil	HPBH19 PE014370-7 12.0-12.1 28/11/2007 Soil
Arsenic, As	mg/kg	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4
Chromium, Cr	mg/kg	59	37
Cobalt, Co	mg/kg	5	<5
Copper, Cu	mg/kg	8	<5
Manganese, Mn	mg/kg	41	26
Lead, Pb	mg/kg	<5	<5
Nickel, Ni	mg/kg	25	11
Silver, Ag	mg/kg	<5	<5
Zinc, Zn	mg/kg	13	<5
Mercury, Hg	mg/kg	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-1 1.21-1.30 28/11/2007 Soil	HPBH19 PE014370-2 2.0-2.1 28/11/2007 Soil	HPBH19 PE014370-3 3.0-3.05 28/11/2007 Soil	HPBH19 PE014370-4 5.0-5.05 28/11/2007 Soil	HPBH19 PE014370-5 7.5-7.55 28/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	120	116	120	120	120

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-6 9.0-9.05 28/11/2007 Soil	HPBH19 PE014370-7 12.0-12.1 28/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	120	116

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-1 1.21-1.30 28/11/2007 Soil	HPBH19 PE014370-2 2.0-2.1 28/11/2007 Soil	HPBH19 PE014370-3 3.0-3.05 28/11/2007 Soil	HPBH19 PE014370-4 5.0-5.05 28/11/2007 Soil	HPBH19 PE014370-5 7.5-7.55 28/11/2007 Soil
pH KCl	pH Units	9.2	9.1	8.9	8.9	8.9
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.057	0.015	<0.005	<0.05	<0.05
a-Chromium Reducible Sulphur	moles H^+/tonne	35.000	9.5	<5.0	<5.0	<5.0
S_{HCl} #	% w/w	[NT]	[NT]	[NT]	[NT]	[NT]
S KCl #	%w/w	[NT]	[NT]	[NT]	[NT]	[NT]
S NAS #	%w/w	[NT]	[NT]	[NT]	[NT]	[NT]
ANCE	% $CaCO_3$	52	[NT]	[NT]	[NT]	[NT]
s-ANCE	% w/w S	17	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	10,000.0	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	0.02	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	9	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	% w/w S	-11	[NT]	[NT]	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	35	9	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	2.7	[NT]	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH19 PE014370-6 9.0-9.05 28/11/2007 Soil	HPBH19 PE014370-7 12.0-12.1 28/11/2007 Soil
pH KCl	pH Units	9.0	9.6
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.05	<0.05
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0
S_{HCl} #	% w/w	[NT]	[NT]
S KCl #	%w/w	[NT]	[NT]
S NAS #	%w/w	[NT]	[NT]
ANCE	% $CaCO_3$	[NT]	[NT]
s-ANCE	% w/w S	[NT]	[NT]
a-ANCE	moles H^+/tonne	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]
Verification s-Net Acidity	% w/w S	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Metals in Soil			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/PEM-005
PAHs			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710
Benzo[a]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-710
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	% w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	% w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Total Organic Carbon	% w/w	<0.05
Monobutyltin #	ng/g	-
Dibutyltin #	ng/g	-
Tributyltin #	ng/g	-
TBT (Normalised to 1% TOC)	ng/g	-

QUALITY CONTROL	UNITS	Blank
Arsenic, As	mg/kg	<5
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	<5
Cobalt, Co	mg/kg	<5
Copper, Cu	mg/kg	<5
Manganese, Mn	mg/kg	<5
Lead, Pb	mg/kg	<5
Nickel, Ni	mg/kg	<4
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	<5
Mercury, Hg	mg/kg	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike
Naphthalene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
2-methylnaphthalene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
1-methylnaphthalene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Acenaphthylene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Acenaphthene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Fluorene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Phenanthrene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Anthracene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Fluoranthene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Pyrene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Benzo[*a*]anthracene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Chrysene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE014370-2	<0.02 || <0.02	PE014
Benzo[*a*]pyrene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
Benzo[*ghi*]perylene	mg/kg	<0.01	PE014370-2	<0.01 || <0.01	PE014
d14-p-terphenyl (surrogate)	% Rec.	120	PE014370-2	116 || 116 || RPD: 0	PE014

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	-
Titratable Actual Acidity (pH 6.5)	% w/w S	-
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	-
Chromium Reducible Sulphur (S_{Cr})	% w/w	-
a-Chromium Reducible Sulphur	moles H^+/tonne	-
S_{HCl} #	% w/w	-
S KCl #	%w/w	-
S NAS #	%w/w	-
ANCE	% $CaCO_3$	-
s-ANCE	% w/w S	-
a-ANCE	moles H^+/tonne	-
s- Net Acidity	% w/w S	-
a- Net Acidity	moles H^+/tonne	-
Liming Rate	kg $CaCO_3$ /tonne	-
Verification s-Net Acidity	% w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	-
Liming Rate without ANCE	kg $CaCO_3$ /tonne	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014370

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

NOTES:

LOR - Limit of Reporting.

LABORATORY REPORT COVERSHEET

DATE:	17 December 2007
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	Harriet and Nelson Point, Port Hedland, RGP5
OUR REFERENCE:	PE014297
SAMPLES RECEIVED:	26/11/2007
SAMPLES/QUANTITY:	20 Soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Chromium suite testwork was carried out by our Cairns laboratory, report no.57951

TOC testwork was subcontracted to SGS Minerals Services, report no. WM105787

Organics testwork was subcontracted to our Sydney laboratory, report no. A07/3314

DON SARATHCHANDRA
Senior Chemist

DAVID WILLIAMS
National Organic Manager

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CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-1 1.4-1.43 19/11/2007 Soil	HPBH302 PE014297-2 2.0-2.03 19/11/2007 Soil	HPBH302 PE014297-3 3.0-3.03 19/11/2007 Soil	HPBH302 PE014297-4 4.0-4.04 19/11/2007 Soil	HPBH302 PE014297-5 5.0-5.05 19/11/2007 Soil
Total Organic Carbon	% w/w	0.05	<0.05	<0.05	0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-6 8.0-8.04 19/11/2007 Soil	HPBH302 PE014297-7 9.0-9.03 19/11/2007 Soil	HPBH302 PE014297-8 10.0-10.04 19/11/2007 Soil	HPBH302 PE014297-9 12.0-12.03 19/11/2007 Soil	HPBH302 PE014297-10 13.0-13.03 19/11/2007 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014297-11 9.14-9.19 16/11/2007 Soil	HPBH17 PE014297-12 1.45-1.5 22/11/2007 Soil	HPBH17 PE014297-13 0.45-0.50 22/11/2007 Soil	HPBH17 PE014297-14 2.6-2.65 22/11/2007 Soil	HPBH17 PE014297-15 4.0-4.1 22/11/2007 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	0.19	0.12	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH17 PE014297-16 5.0-5.05 22/11/2007 Soil	HPBH17 PE014297-17 6.0-6.05 22/11/2007 Soil	HPBH17 PE014297-18 7.5-7.6 22/11/2007 Soil	HPBH17 PE014297-19 12.0-12.05 23/11/2007 Soil	HPBH302 PE014297-20 7.0-7.03 22/11/2007 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-1 1.4-1.43 19/11/2007 Soil	HPBH302 PE014297-2 2.0-2.03 19/11/2007 Soil	HPBH302 PE014297-3 3.0-3.03 19/11/2007 Soil	HPBH302 PE014297-4 4.0-4.04 19/11/2007 Soil	HPBH302 PE014297-5 5.0-5.05 19/11/2007 Soil
Arsenic, As	mg/kg	<5	<5	6	<5	<5
Cadmium, Cd	mg/kg	0.5	0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	66	60	62	69	52
Cobalt, Co	mg/kg	7	8	8	7	5
Copper, Cu	mg/kg	14	8	19	11	10
Manganese, Mn	mg/kg	72	50	56	58	44
Lead, Pb	mg/kg	7	7	7	7	5
Nickel, Ni	mg/kg	36	30	31	35	25
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	18	14	19	18	14
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-6 8.0-8.04 19/11/2007 Soil	HPBH302 PE014297-7 9.0-9.03 19/11/2007 Soil	HPBH302 PE014297-8 10.0-10.04 19/11/2007 Soil	HPBH302 PE014297-9 12.0-12.03 19/11/2007 Soil	HPBH302 PE014297-10 13.0-13.03 19/11/2007 Soil
Arsenic, As	mg/kg	<5	<5	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	58	30	28	48	39
Cobalt, Co	mg/kg	7	<5	<5	6	<5
Copper, Cu	mg/kg	10	<5	<5	7	<5
Manganese, Mn	mg/kg	43	24	22	37	24
Lead, Pb	mg/kg	<5	5	<5	<5	<5
Nickel, Ni	mg/kg	25	11	11	24	16
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	13	<5	<5	8	6
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014297-11 9.14-9.19 16/11/2007 Soil	HPBH17 PE014297-12 1.45-1.5 22/11/2007 Soil	HPBH17 PE014297-13 0.45-0.50 22/11/2007 Soil	HPBH17 PE014297-14 2.6-2.65 22/11/2007 Soil	HPBH17 PE014297-15 4.0-4.1 22/11/2007 Soil
Arsenic, As	mg/kg	<5	<5	8	8	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	25	28	28	31	28
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	<5	5	6	8	6
Manganese, Mn	mg/kg	15	48	100	67	43
Lead, Pb	mg/kg	<5	<5	<5	<5	<5
Nickel, Ni	mg/kg	8	10	11	12	10
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	6	8	20	12	8
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH17 PE014297-16 5.0-5.05 22/11/2007 Soil	HPBH17 PE014297-17 6.0-6.05 22/11/2007 Soil	HPBH17 PE014297-18 7.5-7.6 22/11/2007 Soil	HPBH17 PE014297-19 12.0-12.05 23/11/2007 Soil	HPBH302 PE014297-20 7.0-7.03 22/11/2007 Soil
Arsenic, As	mg/kg	6	6	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	78	58	44	47	41
Cobalt, Co	mg/kg	10	<5	<5	7	<5
Copper, Cu	mg/kg	14	8	7	11	8
Manganese, Mn	mg/kg	49	45	34	36	94
Lead, Pb	mg/kg	9	6	7	6	<5
Nickel, Ni	mg/kg	50	26	20	24	18
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	25	12	9	7	9
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-1 1.4-1.43 19/11/2007 Soil	HPBH302 PE014297-2 2.0-2.03 19/11/2007 Soil	HPBH302 PE014297-3 3.0-3.03 19/11/2007 Soil	HPBH302 PE014297-4 4.0-4.04 19/11/2007 Soil	HPBH302 PE014297-5 5.0-5.05 19/11/2007 Soil
Naphthalene	mg/kg	0.01	<0.01	<0.01	<0.01	0.03
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	104	106	100	100	102

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-6 8.0-8.04 19/11/2007 Soil	HPBH302 PE014297-7 9.0-9.03 19/11/2007 Soil	HPBH302 PE014297-8 10.0-10.04 19/11/2007 Soil	HPBH302 PE014297-9 12.0-12.03 19/11/2007 Soil	HPBH302 PE014297-10 13.0-13.03 19/11/2007 Soil
Naphthalene	mg/kg	0.02	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	100	96	104	100	100

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014297-11 9.14-9.19 16/11/2007 Soil	HPBH17 PE014297-12 1.45-1.5 22/11/2007 Soil	HPBH17 PE014297-13 0.45-0.50 22/11/2007 Soil	HPBH17 PE014297-14 2.6-2.65 22/11/2007 Soil	HPBH17 PE014297-15 4.0-4.1 22/11/2007 Soil
Naphthalene	mg/kg	<0.01	0.01	0.01	0.05	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	0.02	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	100	108	106	114	106

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH17 PE014297-16 5.0-5.05 22/11/2007 Soil	HPBH17 PE014297-17 6.0-6.05 22/11/2007 Soil	HPBH17 PE014297-18 7.5-7.6 22/11/2007 Soil	HPBH17 PE014297-19 12.0-12.05 23/11/2007 Soil	HPBH302 PE014297-20 7.0-7.03 22/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	104	102	104	100	100

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-1 1.4-1.43 19/11/2007 Soil	HPBH302 PE014297-2 2.0-2.03 19/11/2007 Soil	HPBH302 PE014297-3 3.0-3.03 19/11/2007 Soil	HPBH302 PE014297-4 4.0-4.04 19/11/2007 Soil	HPBH302 PE014297-5 5.0-5.05 19/11/2007 Soil
pH KCl	pH Units	8.8	8.6	8.6	8.4	8.3
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	<0.005	0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
ANCE	% $CaCO_3$	[NT]	[NT]	[NT]	[NT]	[NT]
s-ANCE	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH302 PE014297-6 8.0-8.04 19/11/2007 Soil	HPBH302 PE014297-7 9.0-9.03 19/11/2007 Soil	HPBH302 PE014297-8 10.0-10.04 19/11/2007 Soil	HPBH302 PE014297-9 12.0-12.03 19/11/2007 Soil	HPBH302 PE014297-10 13.0-13.03 19/11/2007 Soil
pH KCl	pH Units	8.9	8.1	9.1	8.3	8.6
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005	0.005	<0.005	0.006	0.011
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	6.7
ANCE	% $CaCO_3$	[NT]	[NT]	[NT]	[NT]	[NT]
s-ANCE	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	7
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	7
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014297-11 9.14-9.19 16/11/2007 Soil	HPBH17 PE014297-12 1.45-1.5 22/11/2007 Soil	HPBH17 PE014297-13 0.45-0.50 22/11/2007 Soil	HPBH17 PE014297-14 2.6-2.65 22/11/2007 Soil	HPBH17 PE014297-15 4.0-4.1 22/11/2007 Soil
pH KCl	pH Units	8.3	9.3	9.2	9.4	9.4
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005	0.028	0.023	0.007	0.011
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	18.000	15.000	<5.0	6.7
ANCE	% $CaCO_3$	[NT]	[NT]	[NT]	[NT]	[NT]
s-ANCE	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	0.03	0.02	<0.01	0.01
a- Net Acidity	moles H^+/tonne	<5	18	15	<5	7
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	<5	18	15	<5	7
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH17 PE014297-16 5.0-5.05 22/11/2007 Soil	HPBH17 PE014297-17 6.0-6.05 22/11/2007 Soil	HPBH17 PE014297-18 7.5-7.6 22/11/2007 Soil	HPBH17 PE014297-19 12.0-12.05 23/11/2007 Soil	HPBH302 PE014297-20 7.0-7.03 22/11/2007 Soil
pH KCl	pH Units	8.7	9.0	8.5	8.4	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.010	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
ANCE	% $CaCO_3$	[NT]	[NT]	[NT]	[NT]	[NT]
s-ANCE	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	6	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	% w/w S	[NT]	[NT]	[NT]	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	6	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Metals in Soil			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/PEM-005
PAHs			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710
Benzo[*a*]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-710
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
ANC_E	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANC_E	% w/w S	0.01	ASSMAC S 23Q
a-ANC_E	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANC_E	moles H^+/tonne	5	Calculation
Liming Rate without ANC_E	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Total Organic Carbon	% w/w	-
Monobutyltin #	ng/g	-
Dibutyltin #	ng/g	-
Tributyltin #	ng/g	-
TBT (Normalised to 1% TOC)	ng/g	-

QUALITY CONTROL	UNITS	Blank
Arsenic, As	mg/kg	-
Cadmium, Cd	mg/kg	-
Chromium, Cr	mg/kg	-
Cobalt, Co	mg/kg	-
Copper, Cu	mg/kg	-
Manganese, Mn	mg/kg	-
Lead, Pb	mg/kg	-
Nickel, Ni	mg/kg	-
Silver, Ag	mg/kg	-
Zinc, Zn	mg/kg	-
Mercury, Hg	mg/kg	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Naphthalene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	74 || 75 || RPD: 1
2-methylnaphthalene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
1-methylnaphthalene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Acenaphthylene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Acenaphthene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Fluorene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	81 || 81 || RPD: 0
Phenanthrene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	84 || 84 || RPD: 0
Anthracene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Fluoranthene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Pyrene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	90 || 86 || RPD: 5
Benzo[*a*]anthracene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	87 || 78 || RPD: 11
Chrysene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE014297-3	<0.02 || <0.02	PE014297-1	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	81 || 76 || RPD: 6
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE014297-3	<0.01 || <0.01	PE014297-1	-
d14-p-terphenyl (surrogate)	% Rec.	110	PE014297-3	100 || 102 || RPD: 2	PE014297-1	86 || 82 || RPD: 5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297

PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	-
Titratable Actual Acidity (pH 6.5)	% w/w S	-
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	-
Chromium Reducible Sulphur (S_{Cr})	% w/w	-
a-Chromium Reducible Sulphur	moles H^+/tonne	-
ANCE	% $CaCO_3$	-
s-ANCE	% w/w S	-
a-ANCE	moles H^+/tonne	-
s- Net Acidity	% w/w S	-
a- Net Acidity	moles H^+/tonne	-
Liming Rate	kg $CaCO_3$ /tonne	-
Verification s-Net Acidity	% w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	-
Liming Rate without ANCE	kg $CaCO_3$ /tonne	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297
PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

QUALTY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate
Naphthalene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
2-methylnaphthalene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
1-methylnaphthalene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Acenaphthylene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Acenaphthene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Fluorene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Phenanthrene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Anthracene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Fluoranthene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Pyrene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Benzo[*a*]anthracene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Chrysene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
benzo [*bk*] fluoranthene	mg/kg	[NT]	PE014297-16	<0.02 || <0.02
Benzo[*a*]pyrene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Indeno[*123-cd*]pyrene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Dibenzo[*ah*]anthracene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
Benzo[*ghi*]perylene	mg/kg	[NT]	PE014297-16	<0.01 || <0.01
d14-p-terphenyl (surrogate)	% Rec.	[NT]	PE014297-16	104 || 98 || RPD: 6

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014297
PROJECT: Harriet and Nelson Point, Port Hedland, RGP5

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.
SGS terms and conditions are available from www.au.sgs.com

LABORATORY REPORT COVERSHEET

DATE:	7 December 2007
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	Harriet Point and Nelson Point, Port Hedland
OUR REFERENCE:	PE014179
SAMPLES RECEIVED:	16/11/2007
SAMPLES/QUANTITY:	17 Soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
chromium Suite analysis was carried out by our Cairns laboratory,
report no. 57783
Organics, Metals and TOC testwork was subcontracted to our Sydney laboratory, report no. 56642

DON SARATHCHANDRA
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CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference	Units	NPBH122	NPBH122	NPBH122	NPBH122	NPBH122
Our Reference		PE014179-1	PE014179-2	PE014179-3	PE014179-4	PE014179-5
Depth		3.0-3.05	4.04-4.04	5.0-5.04	7.0-7.07	8.0-8.04
Date Sampled		10/11/2007	10/11/2007	10/11/2007	11/11/2007	11/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Total Organic Carbon	% w/w	0.10	<0.05	0.06	<0.05	0.08

Your Reference	Units	NPBH122	NPBH122	NPBH122	NPBH122	NPBH122
Our Reference		PE014179-6	PE014179-7	PE014179-8	PE014179-9	PE014179-10
Depth		9.0-9.04	10.0-10.4	11.0-11.03	12.0-12.04	13.0-13.04
Date Sampled		11/11/2007	11/11/2007	11/11/2007	11/11/2007	11/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Total Organic Carbon	% w/w	<0.05	0.05	0.10	0.10	0.08

Your Reference	Units	NPBH122	NPBH122	HPBH301	HPBH301	HPBH301
Our Reference		PE014179-11	PE014179-12	PE014179-14	PE014179-15	PE014179-16
Depth		0.0-0.04	1.74-1.78	1.68-1.70	2.0-2.04	3.0-3.05
Date Sampled		10/11/2007	10/11/2007	15/11/2007	15/11/2007	15/11/2007
Type of Sample		Soil	Soil	Soil	Soil	Soil
Total Organic Carbon	% w/w	0.30	0.40	0.40	0.30	0.20

Your Reference	Units	HPBH301
Our Reference		PE014179-17
Depth		4.0-4.04
Date Sampled		15/11/2007
Type of Sample		Soil
Total Organic Carbon	% w/w	0.20

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-1 3.0-3.05 10/11/2007 Soil	NPBH122 PE014179-2 4.04-4.04 10/11/2007 Soil	NPBH122 PE014179-3 5.0-5.04 10/11/2007 Soil	NPBH122 PE014179-4 7.0-7.07 11/11/2007 Soil	NPBH122 PE014179-5 8.0-8.04 11/11/2007 Soil
Arsenic, As	mg/kg	9	8	11	6	5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	68	40	69	60	86
Cobalt, Co	mg/kg	11	6	6	5	11
Copper, Cu	mg/kg	14	9	12	7	20
Manganese, Mn	mg/kg	64	42	44	42	200
Lead, Pb	mg/kg	11	7	9	8	18
Nickel, Ni	mg/kg	33	20	34	29	49
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	20	9	12	14	97
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-6 9.0-9.04 11/11/2007 Soil	NPBH122 PE014179-7 10.0-10.4 11/11/2007 Soil	NPBH122 PE014179-8 11.0-11.03 11/11/2007 Soil	NPBH122 PE014179-9 12.0-12.04 11/11/2007 Soil	NPBH122 PE014179-10 13.0-13.04 11/11/2007 Soil
Arsenic, As	mg/kg	5	5	5	9	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	38	28	46	69	41
Cobalt, Co	mg/kg	5	<5	<5	7	<5
Copper, Cu	mg/kg	10	6	9	15	11
Manganese, Mn	mg/kg	71	220	51	59	52
Lead, Pb	mg/kg	7	<5	8	10	7
Nickel, Ni	mg/kg	16	12	21	36	19
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	6	<5	8	13	11
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-11 0.0-0.04 10/11/2007 Soil	NPBH122 PE014179-12 1.74-1.78 10/11/2007 Soil	HPBH301 PE014179-14 1.68-1.70 15/11/2007 Soil	HPBH301 PE014179-15 2.0-2.04 15/11/2007 Soil	HPBH301 PE014179-16 3.0-3.05 15/11/2007 Soil
Arsenic, As	mg/kg	9	8	9	7	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	18	37	33	59	48
Cobalt, Co	mg/kg	<5	<5	6	6	<5
Copper, Cu	mg/kg	10	10	150	11	8
Manganese, Mn	mg/kg	75	79	99	46	39
Lead, Pb	mg/kg	<5	6	<5	8	7
Nickel, Ni	mg/kg	4	15	15	32	22
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	19	14	74	14	13
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014179-17 4.0-4.04 15/11/2007 Soil
Arsenic, As	mg/kg	6
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	71
Cobalt, Co	mg/kg	7
Copper, Cu	mg/kg	13
Manganese, Mn	mg/kg	69
Lead, Pb	mg/kg	10
Nickel, Ni	mg/kg	38
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	22
Mercury, Hg	mg/kg	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-1 3.0-3.05 10/11/2007 Soil	NPBH122 PE014179-2 4.04-4.04 10/11/2007 Soil	NPBH122 PE014179-3 5.0-5.04 10/11/2007 Soil	NPBH122 PE014179-4 7.0-7.07 11/11/2007 Soil	NPBH122 PE014179-5 8.0-8.04 11/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	94	92	106	96	94

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-6 9.0-9.04 11/11/2007 Soil	NPBH122 PE014179-7 10.0-10.4 11/11/2007 Soil	NPBH122 PE014179-8 11.0-11.03 11/11/2007 Soil	NPBH122 PE014179-9 12.0-12.04 11/11/2007 Soil	NPBH122 PE014179-10 13.0-13.04 11/11/2007 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	88	88	88	96	84

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-11 0.0-0.04 10/11/2007 Soil	NPBH122 PE014179-12 1.74-1.78 10/11/2007 Soil	HPBH301 PE014179-14 1.68-1.70 15/11/2007 Soil	HPBH301 PE014179-15 2.0-2.04 15/11/2007 Soil	HPBH301 PE014179-16 3.0-3.05 15/11/2007 Soil
Naphthalene	mg/kg	<0.01	0.02	0.07	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	0.02	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	98	94	102	94	100

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014179-17 4.0-4.04 15/11/2007 Soil
Naphthalene	mg/kg	<0.01
2-methylnaphthalene	mg/kg	<0.01
1-methylnaphthalene	mg/kg	<0.01
Acenaphthylene	mg/kg	<0.01
Acenaphthene	mg/kg	<0.01
Fluorene	mg/kg	<0.01
Phenanthrene	mg/kg	<0.01
Anthracene	mg/kg	<0.01
Fluoranthene	mg/kg	<0.01
Pyrene	mg/kg	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01
Chrysene	mg/kg	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01
d14-p-terphenyl (surrogate)	% Rec.	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-1 3.0-3.05 10/11/2007 Soil	NPBH122 PE014179-2 4.04-4.04 10/11/2007 Soil	NPBH122 PE014179-3 5.0-5.04 10/11/2007 Soil	NPBH122 PE014179-4 7.0-7.07 11/11/2007 Soil	NPBH122 PE014179-5 8.0-8.04 11/11/2007 Soil
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-6 9.0-9.04 11/11/2007 Soil	NPBH122 PE014179-7 10.0-10.4 11/11/2007 Soil	NPBH122 PE014179-8 11.0-11.03 11/11/2007 Soil	NPBH122 PE014179-9 12.0-12.04 11/11/2007 Soil	NPBH122 PE014179-10 13.0-13.04 11/11/2007 Soil
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-11 0.0-0.04 10/11/2007 Soil	NPBH122 PE014179-12 1.74-1.78 10/11/2007 Soil	HPBH301 PE014179-14 1.68-1.70 15/11/2007 Soil	HPBH301 PE014179-15 2.0-2.04 15/11/2007 Soil	HPBH301 PE014179-16 3.0-3.05 15/11/2007 Soil
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014179-17 4.0-4.04 15/11/2007 Soil
Monobutyltin #	ng/g	<1
Dibutyltin #	ng/g	<1
Tributyltin #	ng/g	<1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-1 3.0-3.05 10/11/2007 Soil	NPBH122 PE014179-2 4.04-4.04 10/11/2007 Soil	NPBH122 PE014179-3 5.0-5.04 10/11/2007 Soil	NPBH122 PE014179-4 7.0-7.07 11/11/2007 Soil	NPBH122 PE014179-5 8.0-8.04 11/11/2007 Soil
pH KCl	pH Units	8.8	8.7	8.1	7.7	8.6
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	<5

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-6 9.0-9.04 11/11/2007 Soil	NPBH122 PE014179-7 10.0-10.4 11/11/2007 Soil	NPBH122 PE014179-8 11.0-11.03 11/11/2007 Soil	NPBH122 PE014179-9 12.0-12.04 11/11/2007 Soil	NPBH122 PE014179-10 13.0-13.04 11/11/2007 Soil
pH KCl	pH Units	8.0	9.1	8.6	9.2	9.1
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	<5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH122 PE014179-11 0.0-0.04 10/11/2007 Soil	NPBH122 PE014179-12 1.74-1.78 10/11/2007 Soil	NPBH122 PE014179-13 15.0-15.02 12/11/2007 Soil	HPBH301 PE014179-14 1.68-1.70 15/11/2007 Soil	HPBH301 PE014179-15 2.0-2.04 15/11/2007 Soil
pH KCl	pH Units	9.5	9.3	9.0	9.7	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.038	0.041	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	24.000	26.000	<5.0	<5.0	<5.0
ANC_E	% $CaCO_3$	8.4	3.6	[NT]	[NT]	[NT]
s-ANC_E	% w/w S	2.7	1.1	[NT]	[NT]	[NT]
a-ANC_E	moles H^+/tonne	1,700.0	710	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Verification s-Net Acidity	% w/w S	-1.8	-0.72	[NT]	[NT]	[NT]
a- Net Acidity without ANC_E	moles H^+/tonne	24	26	<5	<5	<5
Liming Rate without ANC_E	kg $CaCO_3$/tonne	1.8	1.9	[NT]	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH301 PE014179-16 3.0-3.05 15/11/2007 Soil	HPBH301 PE014179-17 4.0-4.04 15/11/2007 Soil
pH KCl	pH Units	8.5	8.1
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0
s- Net Acidity	% w/w S	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Metals in Soil			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/PEM-005
PAHs			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710
Benzo[*a*]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-710
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179

PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
TBT			
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	% w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	% w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014179
PROJECT: Harriet Point and Nelson Point, Port Hedland

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.
SGS terms and conditions are available from www.au.sgs.com

LABORATORY REPORT COVERSHEET

DATE:	28 February 2008
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	Harriet and Nelson Point, GH6703AP
OUR REFERENCE:	PE015284
SAMPLES RECEIVED:	13/2/2008
SAMPLES/QUANTITY:	20 Soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Testwork (TOC) was subcontracted to SGS Minerals Services, report no. WM 107285.
Testwork (ASS) was carried out by our Cairns laboratory, report no. 58700.
TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no.A08/0545

DON SARATHCHANDRA
Senior Chemist

DAVID WILLIAMS
National Organic Manager

WORLD RECOGNISED ACCREDITATION

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Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH121 PE015284-1 0.24-0.27 01/02/2008 Soil	NPBH201 PE015284-2 0.40-0.42 03/02/2008 Soil	NPBH205 PE015284-3 1.20-1.23 04/02/2008 Soil	HPBH308 PE015284-4 0.45-0.48 06/02/2008 Soil	HPBH308 PE015284-5 1.90-1.95 06/02/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-6 4.0-4.06 06/02/2008 Soil	HPBH308 PE015284-7 6.0-6.03 06/02/2008 Soil	HPBH308 PE015284-8 7.0-7.05 06/02/2008 Soil	HPBH308 PE015284-9 8.0-8.04 07/02/2008 Soil	HPBH308 PE015284-10 9.0-9.05 07/02/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-11 10.0-10.04 07/02/2008 Soil	NPBH114 PE015284-12 0.97-1.00 08/02/2008 Soil	NPBH114 PE015284-13 1.45-1.49 08/02/2008 Soil	NPBH114 PE015284-14 2.0-2.04 09/02/2008 Soil	NPBH114 PE015284-15 3.0-3.04 09/02/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH114 PE015284-16 4.0-4.04 09/02/2008 Soil	NPBH114 PE015284-17 5.0-5.04 09/02/2008 Soil	NPBH114 PE015284-18 9.0-9.04 09/02/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH121 PE015284-1 0.24-0.27 01/02/2008 Soil	NPBH201 PE015284-2 0.40-0.42 03/02/2008 Soil	NPBH205 PE015284-3 1.20-1.23 04/02/2008 Soil	HPBH308 PE015284-4 0.45-0.48 06/02/2008 Soil	HPBH308 PE015284-5 1.90-1.95 06/02/2008 Soil
Arsenic, As	mg/kg	<5	8	13	14	8
Cadmium, Cd	mg/kg	<0.4	0.4	0.8	<0.4	0.4
Chromium, Cr	mg/kg	60	59	88	19	81
Cobalt, Co	mg/kg	6	7	11	<5	7
Copper, Cu	mg/kg	13	12	30	<5	11
Manganese, Mn	mg/kg	170	210	290	66	76
Lead, Pb	mg/kg	7	8	11	<5	8
Nickel, Ni	mg/kg	31	32	40	7	40
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	17	13	58	6	22
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-6 4.0-4.06 06/02/2008 Soil	HPBH308 PE015284-7 6.0-6.03 06/02/2008 Soil	HPBH308 PE015284-8 7.0-7.05 06/02/2008 Soil	HPBH308 PE015284-9 8.0-8.04 07/02/2008 Soil	HPBH308 PE015284-10 9.0-9.05 07/02/2008 Soil
Arsenic, As	mg/kg	<5	<5	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	66	32	34	30	26
Cobalt, Co	mg/kg	5	<5	<5	<5	<5
Copper, Cu	mg/kg	8	<5	5	<5	7
Manganese, Mn	mg/kg	66	30	36	29	20
Lead, Pb	mg/kg	5	<5	<5	<5	<5
Nickel, Ni	mg/kg	33	10	12	10	9
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	17	5	6	5	7
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-11 10.0-10.04 07/02/2008 Soil	NPBH114 PE015284-12 0.97-1.00 08/02/2008 Soil	NPBH114 PE015284-13 1.45-1.49 08/02/2008 Soil	NPBH114 PE015284-14 2.0-2.04 09/02/2008 Soil	NPBH114 PE015284-15 3.0-3.04 09/02/2008 Soil
Arsenic, As	mg/kg	<5	<5	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	16	32	52	56	48
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	<5	12	36	11	7
Manganese, Mn	mg/kg	11	43	41	62	53
Lead, Pb	mg/kg	<5	<5	8	7	5
Nickel, Ni	mg/kg	6	9	16	23	21
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	<5	10	14	14	14
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH114 PE015284-16 4.0-4.04 09/02/2008 Soil	NPBH114 PE015284-17 5.0-5.04 09/02/2008 Soil	NPBH114 PE015284-18 9.0-9.04 09/02/2008 Soil
Arsenic, As	mg/kg	9	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	55	56	63
Cobalt, Co	mg/kg	<5	<5	<5
Copper, Cu	mg/kg	7	9	6
Manganese, Mn	mg/kg	61	49	46
Lead, Pb	mg/kg	8	6	<5
Nickel, Ni	mg/kg	22	25	26
Silver, Ag	mg/kg	<5	<5	<5
Zinc, Zn	mg/kg	11	11	13
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH121 PE015284-1 0.24-0.27 01/02/2008 Soil	NPBH201 PE015284-2 0.40-0.42 03/02/2008 Soil	NPBH205 PE015284-3 1.20-1.23 04/02/2008 Soil	HPBH308 PE015284-4 0.45-0.48 06/02/2008 Soil	HPBH308 PE015284-5 1.90-1.95 06/02/2008 Soil
Date Extracted		14/02/2008	14/02/2008	14/02/2008	14/02/2008	14/02/2008
Date Analysed		25/02/2008	25/02/2008	25/02/2008	25/02/2008	25/02/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	0.02	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	104	116	82	98	94

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-6 4.0-4.06 06/02/2008 Soil	HPBH308 PE015284-7 6.0-6.03 06/02/2008 Soil	HPBH308 PE015284-8 7.0-7.05 06/02/2008 Soil	HPBH308 PE015284-9 8.0-8.04 07/02/2008 Soil	HPBH308 PE015284-10 9.0-9.05 07/02/2008 Soil
Date Extracted		14/02/2008	14/02/2008	14/02/2008	14/02/2008	14/02/2008
Date Analysed		25/02/2008	25/02/2008	25/02/2008	25/02/2008	25/02/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	108	100	96	102	94

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-11 10.0-10.04 07/02/2008 Soil	NPBH114 PE015284-12 0.97-1.00 08/02/2008 Soil	NPBH114 PE015284-13 1.45-1.49 08/02/2008 Soil	NPBH114 PE015284-14 2.0-2.04 09/02/2008 Soil	NPBH114 PE015284-15 3.0-3.04 09/02/2008 Soil
Date Extracted		14/02/2008	14/02/2008	14/02/2008	14/02/2008	14/02/2008
Date Analysed		25/02/2008	25/02/2008	25/02/2008	25/02/2008	25/02/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	118	104	106	110	104

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH114 PE015284-16 4.0-4.04 09/02/2008 Soil	NPBH114 PE015284-17 5.0-5.04 09/02/2008 Soil	NPBH114 PE015284-18 9.0-9.04 09/02/2008 Soil
Date Extracted		14/02/2008	14/02/2008	14/02/2008
Date Analysed		25/02/2008	25/02/2008	25/02/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	106	98	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH121 PE015284-1 0.24-0.27 01/02/2008 Soil	NPBH201 PE015284-2 0.40-0.42 03/02/2008 Soil	NPBH205 PE015284-3 1.20-1.23 04/02/2008 Soil	HPBH308 PE015284-4 0.45-0.48 06/02/2008 Soil	HPBH308 PE015284-5 1.90-1.95 06/02/2008 Soil
pH KCl	pH Units	9.5	8.3	9.3	9.2	9.3
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	% w/w	0.005	0.012	0.020	0.007	0.012
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	7.3	13.000	<5.0	7.3
SHCl #	% w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	% w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	<0.01	0.01
a- Net Acidity	moles H^+/tonne	<5	7	13	<5	7
Liming Rate	kg $CaCO_3$/tonne	<0.1	NA	NA	NA	NA
Verification s-Net Acidity	% w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	7	13	<5	7
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-6 4.0-4.06 06/02/2008 Soil	HPBH308 PE015284-7 6.0-6.03 06/02/2008 Soil	HPBH308 PE015284-8 7.0-7.05 06/02/2008 Soil	HPBH308 PE015284-9 8.0-8.04 07/02/2008 Soil	HPBH308 PE015284-10 9.0-9.05 07/02/2008 Soil
pH KCl	pH Units	9.1	8.7	8.4	9.3	8.4
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	% w/w	<0.005	0.006	0.008	0.006	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	5.1	<5.0	<5.0
SHCl #	% w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	% w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	% w/w S	0.02	<0.01	0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	% w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH308 PE015284-11 10.0-10.04 07/02/2008 Soil	NPBH114 PE015284-12 0.97-1.00 08/02/2008 Soil	NPBH114 PE015284-13 1.45-1.49 08/02/2008 Soil	NPBH114 PE015284-14 2.0-2.04 09/02/2008 Soil	NPBH114 PE015284-15 3.0-3.04 09/02/2008 Soil
pH KCl	pH Units	9.3	9.2	9.2	9.1	9.2
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	% w/w	<0.005	0.075	0.032	0.010	0.017
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	47.000	20.000	6.5	10
SHCl #	% w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	21	6.6	NA	NA
s-ANCE	% w/w S	NA	6.8	2.1	NA	NA
a-ANCE	moles H^+/tonne	NA	4,300.0	1,300.0	NA	NA
s- Net Acidity	% w/w S	<0.01	<0.01	<0.01	0.01	0.02
a- Net Acidity	moles H^+/tonne	<5	<5	<5	6	10
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	% w/w S	NA	NA	-1.4	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	47	20	6	10
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	3.5	1.5	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	NPBH114 PE015284-16 4.0-4.04 09/02/2008 Soil	NPBH114 PE015284-17 5.0-5.04 09/02/2008 Soil	NPBH114 PE015284-18 9.0-9.04 09/02/2008 Soil	NPBH202 PE015284-19 0.45-.048 05/02/2008 Soil	NPBH121 PE015284-20 2.0-2.02 01/02/2008 Soil
pH KCl	pH Units	9.0	9.1	8.4	7.7	9.1
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.012	0.013	0.012	0.007	0.009
a-Chromium Reducible Sulphur	moles H^+/tonne	7.8	8.2	7.3	<5.0	5.8
S_{HCl} #	% w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	% w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	% w/w S	0.01	0.01	0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	8	8	7	<5	6
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	% w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	8	8	7	<5	6
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Metals in Soil			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/QPW-130
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Benzo[*a*]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-710
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	% w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w	0.005	ASSMAC 20J
ANC_E	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANC_E	% w/w S	0.01	ASSMAC S 23Q
a-ANC_E	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANC_E	moles H^+/tonne	5	Calculation

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Total Organic Carbon	% w/w	<0.05
Monobutyltin #	ng/g	<1
Dibutyltin #	ng/g	<1
Tributyltin #	ng/g	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0

QUALITY CONTROL	UNITS	Blank
Arsenic, As	mg/kg	<5
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	<5
Cobalt, Co	mg/kg	<5
Copper, Cu	mg/kg	<5
Manganese, Mn	mg/kg	<5
Lead, Pb	mg/kg	<5
Nickel, Ni	mg/kg	<4
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	<5
Mercury, Hg	mg/kg	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Naphthalene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	84 || 81 || RPD: 4
2-methylnaphthalene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	-
1-methylnaphthalene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	-
Acenaphthylene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	73 || 74 || RPD: 1
Acenaphthene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	95 || 93 || RPD: 2
Fluorene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	91 || 92 || RPD: 1
Phenanthrene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	111 || 89 || RPD: 22
Anthracene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	76 || 95 || RPD: 22
Fluoranthene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	94 || 92 || RPD: 2
Pyrene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	106 || 93 || RPD: 13
Benzo[*a*]anthracene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	99 || 93 || RPD: 6
Chrysene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	100 || 104 || RPD: 4
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE015284-6	<0.02 || <0.02	PE015284-8	98 || 100 || RPD: 2
Benzo[*a*]pyrene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	87 || 89 || RPD: 2
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	85 || 85 || RPD: 0
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	87 || 87 || RPD: 0
Benzo[*ghi*]perylene	mg/kg	<0.01	PE015284-6	<0.01 || <0.01	PE015284-8	92 || 91 || RPD: 1
d14-p-terphenyl (surrogate)	% Rec.	100	PE015284-6	108 || 100 || RPD: 8	PE015284-8	92 || 94 || RPD: 2

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	<0.1
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0
S_{HCl} #	% w/w	<0.005
S KCl #	%w/w	<0.005
S NAS #	%w/w	<0.005
ANCE	% $CaCO_3$	<0.1
s-ANCE	% w/w S	<0.01
a-ANCE	moles H^+/tonne	<5
s- Net Acidity	% w/w S	<0.01
a- Net Acidity	moles H^+/tonne	<5
Liming Rate	kg $CaCO_3$ /tonne	<0.1
Verification s-Net Acidity	% w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	<5
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE015284
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

SGS

LABORATORY REPORT COVERSHEET

DATE: 11 February 2008

TO: Coffey Geotechnics Pty Ltd
PO Box 1530
OSBORNE PARK B.C. WA 6916

ATTENTION: Ms Rachel Westnidge

YOUR REFERENCE: RGP5, Harriet and Nelson Point, Port Hedland

OUR REFERENCE: PE014963

SAMPLES RECEIVED: 21/01/2008

SAMPLES/QUANTITY: 13 Soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Chromium Suite testwork was carried out by our Sydney laboratory, report no.58445
TBT testwork was carried out byAdvanced Analytical, North Ryde, report no. A08-0297
Metals testwork was carried out by our Sydney laboratory, report no. 58168
TOC testwork was subcontracted to SGS Minerals Services, report no. WM107064

DON SARATHCHANDRA
Senior Chemist

DAVID WILLIAMS
National Organic Manager

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services 10 Reid Road Newburn Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3568
www.au.sgs.com

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-1 0.45-0.49 13/01/2008 Soil	HPBH309 PE014963-2 1.0-1.05 14/01/2008 Soil	HPBH309 PE014963-3 2.0-2.07 14/01/2008 Soil	HPBH309 PE014963-4 3.0-3.04 14/01/2008 Soil	HPBH309 PE014963-5 4.0-4.04 14/01/2008 Soil
Arsenic, As	mg/kg	6	8	7	<5	7
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	58	49	56	40	47
Cobalt, Co	mg/kg	<5	<5	<5	<5	5
Copper, Cu	mg/kg	10	10	11	15	8
Manganese, Mn	mg/kg	48	100	44	24	35
Lead, Pb	mg/kg	8	7	8	<5	7
Nickel, Ni	mg/kg	21	22	27	17	24
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	12	11	11	13	14
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	0.09	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963
PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-6 6.0-6.04 14/01/2008 Soil	HPBH309 PE014963-7 8.0-8.04 14/01/2008 Soil	HPBH309 PE014963-8 9.0-9.06 14/01/2008 Soil	HPBH309 PE014963-9 10.0-10.04 14/01/2008 Soil	HPBH309 PE014963-10 10.5-10.55 14/01/2008 Soil
Arsenic, As	mg/kg	<5	<5	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	67	33	29	20	33
Cobalt, Co	mg/kg	5	<5	<5	<5	<5
Copper, Cu	mg/kg	32	7	11	<5	<5
Manganese, Mn	mg/kg	46	26	19	13	18
Lead, Pb	mg/kg	7	5	<5	<5	<5
Nickel, Ni	mg/kg	33	16	8	7	7
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	36	9	9	<5	8
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	% w/w	0.12	<0.05	<0.05	<0.05	0.06
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-11 12.0-12.05 14/01/2008 Soil	HPBH309 PE014963-12 0.95-1.0 18/01/2008 Soil	HPBH309 PE014963-13 7.97-8.0 18/01/2008 Soil
Arsenic, As	mg/kg	<5	9	8
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	50	20	72
Cobalt, Co	mg/kg	<5	<5	6
Copper, Cu	mg/kg	7	<5	11
Manganese, Mn	mg/kg	28	93	65
Lead, Pb	mg/kg	5	<5	9
Nickel, Ni	mg/kg	24	8	37
Silver, Ag	mg/kg	<5	<5	<5
Zinc, Zn	mg/kg	9	11	20
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963
PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-1 0.45-0.49 13/01/2008 Soil	HPBH309 PE014963-2 1.0-1.05 14/01/2008 Soil	HPBH309 PE014963-3 2.0-2.07 14/01/2008 Soil	HPBH309 PE014963-4 3.0-3.04 14/01/2008 Soil	HPBH309 PE014963-5 4.0-4.04 14/01/2008 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	78	72	70	62	56

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-6 6.0-6.04 14/01/2008 Soil	HPBH309 PE014963-7 8.0-8.04 14/01/2008 Soil	HPBH309 PE014963-8 9.0-9.06 14/01/2008 Soil	HPBH309 PE014963-9 10.0-10.04 14/01/2008 Soil	HPBH309 PE014963-10 10.5-10.55 14/01/2008 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	60	60	58	56	46

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963
PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-11 12.0-12.05 14/01/2008 Soil	HPBH309 PE014963-12 0.95-1.0 18/01/2008 Soil	HPBH309 PE014963-13 7.97-8.0 18/01/2008 Soil
Naphthalene	mg/kg	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	% Rec.	52	52	54

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-1 0.45-0.49 13/01/2008 Soil	HPBH309 PE014963-2 1.0-1.05 14/01/2008 Soil	HPBH309 PE014963-3 2.0-2.07 14/01/2008 Soil	HPBH309 PE014963-4 3.0-3.04 14/01/2008 Soil	HPBH309 PE014963-5 4.0-4.04 14/01/2008 Soil
pH KCl	pH Units	8.9	9.0	8.9	9.0	9.0
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.067	0.012	0.11	0.009	0.016
a-Chromium Reducible Sulphur	moles H^+/tonne	42.000	7.3	67.000	5.9	10
ANCE	% $CaCO_3$	11	[NT]	1.0	[NT]	[NT]
s-ANCE	% w/w S	3.4	[NT]	0.32	[NT]	[NT]
a-ANCE	moles H^+/tonne	2,100.0	[NT]	200	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	0.01	<0.01	<0.01	0.02
a- Net Acidity	moles H^+/tonne	<5	7	<5	6	10
Verification s-Net Acidity	% w/w S	-2.2	[NT]	-0.11	[NT]	[NT]
a- Net Acidity without ANCE	moles H^+/tonne	42	7	67	6	10
Liming Rate without ANCE	kg $CaCO_3$/tonne	3.1	[NT]	5.0	[NT]	[NT]

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-6 6.0-6.04 14/01/2008 Soil	HPBH309 PE014963-7 8.0-8.04 14/01/2008 Soil	HPBH309 PE014963-8 9.0-9.06 14/01/2008 Soil	HPBH309 PE014963-9 10.0-10.04 14/01/2008 Soil	HPBH309 PE014963-10 10.5-10.55 14/01/2008 Soil
pH KCl	pH Units	9.1	7.1	8.9	7.6	9.0
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.006	0.016	0.013	0.013	0.016
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	10	7.8	7.8	9.8
s-ANCE	% w/w S	<0.01	[NT]	[NT]	[NT]	[NT]
a-ANCE	moles H^+/tonne	<5	[NT]	[NT]	[NT]	[NT]
s- Net Acidity	% w/w S	<0.01	0.02	0.01	0.01	0.02
a- Net Acidity	moles H^+/tonne	<5	10	8	8	10
a- Net Acidity without ANCE	moles H^+/tonne	<5	10	8	8	10

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH309 PE014963-11 12.0-12.05 14/01/2008 Soil
pH KCl	pH Units	7.7
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.014
a-Chromium Reducible Sulphur	moles H^+/tonne	8.8
s- Net Acidity	% w/w S	0.01
a- Net Acidity	moles H^+/tonne	9
a- Net Acidity without ANCE	moles H^+/tonne	9

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Arsenic, As	mg/kg	5	PEP025/PEM-007
Cadmium, Cd	mg/kg	0.4	PEP025/PEM-007
Chromium, Cr	mg/kg	5	PEP025/PEM-007
Cobalt, Co	mg/kg	5	PEP025/PEM-007
Copper, Cu	mg/kg	5	PEP025/PEM-007
Manganese, Mn	mg/kg	5	PEP025/PEM-007
Lead, Pb	mg/kg	5	PEP025/PEM-007
Nickel, Ni	mg/kg	4	PEP025/PEM-007
Silver, Ag	mg/kg	5	PEP025/PEM-007
Zinc, Zn	mg/kg	5	PEP025/PEM-007
Mercury, Hg	mg/kg	0.05	PEP-025/PEM-005
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
PAHs			
Naphthalene	mg/kg	0.01	PEO-710
2-methylnaphthalene	mg/kg	0.01	PEO-710
1-methylnaphthalene	mg/kg	0.01	PEO-710
Acenaphthylene	mg/kg	0.01	PEO-710
Acenaphthene	mg/kg	0.01	PEO-710
Fluorene	mg/kg	0.01	PEO-710
Phenanthrene	mg/kg	0.01	PEO-710
Anthracene	mg/kg	0.01	PEO-710
Fluoranthene	mg/kg	0.01	PEO-710
Pyrene	mg/kg	0.01	PEO-710
Benzo[a]anthracene	mg/kg	0.01	PEO-710
Chrysene	mg/kg	0.01	PEO-710
benzo [bk] fluoranthene	mg/kg	0.02	PEO-710

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Benzo[*a*]pyrene	mg/kg	0.01	PEO-710
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-710
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-710
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-710
d14-p-terphenyl (surrogate)	% Rec.		PEO-700
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	% w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	% w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
SHCl #	% w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	% w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	% w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	% w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Arsenic, As	mg/kg	<5
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	<5
Cobalt, Co	mg/kg	<5
Copper, Cu	mg/kg	<5
Manganese, Mn	mg/kg	<5
Lead, Pb	mg/kg	<5
Nickel, Ni	mg/kg	<4
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	<5
Mercury, Hg	mg/kg	<0.05
Total Organic Carbon	% w/w	<0.05
Monobutyltin #	ng/g	<1
Dibutyltin #	ng/g	<1
Tributyltin #	ng/g	<1
TBT (Normalised to 1% TOC)	ng/g	1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Naphthalene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	47 || 52 || RPD: 10
2-methylnaphthalene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	-
1-methylnaphthalene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	-
Acenaphthylene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	45 || 44 || RPD: 2
Acenaphthene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	52 || 49 || RPD: 6
Fluorene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	51 || 50 || RPD: 2
Phenanthrene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	49 || 48 || RPD: 2
Anthracene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	52 || 52 || RPD: 0
Fluoranthene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	54 || 54 || RPD: 0
Pyrene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	52 || 51 || RPD: 2
Benzo[a]anthracene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	54 || 54 || RPD: 0
Chrysene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	54 || 53 || RPD: 2
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE014963-1	<0.02 || <0.02	PE014963-1	50 || 49 || RPD: 2
Benzo[a]pyrene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	58 || 59 || RPD: 2
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	56 || 54 || RPD: 4
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	57 || 53 || RPD: 7
Benzo[*ghi*]perylene	mg/kg	<0.01	PE014963-1	<0.01 || <0.01	PE014963-1	50 || 51 || RPD: 2
d14-p-terphenyl (surrogate)	% Rec.	80	PE014963-1	78 || 72 || RPD: 8	PE014963-1	52 || 52 || RPD: 0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963

PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	<0.1
Titratable Actual Acidity (pH 6.5)	% w/w S	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5
Chromium Reducible Sulphur (S_{Cr})	% w/w	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0
S_{HCl} #	% w/w	<0.005
S KCl #	%w/w	<0.005
S NAS #	%w/w	<0.005
ANCE	% $CaCO_3$	<0.1
s-ANCE	% w/w S	<0.01
a-ANCE	moles H^+/tonne	<5
s- Net Acidity	% w/w S	<0.01
a- Net Acidity	moles H^+/tonne	<5
Liming Rate	kg $CaCO_3$ /tonne	<0.1
Verification s-Net Acidity	% w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	<5
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE014963
PROJECT: RGP5, Harriet and Nelson Point, Port Hedland

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

WORLD RECOGNISED
ACCREDITATION

LABORATORY REPORT COVERSHEET

DATE: 16 May 2008

TO: Coffey Geotechnics Pty Ltd
PO Box 1530
OSBORNE PARK B.C. WA 6916

ATTENTION: Ms Rachel Westnidge

YOUR REFERENCE: GH6703AP, Harriet and Nelson Point

OUR REFERENCE: PE016334

SAMPLES RECEIVED: 30/4/08

SAMPLES/QUANTITY: 29 soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Total Organic Carbon testwork was subcontracted to SGS Minerals Services, report no. WM 109275.

Chromium Suite-Acid Base testwork was carried out by our Cairns laboratory, report no. 59649.

TBT testwork was subcontracted to ARL, Welshpool, report no.A08-1329.

SAID HIRAD
NATA Signatory

PAMELA ADMAS
NATA Signatory

WORLD RECOGNISED ACCREDITATION

SGS Australia Pty Ltd
ABN 44 000 964 278

Environmental Services 10 Reid Road Newburn Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668

www.au.sgs.com

Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-1 0.62-0.66 20/04/2008 Soil	HPBH15A PE016334-2 1.45-1.5 20/04/2008 Soil	HPBH15A PE016334-3 2.0-2.05 20/04/2008 Soil	HPBH15A PE016334-4 3.0-3.04 20/04/2008 Soil	HPBH15A PE016334-5 4.0-4.04 20/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-6 5.0-5.04 20/04/2008 Soil	HPBH15A PE016334-7 6.0-6.03 20/04/2008 Soil	HPBH15A PE016334-8 7.0-7.04 20/04/2008 Soil	HPBH15A PE016334-9 8.0-8.03 20/04/2008 Soil	HPBH15A PE016334-10 9.0-9.04 20/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-11 10.0-10.04 20/04/2008 Soil	HPBH15A PE016334-12 11.0-11.04 20/04/2008 Soil	HPBH06 PE016334-13 0.45-0.5 23/04/2008 Soil	HPBH06 PE016334-14 2.5-2.54 23/04/2008 Soil	HPBH06 PE016334-15 3.0-3.04 23/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	0.07	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-16 5.0-5.04 24/04/2008 Soil	HPBH06 PE016334-17 6.0-6.04 24/04/2008 Soil	HPBH06 PE016334-18 12.0-12.04 24/04/2008 Soil	HPBH06 PE016334-19 13.0-13.04 24/04/2008 Soil	HPBH06 PE016334-20 14.0-14.04 25/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-21 17.0-17.03 25/04/2008 Soil	HPBH03 PE016334-23 0.45-0.53 28/04/2008 Soil	HPBH03 PE016334-24 2.0-2.05 28/04/2008 Soil	HPBH03 PE016334-25 3.0-3.03 28/04/2008 Soil	HPBH03 PE016334-26 4.0-4.07 28/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH03 PE016334-27 5.0-5.04 28/04/2008 Soil	HPBH03 PE016334-28 6.0-6.04 28/04/2008 Soil	HPBH03 PE016334-29 7.0-7.05 28/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-1 0.62-0.66 20/04/2008 Soil	HPBH15A PE016334-2 1.45-1.5 20/04/2008 Soil	HPBH15A PE016334-3 2.0-2.05 20/04/2008 Soil	HPBH15A PE016334-4 3.0-3.04 20/04/2008 Soil	HPBH15A PE016334-5 4.0-4.04 20/04/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		080514-4	080514-4	080514-4	080514-4	080514-4
Arsenic, As	mg/kg	27	<5	<5	12	9
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	0.4	<0.4
Chromium, Cr	mg/kg	52	45	63	77	75
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	6	10	13	14	10
Manganese, Mn	mg/kg	220	78	86	110	78
Lead, Pb	mg/kg	<5	<5	7	7	7
Nickel, Ni	mg/kg	8	17	24	35	33
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	27	13	13	20	15
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-6 5.0-5.04 20/04/2008 Soil	HPBH15A PE016334-7 6.0-6.03 20/04/2008 Soil	HPBH15A PE016334-8 7.0-7.04 20/04/2008 Soil	HPBH15A PE016334-9 8.0-8.03 20/04/2008 Soil	HPBH15A PE016334-10 9.0-9.04 20/04/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		080514-4	080514-4	080514-4	080514-4	080514-4
Arsenic, As	mg/kg	<5	6	5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	86	51	57	47	48
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	10	8	9	8	7
Manganese, Mn	mg/kg	85	56	61	47	45
Lead, Pb	mg/kg	8	6	6	<5	<5
Nickel, Ni	mg/kg	28	28	30	23	16
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	17	14	13	11	8
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-11 10.0-10.04 20/04/2008 Soil	HPBH15A PE016334-12 11.0-11.04 20/04/2008 Soil	HPBH06 PE016334-13 0.45-0.5 23/04/2008 Soil	HPBH06 PE016334-14 2.5-2.54 23/04/2008 Soil	HPBH06 PE016334-15 3.0-3.04 23/04/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		080514-4	080514-4	080514-4	080514-4	080514-4
Arsenic, As	mg/kg	<5	<5	12	11	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	52	40	40	60	56
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	8	9	9	12	12
Manganese, Mn	mg/kg	57	53	180	63	75
Lead, Pb	mg/kg	6	5	<5	8	7
Nickel, Ni	mg/kg	20	17	17	12	25
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	7	5	17	13	15
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-16 5.0-5.04 24/04/2008 Soil	HPBH06 PE016334-17 6.0-6.04 24/04/2008 Soil	HPBH06 PE016334-18 12.0-12.04 24/04/2008 Soil	HPBH06 PE016334-19 13.0-13.04 24/04/2008 Soil	HPBH06 PE016334-20 14.0-14.04 25/04/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		080514-4	080514-4	080514-4	080514-4	080514-4
Arsenic, As	mg/kg	<5	11	<5	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	37	70	35	31	28
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	6	13	6	5	5
Manganese, Mn	mg/kg	53	300	46	47	37
Lead, Pb	mg/kg	<5	6	<5	<5	<5
Nickel, Ni	mg/kg	16	31	12	11	11
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	11	15	32	6	<5
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-21 17.0-17.03 25/04/2008 Soil	HPBH03 PE016334-23 0.45-0.53 28/04/2008 Soil	HPBH03 PE016334-24 2.0-2.05 28/04/2008 Soil	HPBH03 PE016334-25 3.0-3.03 28/04/2008 Soil	HPBH03 PE016334-26 4.0-4.07 28/04/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		080514-4	080514-4	080514-4	080514-4	080514-4
Arsenic, As	mg/kg	<5	11	6	5	<5
Cadmium, Cd	mg/kg	<0.4	0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	36	50	52	36	33
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	8	17	10	6	5
Manganese, Mn	mg/kg	39	180	64	43	40
Lead, Pb	mg/kg	<5	6	5	<5	<5
Nickel, Ni	mg/kg	21	23	20	14	13
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	9	35	13	10	9
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH03 PE016334-27 5.0-5.04 28/04/2008 Soil	HPBH03 PE016334-28 6.0-6.04 28/04/2008 Soil	HPBH03 PE016334-29 7.0-7.05 28/04/2008 Soil
Date Extracted		-	-	-
Date Analysed		080514-4	080514-4	080514-4
Arsenic, As	mg/kg	<5	6	6
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	46	55	54
Cobalt, Co	mg/kg	<5	<5	<5
Copper, Cu	mg/kg	7	9	17
Manganese, Mn	mg/kg	47	59	57
Lead, Pb	mg/kg	<5	6	5
Nickel, Ni	mg/kg	20	25	28
Silver, Ag	mg/kg	<5	<5	<5
Zinc, Zn	mg/kg	9	10	18
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-1 0.62-0.66 20/04/2008 Soil	HPBH15A PE016334-2 1.45-1.5 20/04/2008 Soil	HPBH15A PE016334-3 2.0-2.05 20/04/2008 Soil	HPBH15A PE016334-4 3.0-3.04 20/04/2008 Soil	HPBH15A PE016334-5 4.0-4.04 20/04/2008 Soil
Date Extracted		1/05/2008	1/05/2008	1/05/2008	1/05/2008	1/05/2008
Date Analysed		6/05/2008	6/05/2008	6/05/2008	6/05/2008	6/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	98	104	104	110	104

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-6 5.0-5.04 20/04/2008 Soil	HPBH15A PE016334-7 6.0-6.03 20/04/2008 Soil	HPBH15A PE016334-8 7.0-7.04 20/04/2008 Soil	HPBH15A PE016334-9 8.0-8.03 20/04/2008 Soil	HPBH15A PE016334-10 9.0-9.04 20/04/2008 Soil
Date Extracted		1/05/2008	1/05/2008	1/05/2008	1/05/2008	1/05/2008
Date Analysed		6/05/2008	6/05/2008	6/05/2008	6/05/2008	6/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	104	108	104	106	106

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-11 10.0-10.04 20/04/2008 Soil	HPBH15A PE016334-12 11.0-11.04 20/04/2008 Soil	HPBH06 PE016334-13 0.45-0.5 23/04/2008 Soil	HPBH06 PE016334-14 2.5-2.54 23/04/2008 Soil	HPBH06 PE016334-15 3.0-3.04 23/04/2008 Soil
Date Extracted		1/05/2008	1/05/2008	1/05/2008	1/05/2008	1/05/2008
Date Analysed		6/05/2008	6/05/2008	6/05/2008	6/05/2008	6/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	104	104	106	106	106

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-16 5.0-5.04 24/04/2008 Soil	HPBH06 PE016334-17 6.0-6.04 24/04/2008 Soil	HPBH06 PE016334-18 12.0-12.04 24/04/2008 Soil	HPBH06 PE016334-19 13.0-13.04 24/04/2008 Soil	HPBH06 PE016334-20 14.0-14.04 25/04/2008 Soil
Date Extracted		1/05/2008	1/05/2008	1/05/2008	1/05/2008	1/05/2008
Date Analysed		6/05/2008	6/05/2008	6/05/2008	6/05/2008	6/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	110	112	104	106	106

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-21 17.0-17.03 25/04/2008 Soil	HPBH03 PE016334-23 0.45-0.53 28/04/2008 Soil	HPBH03 PE016334-24 2.0-2.05 28/04/2008 Soil	HPBH03 PE016334-25 3.0-3.03 28/04/2008 Soil	HPBH03 PE016334-26 4.0-4.07 28/04/2008 Soil
Date Extracted		1/05/2008	1/05/2008	1/05/2008	1/05/2008	1/05/2008
Date Analysed		6/05/2008	6/05/2008	6/05/2008	6/05/2008	6/05/2008
Naphthalene	mg/kg	<0.01	0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	0.03	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	0.02	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	0.08	<0.01	<0.01	0.01
Anthracene	mg/kg	<0.01	0.02	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	0.19	<0.01	<0.01	0.01
Pyrene	mg/kg	<0.01	0.17	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	0.09	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	0.10	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	0.19	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	0.09	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	0.08	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	0.03	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	0.08	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	124	112	108	112	110

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH03 PE016334-27 5.0-5.04 28/04/2008 Soil	HPBH03 PE016334-28 6.0-6.04 28/04/2008 Soil	HPBH03 PE016334-29 7.0-7.05 28/04/2008 Soil
Date Extracted		1/05/2008	1/05/2008	1/05/2008
Date Analysed		6/05/2008	6/05/2008	6/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	108	108	110

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-1 0.62-0.66 20/04/2008 Soil	HPBH15A PE016334-2 1.45-1.5 20/04/2008 Soil	HPBH15A PE016334-3 2.0-2.05 20/04/2008 Soil	HPBH15A PE016334-4 3.0-3.04 20/04/2008 Soil	HPBH15A PE016334-5 4.0-4.04 20/04/2008 Soil
pH KCl	pH Units	9.1	9.1	9.0	9.1	8.8
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.025	0.022	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	15.000	13.000	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	%w/w S	0.02	0.02	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	15	13	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	15	13	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-6 5.0-5.04 20/04/2008 Soil	HPBH15A PE016334-7 6.0-6.03 20/04/2008 Soil	HPBH15A PE016334-8 7.0-7.04 20/04/2008 Soil	HPBH15A PE016334-9 8.0-8.03 20/04/2008 Soil	HPBH15A PE016334-10 9.0-9.04 20/04/2008 Soil
pH KCl	pH Units	9.0	8.0	8.5	7.3	7.4
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH15A PE016334-11 10.0-10.04 20/04/2008 Soil	HPBH15A PE016334-12 11.0-11.04 20/04/2008 Soil	HPBH06 PE016334-13 0.45-0.5 23/04/2008 Soil	HPBH06 PE016334-14 2.5-2.54 23/04/2008 Soil	HPBH06 PE016334-15 3.0-3.04 23/04/2008 Soil
pH KCl	pH Units	8.7	8.2	8.8	8.7	8.9
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	%w/w	<0.005	<0.005	0.27	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	170.000	<5.0	<5.0
SHCl #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	65	NA	NA
s-ANCE	%w/w S	NA	NA	21	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	13,000.0	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	-14	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	170	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	13	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-16 5.0-5.04 24/04/2008 Soil	HPBH06 PE016334-17 6.0-6.04 24/04/2008 Soil	HPBH06 PE016334-18 12.0-12.04 24/04/2008 Soil	HPBH06 PE016334-19 13.0-13.04 24/04/2008 Soil	HPBH06 PE016334-20 14.0-14.04 25/04/2008 Soil
pH KCl	pH Units	8.6	8.9	8.3	9.0	9.0
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH06 PE016334-21 17.0-17.03 25/04/2008 Soil	HPBH06 PE016334-22 8.0-8.04 25/04/2008 Soil	HPBH03 PE016334-23 0.45-0.53 28/04/2008 Soil	HPBH03 PE016334-24 2.0-2.05 28/04/2008 Soil	HPBH03 PE016334-25 3.0-3.03 28/04/2008 Soil
pH KCl	pH Units	8.7	8.8	9.1	9.1	9.0
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	%w/w	<0.005	<0.005	0.14	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	85.000	<5.0	<5.0
SHCl #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	14	NA	NA
s-ANCE	%w/w S	NA	NA	4.6	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	2,900.0	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	-3.0	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	85	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	6.4	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type of Sample	Units	HPBH03 PE016334-26 4.0-4.07 28/04/2008 Soil	HPBH03 PE016334-27 5.0-5.04 28/04/2008 Soil	HPBH03 PE016334-28 6.0-6.04 28/04/2008 Soil	HPBH03 PE016334-29 7.0-7.05 28/04/2008 Soil
pH KCl	pH Units	8.7	7.7	7.9	7.5
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soil/Solids Analysis			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Metal Suite			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	PEP025/AN321
Cadmium, Cd	mg/kg	0.4	PEP025/AN321
Chromium, Cr	mg/kg	5	PEP025/AN321
Cobalt, Co	mg/kg	5	PEP025/AN321
Copper, Cu	mg/kg	5	PEP025/AN321
Manganese, Mn	mg/kg	5	PEP025/AN321
Lead, Pb	mg/kg	5	PEP025/AN321
Nickel, Ni	mg/kg	4	PEP025/AN321
Silver, Ag	mg/kg	5	PEP025/AN321
Zinc, Zn	mg/kg	5	PEP025/AN321
Mercury, Hg	mg/kg	0.05	PEP-025/QPW-130
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Total Organic Carbon	% w/w	<0.05
Monobutyltin #	ng/g	<1
Dibutyltin #	ng/g	<1
Tributyltin #	ng/g	<1
TBT (Normalised to 1% TOC)	ng/g	1.0

QUALITY CONTROL	UNITS	Blank
Date Extracted		-
Date Analysed		080514-4
Arsenic, As	mg/kg	<5
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	<5
Cobalt, Co	mg/kg	<5
Copper, Cu	mg/kg	<5
Manganese, Mn	mg/kg	<5
Lead, Pb	mg/kg	<5
Nickel, Ni	mg/kg	<4
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	<5
Mercury, Hg	mg/kg	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		01/05/2008	PE016334-8	1/05/2008 || 1/05/2008	PE016334-1	Cal Error
Date Analysed		06/05/2008	PE016334-8	6/05/2008 || 6/05/2008	PE016334-1	Cal Error
Naphthalene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	101 || 104 || RPD: 3
2-methylnaphthalene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
1-methylnaphthalene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Acenaphthylene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Acenaphthene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Fluorene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	101 || 103 || RPD: 2
Phenanthrene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	102 || 102 || RPD: 0
Anthracene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Fluoranthene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Pyrene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	108 || 107 || RPD: 1
Benzo[*a*]anthracene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	104 || 103 || RPD: 1
Chrysene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE016334-8	<0.02 || <0.02	PE016334-1	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	106 || 105 || RPD: 1
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE016334-8	<0.01 || <0.01	PE016334-1	-
d14-p-terphenyl (surrogate)	%	104	PE016334-8	104 || 108 || RPD: 4	PE016334-1	102 || 102 || RPD: 0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	0.1
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	5.0
S_{HCl} #	%w/w	0.005
S KCl #	%w/w	0.005
S NAS #	%w/w S	0.005
ANCE	% $CaCO_3$	<0.1
s-ANCE	%w/w S	0.01
a-ANCE	moles H^+/tonne	5
s- Net Acidity	%w/w S	0.01
a- Net Acidity	moles H^+/tonne	5
Liming Rate	kg $CaCO_3$ /tonne	0.1
Verification s-Net Acidity	%w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	5
Liming Rate without ANCE	kg $CaCO_3$ /tonne	0.1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALTY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate
Date Extracted		[NT]	PE016334-20	1/05/2008 || 1/05/2008
Date Analysed		[NT]	PE016334-20	6/05/2008 || 6/05/2008
Naphthalene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
2-methylnaphthalene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
1-methylnaphthalene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Acenaphthylene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Acenaphthene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Fluorene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Phenanthrene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Anthracene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Fluoranthene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Pyrene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Benzo[*a*]anthracene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Chrysene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
benzo [*bk*] fluoranthene	mg/kg	[NT]	PE016334-20	<0.02 || <0.02
Benzo[*a*]pyrene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Indeno[*123-cd*]pyrene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Dibenzo[*ah*]anthracene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
Benzo[*ghi*]perylene	mg/kg	[NT]	PE016334-20	<0.01 || <0.01
d14-p-terphenyl (surrogate)	%	[NT]	PE016334-20	106 || 102 || RPD: 4

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALTY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate
Date Extracted		[NT]	PE016334-27	1/05/2008 || 1/05/2008
Date Analysed		[NT]	PE016334-27	6/05/2008 || 6/05/2008
Naphthalene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
2-methylnaphthalene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
1-methylnaphthalene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Acenaphthylene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Acenaphthene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Fluorene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Phenanthrene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Anthracene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Fluoranthene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Pyrene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Benzo[*a*]anthracene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Chrysene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
benzo [*bk*] fluoranthene	mg/kg	[NT]	PE016334-27	<0.02 || <0.02
Benzo[*a*]pyrene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Indeno[*123-cd*]pyrene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Dibenzo[*ah*]anthracene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
Benzo[*ghi*]perylene	mg/kg	[NT]	PE016334-27	<0.01 || <0.01
d14-p-terphenyl (surrogate)	%	[NT]	PE016334-27	108 || 104 || RPD: 4

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016334
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

LABORATORY REPORT COVERSHEET

DATE: 14 May 2008

TO: Coffey Geotechnics Pty Ltd
PO Box 1530
OSBORNE PARK B.C. WA 6916

ATTENTION: Ms Rachel Westnidge

YOUR REFERENCE: Harriet and Nelson Point, GH6703AP

OUR REFERENCE: PE016206

SAMPLES RECEIVED: 16/4/08

SAMPLES/QUANTITY: 4 Soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Total Organic Carbon testwork was subcontracted to SGS Minerals Services, report no. WM 109540.

TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no.A08/1235

Chromium Suite testwork was carried out by our Cairns laboratory, report no. 59487.

DON SARATHCHANDRA
NATA Signatory

DAVID WILLIAMS
NATA Signatory

WORLD RECOGNISED ACCREDITATION

SGS Australia Pty Ltd
ABN 44 000 964 278

Environmental Services 10 Reid Road Newburn Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668

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Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH01 PE016206-1 0.95-1.0 15/04/2008 Soil	HPBH01 PE016206-2 1.75-1.8 15/04/2008 Soil	HPBH01 PE016206-3 3.75-4.0 15/04/2008 Soil	HPBH12 PE016206-4 3.95-4.0 11/04/2008 Soil
Total Organic Carbon	% w/w	<0.05	0.06	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH01 PE016206-1 0.95-1.0 15/04/2008 Soil	HPBH01 PE016206-2 1.75-1.8 15/04/2008 Soil	HPBH01 PE016206-3 3.75-4.0 15/04/2008 Soil	HPBH12 PE016206-4 3.95-4.0 11/04/2008 Soil
Date Extracted		24/04/2008	24/04/2008	24/04/2008	24/04/2008
Date Analysed		1/05/2008	1/05/2008	1/05/2008	1/05/2008
Arsenic, As	mg/kg	<5	12	<5	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	83	27	38	59
Cobalt, Co	mg/kg	<5	<5	<5	<5
Copper, Cu	mg/kg	8	11	6	12
Manganese, Mn	mg/kg	95	120	52	84
Lead, Pb	mg/kg	<5	<5	<5	<5
Nickel, Ni	mg/kg	32	12	16	24
Silver, Ag	mg/kg	<5	<5	<5	<5
Zinc, Zn	mg/kg	16	11	10	16
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH01 PE016206-1 0.95-1.0 15/04/2008 Soil	HPBH01 PE016206-2 1.75-1.8 15/04/2008 Soil	HPBH01 PE016206-3 3.75-4.0 15/04/2008 Soil	HPBH12 PE016206-4 3.95-4.0 11/04/2008 Soil
Date Extracted		21/04/2008	21/04/2008	21/04/2008	21/04/2008
Date Analysed		29/04/2008	29/04/2008	29/04/2008	29/04/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	102	94	100	100

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH01 PE016206-1 0.95-1.0 15/04/2008 Soil	HPBH01 PE016206-2 1.75-1.8 15/04/2008 Soil	HPBH01 PE016206-3 3.75-4.0 15/04/2008 Soil	HPBH12 PE016206-4 3.95-4.0 11/04/2008 Soil
pH KCl	pH Units	9.3	9.4	9.0	9.1
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.084	0.27	0.005	0.30
a-Chromium Reducible Sulphur	moles H^+/tonne	52.000	170.000	<5.0	190.000
SHCl #	%w/w	[NT]	[NT]	[NT]	[NT]
S KCl #	%w/w	[NT]	[NT]	[NT]	[NT]
S NAS #	%w/w S	[NT]	[NT]	[NT]	[NT]
ANCE	% $CaCO_3$	7.8	22	[NT]	8.9
s-ANCE	%w/w S	2.5	7.0	[NT]	2.9
a-ANCE	moles H^+/tonne	1,600.0	4,400.0	[NT]	1,800.0
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	[NT]	[NT]	[NT]	[NT]
Verification s-Net Acidity	%w/w S	-1.6	-4.4	[NT]	-1.6
a- Net Acidity without ANCE	moles H^+/tonne	52	170	<5	190
Liming Rate without ANCE	kg $CaCO_3$/tonne	3.9	13	[NT]	14

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soils, sediments and solids			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Package 15 Heavy Metals Soil			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	PEP025/AN321
Cadmium, Cd	mg/kg	0.4	PEP025/AN321
Chromium, Cr	mg/kg	5	PEP025/AN321
Cobalt, Co	mg/kg	5	PEP025/AN321
Copper, Cu	mg/kg	5	PEP025/AN321
Manganese, Mn	mg/kg	5	PEP025/AN321
Lead, Pb	mg/kg	5	PEP025/AN321
Nickel, Ni	mg/kg	4	PEP025/AN321
Silver, Ag	mg/kg	5	PEP025/AN321
Zinc, Zn	mg/kg	5	PEP025/AN321
Mercury, Hg	mg/kg	0.05	PEP-025/QPW-130
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Total Organic Carbon	% w/w	<0.05
Monobutyltin #	ng/g	<1
Dibutyltin #	ng/g	<1
Tributyltin #	ng/g	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0

QUALITY CONTROL	UNITS	Blank
Date Extracted		-
Date Analysed		030408
Arsenic, As	mg/kg	<5
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	<5
Cobalt, Co	mg/kg	<5
Copper, Cu	mg/kg	<5
Manganese, Mn	mg/kg	<5
Lead, Pb	mg/kg	<5
Nickel, Ni	mg/kg	<4
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	<5
Mercury, Hg	mg/kg	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		21/04/2008	PE016206-3	21/04/2008 || 21/04/2008	PE016206-4	Cal Error
Date Analysed		29/04/2008	PE016206-3	29/04/2008 || 29/04/2008	PE016206-4	Cal Error
Naphthalene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	98 || 103 || RPD: 5
2-methylnaphthalene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
1-methylnaphthalene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Acenaphthylene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Acenaphthene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Fluorene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	98 || 106 || RPD: 8
Phenanthrene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	100 || 104 || RPD: 4
Anthracene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Fluoranthene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Pyrene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	98 || 105 || RPD: 7
Benzo[*a*]anthracene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	101 || 108 || RPD: 7
Chrysene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE016206-3	<0.02 || <0.02	PE016206-4	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	102 || 108 || RPD: 6
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE016206-3	<0.01 || <0.01	PE016206-4	-
d14-p-terphenyl (surrogate)	%	104	PE016206-3	100 || 100 || RPD: 0	PE016206-4	96 || 101 || RPD: 5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206

PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	<0.1
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0
S_{HCl} #	%w/w	<0.005
S KCl #	%w/w	<0.005
S NAS #	%w/w S	<0.005
ANCE	% $CaCO_3$	<0.1
s-ANCE	%w/w S	<0.01
a-ANCE	moles H^+/tonne	<5
s- Net Acidity	%w/w S	<0.01
a- Net Acidity	moles H^+/tonne	<5
Liming Rate	kg $CaCO_3$ /tonne	<0.1
Verification s-Net Acidity	%w/w S	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016206
PROJECT: Harriet and Nelson Point, GH6703AP

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

LABORATORY REPORT COVERSHEET

DATE:	23 May 2008
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	GH6703AP Harriet Point and Nelson Point
OUR REFERENCE:	PE016490
SAMPLES RECEIVED:	12/05/08
SAMPLES/QUANTITY:	8 Soils

The above samples were received intact and analysed according to your instructions.
Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
TOC testwork was subcontracted to SGS Minerals Services, report no. WM109623.

Chromium Suite-Acid Base testwork was carried out by our Cairns laboratory, report no. 59698.

TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no.A08/1409.

DON SARATHCHANDRA
NATA Signatory

DAVID WILLIAMS
NATA Signatory

WORLD RECOGNISED ACCREDITATION

SGS Australia Pty Ltd
ABN 44 000 964 278

Environmental Services 10 Reid Road Newburn Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668

www.au.sgs.com

Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH8 (0.95-1.0) PE016490-1 Soil 5/05/2008	HPBH8 (1.95-2.0) PE016490-2 Soil 5/05/2008	HPBH8 (2.95-3.0) PE016490-3 Soil 5/05/2008	HPBH8 (3.95-4.0) PE016490-4 Soil 5/05/2008	HPBH14B (0.95-1.0) PE016490-5 Soil 2/05/2008
Total Organic Carbon	% w/w	<0.05	0.28	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH14B (1.95-2.0) PE016490-6 Soil 2/05/2008	HPBH14B (2.95-3.0) PE016490-7 Soil 2/05/2008	HPBH14B (3.95-4.0) PE016490-8 Soil 2/05/2008
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH8 (0.95-1.0) PE016490-1 Soil 5/05/2008	HPBH8 (1.95-2.0) PE016490-2 Soil 5/05/2008	HPBH8 (2.95-3.0) PE016490-3 Soil 5/05/2008	HPBH8 (3.95-4.0) PE016490-4 Soil 5/05/2008	HPBH14B (0.95-1.0) PE016490-5 Soil 2/05/2008
Date Extracted		16/05/2008	16/05/2008	16/05/2008	16/05/2008	16/05/2008
Date Analysed		19/05/2008	19/05/2008	19/05/2008	19/05/2008	19/05/2008
Arsenic, As	mg/kg	15	<5	<5	<5	13
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	27	58	52	64	74
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	12	20	10	9	14
Manganese, Mn	mg/kg	82	75	86	88	130
Lead, Pb	mg/kg	<5	6	8	8	9
Nickel, Ni	mg/kg	12	19	22	25	32
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	11	13	15	13	23
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH14B (1.95-2.0) PE016490-6 Soil 2/05/2008	HPBH14B (2.95-3.0) PE016490-7 Soil 2/05/2008	HPBH14B (3.95-4.0) PE016490-8 Soil 2/05/2008
Date Extracted		16/05/2008	16/05/2008	16/05/2008
Date Analysed		19/05/2008	19/05/2008	19/05/2008
Arsenic, As	mg/kg	7	6	6
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	66	57	63
Cobalt, Co	mg/kg	<5	<5	<5
Copper, Cu	mg/kg	10	12	13
Manganese, Mn	mg/kg	97	94	140
Lead, Pb	mg/kg	7	6	7
Nickel, Ni	mg/kg	29	29	34
Silver, Ag	mg/kg	<5	<5	<5
Zinc, Zn	mg/kg	16	20	22
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH8 (0.95-1.0) PE016490-1 Soil 5/05/2008	HPBH8 (1.95-2.0) PE016490-2 Soil 5/05/2008	HPBH8 (2.95-3.0) PE016490-3 Soil 5/05/2008	HPBH8 (3.95-4.0) PE016490-4 Soil 5/05/2008	HPBH14B (0.95-1.0) PE016490-5 Soil 2/05/2008
Date Extracted		14/05/2008	14/05/2008	14/05/2008	14/05/2008	14/05/2008
Date Analysed		15/05/2008	15/05/2008	15/05/2008	15/05/2008	15/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	96	96	98	98	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH14B (1.95-2.0) PE016490-6 Soil 2/05/2008	HPBH14B (2.95-3.0) PE016490-7 Soil 2/05/2008	HPBH14B (3.95-4.0) PE016490-8 Soil 2/05/2008
Date Extracted		14/05/2008	14/05/2008	14/05/2008
Date Analysed		15/05/2008	15/05/2008	15/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	94	108	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH8 (0.95-1.0) PE016490-1 Soil 5/05/2008	HPBH8 (1.95-2.0) PE016490-2 Soil 5/05/2008	HPBH8 (2.95-3.0) PE016490-3 Soil 5/05/2008	HPBH8 (3.95-4.0) PE016490-4 Soil 5/05/2008	HPBH14B (0.95-1.0) PE016490-5 Soil 2/05/2008
pH KCl	pH Units	8.8	8.9	9.0	9.0	9.1
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.046	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	29.000	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	%w/w S	0.05	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	29	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	2.2	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	0.050	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	29	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	2.2	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Type Of Sample Date Sampled	Units	HPBH14B (1.95-2.0) PE016490-6 Soil 2/05/2008	HPBH14B (2.95-3.0) PE016490-7 Soil 2/05/2008	HPBH14B (3.95-4.0) PE016490-8 Soil 2/05/2008
pH KCl	pH Units	9.2	9.3	9.4
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA
S KCl #	%w/w	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Soil/Solids Analysis			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	
Metal Suite			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	PEP025/AN321
Cadmium, Cd	mg/kg	0.4	PEP025/AN321
Chromium, Cr	mg/kg	5	PEP025/AN321
Cobalt, Co	mg/kg	5	PEP025/AN321
Copper, Cu	mg/kg	5	PEP025/AN321
Manganese, Mn	mg/kg	5	PEP025/AN321
Lead, Pb	mg/kg	5	PEP025/AN321
Nickel, Ni	mg/kg	4	PEP025/AN321
Silver, Ag	mg/kg	5	PEP025/AN321
Zinc, Zn	mg/kg	5	PEP025/AN321
Mercury, Hg	mg/kg	0.05	PEP-025/QPW-130
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	ASSMAC 22B/CEI-405
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Total Organic Carbon	% w/w	-
Monobutyltin #	ng/g	<1
Dibutyltin #	ng/g	<1
Tributyltin #	ng/g	<1
TBT (Normalised to 1% TOC)	ng/g	-

QUALITY CONTROL	UNITS	Blank
Date Extracted		-
Date Analysed		-
Arsenic, As	mg/kg	<5
Cadmium, Cd	mg/kg	<0.4
Chromium, Cr	mg/kg	<5
Cobalt, Co	mg/kg	<5
Copper, Cu	mg/kg	<5
Manganese, Mn	mg/kg	<5
Lead, Pb	mg/kg	<5
Nickel, Ni	mg/kg	<4
Silver, Ag	mg/kg	<5
Zinc, Zn	mg/kg	<5
Mercury, Hg	mg/kg	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		14/05/2008	PE016490-5	14/05/2008 || 14/05/2008	PE016490-3	Cal Error
Date Analysed		15/05/2008	PE016490-5	15/05/2008 || 15/05/2008	PE016490-3	Cal Error
Naphthalene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	61 || 63 || RPD: 3
2-methylnaphthalene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
1-methylnaphthalene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Acenaphthylene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Acenaphthene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Fluorene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	83 || 86 || RPD: 4
Phenanthrene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	84 || 85 || RPD: 1
Anthracene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Fluoranthene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Pyrene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	85 || 87 || RPD: 2
Benzo[*a*]anthracene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	84 || 86 || RPD: 2
Chrysene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE016490-5	<0.02 || <0.02	PE016490-3	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	81 || 81 || RPD: 0
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE016490-5	<0.01 || <0.01	PE016490-3	-
d14-p-terphenyl (surrogate)	%	96	PE016490-5	96 || 94 || RPD: 2	PE016490-3	84 || 84 || RPD: 0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490

PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	<0.1
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0
S_{HCl} #	%w/w	<0.005
S KCl #	%w/w	<0.005
S NAS #	%w/w S	<0.005
ANCE	% $CaCO_3$	<0.1
s-ANCE	%w/w S	<0.01
a-ANCE	moles H^+/tonne	<5
s- Net Acidity	%w/w S	<0.01
a- Net Acidity	moles H^+/tonne	<5
Liming Rate	kg $CaCO_3$ /tonne	<0.1
Verification s-Net Acidity	%w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	<5
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016490
PROJECT: GH6703AP Harriet Point and Nelson Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

LABORATORY REPORT COVERSHEET

DATE: 29 May 2008

TO: Coffey Geotechnics Pty Ltd
PO Box 1530
OSBORNE PARK B.C. WA 6916

ATTENTION: Ms Rachel Westnidge

YOUR REFERENCE: GH6703AP, Harriet and Nelson Point

OUR REFERENCE: PE016518

SAMPLES RECEIVED: 14/05/2008

SAMPLES/QUANTITY: 4 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Chromium Suite - Acid Base testwork was carried out by our Cairns laboratory, report no. 59759.

TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no. A08/1441.

TOC (%wt) testwork was subcontracted to SGS Minerals Services, report no. WM 109735.

[illegible]RA
NATA Signatory

DAVID WILLIAMS
NATA Signatory

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services 10 Reid Road Newburn Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668
www.au.sgs.com

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Date Sampled Type Of Sample	Units	HPBH5B 1.95-2.0m PE016518-1 05/05/2008 Soil	HPBH5B 2.95-3.0m PE016518-2 05/05/2008 Soil	HPBH5B 3.95-4.0m PE016518-3 06/05/2008 Soil	HPBH5B 5.95-6.0m PE016518-4 06/05/2008 Soil
Date Extracted		16/05/2008	16/05/2008	16/05/2008	16/05/2008
Date Analysed		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Arsenic, As	mg/kg	<5	6	7	<5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	38	57	74	67
Cobalt, Co	mg/kg	<5	<5	<5	<5
Copper, Cu	mg/kg	28	13	15	11
Manganese, Mn	mg/kg	70	69	93	75
Lead, Pb	mg/kg	5	6	8	6
Nickel, Ni	mg/kg	17	24	39	35
Silver, Ag	mg/kg	<5	<5	<5	<5
Zinc, Zn	mg/kg	22	16	19	17
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Date Sampled Type Of Sample	Units	HPBH5B 1.95-2.0m PE016518-1 05/05/2008 Soil	HPBH5B 2.95-3.0m PE016518-2 05/05/2008 Soil	HPBH5B 3.95-4.0m PE016518-3 06/05/2008 Soil	HPBH5B 5.95-6.0m PE016518-4 06/05/2008 Soil
Date Extracted		16/05/2008	16/05/2008	16/05/2008	16/05/2008
Date Analysed		18/05/2008	18/05/2008	18/05/2008	18/05/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	98	98	94	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Date Sampled Type Of Sample	Units	HPBH5B 1.95-2.0m PE016518-1 05/05/2008 Soil	HPBH5B 2.95-3.0m PE016518-2 05/05/2008 Soil	HPBH5B 3.95-4.0m PE016518-3 06/05/2008 Soil	HPBH5B 5.95-6.0m PE016518-4 06/05/2008 Soil
pH KCl	pH Units	9.0	8.8	8.7	8.5
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.018	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	11.000	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA
s- Net Acidity	%w/w S	0.02	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	11	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	11	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Date Sampled Type Of Sample	Units	HPBH5B 1.95-2.0m PE016518-1 05/05/2008 Soil	HPBH5B 2.95-3.0m PE016518-2 05/05/2008 Soil	HPBH5B 3.95-4.0m PE016518-3 06/05/2008 Soil	HPBH5B 5.95-6.0m PE016518-4 06/05/2008 Soil
Date Extracted		22/05/2008	22/05/2008	22/05/2008	22/05/2008
Date Analysed		22/05/2008	22/05/2008	22/05/2008	22/05/2008
Total Organic Carbon	% w/w	0.30	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Metal Suite			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	AN045-AN321
Cadmium, Cd	mg/kg	0.4	AN045-AN321
Chromium, Cr	mg/kg	5	AN045-AN321
Cobalt, Co	mg/kg	5	AN045-AN321
Copper, Cu	mg/kg	5	AN045-AN321
Manganese, Mn	mg/kg	5	AN045-AN321
Lead, Pb	mg/kg	5	AN045-AN321
Nickel, Ni	mg/kg	4	AN040-AN321
Silver, Ag	mg/kg	5	AN045-AN321
Zinc, Zn	mg/kg	5	AN045-AN321
Mercury, Hg	mg/kg	0.05	AN312
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	AN217
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Soil/Solids Analysis			
Date Extracted			

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Date Analysed			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		16/05/2008	[NT]	[NT]	PE016518-2	16/05/2008
Date Analysed		19/05/2008	[NT]	[NT]	PE016518-2	19/05/2008
Arsenic, As	mg/kg	<5	[NT]	[NT]	PE016518-2	100.676
Cadmium, Cd	mg/kg	<0.4	[NT]	[NT]	PE016518-2	93.127
Chromium, Cr	mg/kg	<5	[NT]	[NT]	PE016518-2	91.461
Cobalt, Co	mg/kg	<5	[NT]	[NT]	PE016518-2	94.938
Copper, Cu	mg/kg	<5	[NT]	[NT]	PE016518-2	98.978
Manganese, Mn	mg/kg	<5	[NT]	[NT]	PE016518-2	95.142
Lead, Pb	mg/kg	<5	[NT]	[NT]	PE016518-2	92.625
Nickel, Ni	mg/kg	<4	[NT]	[NT]	PE016518-2	96.317
Silver, Ag	mg/kg	<5	[NT]	[NT]	PE016518-2	103.395
Zinc, Zn	mg/kg	<5	[NT]	[NT]	PE016518-2	96.766
Mercury, Hg	mg/kg	<0.05	[NT]	[NT]	PE016518-2	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		16/05/2008	PE016518-1	16/05/2008 || 16/05/2008	PE016518-2	16/05/2008
Date Analysed		18/05/2008	PE016518-1	18/05/2008 || 18/05/2008	PE016518-2	19/05/2008
Naphthalene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	93 || 89 || RPD: 4
2-methylnaphthalene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
1-methylnaphthalene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
Acenaphthylene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
Acenaphthene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
Fluorene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	91 || 91 || RPD: 0
Phenanthrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	95 || 93 || RPD: 2
Anthracene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
Fluoranthene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
Pyrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	100 || 100 || RPD: 0
Benzo[*a*]anthracene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	95 || 94 || RPD: 1
Chrysene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE016518-1	<0.02 || <0.02	PE016518-2	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	111 || 104 || RPD: 7
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	106 || 104 || RPD: 2
Benzo[*ghi*]perylene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016518-2	-
d14-p-terphenyl (surrogate)	%	96	PE016518-1	98 || 102 || RPD: 4	PE016518-2	88 || 88 || RPD: 0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
pH KCl	pH Units	<0.1	[NT]	[NT]	PE016518-2	-
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	[NT]	[NT]	PE016518-2	-
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	[NT]	[NT]	PE016518-2	-
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	[NT]	[NT]	PE016518-2	-
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	[NT]	[NT]	PE016518-2	-
S_{HCl} #	%w/w	<0.005	[NT]	[NT]	PE016518-2	-
S KCl #	%w/w	<0.005	[NT]	[NT]	PE016518-2	-
S NAS #	%w/w S	<0.005	[NT]	[NT]	PE016518-2	-
ANCE	% $CaCO_3$	<0.1	[NT]	[NT]	PE016518-2	-
s-ANCE	%w/w S	<0.01	[NT]	[NT]	PE016518-2	-
a-ANCE	moles H^+/tonne	<5	[NT]	[NT]	PE016518-2	-
s- Net Acidity	%w/w S	<0.01	[NT]	[NT]	PE016518-2	-
a- Net Acidity	moles H^+/tonne	<5	[NT]	[NT]	PE016518-2	-
Liming Rate	kg $CaCO_3$ /tonne	<0.1	[NT]	[NT]	PE016518-2	-
Verification s-Net Acidity	%w/w S	-	[NT]	[NT]	PE016518-2	-
a- Net Acidity without ANCE	moles H^+/tonne	<5	[NT]	[NT]	PE016518-2	-
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1	[NT]	[NT]	PE016518-2	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		22/5/2008	[NT]	[NT]	PE016518-2	22/5/2008
Date Analysed		22/5/2008	[NT]	[NT]	PE016518-2	22/5/2008
Total Organic Carbon	% w/w	<0.05	[NT]	[NT]	PE016518-2	-
Monobutyltin #	ng/g	<1	[NT]	[NT]	PE016518-2	83
Dibutyltin #	ng/g	<1	[NT]	[NT]	PE016518-2	94
Tributyltin #	ng/g	<1	[NT]	[NT]	PE016518-2	99
TBT (Normalised to 1% TOC)	ng/g	-	[NT]	[NT]	PE016518-2	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016518
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

LABORATORY REPORT COVERSHEET

DATE:	11 July 2008
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	GH6703AP, Harriet Point and Nelson Point
OUR REFERENCE:	PE017154
SAMPLES RECEIVED:	25/06/2008
SAMPLES/QUANTITY:	5 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Chromium Suite - Acid Base testwork was carried out by our Cairns laboratory, report no. 60212.

TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no. A08/1639

TOC testwork was subcontracted to SGS Minerals Services, report no. WM110924.

DAVID WILLIAMS
NATA Signatory

SAID HIRAD
NATA Signatory

WORLD RECOGNISED ACCREDITATION

SGS Australia Pty Ltd
ABN 44 000 964 278

Environmental Services 10 Reid Road Newburn Western Australia 6105
t + 61 (0)8 9373 3500 f + 61 (0)8 9373 3668

www.au.sgs.com

Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154

PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH113A PE017154-1 7.94 12/06/2008 Soil	NPBH113A PE017154-2 10 12/06/2008 Soil	HPBH11A PE017154-3 2.45 19/06/2008 Soil	HPBH11A PE017154-4 4 19/06/2008 Soil	HPBH11A PE017154-5 7 19/06/2008 Soil
Date Extracted		30/06/2008	30/06/2008	30/06/2008	30/06/2008	30/06/2008
Date Analysed		1/07/2008	1/07/2008	1/07/2008	1/07/2008	1/07/2008
Arsenic, As	mg/kg	<5	<5	5	6	6
Cadmium, Cd	mg/kg	<0.4	<0.4	0.4	0.4	<0.4
Chromium, Cr	mg/kg	41	45	37	66	72
Cobalt, Co	mg/kg	<5	<5	<5	<5	7
Copper, Cu	mg/kg	5	7	7	9	11
Manganese, Mn	mg/kg	35	44	150	79	93
Lead, Pb	mg/kg	<5	<5	6	8	7
Nickel, Ni	mg/kg	16	19	14	25	33
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	11	7	8	12	17
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154

PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH113A PE017154-1 7.94 12/06/2008 Soil	NPBH113A PE017154-2 10 12/06/2008 Soil	HPBH11A PE017154-3 2.45 19/06/2008 Soil	HPBH11A PE017154-4 4 19/06/2008 Soil	HPBH11A PE017154-5 7 19/06/2008 Soil
Date Extracted		27/06/2008	27/06/2008	27/06/2008	27/06/2008	27/06/2008
Date Analysed		5/07/2008	5/07/2008	5/07/2008	5/07/2008	5/07/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	88	94	92	94	94

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154

PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH113A PE017154-1 7.94 12/06/2008 Soil	NPBH113A PE017154-2 10 12/06/2008 Soil	HPBH11A PE017154-3 2.45 19/06/2008 Soil	HPBH11A PE017154-4 4 19/06/2008 Soil	HPBH11A PE017154-5 7 19/06/2008 Soil
pH KCl	pH Units	7.3	6.5	8.9	8.4	8.5
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	NA	NA
s-ANCE	%w/w S	NA	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154

PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH113A PE017154-1 7.94 12/06/2008 Soil	NPBH113A PE017154-2 10 12/06/2008 Soil	HPBH11A PE017154-3 2.45 19/06/2008 Soil	HPBH11A PE017154-4 4 19/06/2008 Soil	HPBH11A PE017154-5 7 19/06/2008 Soil
Date Extracted		NA	NA	NA	NA	NA
Date Analysed		NA	NA	NA	NA	NA
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibutyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tributyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
TBT (Normalised to 1% TOC)	ug/Kg	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154
PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Metal Suite			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	AN045-AN321
Cadmium, Cd	mg/kg	0.4	AN045-AN321
Chromium, Cr	mg/kg	5	AN045-AN321
Cobalt, Co	mg/kg	5	AN045-AN321
Copper, Cu	mg/kg	5	AN045-AN321
Manganese, Mn	mg/kg	5	AN045-AN321
Lead, Pb	mg/kg	5	AN045-AN321
Nickel, Ni	mg/kg	4	AN040-AN321
Silver, Ag	mg/kg	5	AN045-AN321
Zinc, Zn	mg/kg	5	AN045-AN321
Mercury, Hg	mg/kg	0.05	AN312
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154
PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	AN217
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Soil/Solids Analysis			
Date Extracted			

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154

PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Date Analysed			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	µg/kg	0.50	EXTERNAL
Dibutyltin #	µg/kg	0.50	EXTERNAL
Tributyltin #	µg/kg	0.50	
TBT (Normalised to 1% TOC)	ug/Kg	1	

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154
PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		-	[NT]	[NT]	Control	-
Date Analysed		-	[NT]	[NT]	Control	-
Arsenic, As	mg/kg	-	[NT]	[NT]	Control	-
Cadmium, Cd	mg/kg	-	[NT]	[NT]	Control	-
Chromium, Cr	mg/kg	-	[NT]	[NT]	Control	-
Cobalt, Co	mg/kg	-	[NT]	[NT]	Control	-
Copper, Cu	mg/kg	-	[NT]	[NT]	Control	-
Manganese, Mn	mg/kg	-	[NT]	[NT]	Control	-
Lead, Pb	mg/kg	-	[NT]	[NT]	Control	-
Nickel, Ni	mg/kg	-	[NT]	[NT]	Control	-
Silver, Ag	mg/kg	-	[NT]	[NT]	Control	-
Zinc, Zn	mg/kg	-	[NT]	[NT]	Control	-
Mercury, Hg	mg/kg	-	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154

PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		27/06/2008	PE017154-4	27/06/2008 || 27/06/2008	PE017154-5	27/06/2008
Date Analysed		05/07/2008	PE017154-4	5/07/2008 || 5/07/2008	PE017154-5	05/07/2008
Naphthalene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	102 || 106 || RPD: 4
2-methylnaphthalene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
1-methylnaphthalene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Acenaphthylene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Acenaphthene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Fluorene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	103 || 107 || RPD: 4
Phenanthrene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	102 || 106 || RPD: 4
Anthracene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Fluoranthene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Pyrene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	105 || 110 || RPD: 5
Benzo[*a*]anthracene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	106 || 110 || RPD: 4
Chrysene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE017154-4	<0.02 || <0.02	PE017154-5	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	106 || 109 || RPD: 3
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE017154-4	<0.01 || <0.01	PE017154-5	-
d14-p-terphenyl (surrogate)	%	92	PE017154-4	94 || 92 || RPD: 2	PE017154-5	88 || 88 || RPD: 0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154
PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
pH KCl	pH Units	<0.1	[NT]	[NT]	Control	-
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	[NT]	[NT]	Control	-
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	[NT]	[NT]	Control	-
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005	[NT]	[NT]	Control	-
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	[NT]	[NT]	Control	-
S_{HCl} #	%w/w	<0.005	[NT]	[NT]	Control	-
S KCl #	%w/w	<0.005	[NT]	[NT]	Control	-
S NAS #	%w/w S	<0.005	[NT]	[NT]	Control	-
ANCE	% $CaCO_3$	<0.1	[NT]	[NT]	Control	-
s-ANCE	%w/w S	<0.01	[NT]	[NT]	Control	-
a-ANCE	moles H^+/tonne	<5	[NT]	[NT]	Control	-
s- Net Acidity	%w/w S	<0.01	[NT]	[NT]	Control	-
a- Net Acidity	moles H^+/tonne	<5	[NT]	[NT]	Control	-
Liming Rate	kg $CaCO_3$ /tonne	<0.1	[NT]	[NT]	Control	-
Verification s-Net Acidity	%w/w S	-	[NT]	[NT]	Control	-
a- Net Acidity without ANCE	moles H^+/tonne	<5	[NT]	[NT]	Control	-
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154
PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		2/7/2008	[NT]	[NT]	Control	-
Date Analysed		2/7/2008	[NT]	[NT]	Control	-
Total Organic Carbon	% w/w	<0.05	[NT]	[NT]	Control	-
Monobutyltin #	µg/kg	<0.5	[NT]	[NT]	Control	-
Dibutyltin #	µg/kg	<0.5	[NT]	[NT]	Control	-
Tributyltin #	µg/kg	<0.5	[NT]	[NT]	Control	-
TBT (Normalised to 1% TOC)	ug/Kg	-	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE017154
PROJECT: GH6703AP, Harriet Point and Nelson Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

LABORATORY REPORT COVERSHEET

DATE:	26 June 2008
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	GH6703AP, Harriet and Nelson Point
OUR REFERENCE:	PE016955
SAMPLES RECEIVED:	12/06/2008
SAMPLES/QUANTITY:	10 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.
Chromium Suite - Acid Base testwork was carried out by our Cairns laboratory, report no. 60043.

TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no. A08/1639

TOC testwork was subcontracted to SGS Minerals Services, report no. WM110674

DAVID WILLIAMS
NATA Signatory

SAID HIRAD
NATA Signatory

WORLD RECOGNISED ACCREDITATION

SGS Australia Pty Ltd
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Environmental Services 10 Reid Road Newburn Western Australia 6105
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Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH211 PE016955-1 0.45 29/05/2008 Soil	NPBH211 PE016955-2 1.95 29/05/2008 Soil	NPBH211 PE016955-3 2.95 30/05/2008 Soil	HPBH10A PE016955-4 1.95 02/06/2008 Soil	HPBH10A PE016955-5 2.95 02/06/2008 Soil
Date Extracted		13/06/2008	13/06/2008	13/06/2008	13/06/2008	13/06/2008
Date Analysed		17/06/2008	17/06/2008	17/06/2008	17/06/2008	17/06/2008
Arsenic, As	mg/kg	11	<5	8	<5	5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	21	63	95	41	71
Cobalt, Co	mg/kg	<5	6	10	<5	7
Copper, Cu	mg/kg	5	10	14	9	23
Manganese, Mn	mg/kg	150	77	110	55	98
Lead, Pb	mg/kg	<5	6	10	<5	9
Nickel, Ni	mg/kg	7	31	42	15	30
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	18	15	27	11	16
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH10A PE016955-6 3.95 02/06/2008 Soil	HPBH07 PE016955-7 1.95 06/06/2008 Soil	NPBH113A PE016955-8 1.45 11/06/2008 Soil	NPBH113A PE016955-9 2.95 11/06/2008 Soil	NPBH113A PE016955-10 5.95 11/06/2008 Soil
Date Extracted		13/06/2008	13/06/2008	13/06/2008	13/06/2008	13/06/2008
Date Analysed		17/06/2008	17/06/2008	17/06/2008	17/06/2008	17/06/2008
Arsenic, As	mg/kg	<5	6	<5	10	5
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	66	32	78	41	48
Cobalt, Co	mg/kg	6	<5	5	<5	<5
Copper, Cu	mg/kg	10	9	18	8	8
Manganese, Mn	mg/kg	76	74	83	65	52
Lead, Pb	mg/kg	7	<5	8	<5	6
Nickel, Ni	mg/kg	24	12	28	17	22
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	11	10	20	14	16
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH211 PE016955-1 0.45 29/05/2008 Soil	NPBH211 PE016955-2 1.95 29/05/2008 Soil	NPBH211 PE016955-3 2.95 30/05/2008 Soil	HPBH10A PE016955-4 1.95 02/06/2008 Soil	HPBH10A PE016955-5 2.95 02/06/2008 Soil
Date Extracted		13/06/0200	13/06/0200	13/06/0200	13/06/0200	13/06/0200
Date Analysed		19/06/2008	19/06/2008	19/06/2008	19/06/2008	19/06/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	96	92	86	94	92

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH10A PE016955-6 3.95 02/06/2008 Soil	HPBH07 PE016955-7 1.95 06/06/2008 Soil	NPBH113A PE016955-8 1.45 11/06/2008 Soil	NPBH113A PE016955-9 2.95 11/06/2008 Soil	NPBH113A PE016955-10 5.95 11/06/2008 Soil
Date Extracted		13/06/0200	13/06/0200	13/06/0200	13/06/0200	13/06/0200
Date Analysed		19/06/2008	19/06/2008	19/06/2008	19/06/2008	19/06/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	98	96	100	94	96

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH211 PE016955-1 0.45 29/05/2008 Soil	NPBH211 PE016955-2 1.95 29/05/2008 Soil	NPBH211 PE016955-3 2.95 30/05/2008 Soil	HPBH10A PE016955-4 1.95 02/06/2008 Soil	HPBH10A PE016955-5 2.95 02/06/2008 Soil
pH KCl	pH Units	9.2	8.8	8.6	9.3	9.0
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	%w/w	0.033	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	20.000	<5.0	<5.0	<5.0	<5.0
SHCl #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	40	NA	NA	NA	NA
s-ANCE	%w/w S	13	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	7,900.0	NA	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	-8.4	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	20	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	1.5	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH10A PE016955-6 3.95 02/06/2008 Soil	HPBH07 PE016955-7 1.95 06/06/2008 Soil	NPBH113A PE016955-8 1.45 11/06/2008 Soil	NPBH113A PE016955-9 2.95 11/06/2008 Soil	NPBH113A PE016955-10 5.95 11/06/2008 Soil
pH KCl	pH Units	9.1	9.3	8.9	9.4	8.4
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (Scr)	%w/w	<0.005	<0.005	<0.005	0.059	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0	<5.0	<5.0	37.000	<5.0
SHCl #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	NA	NA	NA	1.2	NA
s-ANCE	%w/w S	NA	NA	NA	0.38	NA
a-ANCE	moles H^+/tonne	NA	NA	NA	240	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	NA	NA	NA	-0.20	NA
a- Net Acidity without ANCE	moles H^+/tonne	<5	<5	<5	37	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	NA	NA	NA	2.8	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	NPBH211 PE016955-1 0.45 29/05/2008 Soil	NPBH211 PE016955-2 1.95 29/05/2008 Soil	NPBH211 PE016955-3 2.95 30/05/2008 Soil	HPBH10A PE016955-4 1.95 02/06/2008 Soil	HPBH10A PE016955-5 2.95 02/06/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		-	-	-	-	-
Total Organic Carbon	% w/w	0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	µg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Dibutyltin #	µg/kg	0.8	<0.5	<0.5	<0.5	<0.5
Tributyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
TBT (Normalised to 1% TOC)	ug/Kg	<1.0	<1.0	<1.0	<1.0	<1.0

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH10A PE016955-6 3.95 02/06/2008 Soil	HPBH07 PE016955-7 1.95 06/06/2008 Soil	NPBH113A PE016955-8 1.45 11/06/2008 Soil	NPBH113A PE016955-9 2.95 11/06/2008 Soil	NPBH113A PE016955-10 5.95 11/06/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		-	-	-	-	-
Total Organic Carbon	% w/w	<0.05	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibutyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tributyltin #	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
TBT (Normalised to 1% TOC)	ug/Kg	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Metal Suite			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	AN045-AN321
Cadmium, Cd	mg/kg	0.4	AN045-AN321
Chromium, Cr	mg/kg	5	AN045-AN321
Cobalt, Co	mg/kg	5	AN045-AN321
Copper, Cu	mg/kg	5	AN045-AN321
Manganese, Mn	mg/kg	5	AN045-AN321
Lead, Pb	mg/kg	5	AN045-AN321
Nickel, Ni	mg/kg	4	AN040-AN321
Silver, Ag	mg/kg	5	AN045-AN321
Zinc, Zn	mg/kg	5	AN045-AN321
Mercury, Hg	mg/kg	0.05	AN312
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	AN217
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Soil/Solids Analysis			
Date Extracted			

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Date Analysed			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	µg/kg	0.50	EXTERNAL
Dibutyltin #	µg/kg	0.50	EXTERNAL
Tributyltin #	µg/kg	0.50	
TBT (Normalised to 1% TOC)	ug/Kg	1	

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
Sample Prep (Crush & Pulp)		-

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		-	[NT]	[NT]	Control	13/06/2008
Date Analysed		-	[NT]	[NT]	Control	17/06/2008
Arsenic, As	mg/kg	-	[NT]	[NT]	Control	116
Cadmium, Cd	mg/kg	-	[NT]	[NT]	Control	117
Chromium, Cr	mg/kg	--	[NT]	[NT]	Control	121
Cobalt, Co	mg/kg	-	[NT]	[NT]	Control	117
Copper, Cu	mg/kg	-	[NT]	[NT]	Control	125
Manganese, Mn	mg/kg	-	[NT]	[NT]	Control	120
Lead, Pb	mg/kg	-	[NT]	[NT]	Control	117
Nickel, Ni	mg/kg	-	[NT]	[NT]	Control	117
Silver, Ag	mg/kg	-	[NT]	[NT]	Control	-
Zinc, Zn	mg/kg	-	[NT]	[NT]	Control	117
Mercury, Hg	mg/kg	-	[NT]	[NT]	Control	100

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		13/06/2008	PE016955-2	13/06/0200 || 13/06/0200	PE016955-6	13/06/2008
Date Analysed		19/06/2008	PE016955-2	19/06/2008 || 19/06/2008	PE016955-6	19/06/2008
Naphthalene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	89 || 91 || RPD: 2
2-methylnaphthalene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
1-methylnaphthalene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Acenaphthylene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Acenaphthene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Fluorene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	89 || 89 || RPD: 0
Phenanthrene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	89 || 92 || RPD: 3
Anthracene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Fluoranthene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Pyrene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	98 || 102 || RPD: 4
Benzo[*a*]anthracene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	86 || 91 || RPD: 6
Chrysene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE016955-2	<0.02 || <0.02	PE016955-6	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	99 || 79 || RPD: 22
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE016955-2	<0.01 || <0.01	PE016955-6	-
d14-p-terphenyl (surrogate)	%	88	PE016955-2	92 || 92 || RPD: 0	PE016955-6	118 || 124 || RPD: 5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank
pH KCl	pH Units	<0.1
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	<5.0
S_{HCl} #	%w/w	-
S_{KCl} #	%w/w	-
S_{NAS} #	%w/w S	-
ANCE	% $CaCO_3$	<0.1
s-ANCE	%w/w S	<0.01
a-ANCE	moles H^+/tonne	<5
s- Net Acidity	%w/w S	<0.01
a- Net Acidity	moles H^+/tonne	<5
Liming Rate	kg $CaCO_3$ /tonne	<0.1
Verification s-Net Acidity	%w/w S	-
a- Net Acidity without ANCE	moles H^+/tonne	<5
Liming Rate without ANCE	kg $CaCO_3$ /tonne	<0.1

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		-	[NT]	[NT]	Control	-
Date Analysed		-	[NT]	[NT]	Control	-
Total Organic Carbon	% w/w	<0.05	[NT]	[NT]	Control	-
Monobutyltin #	µg/kg	<0.5	[NT]	[NT]	Control	85
Dibutyltin #	µg/kg	<0.5	[NT]	[NT]	Control	97
Tributyltin #	µg/kg	<0.5	[NT]	[NT]	Control	100
TBT (Normalised to 1% TOC)	ug/Kg	<1.0	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016955
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.

This test is not covered by the scope of our NATA accreditation.

LABORATORY REPORT COVERSHEET

DATE:	9 June 2008
TO:	Coffey Geotechnics Pty Ltd PO Box 1530 OSBORNE PARK B.C. WA 6916
ATTENTION:	Ms Rachel Westnidge
YOUR REFERENCE:	GH6703AP, Harriet and Nelson Point
OUR REFERENCE:	PE016697
SAMPLES RECEIVED:	26/05/2008
SAMPLES/QUANTITY:	5 Soils

The above samples were received intact and analysed according to your instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

DON SARATHCHANDRA
NATA Signatory

DAVID WILLIAMS
NATA Signatory

WORLD RECOGNISED ACCREDITATION

SGS Australia Pty Ltd
ABN 44 000 964 278

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Member of the SGS Group

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH13A PE016697-1 0.45-0.49 19/05/2008 Soil	HPBH13A PE016697-2 1.45-1.53 19/05/2008 Soil	HPBH13A PE016697-3 2.0-2.03 19/05/2008 Soil	HPBH13A PE016697-4 3.0-3.04 19/05/2008 Soil	HPBH13A PE016697-5 4.0-4.04 19/05/2008 Soil
Date Extracted		-	-	-	-	-
Date Analysed		30/05/2008	30/05/2008	30/05/2008	30/05/2008	30/05/2008
Arsenic, As	mg/kg	11	<5	<5	<5	6
Cadmium, Cd	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium, Cr	mg/kg	22	52	78	40	63
Cobalt, Co	mg/kg	<5	<5	<5	<5	<5
Copper, Cu	mg/kg	<5	8	16	8	10
Manganese, Mn	mg/kg	93	77	56	65	83
Lead, Pb	mg/kg	<5	6	<5	<5	6
Nickel, Ni	mg/kg	9	17	22	16	28
Silver, Ag	mg/kg	<5	<5	<5	<5	<5
Zinc, Zn	mg/kg	10	12	10	10	15
Mercury, Hg	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH13A PE016697-1 0.45-0.49 19/05/2008 Soil	HPBH13A PE016697-2 1.45-1.53 19/05/2008 Soil	HPBH13A PE016697-3 2.0-2.03 19/05/2008 Soil	HPBH13A PE016697-4 3.0-3.04 19/05/2008 Soil	HPBH13A PE016697-5 4.0-4.04 19/05/2008 Soil
Date Extracted		29/05/2008	29/05/2008	29/05/2008	29/05/2008	29/05/2008
Date Analysed		5/06/2008	5/06/2008	5/06/2008	5/06/2008	5/06/2008
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
2-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
1-methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*a*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
benzo [*bk*] fluoranthene	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo[*a*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno[*123-cd*]pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo[*ah*]anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo[*ghi*]perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
d14-p-terphenyl (surrogate)	%	122	124	118	120	122

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH13A PE016697-1 0.45-0.49 19/05/2008 Soil	HPBH13A PE016697-2 1.45-1.53 19/05/2008 Soil	HPBH13A PE016697-3 2.0-2.03 19/05/2008 Soil	HPBH13A PE016697-4 3.0-3.04 19/05/2008 Soil	HPBH13A PE016697-5 4.0-4.04 19/05/2008 Soil
pH KCl	pH Units	9.2	9.3	9.2	9.3	8.9
Titratable Actual Acidity (pH 6.5)	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	<5	<5	<5	<5	<5
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.27	<0.005	<0.005	<0.005	<0.005
a-Chromium Reducible Sulphur	moles H^+/tonne	170.000	<5.0	<5.0	<5.0	<5.0
S_{HCl} #	%w/w	NA	NA	NA	NA	NA
S KCl #	%w/w	NA	NA	NA	NA	NA
S NAS #	%w/w S	NA	NA	NA	NA	NA
ANCE	% $CaCO_3$	51	NA	NA	NA	NA
s-ANCE	%w/w S	16	NA	NA	NA	NA
a-ANCE	moles H^+/tonne	10,000.0	NA	NA	NA	NA
s- Net Acidity	%w/w S	<0.01	<0.01	<0.01	<0.01	<0.01
a- Net Acidity	moles H^+/tonne	<5	<5	<5	<5	<5
Liming Rate	kg $CaCO_3$/tonne	NA	NA	NA	NA	NA
Verification s-Net Acidity	%w/w S	-11	NA	NA	NA	NA
a- Net Acidity without ANCE	moles H^+/tonne	170	<5	<5	<5	<5
Liming Rate without ANCE	kg $CaCO_3$/tonne	13	NA	NA	NA	NA

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

Your Reference Our Reference Depth Date Sampled Type Of Sample	Units	HPBH13A PE016697-1 0.45-0.49 19/05/2008 Soil	HPBH13A PE016697-2 1.45-1.53 19/05/2008 Soil	HPBH13A PE016697-3 2.0-2.03 19/05/2008 Soil	HPBH13A PE016697-4 3.0-3.04 19/05/2008 Soil	HPBH13A PE016697-5 4.0-4.04 19/05/2008 Soil
Date Extracted		29/05/2008	29/05/2008	29/05/2008	29/05/2008	29/05/2008
Date Analysed		29/05/2008	29/05/2008	29/05/2008	29/05/2008	29/05/2008
Total Organic Carbon	% w/w	0.12	<0.05	<0.05	<0.05	<0.05
Monobutyltin #	ng/g	<1	<1	<1	<1	<1
Dibutyltin #	ng/g	<1	<1	<1	<1	<1
Tributyltin #	ng/g	<1	<1	<1	<1	<1
TBT (Normalised to 1% TOC)	ng/g	<1.0	<1.0	<1.0	<1.0	<1.0

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Metal Suite			
Date Extracted			
Date Analysed			
Arsenic, As	mg/kg	5	AN045-AN321
Cadmium, Cd	mg/kg	0.4	AN045-AN321
Chromium, Cr	mg/kg	5	AN045-AN321
Cobalt, Co	mg/kg	5	AN045-AN321
Copper, Cu	mg/kg	5	AN045-AN321
Manganese, Mn	mg/kg	5	AN045-AN321
Lead, Pb	mg/kg	5	AN045-AN321
Nickel, Ni	mg/kg	4	AN040-AN321
Silver, Ag	mg/kg	5	AN045-AN321
Zinc, Zn	mg/kg	5	AN045-AN321
Mercury, Hg	mg/kg	0.05	AN312
PAHs			
Date Extracted			
Date Analysed			
Naphthalene	mg/kg	0.01	PEO-720
2-methylnaphthalene	mg/kg	0.01	PEO-720
1-methylnaphthalene	mg/kg	0.01	PEO-720
Acenaphthylene	mg/kg	0.01	PEO-720
Acenaphthene	mg/kg	0.01	PEO-720
Fluorene	mg/kg	0.01	PEO-720
Phenanthrene	mg/kg	0.01	PEO-720
Anthracene	mg/kg	0.01	PEO-720
Fluoranthene	mg/kg	0.01	PEO-720
Pyrene	mg/kg	0.01	PEO-720
Benzo[*a*]anthracene	mg/kg	0.01	PEO-720
Chrysene	mg/kg	0.01	PEO-720
benzo [*bk*] fluoranthene	mg/kg	0.02	PEO-720
Benzo[*a*]pyrene	mg/kg	0.01	PEO-720

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Indeno[*123-cd*]pyrene	mg/kg	0.01	PEO-720
Dibenzo[*ah*]anthracene	mg/kg	0.01	PEO-720
Benzo[*ghi*]perylene	mg/kg	0.01	PEO-720
d14-p-terphenyl (surrogate)	%		PEO-720
Chromium Suite			
pH KCl	pH Units	0.1	ASSMAC 23A/CEI-401
Titratable Actual Acidity (pH 6.5)	%w/w S	0.01	ASSMAC 23F/CEI-401
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	5	ASSMAC 23F/CEI-401
Chromium Reducible Sulphur (S_{Cr})	%w/w	0.005	AN217
a-Chromium Reducible Sulphur	moles H^+/tonne	5	ASSMAC 22B/CEI-405
S_{HCl} #	%w/w	0.005	ASSMAC 20B
S KCl #	%w/w	0.005	PEM-007
S NAS #	%w/w S	0.005	ASSMAC 20J
ANCE	% $CaCO_3$	0.1	ASSMAC 23Q
s-ANCE	%w/w S	0.01	ASSMAC S 23Q
a-ANCE	moles H^+/tonne	5	ASSMAC A 23Q
s- Net Acidity	%w/w S	0.01	Calculation
a- Net Acidity	moles H^+/tonne	5	Calculation
Liming Rate	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Verification s-Net Acidity	%w/w S		Calculation
a- Net Acidity without ANCE	moles H^+/tonne	5	Calculation
Liming Rate without ANCE	kg $CaCO_3$/tonne	0.1	ASSMAC 23H
Soil/Solids Analysis			
Date Extracted			

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

TEST PARAMETERS	UNITS	LOR	METHOD
Date Analysed			
Total Organic Carbon	% w/w	0.05	CSA03V
Monobutyltin #	ng/g	1	
Dibutyltin #	ng/g	1	
Tributyltin #	ng/g	1	
TBT (Normalised to 1% TOC)	ng/g	1	

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		-	[NT]	[NT]	Control	-
Date Analysed		30/05/2008	[NT]	[NT]	Control	30/05/2008
Arsenic, As	mg/kg	<5	[NT]	[NT]	Control	101
Cadmium, Cd	mg/kg	<0.4	[NT]	[NT]	Control	92
Chromium, Cr	mg/kg	<5	[NT]	[NT]	Control	93
Cobalt, Co	mg/kg	<5	[NT]	[NT]	Control	91
Copper, Cu	mg/kg	<5	[NT]	[NT]	Control	95
Manganese, Mn	mg/kg	<5	[NT]	[NT]	Control	95
Lead, Pb	mg/kg	<5	[NT]	[NT]	Control	91
Nickel, Ni	mg/kg	<4	[NT]	[NT]	Control	91
Silver, Ag	mg/kg	<5	[NT]	[NT]	Control	95
Zinc, Zn	mg/kg	<5	[NT]	[NT]	Control	97
Mercury, Hg	mg/kg	<0.05	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		29/05/2008	PE016518-1	29/05/2008 || 29/05/2008	PE016697-3	29/05/2008
Date Analysed		5/06/2008	PE016518-1	5/06/2008 || 5/06/2008	PE016697-3	5/06/2008
Naphthalene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	87 || 90 || RPD: 3
2-methylnaphthalene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
1-methylnaphthalene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Acenaphthylene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Acenaphthene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Fluorene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	100 || 114 || RPD: 13
Phenanthrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	93 || 95 || RPD: 2
Anthracene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Fluoranthene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Pyrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	102 || 103 || RPD: 1
Benzo[*a*]anthracene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	94 || 106 || RPD: 12
Chrysene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
benzo [*bk*] fluoranthene	mg/kg	<0.02	PE016518-1	<0.02 || <0.02	PE016697-3	-
Benzo[*a*]pyrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	92 || 100 || RPD: 8
Indeno[*123-cd*]pyrene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Dibenzo[*ah*]anthracene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
Benzo[*ghi*]perylene	mg/kg	<0.01	PE016518-1	<0.01 || <0.01	PE016697-3	-
d14-p-terphenyl (surrogate)	%	118	PE016518-1	122 || 116 || RPD: 5	PE016697-3	114 || 120 || RPD: 5

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697

PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
pH KCl	pH Units	NT	[NT]	[NT]	Control	-
Titratable Actual Acidity (pH 6.5)	%w/w S	NT	[NT]	[NT]	Control	-
Titratable Actual Acidity (pH 6.5)	moles H^+/tonne	NT	[NT]	[NT]	Control	-
Chromium Reducible Sulphur (S_{Cr})	%w/w	NT	[NT]	[NT]	Control	-
a-Chromium Reducible Sulphur	moles H^+/tonne	NT	[NT]	[NT]	Control	-
S_{HCl} #	%w/w	NT	[NT]	[NT]	Control	-
S KCl #	%w/w	NT	[NT]	[NT]	Control	-
S NAS #	%w/w S	NT	[NT]	[NT]	Control	-
ANCE	% $CaCO_3$	NT	[NT]	[NT]	Control	-
s-ANCE	%w/w S	NT	[NT]	[NT]	Control	-
a-ANCE	moles H^+/tonne	NT	[NT]	[NT]	Control	-
s- Net Acidity	%w/w S	NT	[NT]	[NT]	Control	-
a- Net Acidity	moles H^+/tonne	NT	[NT]	[NT]	Control	-
Liming Rate	kg $CaCO_3$ /tonne	NT	[NT]	[NT]	Control	-
Verification s-Net Acidity	%w/w S	NT	[NT]	[NT]	Control	-
a- Net Acidity without ANCE	moles H^+/tonne	NT	[NT]	[NT]	Control	-
Liming Rate without ANCE	kg $CaCO_3$ /tonne	NT	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

QUALITY CONTROL	UNITS	Blank	Replicate Sm#	Replicate Sample||Replicate	Spike Sm#	Matrix Spike (%)
Date Extracted		29/05/2008	[NT]	[NT]	Control	-
Date Analysed		29/05/2008	[NT]	[NT]	Control	-
Total Organic Carbon	% w/w	<0.05	[NT]	[NT]	Control	-
Monobutyltin #	ng/g	<1	[NT]	[NT]	Control	89
Dibutyltin #	ng/g	<1	[NT]	[NT]	Control	94
Tributyltin #	ng/g	<1	[NT]	[NT]	Control	97
TBT (Normalised to 1% TOC)	ng/g	-	[NT]	[NT]	Control	-

CLIENT: Coffey Geotechnics Pty Ltd **OUR REFERENCE:** PE016697
PROJECT: GH6703AP, Harriet and Nelson Point

LABORATORY REPORT

NOTES:
LOR - Limit of Reporting.
Chromium Suite - Acid Base testwork was carried out by our Cairns laboratory, report no. 59759.
MBT, DBT and TBT analysis was subcontracted to Advanced Analytical, North Ryde, NSW, report no. A08/1509.
TOC testwork was subcontracted to SGS Minerals Services, report no. WM109941.
Chromium Suite-Acid Base Accounting testwork was carried out by our Cairns laboratory, report no. 59875.
This test is not covered by the scope of our NATA accreditation.