Executive Summary

Glossary and Abbreviations

1	Intro	oductior	۵	1-1
	1.0	Introdu	ction	1-1
	1.1	Project	Overview	1-1
	1.2	EIS Ob	ojective	1-1
	1.3	Project	Proponent	1-1
	1.4	Propose	ed Project	1-2
	1.5	Project	Schedule	1-3
	1.6	Scope of	of EIS	1-4
		1.6.1	Project Components	1-4
		1.6.2	EIS Studies	1-4
	1.7	Project	Objectives and Rationale	1-5
		1.7.1	Project Need	1-5
		1.7.2	Market Conditions	1-6
		1.7.3	Project Benefits	1-7
	1.8	Enviror	nmental Impact Assessment Process	1-8
		1.8.1	EIS Preparation Process	1-8
		1.8.2	Queensland Government Process	1-8
		1.8.3	EIS Submissions	1-9
		1.8.4	Public Consultation Process	1-9
		1.8.5	Commonwealth Government Process	1-10
		1.8.6	EIS Schedule	1-11
	1.9	Project	Approvals and Legislative Framework	1-11
		1.9.1	Native Title Act	1-11
		1.9.2	Environmental Protection Act	1-11
		1.9.3	Integrated Planning Act	1-12
		1.9.4	Aboriginal Cultural Heritage Act	1-13
		1.9.5	Minerals Resources Act	1-13
		1.9.6	Vegetation Management Act	1-13
		1.9.7	Fisheries Act	1-13
		1.9.8	Nature Conservation Act	1-13
		1.9.9	Coastal Protection and Management Act	1-13
		1.9.10	Other Approvals	1-14
		1.9.11	Policies	1-14
		1.9.12	GSDA Development Scheme	1-15
		1.9.13	Local Government	1-15
		1.9.14	Marlborough Approvals Process	1-15
	1.10	Report	Structure	1-15
2	Prop	oosed P	Project	2-1
	2.0	Propose	ed Project	2-1
	2.1	Site Lo	cation	2-1
	2.2	Project	Components	2-1
		2.2.1	Refinery	2-1
		2.2.2	Residue Storage Facility	2-2
		2.2.3	Pipelines	2-2

	2.2.4	Wharf Facilities	2-2
2.3	Constr	ruction Phase	2-3
	2.3.1	Refinery Construction Workforce	2-3
	2.3.2	Site Access	2-4
	2.3.3	Construction Equipment	2-4
	2.3.4	Refinery Construction	2-4
	2.3.5	RSF Construction	2-7
	2.3.6	Pipelines Construction	2-9
2.4	Project	t Staging	2-15
2.5	Project	t Design	2-16
	2.5.1	Leach Plant	2-17
	2.5.2	Metals Plant	2-19
	2.5.3	Reagents	2-20
	2.5.4	Process Gases	2-20
	2.5.5	Power Station	2-21
	2.5.6	Pipelines	2-21
2.6	Project	t Inputs	2-24
	2.6.1	Nickel Cobalt Laterite Ore	2-24
	2.6.2	Sulphur	2-25
	2.6.3	Ammonia	2-25
	2.6.4	Limestone	2-25
	2.6.5	Lime	2-26
	2.6.6	Other Reagants	2-26
2.7	Project	t Outputs	2-32
	2.7.1	Nickel and Cobalt Briquettes	2-32
	2.7.2	Ammonium Sulphate	2-32
2.8	Operat	tional Phase	2-34
	2.8.1	Operational Workforce	2-34
	2.8.2	Contract Personnel	2-34
	2.8.3	Refinery Operations	2-35
	2.8.4	Pipeline Operations	2-35
2.9	Decom	nmissioning	2-35
	2.9.1	Contaminated Land	2-36
	2.9.2	Refinery	2-36
	2.9.3	Residue Storage Facility	2-37
	2.9.4	Pipelines	2-37
Proj	ject Infr	astructure	3-1
30	Project	tInfrastructura	3 1
3.0	Water	Sunnly	3-1 2 1
5.1	3 1 1	Pow Water	3-1
	3.1.1 3.1.2	Naw Water Dotable Water	3-1
	3.1.2	Segurater	3-2
3 7	5.1.5 Flectri	city	3-2
5.2	2 2 1	Pafinary and Wharf Facilitias	3-3
	3.2.1 3.2.1	Fisherman's Landing Easility	3-3 2 4
	3.2.2	Residue Storage Eacility	3-4 2 4
	5.2.5 2 7 1	Slurry Dipolino	3-4
22	J.2.4	Sturry ripetitie	3-3 2 E
5.5 21	Inatura Source		3-3 2 E
3.4 25	Sewera	age	3-5 2 5
3.3 2 4	SIOTINV Talaa	water Draillage	3-5
3.0	releco	onnunications	3-6

3

	3.7	Buildings	3-6
4	Was	ste Management	4-1
	4.0	Waste Management	4-1
	4.1	Introduction	4-1
	4.2	Legal Requirements	4-1
		4.2.1 Government Policy	4-1
		4.2.2 Waste Definitions	4-1
	4.3	Waste Minimisation	4-2
		4.3.1 Waste Management Plan	4-2
		4.3.2 Waste Prevention	4-3
		4.3.3 Waste Separation	4-3
		4.3.4 Contamination Avoidance	4-3
	4.4	Waste Tracking	4-3
	4.5	Construction Wastes	4-4
		4.5.1 Pipeline Construction	4-4
		4.5.2 Refinery and Residue Storage Facility Construction	4-4
		4.5.3 Waste Generation	4-5
		4.5.4 Potential Impacts and Mitigation Measures	4-6
	4.6	Operational Liquid Wastes	4-7
		4.6.1 RSF Thickener Overflow and Decant Liquor	4-8
		4.6.2 Power Station Cooling Water	4-9
		4.6.3 Sewage	4-9
		4.6.4 Stormwater Runoff	4-9
		4.6.5 Start-up and Shutdown Wastes	4-9
	4.7	Operational Solid Wastes	4-9
		4.7.1 Process Residue	4-10
		4.7.2 Autoclave Scale	4-10
		4.7.3 Lime Slaker Grit	4-10
		4.7.4 Sulphur Filter Rejects	4-11
		4.7.5 Zinc Sulphide	4-11
		4.7.6 Solvent Extraction Crud	4-11
		4.7.7 Acid Plant Catalyst	4-11
		4.7.8 General Refuse	4-11
	4.8	Operational Air Emissions	4-12
	4.9	Pipeline Operational Wastes	4-13
	4.10	Waste Disposal	4-13
5	Alte	rnatives	5-1
	5.0	Alternatives	5-1
	5.1	Introduction	5-1
	5.2	Ecologically Sustainable Development	5-1
	5.3	Site Alternatives	5-2
		5.3.1 Refinery	5-2
		5.3.2 Residue Storage Facility	5-2
	5.4	Ore Delivery Alternatives	5-3
		5.4.1 Marlborough Ore	5-3
		5.4.2 Imported Ore	5-3
	5.5	Slurry Pipeline Route Alternatives	5-4
		5.5.1 Identification of Preferred Route	5-4
		5.5.2 Route Refinement	5-7

		5.5.3 Multi-User Pipeline Corridor	5-10
	5.6	Alternative Residue Pipelines Route	5-10
	5.7	Process Alternatives	5-10
		5.7.1 Nickel Extraction	5-10
		5.7.2 High Pressure Acid Leach Process	5-11
		5.7.3 Comparison of Potential Environmental Impacts	5-11
		5.7.4 Intermediate Product and Refining Alternatives	5-13
	5.8	Energy Alternatives	5-13
	5.9	Water Alternatives	5-13
		5.9.1 Process Water	5-13
		5.9.2 Cooling Water	5-14
		5.9.3 Marlborough Ore Slurry Water	5-14
	5.10	Residue Storage Alternatives	5-15
	5.11	Barren Liquor Disposal Alternatives	5-16
		5.11.1 Disposal to Port Curtis	5-16
		5.11.2 Pond Evaporation	5-16
		5.11.3 Forced Evaporation	5-17
		5.11.4 Membrane Technology	5-17
	5.12	Barren Liquor Treatment Alternatives	5-17
		5.12.1 Neutralisation of Alumina Refining Residues	5-17
		5.12.2 Lime Neutralisation	5-18
		5.12.3 Oxidative Precipitation of Manganese	5-18
	5.13	Accommodation Alternatives	5-19
	5.14	Modularisation	5-19
	5.15	"No Project" Alternative	5-19
6	Tran	osportation	6.1
•	ai		0- 1
Ū	6.0	Transportation	6 -1
·	6.0	Transportation	6-1
Ū	6.0 6.1	Transportation Study Background and Scope	6-1 6-1
Ū	6.0 6.1 6.2	Transportation Study Background and Scope Road Transport 6.2.1 Existing Road Network for Refinery	6-1 6-1 6-2 6 2
Ū	6.0 6.1 6.2	Transportation Study Background and Scope Road Transport 6.2.1 Existing Road Network for Refinery	6-1 6-1 6-2 6-2
Ū	6.0 6.1 6.2	Transportation Study Background and Scope Road Transport 6.2.1 Existing Road Network for Refinery 6.2.2 Existing Traffic	6-1 6-1 6-2 6-2 6-3
J	6.0 6.1 6.2	Transportation Study Background and Scope Road Transport 6.2.1 Existing Road Network for Refinery 6.2.2 Existing Traffic 6.2.3 Project Traffic	6-1 6-1 6-2 6-2 6-3 6-4
Ū	6.0 6.1 6.2	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Distribution	6 -1 6-1 6-2 6-2 6-3 6-4 6-6
Ū	6.0 6.1 6.2	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Internetion Analysis	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7
	6.0 6.1 6.2	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.27Descenter Assessment	6 -1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11
	6.0 6.1 6.2	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public Transport	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21
	6.0 6.1 6.2	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public Transport	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23
	6.0 6.1 6.2 6.3	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.2.1	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23 6-23
	6.0 6.1 6.2 6.3	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23 6-23 6-23
	6.0 6.1 6.2 6.3	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23 6-23 6-24 6-24
	6.0 6.1 6.2 6.3	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing6.3.3Shipping Movements and De-ballasting Requirements	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-23 6-23 6-23 6-23 6-24 6-24 6-24
	6.0 6.1 6.2 6.3 6.4	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing6.3.3Shipping Movements and De-ballasting RequirementsRail Transport	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23 6-23 6-23 6-24 6-24 6-24 6-25
	6.0 6.1 6.2 6.3 6.4 6.5	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing6.3.3Shipping Movements and De-ballasting RequirementsRail Transport(5.1)December Movements	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23 6-23 6-23 6-23 6-24 6-24 6-25 6-25 6-25
	6.0 6.1 6.2 6.3 6.4 6.5	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing6.3.3Shipping Movements and De-ballasting RequirementsRail TransportAir Transport6.5.1Passenger Movements6.5.2Aviation Safety Assessment	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-23 6-23 6-23 6-23 6-23 6-24 6-24 6-24 6-25 6-25 6-25 6-25 6-25
	6.0 6.1 6.2 6.3 6.4 6.5	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing6.3.3Shipping Movements and De-ballasting RequirementsRail Transport6.5.16.5.1Passenger Movements6.5.2Aviation Safety Assessment	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-21 6-23 6-23 6-23 6-23 6-24 6-24 6-25 6-25 6-25 6-25
7	6.0 6.1 6.2 6.3 6.4 6.5 Envi	TransportationStudy Background and ScopeRoad Transport6.2.1Existing Road Network for Refinery6.2.2Existing Traffic6.2.3Project Traffic6.2.4Traffic Distribution and Assignment6.2.5Traffic Predictions6.2.6Intersection Analysis6.2.7Pavement Impact Assessment6.2.8Public TransportShipping6.3.16.3.1Wiggins Island6.3.2Fisherman's Landing6.3.3Shipping Movements and De-ballasting RequirementsRail TransportAir Transport6.5.1Passenger Movements6.5.2Aviation Safety Assessment	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-23 6-23 6-23 6-23 6-23 6-23 6-24 6-25 6-25 6-25 6-25 6-25
7	6.0 6.1 6.2 6.3 6.4 6.5 Envi 7.0	Transportation Study Background and Scope Road Transport 6.2.1 Existing Road Network for Refinery 6.2.2 Existing Traffic 6.2.3 Project Traffic 6.2.4 Traffic Distribution and Assignment 6.2.5 Traffic Predictions 6.2.6 Intersection Analysis 6.2.7 Pavement Impact Assessment 6.2.8 Public Transport Shipping 6.3.1 Wiggins Island 6.3.2 Fisherman's Landing 6.3.3 Shipping Movements and De-ballasting Requirements Rail Transport Air Transport 6.5.1 Passenger Movements 6.5.2 Aviation Safety Assessment irronmental Effects of Pipelines	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-23 6-23 6-23 6-23 6-23 6-24 6-25 6-25 6-25 6-25 6-25
7	6.0 6.1 6.2 6.3 6.4 6.5 Envi 7.0 7.1	Transportation Study Background and Scope Road Transport 6.2.1 Existing Road Network for Refinery 6.2.2 Existing Traffic 6.2.3 Project Traffic 6.2.4 Traffic Distribution and Assignment 6.2.5 Traffic Predictions 6.2.6 Intersection Analysis 6.2.7 Pavement Impact Assessment 6.2.8 Public Transport Shipping 6.3.1 Wiggins Island 6.3.2 Fisherman's Landing 6.3.3 Shipping Movements and De-ballasting Requirements Rail Transport Air Transport 6.5.1 Passenger Movements 6.5.2 Aviation Safety Assessment irronmental Effects of Pipelines Climate	6-1 6-1 6-2 6-2 6-3 6-4 6-6 6-7 6-11 6-23 6-23 6-23 6-23 6-23 6-23 6-24 6-24 6-25 6-25 6-25 6-25 6-25

	7.1.2	Potential Impacts and Mitigation Measures	7-3
7.2	Terrain	and Soils	7-3
	7.2.1	Topography	7-3
	7.2.2	Geology	7-4
	7.2.3	Soils	7-6
	7.2.4	Acid Sulphate Soils	7-11
	7.2.5	Bull Dust	7-12
	7.2.6	Good Quality Agricultural Land	7-12
	7.2.7	Potential Contaminated Land	7-13
7.3	Water H	Resources	7-14
	7.3.1	Description of Environmental Values	7-15
	7.3.2	Surface Water	7-15
	7.3.3	Groundwater	7-19
	7.3.4	Watercourse Crossings	7-22
7.4	Flora	-	7-32
	7.4.1	Methodology	7-32
	7.4.2	Vegetation Communities/Regional Ecosystems	7-33
	7.4.3	Commonwealth Endangered Ecological Communities	7-34
	7.4.4	Regional Ecosystems	7-34
	7.4.5	Protected Vegetation	7-35
	7.4.6	Commonwealth Protected Species	7-35
	7.4.7	State Protected Species	7-36
	7.4.8	Matters of National Environmental Significance	7-36
	7.4.9	Aquatic Vegetation	7-36
	7.4.10	Declared Weeds	7-37
	7.4.11	Potential Impacts	7-38
	7.4.12	Proposed Mitigation Measures	7-42
7.5	Fauna		7-43
	7.5.1	Methodology	7-43
	7.5.2	Terrestrial Fauna and Fauna Habitat	7-44
	7.5.3	EVR Fauna Species	7-45
	7.5.4	Other Fauna Species of Conservation Significance	7-46
	7.5.5	Common Fauna	7-47
	7.5.6	Aquatic Fauna	7-47
	7.5.7	Matters of National Environmental Significance	7-48
	7.5.8	Potential Impacts	7-49
	7.5.9	Proposed Mitigation Measures	7-54
7.6	Air		7-58
	7.6.1	Description of Environmental Values	7-58
	7.6.2	Potential Impacts	7-58
	7.6.3	Proposed Mitigation Measures	7-58
7.7	Noise		7-59
	7.7.1	Description of Environmental Values	7-59
	7.7.2	Potential Impacts	7-60
	7.7.3	Proposed Mitigation Measures	7-61
7.8	Hazard	and Risk	7-61
	7.8.1	Overview	7-61
	7.8.2	Preliminary Risk Assessment Methodology	7-61
	7.8.3	Impact Mitigation	7-64
	7.8.4	Further Risk Assessment	7-65

Gladstone Nickel Project Environmental Impact Statement

8	Env	ironmen	ntal Effects of Refinery	8-1
	8.0	Enviror	nmental Effects of Refinery	8-1
	8.1	Terrain	and Soils	8-1
		8.1.1	Topography and Drainage	8-1
		8.1.2	Site Geology	8-1
		8.1.3	Soils	8-2
		8.1.4	Topsoil	8-4
		8.1.5	Implications for Rehabilitation	8-5
		8.1.6	Soil Erosion	8-6
		8.1.7	Agricultural Land Capability	8-6
		8.1.8	Land Management and Rehabilitation	8-8
		8.1.9	Acid Sulphate Soils	8-9
		8.1.10	Soil Contamination	8-12
		8.1.11	Regional Seismicity	8-14
	8.2	Surface	eWater	8-15
		8.2.1	Description of Environmental Values	8-15
		8.2.2	Potential Impacts and Mitigation Measures – Construction Phase	8-24
		8.2.3	Potential Impacts and Mitigation Measures – Operational Phase	8-25
	8.3	Marine	Environment	8-28
		8.3.1	Review of Existing Information	8-28
		8.3.2	Field Survey	8-29
		8.3.3	Port Curtis Setting	8-30
		8.3.4	Physical Characteristics of Port Curtis	8-30
		8.3.5	Marine Habitat Characteristics of Port Curtis	8-31
		8.3.6	Marine Conservation Areas including World Heritage	8-35
		8.3.7	Intreatened and Migratory Species including Matters of National	0 20
		020	Environmental Significance	8-38
		8.3.8 8.2.0	Evisting Water Quality	8-39
		0.3.9 0.2.10	Ambient Water Quality Cuidelines	8-40
		0.3.10 9 2 1 1	Amblent water Quanty Guidennes	8 49
		8312	Pafinary Discharge	8 40
		8312	Water Quality Impacts of Refinery Discharge	8 52
		8314	Pipeline Crossing of Callione River	8-52
		8315	Potential Marine Impacts from Materials Handling	8-58
		8316	Shinning Impacts	8-60
	84	Ground	lwater	8-63
	0.1	8 4 1	Data Review	8-63
		8.4.2	Groundwater Geology and Aquifer Occurrence	8-63
		8.4.3	Groundwater Levels and Flow Characteristics	8-64
		8.4.4	Potential Groundwater Impacts – Construction Phase	8-66
		8.4.5	Potential Groundwater Impacts – Operations Phase	8-67
		8.4.6	Mitigation Strategies	8-67
	8.5	Terresti	rial Flora	8-68
		8.5.1	Study Aim and Objectives	8-68
		8.5.2	Review of Existing Information	8-68
		8.5.3	Field Survey	8-69
		8.5.4	Regional Context	8-69
		8.5.5	Survey Results	8-70
		8.5.6	Environmentally Sensitive Areas	8-73

Gladstone Nickel Project Environmental Impact Statement

	8.5.7	Vegetation of Conservation Significance and Matters of National	9.74
	050	Environmental Significance	8-74
	0.3.0	Negotation Classing	0-13 0 75
	0.J.9 0 5 10	Management Startogics	8-13 9 76
06	8.3.10 Termost	management Strategies	8-70
8.0		Inal Fauna Interduction	8-78
	0.0.1 9.6.2	Introduction Devices of Existing Information	0-/0 0 70
	8.0.2	Review of Existing Information	8-78
	8.0.3	Survey	8-79
	8.6.4	Species of Conservation value	8-81
	8.6.5	Exotic Animais	8-83
	8.6.6	Potential impacts	8-83
0 7	8.6.7	Management Measures	8-84
8.7	Air Qu	ality	8-84
	8.7.1	Introduction	8-84
	8.7.2	Climate	8-84
	8.7.3	Legislative Framework	8-87
	8.7.4	Existing Air Quality Monitoring	8-90
	8.7.5	Modelled Concentrations of SO ₂ and NO ₂	8-91
	8.7.6	Air Emissions During Operations	8-92
	8.7.7	Emission Rates	8-92
	8.7.8	Dispersion Modelling	8-97
	8.7.9	Emissions During Construction	8-101
	8.7.10	Greenhouse Gas Assessment	8-101
8.8	Noise		8-105
	8.8.1	Introduction	8-105
	8.8.2	Existing Environment	8-106
	8.8.3	Noise Criteria	8-107
	8.8.4	Noise Model	8-110
	8.8.5	Assessment	8-112
	8.8.6	Construction Noise and Vibration	8-114
Env	ironmer	ntal Effects of Residue Storage Facility	9-1
9.1	Terrain	and Soils	9-1
	9.1.1	Existing Environment	9-1
	9.1.2	Topsoil Resources	9-5
	9.1.3	Implications for Rehabilitation	9-6
	9.1.4	Soil Erosion	9-7
	9.1.5	Agricultural Land Capability	9-7
9.2	Residue	e Characterisation	9-10
	9.2.1	Introduction	9-10
	9.2.2	Residue Characteristics	9-10
9.3	RSF De	esign	9-13
	9.3.1	Design Criteria	9-13
	932	Embankment Design	9-14
	933	Unstream Raises	9-15
	934	Seenage Collection System	9-15
	935	Scipuge Concerton System Snillway	0_16
0 /	PSE O	opinway perations	9-10 0.14
9.4	0 / 1	Posidua Disposal	9-10 0.16
	7.4.1 0 1 7	Mud Farming	9-10 0.17
	7.4.2	Water Dalance	9-1/
	9.4.5	water Datance	9-1/

9

	011	Monitoring	0.10
	9.4.4	Rick Management	0.20
95	9.4.5 RSE C1		9-20
).5	051		9-20
	052	Cover Design	0.21
	0.5.2	Seenage Modelling	0.22
	9.5.5	Stormwater Management	9-22
9.6	9.J.4 Surface	Water	9-23
9.0	0 6 1	Catchment Context	9-25
	9.0.1	Painfall and Evaporation	9-23
	9.0.2	Catchments Drainage and Tonography	9-23
	9.0.3	Streamflow and Flow Regime	9-20
	9.0.4	Water Quality	9-20
	9.0.5	Water Use	9-20
	9.0.0	Water Use Summary of Environmental Values	9-27
	9.0.7	Botantial Impacts and Mitigatian Massures — Construction Dhase	9-27
	9.0.0	Potential Impacts and Mitigation Measures – Construction Phase	9-27
07	9.0.9 Ground	Potential impacts and wingation measures – Operational Phase	9-29
9.7		Evicting Groundwater Data	9-30
	9.7.1	Existing Gloundwater Data	9-30
	9.1.2	Croundwater Levels and Flow Characteristics	9-30
	9.7.5	Groundwater Levels and Flow Characteristics	9-31
	9.7.4	Hydraune Parameters Water Ovality	9-31
	9.7.5	Water Quality	9-32
	9.7.0	Detential Croundwater Impostan Construction Phase	9-33
	9.7.7	Potential Groundwater Impacts – Construction Phase	9-54
0.8	9.7.0 Land M	Fotential Ofoundwater Impacts – Operations Flase	9-34
9.0		Dehebilitation Coole	9-33
	9.8.1	Renabilitation Goals	9-33
	9.8.2	Post-Project Land Use and Suitability Dehebilitation Stratagy	9-30
0.0	9.8.3 Tomost	rial Elora	9-30
9.9		fill Flora	9-38
	9.9.1	Study Aim and Objectives	9-38
	9.9.2	Data Review and Field Survey	9-38
	9.9.3	Regional Context	9-39
	9.9.4	Existing Conservation Values	9-40
0.10	9.9.5	Potential Impacts and Mitigation Measures	9-45
9.10	Terresti	rial Fauna	9-47
	9.10.1	Study Aim and Objectives	9-47
	9.10.2	Data Review and Field Survey	9-48
	9.10.3	Survey Results	9-49
	9.10.4	Species of Conservation Value and Matters of National Environmental	0.51
	0.10.5	Significance	9-51
	9.10.5	Exotic Animals	9-53
	9.10.6	RSF Habitat Conservation Values	9-54
0.11	9.10.7	Potential Impacts and Mitigation Measures	9-55
9.11	Freshw	ater Ecology	9-58
	9.11.1	Introduction	9-58
	9.11.2	Overview	9-58
	9.11.3	Farmer Creek	9-60
	9.11.4	Larcom Creek	9-60
e :-	9.11.5	Discussion	9-61
9.12	Air Qua	ality	9-62
	9.12.1	Existing Air Quality	9-62

		9.12.2 9.12.3	Emissions Dust	9-62 9-63
	9.13	Noise		9-63
10	Soci	o-Econo	omic Effects	10-1
	10.0	Socio-E	conomic Effects	10-1
	10.1	Introduc	ction	10-1
	10.2	Method	ology	10-1
	10.3	Existing	, Demographic Profile	10-2
		10.3.1	Existing Population	10-2
		10.3.2	Age Structure	10-3
		10.3.3	Pamily Structure Residency	10-3
		10.3.4	Indigonous Population	10-4
		10.3.5	Labour Force and Unemployment	10-4
		10.3.0	Eabour Porce and Onemployment Employment by Industry and Occupation	10-4
		10.3.7	Income	10-5
		10.3.0	Education Profile	10-5
		10.3.10	Population Projections	10-6
	10.4	Existing	Housing and Accommodation Facilities	10-6
		10.4.1	Introduction	10-6
		10.4.2	Dwelling Structure	10-7
		10.4.3	Household Size	10-7
		10.4.4	Home Ownership	10-7
		10.4.5	Residential Land Supply	10-7
		10.4.6	Approval and Construction of Dwellings	10-8
		10.4.7	Property Prices	10-8
		10.4.8	Rental Property	10-9
		10.4.9	Public Housing	10-9
		10.4.10	Hotel and Motel Accommodation	10-10
		10.4.11	Caravan Parks	10-10
	10 5	10.4.12	Workers' Villages	10-10
	10.5	Project	Workforce	10-10
		10.5.1	Construction Workforce	10-10
		10.5.2	Uperational Workforce	10-12
		10.5.5	Markforce Requirements of Other Projects	10-12
		10.5.4	Workforce Availability	10-14
	10.6	Demogr	workforce Availability	10-15
	10.0	10.6.1	Origin of Imported Workers	10-16
		10.6.1	Living Arrangements of Imported Workers	10-17
		10.6.2	Population Associated with Imported Workers	10-18
	10.7	Effects of	on Housing and Accommodation Facilities	10-19
		10.7.1	Predicted Housing Requirements	10-19
		10.7.2	Housing Strategy	10-22
		10.7.3	Mitigation Initiatives	10-25
	10.8	Commu	nity Services, Facilities and Lifestyle	10-26
		10.8.1	Health Facilities and Services	10-26
		10.8.2	Education and Training	10-27
		10.8.3	Community Facilities and Services	10-29
		10.8.4	Childcare	10-29
		10.8.5	Sport and Recreation	10-29

10.8.7 Community Vitality, Litestyle and Values 10-31 10.9 Economic Impact 10-31 10.9.1 Economic Effects 10-32 10.9.3 Other Economic Effects 10-35 10.10.1 Refinery 10-35 10.10.2 Residue Storage Facility 10-36 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11.1 Refinery 10-38 10.11.2 Residue Storage Facility 10-40 10.11.1 Refinery 10-39 10.11.2 Residue Storage Facility 10-43 10.11.2 Residue Storage Facility 10-43 10.11.1 Refinery 10-43 10.12.1 Gladstone State Development Area 10-445 10.12.2 Calitope Shire Council 10-447 10.12.3 Fitzury Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Cutris Coast Regional Management Plan 10-53 10.13.1			10.8.6	Shopping Facilities	10-29
10.9 1 Economic Profile 10-31 10.9.1 Economic Impact 10-32 10.9.2 Economic Effects 10-32 10.9.3 Other Economic Effects 10-33 10.10.1 Refinery 10-35 10.10.2 Residue Storage Facility 10-36 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11.1 Residue Storage Facility 10-40 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-43 10.12.1 Residue Storage Facility 10-40 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-43 10.12.1 Gadstone State Development Area 10-45 10.12.2 Califoge Shire Council 10-47 10.12.2 Califoge Shire Council 10-47 10.12.2 Califoge Shire Council 10-47 10.12.5 Curta' Queensland Regional Growth Management Framework 10-48 10.13.1 <t< td=""><td></td><td>10.0</td><td>10.8.7</td><td>Community Vitality, Lifestyle and Values</td><td>10-30</td></t<>		10.0	10.8.7	Community Vitality, Lifestyle and Values	10-30
10.9.1 Economic Impact 10-32 10.9.2 Economic Effects 10-32 10.9.3 Other Economic Effects 10-35 10.10 Land Tenure 10-35 10.10.1 Refinery 10-35 10.10.2 Residue Storage Facility 10-37 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.11.1 Refinery 10-38 10.11.1 Refinery 10-39 10.11.1 Refinery 10-40 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Fastures 10-53 10-53 10.13.1 Visual Fastures <		10.9	Economi		10-31
10.9.3 Other Economic Effects 10-35 10.10 Land Tenure 10-35 10.10.1 Refinery 10-35 10.10.2 Residue Storage Facility 10-36 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11.1 Refinery 10-39 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Cutris Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10-53 10.13.4 Landscape C			10.9.1	Economic Profile	10-31
10.9.3 Other Economic Effects 10-35 10.10 Land Tenure 10-35 10.10.1 Refinery 10-35 10.10.2 Residue Storage Facility 10-36 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11.1 Refinery 10-39 10.11.1 Refinery 10-40 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.2 Calliope Shire Council 10-44 10.13.1 Visual Impacts 10-53 10.13.2 Kistroy Shire 10-53 10.13.3 Landscape Character			10.9.2	Economic Impact	10-32
10.10.1 Refinery 10-35 10.10.1 Refinery 10-35 10.10.2 Residue Storage Facility 10-37 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11.1 Refinery 10-39 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Callastone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.13.1 Visual Features 10-55 10.13.2 Existing Landscape Character 10-55 10.13.3 Landscape Quality 10-58 10.13.7 Viewal Feat		10.10	10.9.3 Land Ta	Other Economic Effects	10-35
10.10.1 Reinlery 10-35 10.10.2 Residue Storage Facility 10-35 10.10.4 Conveyor and Seawater Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.11 Refinery 10-39 10.11 Refinery 10-39 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.2 Calliope Shire Council 10-47 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Landscape Character 10-53 10.13.2 Existing Landscape Character 10-58 10.13.5 Secnic Quality Rating 10-59 <tr< td=""><td></td><td>10.10</td><td>10.101</td><td>Definition</td><td>10-35</td></tr<>		10.10	10.101	Definition	10-35
10.10.2 Petition 10-30 10.10.3 Pipelines 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11 Land Use10-39 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-40 10.11.4 Regional Land Uses 10-43 10.12 Calidostone State Development Area 10-45 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Features 10-53 10.13.2 Existing Landscape Character 10-55 10.13.4 Landscape Character Zones 10-55 10.13.5 Scenic Quality Rating 10-58 10.13.6 Visual Assessment Criteria 10-61 10.13.7 Visual Assessment Criteria 10-61			10.10.1	Refinery	10-35
10.10.3 Propendes 10-37 10.10.4 Conveyor and Seawater Pipelines 10-38 10.10.5 Native Title 10-38 10.11 Land Use10-39 10-40 10.11.1 Refinery 10-39 10.11.1 Refinery 10-39 10.11.1 Refinery 10-40 10.11.3 Pipelines 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.5 Cutris Coast Regional Management Plan 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-53 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-58 10.13.6 Visual Impact Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment			10.10.2	Residue Storage Facility	10-30
10.10.4 Conveyor and Seawater Pipennes 10-38 10.10.5 Native Title 10-38 10.11.1 Refinery 10-39 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12.1 Glastone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Quality 10-58 10.13.4 Visual Assessment Methodology 10-61 10.13.7 Visual Assessment Criteria 10-69 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.1 Conclusion 10-73 10.3.10 Mitigation Measures 10-73 <t< td=""><td></td><td></td><td>10.10.3</td><td>Pipelines Converse and Security Direlines</td><td>10-37</td></t<>			10.10.3	Pipelines Converse and Security Direlines	10-37
10.10.3 Native fute 10-38 10.11 Land Use10-39 10.39 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12 Land Use Planning 10-45 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-55 10.13.3 Landscape Character Zones 10-58 10.13.4 Landscape Character Zones 10-58 10.13.5 Scenic Quality Rating 10-51 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Mitigation Measures 10-73 10.13.10 Mitigation Measures 10-73 11.1 11.2 Legislative Framework 11-1 1			10.10.4	Conveyor and Seawater Pipelines	10-38
10.11 Land Use 10-59 10.11.1 Refinery 10-39 10.11.2 Residue Storage Facility 10-40 10.11.3 Pipelines 10-40 10.11.4 Regional Land Uses 10-43 10.12 Land Use Planning 10-45 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-53 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-55 10.13.4 Landscape Character Zones 10-55 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1.1 Background 11-1		10.11	10.10.5 Land Ua		10-38
10.11.1 Renicry 10-40 10.11.2 Residue Storage Facility 10-40 10.11.4 Regional Land Uses 10-40 10.11.4 Regional Land Uses 10-43 10.12 Gladstone State Development Area 10-45 10.12.1 Gladstone State Development Area 10-45 10.12.2 Callizope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.2 Existing Landscape Character 10-53 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewal Susal Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitgation Measures 10-73 10.13.11 Conclusion 10-73 10-73 <td></td> <td>10.11</td> <td>10 11 1</td> <td>Definery</td> <td>10.20</td>		10.11	10 11 1	Definery	10.20
10.11.2 Restude Storage Fachiny 10-40 10.11.3 Regional Land Uses 10-40 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-53 10.13.4 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Impact Assessment Criteria 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.9 Summary 10-73 10.13 Intigation Measures 10-73 10.13.11 Conclusion 10-73 11.1 Landscape Masessment 11-1			10.11.1	Reinlery Desidue Storage Facility	10-39
10:11.3 Fipelnes 10-43 10:112 Land Use 10-43 10:12 Land Use Planning 10-43 10:12 Land Use Planning 10-45 10:12.1 Gladstone State Development Area 10-45 10:12.2 Calliope Shire Council 10-47 10:12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10:12.5 Curtis Coast Regional Management Plan 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10:13.3 Landscape Quality 10-58 10:13.4 Landscape Quality 10-58 10:13.5 Scenic Quality Rating 10-59 10:13.6 Visual Impact Assessment Criteria 10-69 10:13.8 Visual Impact Assessment Criteria 10-69 10:13.9 Summary 10-71 10:13.10 Mitigation Measures 10-73 11 Cultural Heritage 11-1 11.1.1 Background 11-1 11.1.2 <td< td=""><td></td><td></td><td>10.11.2</td><td>Dinalinas</td><td>10-40</td></td<>			10.11.2	Dinalinas	10-40
10.114 Regional Land Oses 10-45 10.12 Land Use Planning 10-45 10.12.1 Gladstone State Development Area 10-45 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Assessment Methodology 10-61 10.13.9 Summary 10-73 10.13.1 Conclusion 10-73 11.1 Background 11-1 11.1.1 Methodology 11-1 11.1.2 Legislative Framework 11-1 11.1.1			10.11.5 10.11.4	Providence Land Land	10-40
10.12 Lail Ger Flaming 10-4.5 10.12.1 Gladstone State Development Area 10-4.5 10.12.2 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1.2 Legislative Framework 11-1 11.1.2 Legislative Framework 11-1 11.1.2 Legislative Framework 11-1 11.1.3 Potential Impacts and Mitigation Measures 11-3 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation		10.12	10.11.4 Lond Ha	a Diaming	10-43
10.12.1 Calliope Shire Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.10 Mitigation Measures 10-73 10.13.10 Mitigation Measures 10-73 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1 Background 11-1 11.		10.12	10 12 1	Cladatona Stata Davalanmant Area	10-43
10.12.2 Campe Sine Council 10-47 10.12.3 Fitzroy Shire 10-48 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11.1 Background 11-1 11.1.2 Legislative Framework 11-1 11.1.2 Legislative Framework 11-1 11.1.2 Legislative Framework 11-2			10.12.1	Callione Shire Council	10-43
10.12.5 FILIOY SINC 10-49 10.12.4 Central Queensland Regional Growth Management Framework 10-49 10.12.5 Curtis Coast Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-61 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1.2 Legislative Framework 11-1 11.1.2 Legislative Framework 11-3 11.2.1 Register Searches 11-3 11.2.2			10.12.2	California Shire	10-47
10.12.4 Central Queensation Regional Management Plan 10-31 10.13 Visual Impacts 10-53 10.13 Visual Features 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1.2 Legislative Framework 11-1 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4			10.12.3	Filzroy Shire Control Queeneland Bagional Crowth Management Fremework	10-48
10.12.5 Curits Cost Regional Management Plan 10-51 10.13 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1 Background 11-1 11.2 Legislative Framework 11-1 11.2 Register Searches 11-3 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1 Engagement with Aboriginal Parties 11-6 11.4.3 CHMP Description 11-7			10.12.4	Curtia Coast Degional Management Plan	10-49
10.15 Visual Impacts 10-53 10.13.1 Visual Features 10-53 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Methodology 11-1 11.1.2 Legislative Framework 11-1 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1 Engagement with Aboriginal Parties 11-6 11.4.2 Progress to Date 11-6 11.4.3 CHMP Description 11-7		10.12	10.12.3 Wienel Ir	Curtis Coast Regional Management Plan	10-51
10.13.1 Visual Features 10-33 10.13.2 Existing Landscape Character 10-54 10.13.3 Landscape Character Zones 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11.1 Cultural Heritage 11-1 11.1.1 Methodology 11-1 11.1.1 Methodology 11-1 11.1.2 Legislative Framework 11-1 11.2 Desktop Heritage Assessment 11-2 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1		10.13	10.12.1	Niguel Eastures	10-55
10.13.2 Existing Landscape Character 10-34 10.13.3 Landscape Quality 10-55 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1.1 Methodology 11-1 11.2 Legislative Framework 11-1 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1 Engagement with Aboriginal Parties 11-6 11.4.2			10.13.1	Visual Features	10-55
10.13.5 Landscape Quality 10-58 10.13.4 Landscape Quality 10-58 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11.1 Cultural Heritage 11-1 11.1 Background 11-1 11.1 Methodology 11-1 11.2 Legislative Framework 11-1 11.2 Desktop Heritage Assessment 11-2 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1 Engagement with Aboriginal Parties 11-6 11.4.2 Progress to Date 11-6 11.4.3 CHMP Descrip			10.13.2	Existing Landscape Character	10-34
10.13.4 Landscape Quanty 10-38 10.13.5 Scenic Quality Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.8 Visual Impact Assessment Criteria 10-69 10.13.9 Summary 10-71 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1.2 Legislative Framework 11-1 11.2 Desktop Heritage Assessment 11-2 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1 Engagement with Aboriginal Parties 11-6 11.4.2 Progress to Date 11-6 11.4.3 CHMP Description 11-7			10.13.3	Landscape Character Zones	10-55
10.13.5 Scenic Quarty Rating 10-59 10.13.6 Visual Assessment Methodology 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.7 Viewing Situations Descriptions 10-61 10.13.7 Visual Impact Assessment Criteria 10-69 10.13.8 Visual Impact Assessment Criteria 10-73 10.13.10 Mitigation Measures 10-73 10.13.11 Conclusion 10-73 11 Cultural Heritage 11-1 11.1 Background 11-1 11.1.1 Methodology 11-1 11.2 Legislative Framework 11-1 11.2 Desktop Heritage Assessment 11-2 11.2.1 Register Searches 11-3 11.2.2 Review of Documentation 11-4 11.3 Potential Impacts and Mitigation Measures 11-5 11.4 Cultural Heritage Management Plans 11-6 11.4.1 Engagement with Aboriginal Parties 11-6 11.4.2 Progress to Date 11-6 11.4.3 CHMP Description 11-7 <td></td> <td></td> <td>10.13.4</td> <td>Lanuscape Quality</td> <td>10-38</td>			10.13.4	Lanuscape Quality	10-38
10.13.6Visual Assessment Methodology10-6110.13.7Viewing Situations Descriptions10-6110.13.8Visual Impact Assessment Criteria10-6910.13.9Summary10-7110.13.10Mitigation Measures10-7310.13.11Conclusion10-7311Cultural Heritage11-111.1Background11-111.1.1Methodology11-111.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.3CHMP Description11-7			10.13.5	Scenic Quality Rating	10-59
10.13.7Viewing Situations Descriptions10-6110.13.8Visual Impact Assessment Criteria10-6910.13.9Summary10-7110.13.10Mitigation Measures10-7310.13.11Conclusion10-7311Cultural Heritage11-111.0Cultural Heritage11-111.1Background11-111.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.3CHMP Description11-7			10.13.0	Visual Assessment Methodology	10-01
10.13.8Visual Impact Assessment Criteria10-6910.13.9Summary10-7110.13.10Mitigation Measures10-7310.13.11Conclusion10-7311Cultural Heritage11-111.0Cultural Heritage11-111.1Background11-111.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.3CHMP Description11-7			10.13./	Viewing Situations Descriptions	10-61
10.13.9Summary10-7110.13.10Mitigation Measures10-7310.13.11Conclusion10-7311Cultural Heritage11-111.0Cultural Heritage11-111.1Background11-111.1.1Methodology11-111.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.3CHMP Description11-7			10.13.8	Visual Impact Assessment Criteria	10-69
10.13.10 Mitigation Measures10-7310.13.11 Conclusion10-7311 Cultural Heritage11-111.0 Cultural Heritage11-111.1 Background11-111.1.1 Methodology11-111.2 Legislative Framework11-111.2 Desktop Heritage Assessment11-211.2.1 Register Searches11-311.2.2 Review of Documentation11-411.3 Potential Impacts and Mitigation Measures11-511.4 Cultural Heritage Management Plans11-611.4.1 Engagement with Aboriginal Parties11-611.4.2 Progress to Date11-611.4.3 CHMP Description11-7			10.13.9	Summary	10-71
10.13.11 Conclusion10-7311 Cultural Heritage11-111.0 Cultural Heritage11-111.1 Background11-111.1.1 Methodology11-111.2 Legislative Framework11-111.2 Desktop Heritage Assessment11-211.2.1 Register Searches11-311.2.2 Review of Documentation11-411.3 Potential Impacts and Mitigation Measures11-511.4 Cultural Heritage Management Plans11-611.4.1 Engagement with Aboriginal Parties11-611.4.2 Progress to Date11-611.4.3 CHMP Description11-7			10.13.10	Mitigation Measures	10-73
11Cultural Heritage11-111.0Cultural Heritage11-111.1Background11-111.1.1Methodology11-111.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7			10.13.11	Conclusion	10-73
11.0Cultural Heritage11-111.1Background11-111.1Methodology11-111.1.1Methodology11-111.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7	11	Cult	ural Heri	tage	11-1
11.1Background11-111.1.1Methodology11-111.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7		11.0	Cultural	Heritage	11-1
11.1.1Methodology11-111.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7		11.1	Backgro	und	11-1
11.1.2Legislative Framework11-111.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7			11.1.1	Methodology	11-1
11.2Desktop Heritage Assessment11-211.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7			11.1.2	Legislative Framework	11-1
11.2.1Register Searches11-311.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7		11.2	Desktop	Heritage Assessment	11-2
11.2.2Review of Documentation11-411.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7			11.2.1	Register Searches	11-3
11.3Potential Impacts and Mitigation Measures11-511.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7			11.2.2	Review of Documentation	11-4
11.4Cultural Heritage Management Plans11-611.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7		11.3	Potential	I Impacts and Mitigation Measures	11-5
11.4.1Engagement with Aboriginal Parties11-611.4.2Progress to Date11-611.4.3CHMP Description11-7		11.4	Cultural	Heritage Management Plans	11-6
11.4.2Progress to Date11-611.4.3CHMP Description11-7			11.4.1	Engagement with Aboriginal Parties	11-6
11.4.3 CHMP Description 11-7			11.4.2	Progress to Date	11-6
			11.4.3	CHMP Description	11-7

12	Community Consultation			12-1
	12.1	Introdu	ection	12-1
	12.2	Objecti	ves	12-1
		12.2.1	Approach	12-2
	12.3	Method	lology	12-2
		12.3.1	Overview	12-2
		12.3.2	Stakeholder Identification	12-2
		12.3.3	Consultation Methods	12-5
		12.3.4	Feedback Process	12-6
		12.3.5	Consultation Database	12-6
	12.4	Consul	tation Program	12-6
		12.4.1	Public Release of Key Project Documents	12-6
		12.4.2	Stakeholder Meetings and Briefings	12-7
		12.4.3	Industry Affiliations	12-10
		12.4.4	Project Newsletters and Brochures	12-10
		12.4.5	Media Releases and Advertising	12-11
		12.4.6	Website Updates	12-11
		12.4.7	Enquiry and Feedback System	12-12
	12.5	Key Iss	sues and Responses	12-12
	12.6	Ongoin	g Consultation	12-15
13	Risk	and Sa	afety	13-1
	13.0	Risk an	nd Safety	13-1
	13.1	Introdu	iction	13-1
	13.2	Health	and Safety Management	13-1
		13.2.1	Policies and Objectives	13-1
		13.2.2	Legislative Compliance	13-1
		13.2.3	Dangerous Goods	13-2
		13.2.4	Safety Management System	13-3
		13.2.5	HSE Management Standards	13-3
		13.2.6	Audits and Inspections	13-4
		13.2.7	HSE Risk Management	13-4
	13.3	Risk M	lanagement Approach	13-4
	13.4	Risk A	nalysis	13-5
		13.4.1	Risk Matrix	13-5
		13.4.2	Analysis Methodology	13-7
		13.4.3	Hazard Identification	13-7
		13.4.4	Workshop Review	13-7
		13.4.5	Consequence Modelling	13-7
	13.5	Risk A	nalysis Results	13-8
	13.6	Risk M	litigation	13-12
		13.6.1	Solvent Extraction	13-12
		13.6.2	Ammonia Areas	13-12
		13.6.3	Nickel and Cobalt Reduction	13-13
		13.6.4	Hydrogen Sulphide Areas	13-13
	13.7	Emerge	ency Planning and Management	13-13
		13.7.1	Emergency Services	13-13
		13.7.2	First Response Teams	13-14
		13.7.3	First Aid	13-15
		13.7.4	Emergency Response Plans	13-15

	13.8	Workpla	ce Health and Safety	13-17
	13.9	Workpla	ce Hazards	13-18
		13.9.1	Hazardous Substances	13-18
		13.9.2	Noise	13-19
		13.9.3	Heat	13-19
		13.9.4	Confined Spaces	13-19
		13.9.5	Working at Heights	13-19
		13.9.6	Fires	13-19
		13.9.7	Vehicle Safety	13-20
		13.9.8	Equipment Failure	13-20
		13.9.9	Manual Handling	13-20
		13.9.10	Natural Hazards	13-20
		13.9.11	Pests	13-22
		13.9.12	Monitoring of Workplace Hazards	13-23
		13.9.13	Personal Protective Equipment	13-23
		13.9.14	Workplace Health and Safety Training	13-23
14	Envi	ronment	al Management Plan	14-1
	14 0	Environr	nental Management Plan	14-1
	14.1	Introduct	tion	14-1
	14.2	Objective	es	14-1
	14.3	Legislati	on	14-1
	14.4	Responsi	ibilities	14-2
	1	14.4.1	Construction Phase	14-2
		14.4.2	Operations Phase	14-2
	14.5	Reportin	g and Auditing	14-2
	14.6	Training	and Communications	14-3
	14.7	Review	14-3	
	14.8	Pipelines	s Construction Environmental Management Plan	14-4
		14.8.1	Objectives	14-4
		14.8.2	EMP Structure	14-4
		14.8.3	Construction Management	14-5
		14.8.4	Issue Specific Management	14-12
		14.8.5	Special Area Plans	14-26
	14.9	Pipelines	s Operations Environmental Management Plan	14-28
		14.9.1	Operational Activities	14-28
		14.9.2	Development of Operations EMP	14-28
	14.10	Refinery	and RSF Construction Environmental Management Plan	14-29
		14.10.1	Waste Management Plan	14-29
		14.10.2	Air Quality Management Plan	14-30
		14.10.3	Noise Management Plan	14-31
		14.10.4	Soil Contamination Management Plan	14-32
		14.10.5	Acid Sulphate Soil Management Plan	14-33
		14.10.6	Groundwater Management Plan	14-34
		14.10.7	Surface Water Management Plan	14-35
		14.10.8	Flora Management Plan	14-36
		14.10.9	Fauna Management Plan	14-37
		14.10.10	Mosquito Management Plan	14-38
		14.10.11	Pest Management Plan	14-39
		14.10.12	Chemical and Dangerous Goods Management Plan	14-39
		14.10.13	Traffic Management Plan	14-40
		14.10.14	Housing Management Plan	14-41

References	15-1
14.12.1 Decommissioning Management Plan	14-59
14.12 Decommissioning Environmental Management Plan	14-59
14.11.12 Incidents and Complaints Management Plan	14-58
14.11.11 Recruitment and Training Management Plan	14-58
14.11.10 Emergency Response Management Plan	14-57
14.11.9 Health and Safety Management Plan	14-56
14.11.8 Chemical and Dangerous Goods Management Plan	14-55
14.11.7 Water Discharge Management Plan	14-53
14.11.6 Groundwater Management Plan	14-52
14.11.5 Surface Water Management Plan	14-51
14.11.4 Noise Management Plan	14-50
14.11.3 Greenhouse Gas Management Plan	14-49
14.11.2 Air Quality Management Plan	14-48
14 11 1 Waste Management Plan	14-47
14.10.17 Incidents and Complaints Management	14-43
14.10.10 Incidents and Complaints Management	14-44
14.10.17 Emergency Response Management	14-44
14.10.16 Health and Safety Management	14-43
14.10.15 Cultural Heritage Management Plan	14-42
14.10.15 College Hussiers Management Diag	14.40

15