

APPENDIX B
SAMPLE SITE DESCRIPTIONS

B.1 SOIL SAMPLE SITES

B.2 WATER SAMPLE SITES

APPENDIX B.1
SOIL SAMPLE SITES

CAM-5, MACKAR INLET: SOIL SAMPLES

Sample No.	Surface Runoff	Soil Drainage	Permeability	Surface Stoniness	Topography	Slope Position	Slope Exposure	Soil Description	Soil Colour	Vegetation	Remarks (Location, Adjacent Areas, Comments)
C5-001	Medium	Moderate		Coarse gravels, cobbles		Top	E	Coarse sand			- East corner of lower garage - Toe of stained plume - 2 m from small pond draining east along ditch parallel to road south of runway
C5-002	Ponding	Poor		Coarse gravels, cobbles		Top	E	Coarse sand			- Same general area as C5-001 - Edge of adjacent small pond to west draining to pond that drains east along ditch parallel to runway
C5-003	Medium	Moderate		Coarse gravels, cobbles		Top	E	Coarse grained sand			- Same general location as C5-001 and C5-002, but 4-5 m uphill towards garage - At end of pipe containing wires and draining garage
C5-004					Inside garage	Top	E	Coarse grained sand			- From floor of garage uphill of C5-001, C5-002 and C5-003
C5-005/006	Ponding	Poor		Occasional boulders/ cobbles		Top	E	Sand			- 50 m east of gravel pad for garage in sand/standing water area - Between road and runway - Film on surface - Strong HC odour - Drainage ditch draining east, runway
C5-007	Ponding	Poor		Occasional boulders and cobbles		Downslope	E	Coarse sandy material			- Downstream from C5-001, C5-002, C5-003 and C5-005 just south of road
C5-008	Ponding	Poor		Occasional boulders/ cobbles		Middle	E	Fine sand	Brown-grey		- 10 m south of water course referenced in C5-005 (parallel to stream referenced in C5-007) - Between road and runway
C5-009	Ponding	Poor		Occasional boulders/ cobbles		Downslope	E	Fine, silty	Grey		- 1/2 along runway - Downslope from C5-001 thru C5-008 along edge of watercourse south of runway
C5-010/011	Ponding	Poor		Negligible		Low end of lake	E	Silty clay	Grey		- At drainage point of small lake half way down and north of runway
C5-012	Ponding	Poor		Some cobbles, boulders, grassy		Bottom	E	Medium to coarse grained sand			- NE end of runway - E end of small stream draining area referenced in C5-010 and C5-011
C5-013	Ponding	Poor			Upstream of culvert under runway		NNE	Silty delta sediments	Grey		- Upstream of culvert under runway at E end of watercourse sampled in C5-005, C5-007, C5-008 and C5-009

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C5-014	Medium	Well		Coarse grained sand/ gravels	Almost flat	Top	NNE	Coarse grained sand/gravel			- E of bulk tank #10 (diesel fuel) 2 m outside of and E of dyke - Staining - Strong HC odour
C5-015	Rapid	Well		Coarse grained sand/gravels		Top	NNW	Sand			- In eroded discharge channel from berm surrounding bulk tank 10. At end of a 3-4" pipe that passes through the base of the berm on the W side of the tank
C5-016	Ponding	Poor		Gravelly				Sandy			- Within berm surrounding bulk tank 10 just uphill of pond of standing water (within berm) - Strong fuel smell in sediment - Moderate fuel smell in area generally
C5-017	Medium	Moderate				Top/middle	N	Sandy sediment, medium to coarse grained sand			- Along small stream bank E of bulk tank 10 - Film on water, with bubbles - Stream bed
C5-018	Medium	Moderate		Occasional boulders/ cobbles, grassy		Top/middle	NW ultimately draining N	Fine sandy sediments			- Edge of small stream along side staging/ storage area upstream of C5-017 - Drains low lying grassy valley - Staging/storage area
C5-019	Ponding	Poor		Grassy, occasional boulders		Top/middle	E	Fine water saturated sediments, 3 cm grey silts homogenized with overlying rusty sands	Grey		- SW of C5-018 - Film on water surface
C5-020/021	Ponding	Poor		Grassy, gravel		Top/middle	NW ultimately draining N	Clay-like, water saturated sediments underlain by gravel-clay substrate			- E edge of landfill
C5-022	Ponding	Poor		Occasional boulders		Middle	N	Clay sediments/ organic mix			- Samill watercourse draining area sampled E of C5-020/021 - Well below water surface landfill site
C5-023	Ponding	Poor		Grassy, occasional boulders		Downslope	N	Clay sediments			- Downslope from C5-020/021 and C5-022 - In midst of low lying, grassy valley
C5-024	Ponding	Poor		Grassy, occasional boulders		Middle	N	Sandy silt	Brown-grey		- Along river bank at foot of steep, land-filled area and downhill of exposed barrels
C5-025	Slow	Poor		Occasional boulders/ cobbles		Middle	N	Sand/fill			- Along river bank 30 m downstream of C5-024 at base of landfill
C5-026	Slow	Poor		Boulders/cobbles, some coarse gravel		Middle	N	Sand, some cobbles, substrate, gravel			- 100 m downstream of C5-025, below landfill

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C5-027	Slow	Poor		Coarse gravel		Top/middle	E ultimately N	Brown sand	Reddish tinge		- 200 m downstream of C5-026, below landfill
C5-028	Slow	Poor		Gravel		Middle	E	Silty sand for 7.5 cm coarser sand for another 2-5 cm	Dark brown		- 50 m downstream of C5-027
C5-029	Slow	Poor		Grass and gravel		Low area	N	Fine to coarse grained sand, some pebbles	Brown		- N side of landfill 20 m from lakeshore to N - Storage area, landfill
C5-030/031	Slow	Poor		Coarse gravel, grass		Low area	N	Fine to coarse grained sand, some pebbles	Brown		- Small outwash stream bed emerging from landfill area to S
C5-032	Slow	Moderate		Some coarse gravel		Low area	N	Sand	Brown		- Small outwash stream draining more westerly portion of landfill/staging area to S - 20 m from lakeshore - 20 m W of C5-030/031 but draining a different portion of the landfill - Water saturated sand - 100 m downstream of C5-025, below landfill
C5-033	Slow	Moderate		Some gravel		Low area	N	Sand			- Downslope from tanks 11 and 12 (diesel, 18,300 gal) and tank 13 (Mogas, 6,000 gal) - Along outwash outside N lakeside berm and below pipe passing through berm - 12 m from shore - Sandy low areas are cut
C5-034	Slow	Moderate		Some coarse gravel		Bottom (before lake)	N	Sands			- Edge of lake (1-2 m) - Just downslope of tanks 11 & 13 - Moderate HC smell in sand
C5-035	Slow	Moderate		Some gravel		Bottom (before lake)	N	Sands			- 3 m from lake edge - Downslope of northernmost corner of berm
C5-036											- In situ berm at easternmost corner of berm - Sample taken at 2 ft depth very strong fuel smell
C5-037	Slow	Poor		Coarse gravel/cobbles boulders			N	Silt and clay	Brown		- Along small runway flowing from middle culvert (of 3) adjacent survival shack along road connecting upper and lower bases
C5-038	Ponding	Poor		Boulders/cobbles on sand			S	Coarse grained sands and gravels with some silt and clay			- Along N shore of sewage lagoon (settling lake) - Along outflowing stream
C5-039	Ponding	Poor		Boulders/cobbles on sand			S	Coarse grained sands and gravels with some silt and clay			- Across from C5-038 - Lake, road

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C5-040/041	Ponding	Poor		Boulders/cobbles	Gently inclined slope	Middle	N	Silt	Drab grey		- Below sewage outfall delta like with boulders on either side
C5-042	Ponding	Poor		Boulders/cobbles	Low wet area	Bottom	N	Clay and silts	Drab		- Along stream entering settling lake farthest from road - 5 m from mouth
C5-043	Ponding	Poor		Cobbles, boulders	Low wet rocky area	Bottom	N	Silts and very fine sands	Drab grey		- Along side a small stream (15-20 cm deep x 2 m) that flows into settling lake - Strong "rotten egg" smell
C5-044				Cobbles/boulders covering area		Middle	E	Silty sand sediments	Brown Blackish staining below 3 cm		- 8 m E from toe/base of upper base landfill area
C5-045				Cobbles/boulders covering area	On stoney slope	Middle	E	Silty sand sediments	Brownish		- Southeast toe of landfill slope
C5-046	Medium	Moderate		Cobbles and boulders covering area	Stoney slope	Middle	NE	Sand and gravel	Blackish		- N of landfill, toe adjacent to small stream - HC staining
C5-047				Cobbles/boulders covering area		Middle	N	Fine sand and silt		3-4 cm moss	- NE of landfill by edge of ravine (stream) - Just before steep grade by boulder
C5-048	Slow	Moderate		Mainly coarse sand and gravel, some cobbles/boulders	Flat	Top	E	Coarse sand and gravel, very little fines			- West corner of dyke, upper bulk storage area - Medium to strong HC odour
C5-049	Medium	Well		Mainly coarse sand and gravel, some cobbles and boulders	Flat	Top	E	Coarse sand and gravel with very little fines	Brown		- SE of tanks 8 and 9, 6 m outside dyke - Faint HC odour
C5-050/051	Slow	Moderate		Mainly coarse sand and gravel, some cobbles and boulders		Top	E	Coarse sand and gravel	Brown		- At bottom of dykes outside wall approx. 2 ft above water on small pond area - Much HC staining around perimeter of pond - Very strong HC odour - HC sheen on water - no free product
C5-052	Medium	Well		Boulders and cobbles almost cover area - gravel	Slope	Top	SSW	Coarse sand and gravel			- At toe of embankment behind garage (upper base)
C5-053	Slow	Poor		Much cobbles and boulders	Stream, rocky	Middle/top	WSW	Coarse sand, gravel			- In stream approximately 80-100 ft below garage and warehouse respectively - HC film on water surface
C5-054				Boulders, cobbles, coarse sands		Near top	W then ultimately N	Coarse sand and fine to medium sized gravel	Dark brown		- Small pocket in small outfall from POL storage area

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Sample No.	Surface Runoff		Soil Drainage	Permeability	Surface Stoniness		Topography		Slope Position		Slope Exposure	Soil		Vegetation	Remarks (Location, Adjacent Areas, Comments)
	Medium	High			Boulders and cobbles cover area	Stoniness	Slope	Topography	Middle	High		Description	Colour		
C5-055	Medium		Moderate		Boulders and cobbles cover area		Slope		Middle		N	Silty or very fine sand some clay	Dark brown		- Sewage outflow area, N of maintenance extension boulder field
C5-056	Medium		Moderate		Extensive boulder field				Middle		N	Silty, fine sand some gravel	Drab grey		- Sewage outflow area, extensive boulder field
C5-057	Slow		Poor		Boulder/cobble field		Beside lake		Low area beside lake		E	Medium grained sand and trace silt plus coarse/medium gravels	Grey brown		- 50 m south of fresh water reservoir - Overlain by moss and lichen
C5-058									Middle top		N	Medium sized soils, well sorted		1 cm thick moss layer	- N of runway towards W end

APPENDIX B.2
WATER SAMPLE SITES

CAM-5, MACKAR INLET – WATER SAMPLES

Sample No.	pH	Temp. (deg. C)	Conductivity (micro mhos)	Surrounding Topography	Remarks (Location, Adjacent Areas, Comments)
C5-A	9.0	8	N/A	N/A	Sample taken from mouth of river flowing below abandoned landfill – not analysed
C5-B	9.3	2	N/A	N/A	Sample taken at intake in water supply lake
C5-C	9.0	5	N/A	N/A	Sample taken from small lake 100 m east of active landfill
C5-D	9.0	5	N/A	N/A	Field duplicate of C5-C
C5-E	9.2	6	N/A	N/A	Sample taken from small lake 400 m north of active landfill
C5-F	8.7	6	N/A	N/A	Sample taken at outlet from lake 1 km north of Module Train lake receives flow from sewage outfall
C5-H	N/A	N/A	N/A	N/A	Sample taken from leachate at east side of active landfill
C5-I	N/A	N/A	N/A	N/A	Sample taken from leachate at northeast side of active landfill