

APPENDIX 1: PROJECT MANAGEMENT AND CONSTRUCTION SUPERVISION- SELECTED PROJECTS

Experience on the design of new tailings facilities is provided in Table 5-1 and the remediation, monitoring, auditing, dam improvement etc. of existing facilities is summarised in Table 5-2. Metago has been involved in the projects below from various different perspectives.

TABLE 5.1: NEW TAILINGS FACILITIES

PRODUCT	DAM	TONNAGE	AREA	CLIENT
		(t/mth)	(Ha)	
Platinum	Paardekraal 1	550 000	80	Anglo Platinum - Rustenburg Platinum Mines Ltd
	Waterval East	550 000	40	“
	Klipfontein East	150 000	40	“
	Amandelbult	300 000	100	“
	Ivan	80 000	45	“
	Potgietersrust	250 000	90	“
	Atok	80 000	30	“
	Karee (Dam 1)	150 000	50	Lonmin Ltd- Western Platinum Ltd
	Karee (Dam 2)	120 000	70	“
	Karee (Dam 3)	190 000	75	“
	Karee (Dam 4)	180 000	120	“
	Western Plats	150 000	50	Western Platinum Limited
	Marikana	120 000	60	Aquarius SA (Pty) Ltd
	Trojan	325 000	180	Impala Platinum Ltd
	Eland Platinum	220 000	260	Eland Platinum Mine
	Voorspoed	95 000	50	Lonmin Limpopo
	Tharisa TSF	330 000	150	Tharisa Minerals (Pty) Ltd
	Spitzkop	180 000	100	Eastplats
Gold	Joel	80 000	40	H J Joel Mine/JCI
	South Deep (WAGM)	300 000	120	JCI
	Winkelhaak 4&5	200 000	200	Winkelhaak Mines Limited
	Equar Mining(Ecuador)	50 000	40	Equar Mining
	Segala	60 000	30	ETC Gold Mines
	Sheba	50 000	40	LTA Process Engineering
	Olympic Dam	200 000	140	Western Mining
	Tarkwa	180 000	120	Gold Fields Ghana

	Tarkwa (Phase II)	650 000	600	Gold Fields Ghana“
	Tarkwa (CIL Expansion and Co-Disposal Project)	1 100 000	950	Gold Fields Ghana“
	South Deep	340 000	450	Gold Fields
	Tasiast (Mauritania)	90 000	60	Ria Warcea Gold Mines Ltd
Lead/zinc	Pering	80 000	40	Pering Mine Ltd
Gypsum	Kynoch Potch	20 000	25	Kynoch Fertilisers (Pty) Ltd (formerly Triomf)
Diamond	Voorspoed	110 000	100	De Beers
Coal	Arthur Taylor	50 000	20	JCI Ltd
	Middelburg Mine	25 000	10	Rand Mines
	New Clydesdale	150 000	30	Gold Fields Coal
	Koorfontein (in progress)	150 000	50	Ingwe
	Vanggatfontein (in progress)	50 000	86	Keaton Mining
Fly Ash (dry disposal)	Lethabo	500 000		Eskom
	Kendal	360 000		“
	Tutuka	225 000		“
	Matimba	320 000		“
	Majuba	400 000		“
Nickel	Tati (Botswana)	300 000	150	Tati Nickel Mining Company
	Kabanga (Tanzania)	70 000	80	Ansertan (Anglo American)
	Nkomati Waste Rock Dump			Hatch/Nkomati Nickel Mine
Manganese	Nsimbintle	20 000	30	Ntsimbintle
Copper	Kansanshi	200 000	100	Cyprus Amax (USA)
Chrome	Dwarsrivier	50 000	30	Avmin
	Xstrata	1 170	11	Boshhoek – Clarifier slurry
	Xstrata	9 000	4	Boshhoek - Jig Plant slurry
Ash	AECI 6	22 000	20	AECI Ltd
Uranium	Olympic Dam Cell 4 (Australia)	800 000	180	Western Mining Corporation
	HTO Project	1 850 000	588	Gold Fields
	Mkuju River Project (Tanzania)	200 000	200	Mantra Resources

TABLE 5-2: EXISTING TAILINGS FACILITIES

PRODUCT	DAM	TONNAGE	AREA	CLIENT
Platinum	Waterval	(t/mth) 550 000	(Ha) 100	Rustenburg Platinum Mines Ltd
	Crocodile River Mine	220 000	100	Barplats
	Lonmin Baobab Shaft Mine	60 000	60	Lonmin Platinum Limpopo (LPL) Ltd
Gold	Kinross	200 000	100	Kinross Mines Ltd
	Western Areas (North), East dam	80 000	40	Western Areas Gold Mine Ltd
	REGM Millsite	180 000	100	Randfontein Estates Gold Mine Ltd
	ERPM	150 000	120	East Rand Proprietary Mines Ltd
	Durban Deep	180 000	100	Durban Deep Mines Ltd
	Fairview	30 000	30	Barberton Mines Ltd
	Rio Paracatu (Brazil)	1 500 000	500	Moro do Ouro Mine Ltd (RTZ)
	KCGM (Australia)	600 000	15	Kalgoorlie Consolidated Gold Mines Ltd
	Pongkor (Indonesia)	60 000	20	Anika Tambang
	Bibiani (Ghana)	80 000	40	Ashanti (through ECMP)
Ash	AECI dams 1-5	22 000	50	AECI Limited
Iron Ore	Central Ukraine	12 000 000		Savannah Process Systems
	Central Ukraine	1 800 000		"
	North West Russia	1 200 000		"
Fluorspar	Buffalo	80 000	40	Transvaal Mining and Investment Co Ltd
Andalusite	Krugerspost	20 000	20	Cullinan Minerals (Pty) Ltd
Copper	Palabora	840 000	200	Palabora Mining Company Ltd
	Osborne (Australia)	30 000	60	Osborne Mines Ltd (Placer Dome)
Uranium	Rössing	1 400 000	600	Rossing Uranium Limited
Lead/zinc	Sasa Mine(Macedonia)	60 000	30	Glencore (DMAIIC)
Magnetite	Palabora	750 000	150	Palabora Mining Company Ltd
Diamond	Mafikeng Diamond	30 000	25	RTZ Management Services Ltd
	Argyle Diamond Mine (Australia)	800 000	400 ha	Argyle Diamond Mine, Western Australia
	DeBeers Kimberly	100 000	50	Environmental Mining and Civil

PRODUCT	DAM	TONNAGE	AREA	CLIENT
Coal	Diamond Mine			Projects
	Heritage	30 000	30	Duiker Coal
Fly Ash	Natal Ammonium (Closure)		50	Kangra
	Arnot	160 000		Eskom
	Kriel (In-pit disposal)	210 000		"
	Matla	210 000		"
	Duhva	250 000		"
	Hendrina	130 000		"
Gypsum	Chloorkop	20 000	25	Kynoch Fertilisers Ltd (Formerly Triomf)