



REPUBLIC OF BOTSWANA



DEPARTMENT OF MINES 2009 ANNUAL REPORT



Contacts:
Department of Mines
Private Bag 0049
Gaborone, Botswana
Phone: (267) 3657000
Fax: (267) 3952141
www.mines.gov.bw

We Care!!

TABLE OF CONTENTS

1.	DEPARTMENT OF MINES PERFORMANCE HIGHLIGHTS FOR 2009/10-----	3
1.1	MINERALS CONCESSION PROCESSING TIME-----	3
1.2	PAYMENT PROCESSING -----	4
1.3	ACCIDENTS INVESTIGATIONS -----	4
2.	BOTSWANA MINING INDUSTRY PERFORMANCE HIGHLIGHTS - 2009 -----	5
2.1	MINERAL REVENUE-----	5
2.2	MINERAL PRODUCTION -----	6
3.	SAFETY, HEALTH, AND ENVIRONMENT-----	9
3.1	REPORTABLE ACCIDENTS -----	9
3.2	DANGEROUS OCCURRENCES-----	10
3.5	EXPLOSIVES CONSUMPTION -----	13
3.6	EXPLOSIVES LICENCES, PERMITS AND AUTHORISATIONS-----	14
4.	MINING LABOUR -----	14

Our Vision

The Department of Mines is fully committed to complete customer satisfaction in the provision of products and services in accordance with best international practice.

Our Mission

The Department of Mines in partnership with stakeholders will provide reliable, effective and efficient administrative services, policies, programs and legislation for mineral exploitation, prevent mining occupational diseases, injuries, and minimize degradation of the environment.

During 2009/2010 financial year 97.3% of the 222 mining licences and minerals permits for small mines (quarries, clay works, sand and gravel operations) were processed and issued within target of 13 working days (Figure 1 below).

Two mining licences were processed for large mines during the year 2009/2010. Out of the two, an application for diamond mining was still the subject of negotiations between the applicant and the Government in terms of the provisions of Section 51 of the Mines and Minerals Act while the second application was still incomplete.

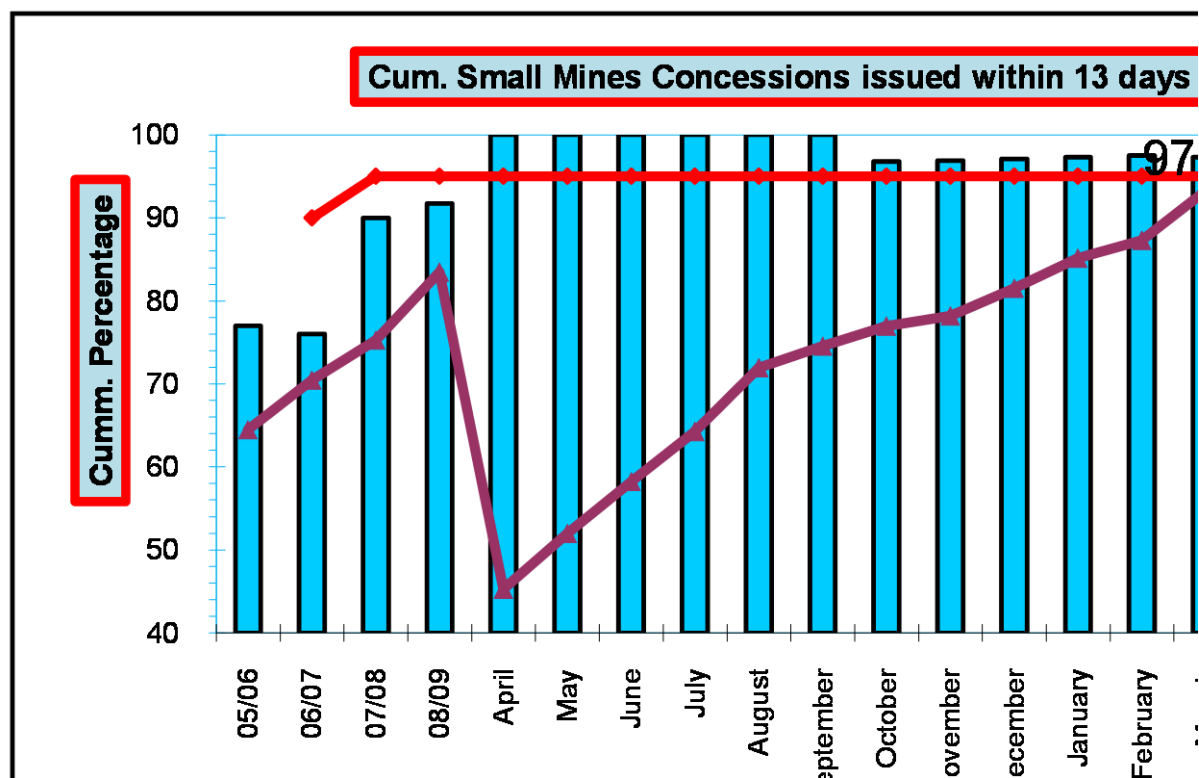


Figure 1 : Mining Licences and Minerals Permits Processing Time

1.2 Payment Processing

During 2009/2010 financial year, time taken by Department of Mines indicates good performance because all payments were done and paid within the target time of 8 days. See Figure 2 below.

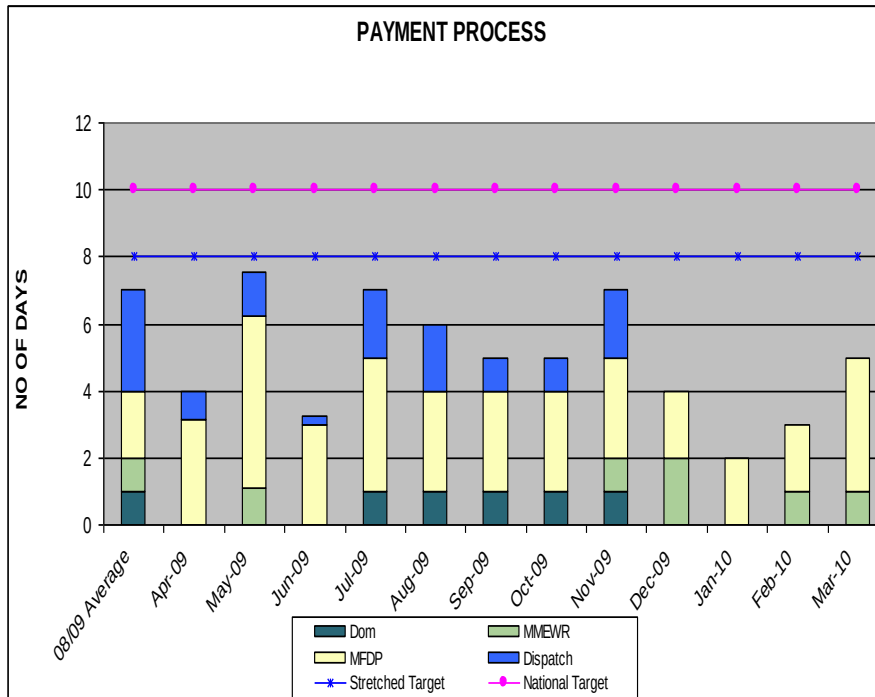


Figure 2: Department of Mines Payment Process Time

1.3 Accidents Investigations

In 2009, thirty-two (32) accidents occurred and nine (9) accidents of which the inquiries were not done were brought forward from 2008. Out of these forty-one (41) accidents, the inquiries of thirty-four (34) accidents were completed in 2009. Of the thirty-four (34) accidents inquiries completed, fifty (50%) were completed within the target period (60 days for non-fatal and 45 days for fatal accidents). As shown in **Figure 3**, at the end of 2009 Seven (7) accident inquiries were outstanding to be completed. Efforts to improve performance in accidents investigations are ongoing.

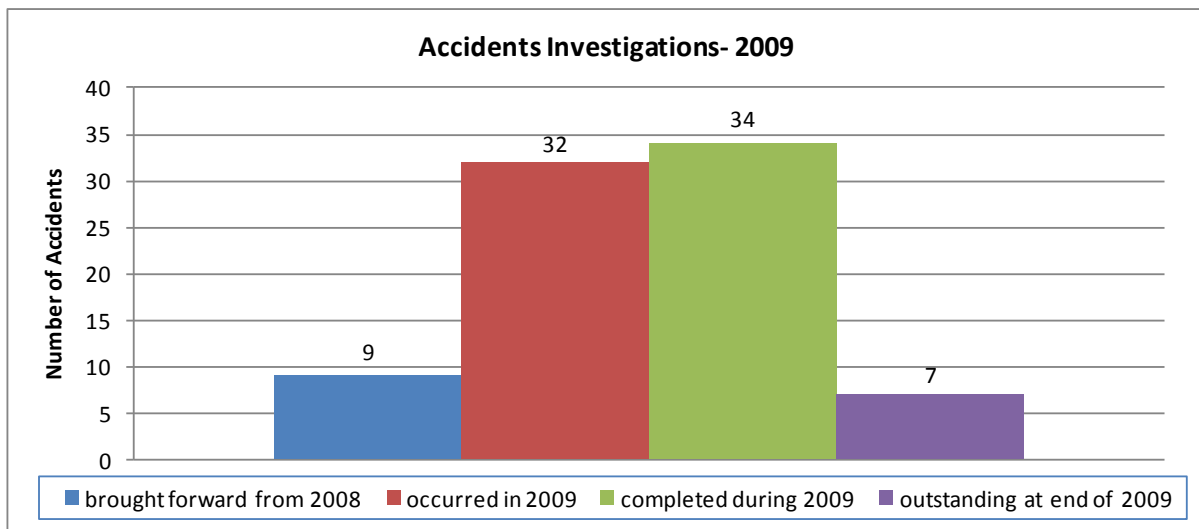


Figure 3: Accident Investigation Period

2. BOTSWANA MINING INDUSTRY PERFORMANCE HIGHLIGHTS - 2009

2.1 Mineral revenue

During 2009/2010 financial year, mineral revenues (royalties, dividends, annual lease charges and sundries) collected were about 32% lower compared to 2008/2009 receipts. The decrease in revenue is attributed to lower diamond sales due to global economic meltdown. Figure 4 below shows sources of mineral revenue for 2009/2010 financial year.

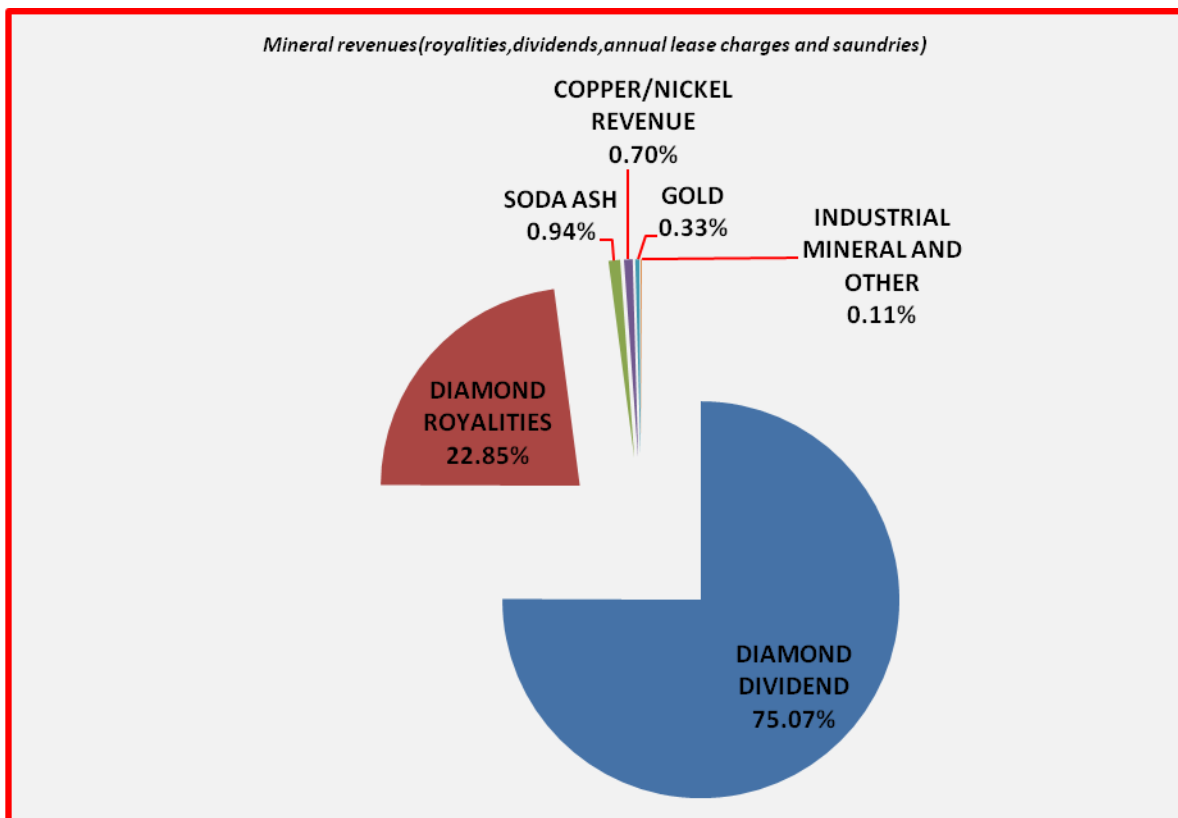


Figure 4: Sources of Mineral Revenue in 2009/2010

2.2 Mineral production

DIAMONDS

Debswana production for 2009 was 17.734 million carats against a budget of 20.060 million carats, 12 % below budget. As a result of poor diamond sales due to global economic crisis production at all the Debswana operations was suspended up to mid April 2009 after which Damtshaa Mine and Orapa No.2 Plant were placed on care and maintenance. The Orapa No.2 Plant resumed production in July 2009. Total sales for the year 2009 were 21.333 million carats, 11 % above budget. There was a positive improvement in the demand of diamonds from April 2009 but the future remained very unpredictable and volatile since the global economy had not fully recovered from the global financial crisis. Cut 8 Project, a project focusing on increasing the mine life of Jwaneng mine by eight years has been approved by both shareholders and was still on its initial stages of implementation at the end of 2009.

DiamonEX Botswana was under care and maintenance and has been under Judicial Management since 23rd January 2009 due to the global economic crisis which resulted in the company failing to meet its financial obligations. Some of the DiamonEx Creditors led by Flemming Asset Management had initiated a process to restructure the company's debts and refinance the project. The Judicial Manager was also in discussion with a number of potential off takers for its production.

Boteti Exploration (Pty) Ltd. Lucara Diamond Corp. acquired DeBeers shareholding in Boteti Exploration (Pty) Ltd in December 2009.

Gope Exploration (Pty) Limited, was granted an extension to the validity period of its retention licence up to the 31st December 2010.

NICKEL AND COPPER

Nickel and Copper total metal in matte production for 2009 (for BCL Limited and Tati Nickel Mining Company) was 51, 233 tonnes containing 27, 905 tonnes of nickel, 23, 057 tonnes of copper and 270 tonnes of cobalt, compared to total metal in matte of 52, 423 tonnes in 2008. Base metals performed poorly during the year as a result of the global economic crisis.

Messina Copper produced 4, 355 tonnes of copper concentrate in 2009 with an average grade of 28.19% copper after resuming production in late August 2009. Due to the global

economic crisis Messina Copper operations at Mowana Mine went into care and maintenance in December 2008. The company has been restructured with Zambian Copper Investment Limited (ZCI) providing funds for recapitalization of the mine. Messina Copper (Botswana) is a 100% subsidiary of African Copper.

SODA ASH

Botswana Ash, soda Ash production and sales for 2009 were 215 288 and 219 769 tonnes respectively, compared to production and sales for 2008 which were 263 566 and 252 396 tonnes respectively. **Salt** production and sales for 2009 were 240 665 and 325 379 tonnes respectively. In July 2009, Chlor- Alkali Holdings (Pty) Ltd acquired 50 % shares in Botswana Ash (Pty) Ltd held by Private Shareholders (Anglo American South Africa Limited, De Beers SA, AECI Limited, First National Bank and Nedbank) subject to regulatory approvals from South Africa.

GOLD

Mupane Gold Mining production for 2009 was 1, 586 kg compared to 3, 176 kg in 2008 and 2,722 kg in 2007. Mupane has established a steering committee with different stakeholders in preparation of the mine closure anticipated in 2013 when all economic resources would have been exploited, unless more ore reserves are found. Gold prices continued to strengthen during 2009 to US\$1100/oz in December 2009 from US\$872/oz in December 2008.

COAL

Morupule Colliery production for 2009 was 737, 824 tonnes compared to 909, 511 tonnes in 2008. The coal washing plant was commissioned during 2008 and the demand for the washed coal has been very positive. Morupule Colliery completed a feasibility study at the end of October 2009 for the expansion of the colliery to supply the expansion of the nearby Morupule power station.

Meepong Resources submitted a revised application for a coal mine in December 2008. The application was still incomplete by end of 2009 mainly on account of marketing arrangements that were yet to be finalised.

AGGREGATE

During the year, about 2 553 104 m³ of crushed stone was produced compared to 1 519 320 m³ in 2008. Consumption for these materials is increasing due to the expanding construction industry due to demand by national projects such as dams and roads. Nineteen quarries were in operation during 2009.

SEMI PRECIOUS STONES

Two companies produced polished semi-precious stones for the local and export markets. During the year 2009 a total of 72 tonnes of processed semi precious stones were produced compared to 54 tonnes in 2008.

Figures 5 to 8 below depict the production trends for the various minerals during the period 1997 to 2009 and the production statistics since 1990 are provided in Table 3 of the Appendix.

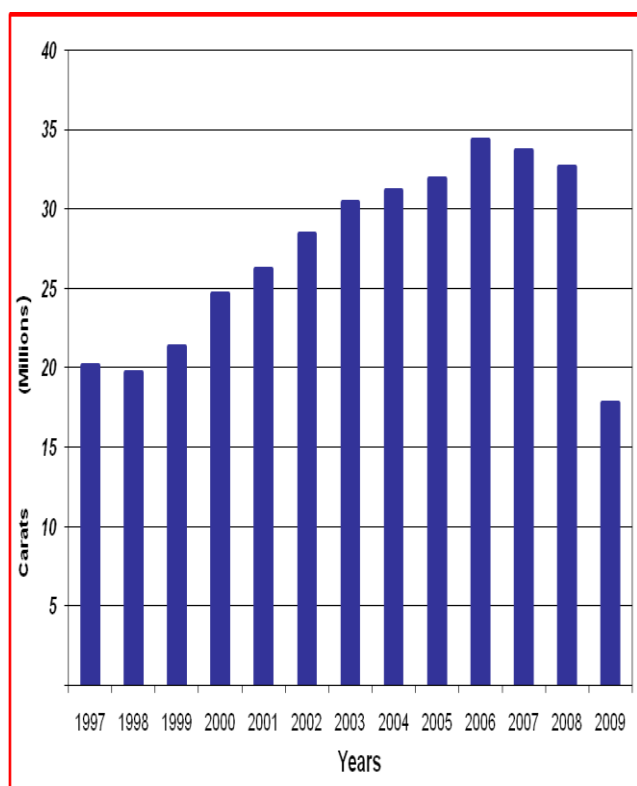


Figure 5: Diamond Production (1997-2009)

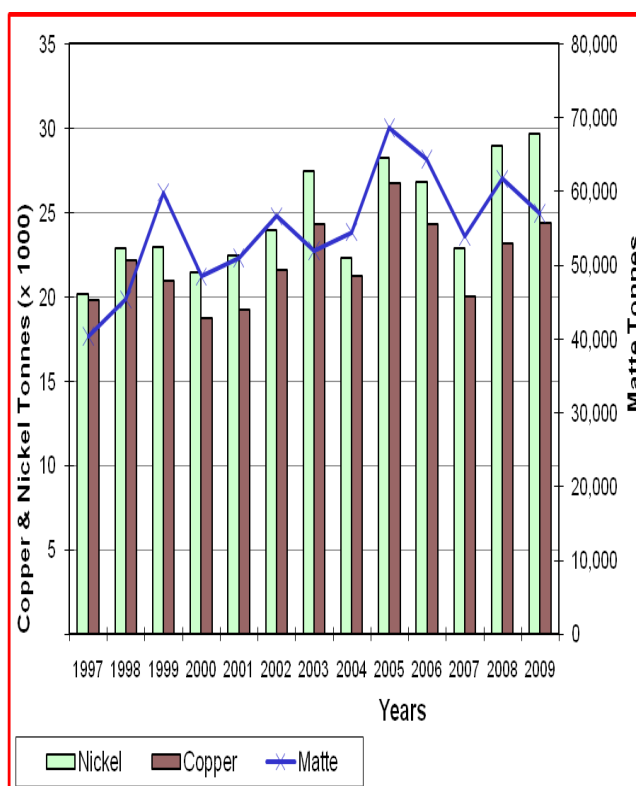


Figure 6: Copper, Nickel and Matte Production (1997-2009)

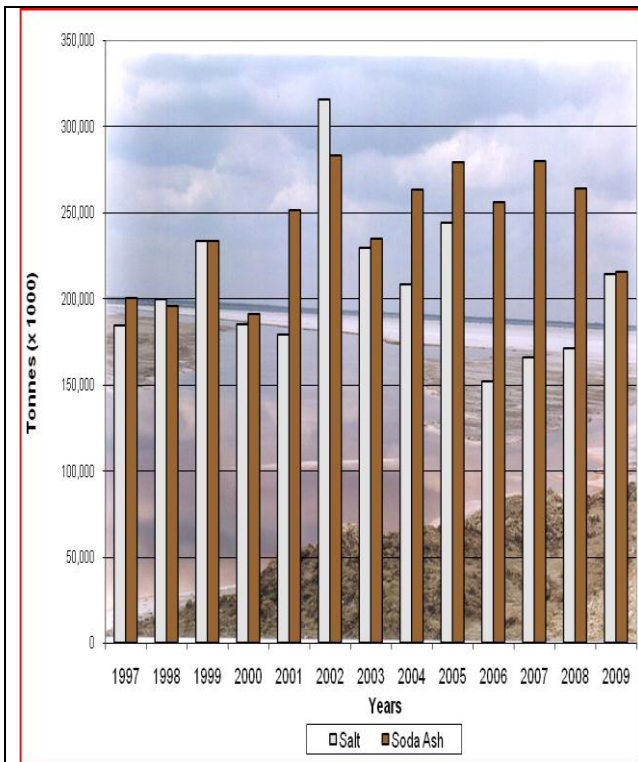


Figure 7: Soda Ash and Salt Production (1997-2009)

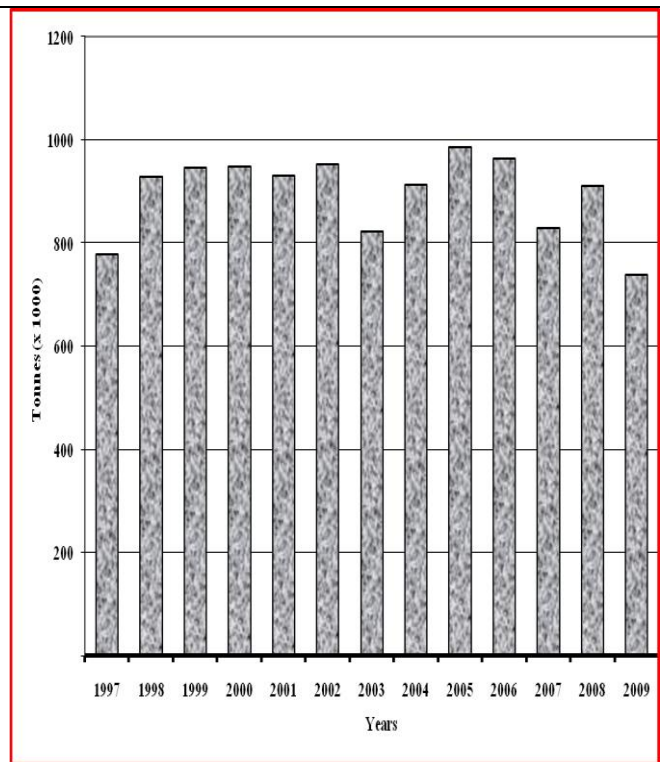


Figure 8: Coal Production (1997-2009)

3. SAFETY, HEALTH, AND ENVIRONMENT

3.1 Reportable Accidents

Figure 9 below shows the trend in reportable accidents from 1994 to 2009. Thirty-two (32) reportable accidents were recorded during 2009 as compared to fifty-five (55) accidents in 2008. The reduction in number of accidents was due to the economic meltdown which resulted in some of the mining operations not operating for certain periods. Of these thirty-two reportable accidents, two were fatal accidents which occurred at BCL underground mines.

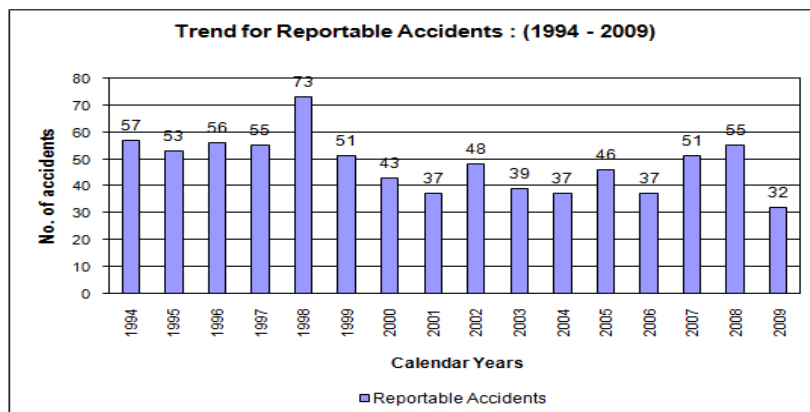


Figure 9: Trend of Reportable Accidents from 1994 – 2009

(Reportable accidents are those in which a person is incapacitated for more than three days, excluding the day of the accident; becomes unconscious or is incapacitated for 48 hours due to heat stroke, electric shock, inhalation of poisonous fumes or gases.)

Figure 10 below shows that of the 32 accidents which occurred in 2009, 11 occurred due to handling of tools in the mines, whereas, fall of person and fall of stone contributed 4 each. In the year before, machinery constituted most of the accidents with 11 accidents.

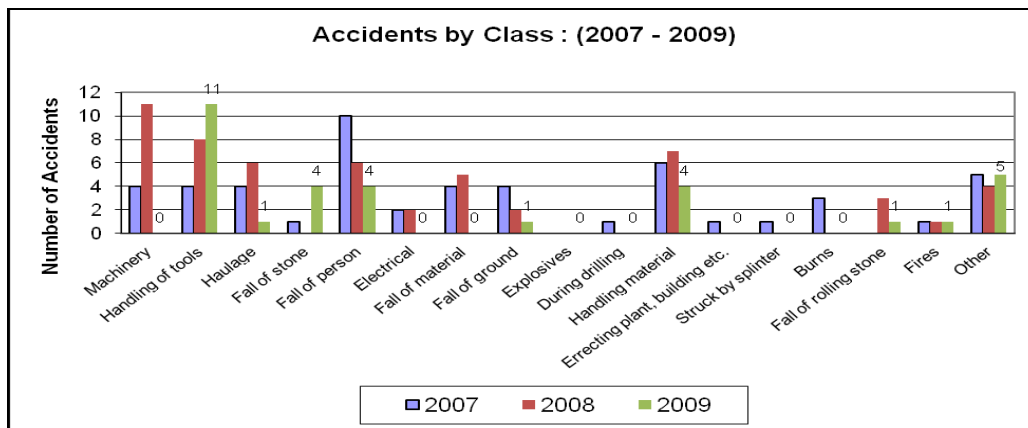


Figure 10: Classification of Reportable Accidents during 2007-2008

3.2 Dangerous Occurrences

In 2009, twenty-three (23) dangerous occurrences were recorded against thirty-four (34) dangerous occurrences in 2008. The use of machinery contributed most of the dangerous occurrences in 2009 as seen in **Figure 12**. Figure 11 below shows the number of Dangerous Occurrences which occurred from 1998 to 2009.

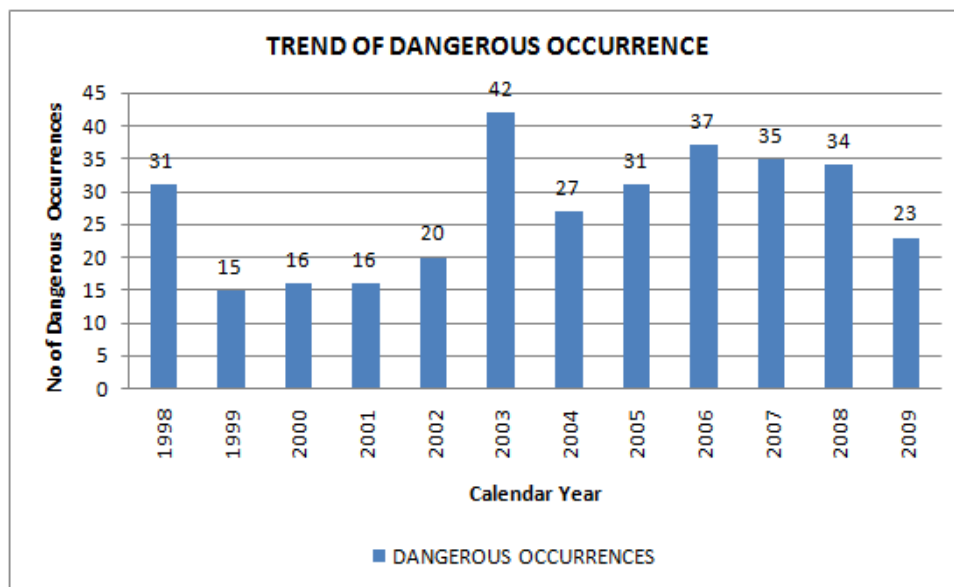


Figure 11: Dangerous Occurrences Reported From 1998 - 2009

Dangerous occurrences are incidents that may or may not involve personal injury but are of the kind that include fracture or failure of equipment, accidental detonation of explosives, flooding of mine workings, accidental fire and electrical short-circuits, malfunctions and others.

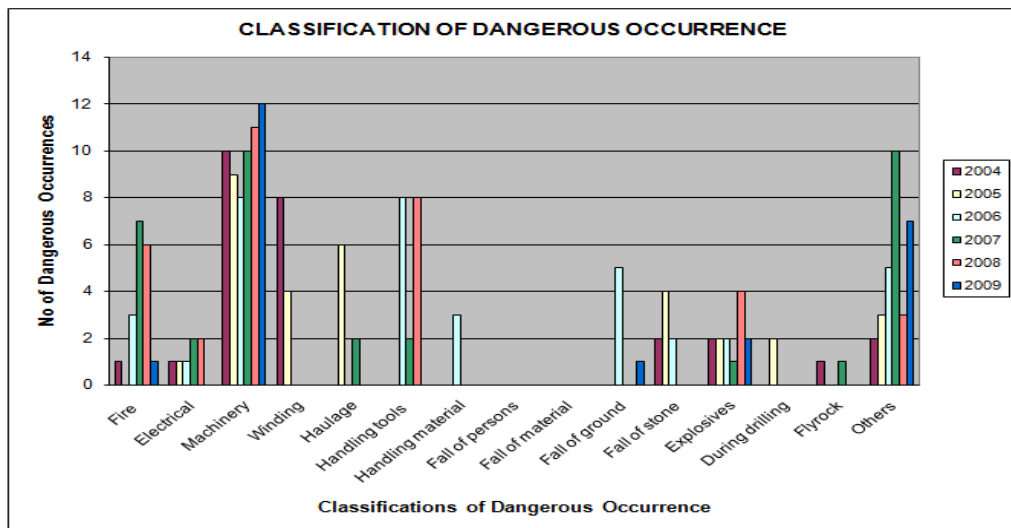


Figure 12: Classification of Dangerous Occurrences from 2004 - 2009

3.3 Rehabilitation of Old Mine Workings

No new rehabilitation of old workings was done during the year under review; however a project to rehabilitate the old and abandoned mines in and around Monarch area (Francistown) which started in November 2007 was completed during the year under review. The objective of the project was to remove dangers posed by the existence of the shafts and sudden failure of ground because of the existing underground voids that have been left by old mining activities in the area. Additionally, the project was meant to minimise health hazards to surrounding residents from the uncovered dumps within the vicinity of the local community. Actual project activities included backfilling of old shafts using the existing dump material, levelling of the dumps sides to a gentle slope, re-vegetation of the area and public sensitization. Figure 13 below shows a rehabilitated land after mining operation. The rehabilitated area will continue to be monitored for twelve months during the defect liability period to observe if there is any subsidence especially around the shafts after which the land will be returned to the land authority.



Figure 13: Rehabilitated land

Cumulatively at end of the 2009/2010 a total of 564 small scale mining concessions were rehabilitated, since 2005/06 financial year, which is 64% rehabilitation. See Figure 14 below. Efforts continue to be made to bring all expired mining concessions to comply with rehabilitation obligations.

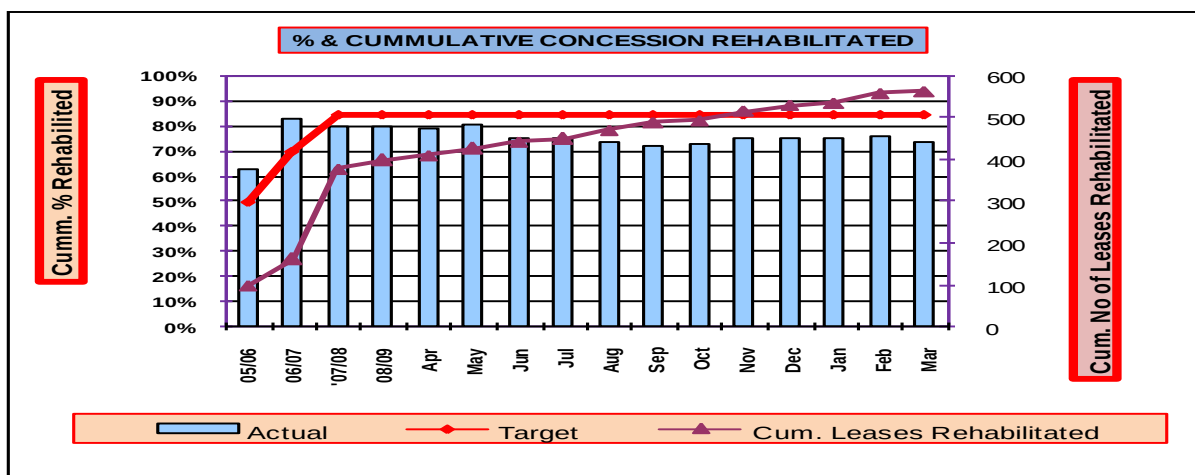


Figure 14: Small Mines Rehabilitation Status

3.4 Mine Occupational Health

Figure 15 below indicates a summary of the diseases reported by the mines, with the highest being reported new cases of pneumonia in the year 2009.

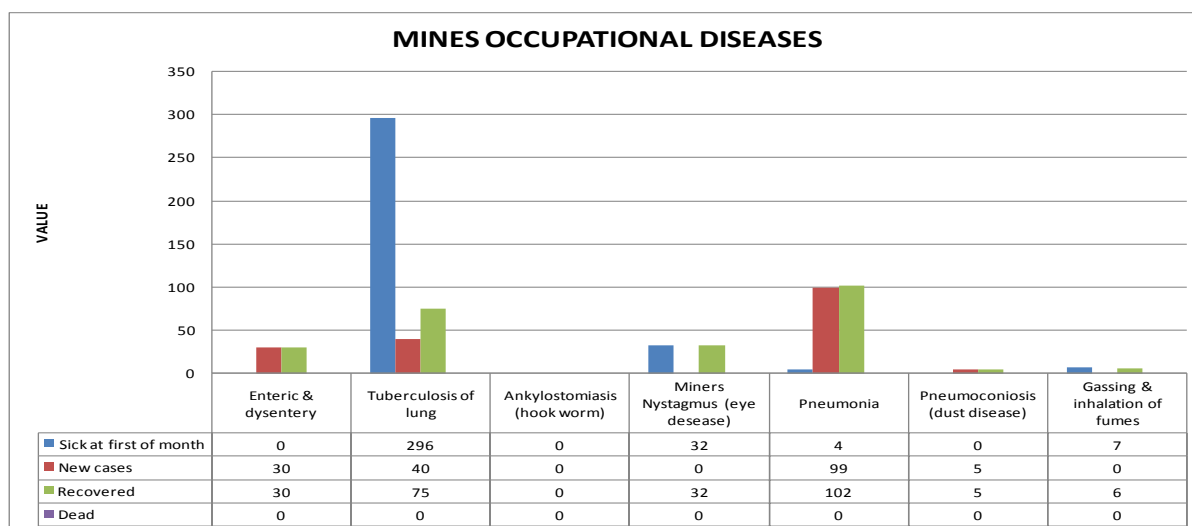


Figure 15: Mine Occupational Diseases during 2009

3.5 Explosives Consumption

A summary of explosives consumed by different operations during 2009 and explosives imported into Botswana is respectively given in Tables 1 and 2 below. Approximately 21.2 million kilograms of fracture explosives (bulk and packaged), 1.1 million metres of detonating cord, 282 thousand metres of Ignitor cord and 580 thousands units of detonator assemblies were used during the year

Table 1: Explosives consumption by different operations during 2009

	Bulk - Inc AN	Fracture Packaged	Detonating Cord	Ignitor Cord	Detonators Assembled
	Kilograms	Kilograms	Meters	Meters	Units
UNDERGROUND	1,238,779	2,751,720	102,847	269,725	255,874
OPEN PIT	16,615,500	174,176	351,092	5,500	270,498
QUARRIES	251,330	125,569	385,075	6,400	48,181
BLASTING COMPANIES	24,049	15,408	249,425	0	5,107
TOTALS	18,129,658	3,066,872	1,088,439	281,625	579,660

NB: Opencast mines consumed about 79.21%, underground 18.83%, quarries 1.78% and others including civil works 0.19% of all fracture explosives, see Figure 16 below.

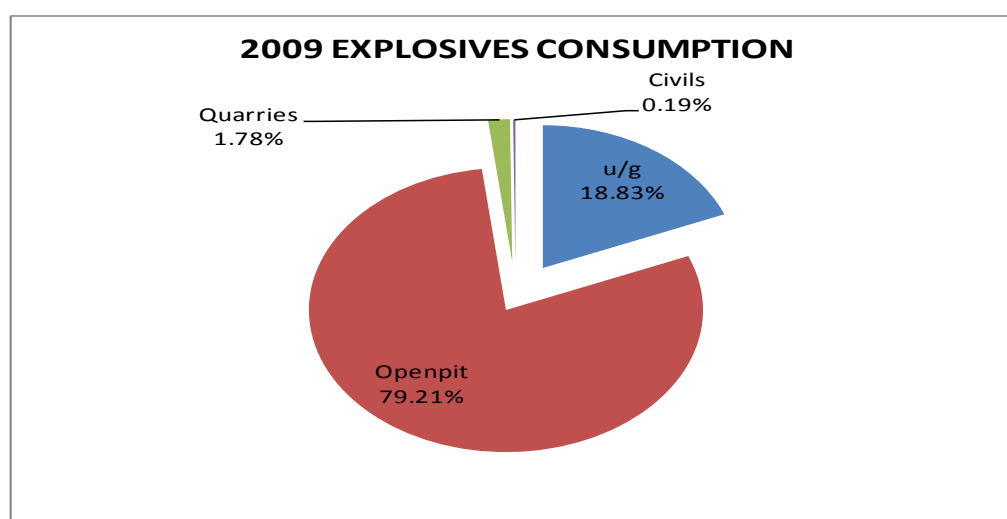


Figure 16: Explosives consumption by different operations in 2009

Table 2: Imports of Explosives during 2009

	Bulk – Inc AN Kilograms	Fracture Packaged Kilograms	Detonating Cord Meters	Ignitor Cord Meter	Detonators Assembled Units
IMPORTATION	18,609,012	3,050,952	1,164,881	208,400	581,330

3.6 Explosives Licences, Permits and Authorisations

The Department of Mines continued to monitor and control the use of explosives in mining, quarrying and civil construction works across the country. Table 4 of the Appendix gives a summary of explosives permits, licences and authorisations issued from 2004 to 2009. One blasting licence was suspended for violations of the requirements of the Explosives Act during 2009. No blasting licence was revoked during 2009. Number of magazine licences issued has gone up from 88 in 2008 to 107 in 2009. This has been partly because of picking up of civil construction activities or projects in the country and partly because of quarrying companies using their own magazines instead of suppliers' magazine for storage of explosives.

4. MINING LABOUR

In the year 2009, the total labour force in the country's mining industry averaged 15482 which is a drop when compared to 18830 employees who were recorded in 2008, as showing in Figure 16 below and Table 5 of the Appendix. This represents an overall decrease in employment of 17.78% in 2009 when compared to an increase of about 14.96% between 2007 and 2008. The large drop in mining employment was due to the global economic downturn, which resulted in mining operations laying off employees or shutting down. The expatriate employment average decreased from 988 in 2008 to 681 persons in 2009, which is about 31.07% reduction.

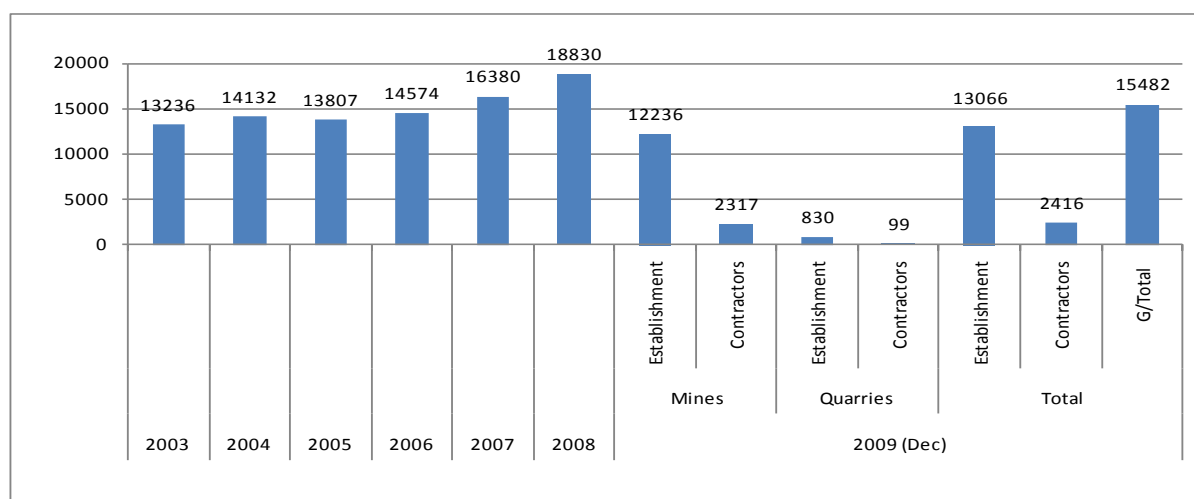


Figure 16: Trend of employment in the Botswana Mining Industry

Appendix

Production, Explosives and Labour Statistics

Table 3: Botswana Mineral Production (1990 – 2008)

YEAR	DIAMONDS	Ni/Cu MATTE				COAL	SODA ASH	SALT	GOLD	SEMI - PRECIOUS STONES (T)	SAND, GRAVEL & CLAY (M³)	CRUSHED STONE (M³)
	(000's Carats)	Matte (T)	Contained Metal (T)									
			Nickel	Copper	Cobalt							
1990	17,351	47,959	19,022	22,000	205	794,041			46	1	164,978	589,999
1991	16,506	48,319	19,294	20,576	208	783,873	62,000	2,600	20	0	340,825	783,487
1992	15,946	48,071	18,873	20,413	208	901,452	123,600	53,708	165	39	190,305	804,242
1993	14,730	50,783	21,621	20,132	205	890,000	126,000	98,000	192	40	150,000	760,000
1994	15,550	51,488	19,041	22,780	225	900,298	174,000	186,000	234	67	140,000	572,000
1995	16,802	48,456	18,088	20,461	271	898,383	201,657	208,126	86	20	112,000	860,737
1996	17,707	57,948	22,095	23,299	406	763,240	119,137	93,886	5	35	82,700	845,526
1997	20,111	40,312	20,157	19,820	334	776,917	199,990	184,533	28	54	73,700	1,091,877
1998	19,639	45,310	22,851	22,124	335	928,100	195,500	199,300	1	38	82,500	997,244
1999	21,263	59,877	22,898	20,960	332	945,316	233,643	233,069	8	84	84,300	1,466,100
2000	24,635	48,420	21,446	18,722	308	946,900	191,000	184,800	4	112	93,047	1,070,000
2001	26,190	50,999	22,454	19,209	325	930,374	251,231	178,646	2	76	206,827	2,140,523
2002	28,368	56,626	23,896	21,590	269	953,081	283,197	315,259	8	127	2,400,978	1,201,279
2003	30,412	51,983	27,400	24,289	294	822,780	234,520	229,432	9	102	1,485,432	1,059,679
2004	31,125	54,448	22,292	21,195	223	913,087	263,358	208,319	162	99	2,329,522	1,219,067
2005	31,890	68,637	28,212	26,704	326	984,876	279,085	243,945	2,709	165	1,906,211	1,027,377
2006	34,293	64,368	26,762	24,255	303.	962,427	255,677	151,595	3,020	65	4,811,751	1,133,655
2007	33,639	53,947	22,844	19,996	242	828,164	279,625	165,710	2722	48	2,866,174	1,617,823
2008	32,595	61,686	28,940	23,146	337	909,511	263,566	170,994	3176	54	2,476,052.5	1,519,320
2009	17,734	54,340	27, 905	23, 057	270	737,824	215, 288	214,114	1,586	72	2,036,745.3	2,553,104

Table 4: Explosives Licences, Permits and Authorizations Issued During 2004-2009

PERMITS / LICENCE	2004		2003	2005		2006		2007		2008		2009	
Blasting Licences	Exam	Issues	Issues	Exam	Issues	Exam	Blasting Licences	Exam	Exam	Issues	Issues	Exam	Issues
a) Underground	5	27(1 ^S)		13	a) Underground	13	12	5(3 ^S)	29	62	42	45	38
b) Open pit	12	23		77	b) Open pit	31(3 ^S)	45	23(1 ^S)	49(1 ^S)	74	52(1 ^S)	113	77
c) Fiery Mines	0	0		4	c) Fiery Mines	1	5	2(4 ^S)	5	0	0	1	1
d)Restricted	2	74(60 ^R)		44	d)Restricted	139(94 ^R)	48	77(42)(3 ^S)	134(100 ^R)	43	38	15	8
Total	19	124(60^R)(1^S)		151	Total	184(94^R)(3^S)	110	107(42^R)(11^S)	217(100^R)(1^S)	179	132(1^S)	174	124
Explosives Magazine Licenses													
a) Underground	29			24		25		32		33		30	
b) Underground portable	3			3		3		3		4		2	
c) Surface	44			31		29		19		32		33	
d) Surface Portable	29			35		6		32		19(4 ^S)		42	
Total	105			93		63		86		88		107	
Authorisation to Store AN	15			12		9		7		9		7	
Authorisation for Storage Box	21			27		17		4		7		7	
Licence to Manufacture Explosives	44			26		25		25		20		19	
Licence to Sell Explosives	103(87 ^F)			139(127 ^F)		130(115 ^F)		162 (147 ^F)		150		163(152 ^F)	
Permit to Import and Possess	80(39 ^F)			52(26 ^F)		54(29 ^F)		38(22 ^F)		34		28	
Permit to Purchase, Acquire and Possess Explosives	199(18 ^F)			216(23 ^F)		221(27 ^F)		174(19 ^F)		214(6 ^S)		211	
Permit to Carry Explosives in Bulk	232			275		260		272		273(1 ^S)		249	
Authorisation to Export Explosives	26			89		71		67		62		49	
Authorisation to Use Fireworks	8			12		7		9		20		401	

(1^S)=Suspended; (1^R) =Renewal; (1^F) =Fireworks; (1^W) =Withdrawn; (1^{RE}) =Revoked

Table 5: Annual Employment in the Mining Industry (2001 – 2009)

MINES	2002		2003		2004		2005		2006		2007		2008		2009	
	Bats	Exp	Bats	Exp	Bats	Exp	Bats	Exp	Bats	Exp	Bats	Exp	Bats	Exp	Bats	Exp
BCL Limited	4271	122	4148	190	4487	227	4606	124	3992	92	5247	122	5226	110	4966	110
Orapa & Letlhakane Mines	2838	246	2853	248	2853	248	2751	172	3449	190	3359	160	3585	140	3354	120
Jwaneng	2649	226	2645	181	2856	186	2692	188	2622	188	2841	171	3780	213	2586	160
Morupule Colliery	310	4	334	5	329	15	240	6	244	5	253	6	275	6	304	5
Botswana Ash	535	80	565	81	444	49	415	52	413	32	418	19	422	17	435	20
Tati Nickel	668	46	785	65	927	124	1196	137	1788	279	2221	254	2885	332	1645	120
Mupane	N/A	N/A	N/A	N/A	233	71	281	64	339	55	379	57	232	45	352	42
Messina Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16	11	417	45	167	27
DiamonEx	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	78	7	197	30	14	3
Small mines	38	4	6	0	7	0	7	0	27	1	16	1	15	1	105	20
Quarries	1211	75	1042	88	968	108	770	106	804	54	696	48	808	49	874	55
Sub Total	12520	803	12378	858	13104	1028	12958	849	13678	896	15524	856	17842	988	14801	681
Total	13323		13236		14132		13807		14574		16380		18830		15482	
% Increase	1.37%		-0.65%		6.77%		-2.30%		5.56%		12.39%		14.96%		-17.23%	