



Common Size Statement (Proportionate to Sales)

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
Sales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Other Income	0.03%	0.05%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	
<b>Total Income</b>	<b>100.03%</b>	<b>100.05%</b>	<b>100.07%</b>	<b>100.07%</b>	<b>100.07%</b>	<b>100.07%</b>	<b>100.07%</b>	<b>100.07%</b>	
Manufacturing Costs (Total)	185.93%	73.06%	63.15%	63.91%	64.73%	65.60%	66.53%	46.96%	
Manufacturing Costs (Component Wise)									
Blasting Expenses	62.69%	22.16%	18.92%	19.38%	19.86%	20.36%	20.89%	19.97%	
Quarrying Expenses	54.82%	21.61%	18.72%	18.89%	19.07%	19.27%	19.49%	15.70%	
Production Expenses	68.42%	29.29%	25.51%	25.65%	25.80%	25.97%	26.15%	11.29%	
Administrative Expenses	11.96%	5.86%	5.15%	5.47%	5.80%	6.19%	6.59%	7.11%	
Financial Costs	13.00%	8.63%	3.10%	2.59%	2.08%	1.57%	1.05%	0.54%	
<b>Total Expenses</b>	<b>210.88%</b>	<b>87.55%</b>	<b>71.40%</b>	<b>71.97%</b>	<b>72.60%</b>	<b>73.35%</b>	<b>74.17%</b>	<b>54.60%</b>	
Gross Profit	-85.93%	26.94%	36.85%	36.09%	35.27%	34.40%	33.47%	53.04%	
Net Profit (Distributable)	-110.85%	12.50%	28.67%	28.09%	27.46%	26.71%	25.89%	45.46%	
Distributed Profit	0.11%	0.04%	0.03%	10.05%	10.05%	10.05%	10.05%	25.12%	
Retained Earnings	-110.96%	12.46%	28.64%	18.04%	17.41%	16.66%	15.84%	20.34%	
Cash Profits	-36.88%	37.16%	49.22%	38.62%	37.99%	37.24%	36.42%	20.34%	
Depreciation	74.09%	24.70%	20.58%	20.58%	20.58%	20.58%	20.58%	0.00%	







Projected Balance Sheets

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
<b>Owned Funds</b>									
Capital Introduced	32,870	32,870	32,870	32,870	32,870	32,870	32,870	32,870	
Retained Earnings	(12,268)	(8,134)	3,265	10,446	17,377	24,008	30,314	38,409	
<b>Total Owned Funds</b>	<b>20,602</b>	<b>24,736</b>	<b>36,135</b>	<b>43,316</b>	<b>50,247</b>	<b>56,878</b>	<b>63,184</b>	<b>71,279</b>	
<b>Borrowed Funds</b>	<b>30,000</b>	<b>30,000</b>	<b>25,714</b>	<b>21,428</b>	<b>17,142</b>	<b>12,856</b>	<b>8,570</b>	<b>4,284</b>	
<b>Total</b>	<b>50,602</b>	<b>54,736</b>	<b>61,849</b>	<b>64,744</b>	<b>67,389</b>	<b>69,734</b>	<b>71,754</b>	<b>75,563</b>	
<b>Net Fixed Assets</b>	<b>52,170</b>	<b>43,979</b>	<b>35,788</b>	<b>27,597</b>	<b>19,406</b>	<b>11,215</b>	<b>3,024</b>	<b>3,024</b>	
<b>Investments &amp; Other Assets</b>	<b>2,509</b>	<b>2,509</b>	<b>2,509</b>	<b>2,509</b>	<b>2,509</b>	<b>2,509</b>	<b>2,509</b>	<b>2,509</b>	
<b>Net Current Assets</b>	<b>(4,077)</b>	<b>8,248</b>	<b>23,552</b>	<b>34,638</b>	<b>45,474</b>	<b>56,010</b>	<b>66,221</b>	<b>70,030</b>	
<b>Total</b>	<b>50,602</b>	<b>54,736</b>	<b>61,849</b>	<b>64,744</b>	<b>67,389</b>	<b>69,734</b>	<b>71,754</b>	<b>75,563</b>	
	-	-	-	-	-	-	-	-	
<b>Fixed Assets (Gross Value)</b>	<b>60,361</b>	<b>60,361</b>	<b>60,361</b>	<b>60,361</b>	<b>60,361</b>	<b>60,361</b>	<b>60,361</b>	<b>60,361</b>	
<b>Accumulated Depreciation</b>	<b>(8,191)</b>	<b>(16,382)</b>	<b>(24,573)</b>	<b>(32,764)</b>	<b>(40,955)</b>	<b>(49,146)</b>	<b>(57,337)</b>	<b>(57,337)</b>	
<b>Net Fixed Assets</b>	<b>52,170</b>	<b>43,979</b>	<b>35,788</b>	<b>27,597</b>	<b>19,406</b>	<b>11,215</b>	<b>3,024</b>	<b>3,024</b>	
<b>Current Assets</b>									
Inventories	1,713	2,019	2,095	2,120	2,147	2,176	2,207	1,557	
Debtors	1,843	5,528	6,634	6,634	6,634	6,634	6,634	6,634	
<b>Total Current Assets</b>	<b>3,556</b>	<b>7,547</b>	<b>8,729</b>	<b>8,754</b>	<b>8,781</b>	<b>8,810</b>	<b>8,841</b>	<b>8,191</b>	
<b>Current Liabilities</b>									
Creditors	7,312	8,878	8,925	9,014	9,110	9,218	9,334	6,737	
Others	-	-	-	-	-	-	-	-	
<b>Total Current Liabilities</b>	<b>7,312</b>	<b>8,878</b>	<b>8,925</b>	<b>9,014</b>	<b>9,110</b>	<b>9,218</b>	<b>9,334</b>	<b>6,737</b>	
<b>Gross Current Assets</b>	<b>(3,756)</b>	<b>(1,331)</b>	<b>(196)</b>	<b>(260)</b>	<b>(329)</b>	<b>(408)</b>	<b>(493)</b>	<b>1,454</b>	
<b>Cash in Hand and at Bank</b>	<b>(321)</b>	<b>9,579</b>	<b>23,748</b>	<b>34,898</b>	<b>45,803</b>	<b>56,418</b>	<b>66,714</b>	<b>68,576</b>	
<b>Net Current Assets</b>	<b>(4,077)</b>	<b>8,248</b>	<b>23,552</b>	<b>34,638</b>	<b>45,474</b>	<b>56,010</b>	<b>66,221</b>	<b>70,030</b>	

Projected Funds Flow Statements

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
<u>Sources of Funds</u>									
Surplus of Income over Expense	(12,256)	4,146	11,411	11,181	10,931	10,631	10,306	18,095	
Depreciation	8,191	8,191	8,191	8,191	8,191	8,191	8,191	-	
Decrease in Gross Current Assets	3,756	-	-	64	69	79	85	-	
Capital Introduced	32,870	-	-	-	-	-	-	-	
Loan Availed	30,000	-	-	-	-	-	-	-	
<b>Total Sources of Funds</b>	<b>62,561</b>	<b>12,337</b>	<b>19,602</b>	<b>19,436</b>	<b>19,191</b>	<b>18,901</b>	<b>18,582</b>	<b>18,095</b>	
<u>Utilisation of Funds</u>									
Distribution of Earnings	12	12	12	4,000	4,000	4,000	4,000	10,000	
Increase in Gross Current Assets	-	2,425	1,135	-	-	-	-	1,947	
Capitalisation (Depreciating)	60,361	-	-	-	-	-	-	-	
Capitalisation (Other Assets)	2,509	-	-	-	-	-	-	-	
Loan Repaid	-	-	4,286	4,286	4,286	4,286	4,286	4,286	
<b>Total Utilisation of Funds</b>	<b>62,882</b>	<b>2,437</b>	<b>5,433</b>	<b>8,286</b>	<b>8,286</b>	<b>8,286</b>	<b>8,286</b>	<b>16,233</b>	
Opening Balance	-	-	321	9,579	23,748	34,898	45,803	56,418	66,714
Total Sources	62,561	12,337	19,602	19,436	19,191	18,901	18,582	18,095	
Total Utilisation	62,882	2,437	5,433	8,286	8,286	8,286	8,286	16,233	
Closing Balance	(321)	9,579	23,748	34,898	45,803	56,418	66,714	68,576	

## **Calculations & Assumptions**

(All annual amounts in AED '000)

<b>Sales</b>		<u>tons</u>	<u>tons</u>	<u>tons</u>	<u>tons</u>	<u>Rate</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>	<u>Addl Info</u>
<u>Material Produced</u>		<u>Per Hour</u>	<u>Per Day</u>	<u>Per Month</u>	<u>Per Year</u>	<u>Ex Crusher</u>	<u>Per Hour</u>	<u>Per Day</u>	<u>Per Month</u>	<u>Per Year</u>	
10-20mm	24%	158	3,160	82,160	985,920	14.00	2,212	44,240	1,150,240	13,803	
5-10mm	17%	111	2,220	57,720	692,640	14.00	1,554	31,080	808,080	9,697	
0-5mm	35%	230	4,600	119,600	1,435,200	9.00	2,070	41,400	1,076,400	12,917	
Armour Rock	8%	52	1,040	27,040	324,480	12.00	624	12,480	324,480	3,894	
Road Base	17%	114	2,280	59,280	711,360	5.50	627	12,540	326,040	3,912	
<b>Totals</b>	<b>100%</b>	<b>665</b>	<b>13,300</b>	<b>345,800</b>	<b>4,149,600</b>		<b>7,087</b>	<b>141,740</b>	<b>3,685,240</b>	<b>44,223</b>	

## **Estimation of Sales Proceeds**

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
Capacity Utilisation	25.00%	75.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	
Sales	11,056	33,167	39,801	39,801	39,801	39,801	39,801	39,801	

Note: During the first year, in the erection stage, armour rock, quarry run & road base will still be sold.

## **Other Income**

Other income will be mainly interest on Fixed Deposits with the bank, kept there to obtain facilities for labour permits, Port facilities, etc.

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
BG for Labour Permits	137	273	273	273	273	273	273	273	
BG for Supplies & Services	-	525	1,050	1,050	1,050	1,050	1,050	1,050	
<b>Total Bank Guarantees</b>	<b>137</b>	<b>798</b>	<b>1,323</b>	<b>1,323</b>	<b>1,323</b>	<b>1,323</b>	<b>1,323</b>	<b>1,323</b>	
Interest on FD @ ~ 2%	3	16	26	26	26	26	26	26	

## **Manufacturing Cost**

### Component wise Manufacturing Cost

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
Blasting Expenses	6,931	7,349	7,529	7,712	7,903	8,104	8,315	7,948	
Quarrying Expenses	6,061	7,168	7,451	7,517	7,590	7,670	7,758	6,249	
Production Expenses	7,564	9,714	10,155	10,209	10,269	10,335	10,408	4,492	

Opening Stocks – for the sake of calculation it is assumed that all produced material will be sold, which is not a factual assumption

Closing Stocks – for the sake of calculation it is assumed that all produced material will be sold, which is not a factual assumption

Manufacturing Cost	<u>20,556</u>	<u>24,231</u>	<u>25,135</u>	<u>25,438</u>	<u>25,762</u>	<u>26,109</u>	<u>26,481</u>	<u>18,689</u>	
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Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
<b>Blasting Expenses</b>									
Explosives Cost	5	5	5	5	5	5	5	5	
Blasting Contractor's Fees	5,765	5,880	5,998	6,118	6,240	6,365	6,492	6,622	
Government Fees	5	5	5	5	5	5	5	5	
Labour	285	570	627	690	759	835	919	1,011	
Fuel	275	275	275	275	275	275	275	275	
Maintenance - Spares & Consumables	7	25	30	30	30	30	30	30	
Depreciation	589	589	589	589	589	589	589	-	
Other Expenses									
<b>Total Blasting Expenses</b>	<b>6,931</b>	<b>7,349</b>	<b>7,529</b>	<b>7,712</b>	<b>7,903</b>	<b>8,104</b>	<b>8,315</b>	<b>7,948</b>	
<b>Quarrying Expenses</b>									
Labour	160	320	352	387	426	469	516	568	
Fuel	3,844	3,844	3,844	3,844	3,844	3,844	3,844	3,844	
Maintenance - Labour	141	281	309	340	374	411	452	497	
Maintenance - Spares & Consumables	310	1,117	1,340	1,340	1,340	1,340	1,340	1,340	
Depreciation	1,606	1,606	1,606	1,606	1,606	1,606	1,606	-	
Other Expenses									
<b>Total Quarrying Expenses</b>	<b>6,061</b>	<b>7,168</b>	<b>7,451</b>	<b>7,517</b>	<b>7,590</b>	<b>7,670</b>	<b>7,758</b>	<b>6,249</b>	
<b>Production Expenses</b>									
Labour	147	293	322	354	389	428	471	518	
Fuel - Maintenance	439	439	439	439	439	439	439	439	
Fuel - Loading & Material handling	824	824	824	824	824	824	824	824	
Maintenance - Labour	102	204	224	246	271	298	328	361	
Maintenance - Spares & Consumables	-	1,650	1,980	1,980	1,980	1,980	1,980	1,980	
Plant Maintenance - Spares & Consu	-	108	130	130	130	130	130	130	
Equip Maintenance - Spares & Consu	56	200	240	240	240	240	240	240	
Depreciation	5,996	5,996	5,996	5,996	5,996	5,996	5,996	-	
Other Expenses									
<b>Total Quarrying Expenses</b>	<b>7,564</b>	<b>9,714</b>	<b>10,155</b>	<b>10,209</b>	<b>10,269</b>	<b>10,335</b>	<b>10,408</b>	<b>4,492</b>	

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Addl Info
<u>Blasting Expenses</u>									
Volume to be blasted	tons per hour	739							
	tons per day	14,780							
	tons per month	384,280							
	tons per year	4,611,360							
Approximate Explosives needed for that,	485,406	kgs, assuming a ratio of	9.50	for blasting, anticipating a good quality blasting.					
Out of this about 1:14 is high explosive, i.e.	34,672	kgs, as 1 meter is high explosive in each hole of 14 meters average depth.							
Balance, ANFO will be 13:14, about	450,734	kgs.							
Superdyne or Powergel @ AED	-	-	AED	(Cost of explosives is included in the blasting contractor's fees, only the					
Ammonium Nitrate Fuel Oil @ AED	-	-	AED	Government Fee of AED 2 per kilo of explosives is considered and the					
Detonators & Cordex, etc.	5,000	AED	Superdyne and ANFO is taken below).						
Total Cost - increased pa at abt 4%	5	5	5	5	5	5	5	5	
Cost per ton	AED	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cost per cbm	AED	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003

Blasting Contractor's Fees

Blasting Contractors normally charge AED 2 per cbm if blasting on given drilled areas; with drilling + blasting they charge AED 2 per ton.

Taken a flat ~ AED 1.25 per ton, 5,764,200 per annum, taken at AED 3.50 per cbm as per contract with Tuvwxyz Abcdefg & Hijklmn.

Say, Total Cost, increased pa @ 2%

	5,765	5,880	5,998	6,118	6,240	6,365	6,492	6,622
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Note that additional expenses during the first year are taken in Quarry Development Cost.

Government Fees

Explosives License Fee is a flat AED 2 per kilo of explosive consumed.

License Fee	-								
Blasting Permission from Authority	1								
Blasting Permit from Authority	1								
Other Expenses	3								
Total Expenses	5	5	5	5	5	5	5	5	

These are not escalated as government policies in this regard generally remain constant over years together.

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Addl Info
<b><u>Wages, Salaries &amp; HR Expenses</u></b>									
Quarry - Blasting	285	570	627	690	759	835	919	1,011	
Quarry - Material Movement	160	320	352	387	426	469	516	568	
Quarry - Maintenance	141	281	309	340	374	411	452	497	
Plant - Running	147	293	322	354	389	428	471	518	
Plant - Maintenance	102	204	224	246	271	298	328	361	
Administration	555	1,110	1,221	1,343	1,477	1,625	1,788	1,967	
Totals for the Year	1,390	2,778	3,055	3,360	3,696	4,066	4,474	4,922	

Overheads

Number of Employees		91	
Visa Cost at ~ AED	2,500 per head	227,500	AED
Annualised at 1/3rd	833 p/p p/a	75,803	AED
Airfare at about AED	800 p/p p/a	72,800	AED
Leave Pay & Gratuity	2,738 p/p p/a	249,158	AED
Medical Expenses ~	450 p/p p/a	40,950	AED
Insurance at ~ AED	35 p/p p/a	3,185	AED
Uniforms & Safety ~	500 p/p p/a	45,500	AED
Misc Expenses at ~	100 p/p p/a	9,100	AED
Total		496,496	AED
Say, annual		500,000	AED

Notes for Salary Calculation:

- 1 In First Year, Salaries are taken at 50% of calculation.
- 2 In Second Year, Salaries are taken at normal working as below.
- 3 From Third Year onwards, all salaries are annually increased at 10% to compensate for cost of living and other inflationary trends.

<u>Salaries as per Sections</u>	(All amounts in AED)							
	<u>Persons</u>	<u>Salaries</u>	<u>HRA</u>	<u>Food</u>	<u>OT</u>	<u>Overheads</u>	<u>Variance</u>	<u>Total</u>
Quarry - Blasting	8	379,200	48,000	25,200	45,600	43,956	27,098	569,054
Quarry - Material Movement	22	108,000	-	21,600	54,000	120,879	15,224	319,703
Quarry - Maintenance	12	118,800	-	23,400	59,400	65,934	13,377	280,911
Plant - Running	18	100,800	-	28,800	50,400	98,901	13,945	292,846
Plant - Maintenance	9	111,600	-	12,600	19,800	49,451	9,673	203,124
Administration	22	801,600	84,000	36,000	14,400	120,879	52,844	1,109,723
Totals for the Year	91	1,620,000	132,000	147,600	243,600	500,000	132,161	2,775,361
Monthly Average		135,000	11,000	12,300	20,300	41,667	11,013	231,280

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Addl Info
<b>Diesel</b>									
Quarry - Blasting	275	275	275	275	275	275	275	275	275
Quarry - Material Movement	3,844	3,844	3,844	3,844	3,844	3,844	3,844	3,844	3,844
Production - Generators & Maintenance	439	439	439	439	439	439	439	439	439
Production - Material Movement	824	824	824	824	824	824	824	824	824
<b>Total</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>	<b>5,382</b>

Note that diesel consumption is same in first year due to quarry development activities and the same provided to hired machines.

Rate of diesel is not fluctuated over the life of the project. Consumption obviously does not differ over working time.

Diesel Consumption does not fluctuate with capacity under utilisation in the initial years as more material handling is involved in quarry development.

That is to say that plant is not deficient in capacity, but the quarry is deficient in supplying to the crusher at desired rate because of developmental work.

<u>Equipment Utilisation Details</u>	<u>Nos</u>	<u>IG/Hr/Mc</u>	<u>IG / Day</u>	<u>IG / M</u>	<u>IG / Yr</u>	<u>Equiv R/hr</u>	<u>Cost AED</u>	
<u>Quarry - Blasting</u>								
Drilling Machines	1	5.00	100	2,600	31,200	100%	274,560	
<u>Quarry - Material Movement</u>								
Bulldozers	1	8.00	160	4,160	49,920	100%	439,296	
Excavators	3	7.00	420	10,920	131,040	100%	1,153,152	
Wheel Loaders	1	6.00	120	3,120	37,440	100%	329,472	
Rock Body Trucks	7	5.00	700	18,200	218,400	100%	1,921,920	
<u>Production - Generators &amp; Maintenance</u>								
Generators	-	4.00	-	-	-	100%	-	
Bobcat	1	2.00	40	1,040	12,480	100%	109,824	
6 Wheel Trucks, Tankers & Service Trucks	2	3.00	120	3,120	37,440	100%	329,472	
<u>Production - Material Movement</u>								
Wheel Loaders	3	5.00	300	7,800	93,600	100%	823,680	
<b>Totals</b>			<b>1,960</b>	<b>50,960</b>	<b>611,520</b>		<b>5,381,376</b>	
Note that as per current cost, diesel is expected to be @		8.80	per IG at a one month credit.				MLY	<b>448,448</b>

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Addl Info
<b><u>Maintenance - Spares &amp; Consumables</u></b>									
Quarry - Blasting	7	25	30	30	30	30	30	30	
Quarry - Material Movement	310	1,117	1,340	1,340	1,340	1,340	1,340	1,340	
Production - Plant	-	1,650	1,980	1,980	1,980	1,980	1,980	1,980	
Production - Generators & Maintenance	-	108	130	130	130	130	130	130	
Production - Material Movement	56	200	240	240	240	240	240	240	
<b>Total</b>	<b>373</b>	<b>3,100</b>	<b>3,720</b>	<b>3,720</b>	<b>3,720</b>	<b>3,720</b>	<b>3,720</b>	<b>3,720</b>	

Particulars	Primary	Secondary	Tertiary I	Tertiary II	Screen 1	Screen 2	Screen 3	Screen 4	
Feeding	tph 650	565	538	123	538	396	123	269	
	tpa 4,056,000	3,525,600	3,357,120	767,520	3,357,120	2,471,040	767,520	1,678,560	
Hammer Set / Screen Life	mt 300,000	450,000	1,000,000	1,000,000	500,000	500,000	500,000	500,000	
Hammer Set Cost	AED 50,000	60,000	50,000	50,000	NA	NA	NA	NA	
No of Screens	Nos NA	NA	NA	NA	3	2	3	3	
Screen Cost	AED NA	NA	NA	NA	1,500	1,500	1,500	1,500	
Main Bearings Life	mt 7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	
Secondary Bearings Life	mt 5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	
Hammer / Screen Cost	AED 676,000	470,080	167,856	38,376	30,214	14,826	6,908	15,107	
Liner / Side Plate Cost	AED 5,000	5,000	5,000	5,000	2,000	2,000	2,000	2,000	
Main Bearings Cost	AED 100,000	50,000	20,000	20,000	10,000	10,000	10,000	10,000	
Secondary Bearings Cost	AED 50,000	20,000	8,000	4,000	2,000	2,000	2,000	2,000	
Conveyor Maintenance	AED 5,000	5,000	2,000	4,000	5,000	8,000	10,000	10,000	
Lubricants	AED 10,000	10,000	7,500	6,000	4,000	4,000	4,000	4,000	
Consumable Hardware	AED 1,000	1,000	500	500	3,000	2,000	4,000	7,500	
Miscellaneous	AED 42,350	28,054	10,543	3,894	2,811	2,141	1,945	2,530	
<b>Total Cost</b>	<b>AED 889,350</b>	<b>589,134</b>	<b>221,399</b>	<b>81,770</b>	<b>59,025</b>	<b>44,967</b>	<b>40,853</b>	<b>53,137</b>	
<b>Grand Total</b>	<b>AED 1,979,635</b>	Ideally for 4th Year. Proportionately reduced for earlier years. Nil for First Year.							

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
<u>Maintenance - Spares &amp; Consumables (Continued)</u>									
<u>Equipments Maintenance</u>	<u>No of M/c</u>	<u>Hrs Run pa</u>	<u>Tot Hrs pa</u>	<u>Service Hrs</u>	<u>Cost</u>	<u>Cost pa</u>	<u>Adj</u>	<u>Total</u>	
<u>Engine</u>									
Quarry - Blasting	1	6,240	6,240	100,000	75,000	4,680	3,510	8,190	
Quarry - Material Movement	12	6,240	74,880	125,000	125,000	74,880	56,160	131,040	
Production - Generators & Maintenance	3	6,240	18,720	175,000	50,000	5,349	4,012	9,361	
Production - Material Movement	3	6,240	18,720	150,000	125,000	15,600	11,700	27,300	
<u>Transmission</u>									
Quarry - Blasting	1	6,240	6,240	50,000	25,000	3,120	2,340	5,460	
Quarry - Material Movement	12	6,240	74,880	125,000	125,000	74,880	56,160	131,040	
Production - Generators & Maintenance	3	6,240	18,720	175,000	25,000	2,674	2,006	4,680	
Production - Material Movement	3	6,240	18,720	150,000	125,000	15,600	11,700	27,300	
<u>Tyres / Tracks</u>									
Quarry - Blasting	1	6,240	6,240	35,000	25,000	4,457	3,343	7,800	
Quarry - Material Movement	12	6,240	74,880	15,000	100,000	499,200	374,400	873,600	
Production - Generators & Maintenance	3	6,240	18,720	20,000	60,000	56,160	42,120	98,280	
Production - Material Movement	3	6,240	18,720	25,000	100,000	74,880	56,160	131,040	
<u>Body &amp; Other</u>									
Quarry - Blasting	1	6,240	6,240	10,000	5,000	3,120	2,340	5,460	
Quarry - Material Movement	12	6,240	74,880	10,000	15,000	112,320	84,240	196,560	
Production - Generators & Maintenance	3	6,240	18,720	10,000	3,000	5,616	4,212	9,828	
Production - Material Movement	3	6,240	18,720	10,000	15,000	28,080	21,060	49,140	
<u>Total</u>									
Quarry - Blasting	1	6,240	6,240			15,377	11,533	26,910	30
Quarry - Material Movement	12	6,240	74,880			761,280	570,960	1,332,240	1,340
Production - Generators & Maintenance	3	6,240	18,720			69,799	52,350	122,149	130
Production - Material Movement	3	6,240	18,720			134,160	100,620	234,780	240
Grand Total		24,960	118,560			980,616	735,463	1,716,079	1,740
Say								1,720,000	1,740

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

<u>Particulars</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Addl Info</u>
<u>Department Wise Assets Holding Schedule &amp; Proportionate Distribution of Common Assets by Equivalent Parameters</u>									
<u>Pseudo-Itemised Details of Acquisition</u>	<u>Common</u>	<u>Blasting</u>	<u>Quarrying</u>	<u>Maint</u>	<u>Production</u>	<u>Workshop</u>	<u>Admin</u>	<u>HR</u>	
	5,000	1,200	3,920	-	29,600	300	500	100	
	720	2,025	1,180	150	4,900	900	25	50	
	100		120	150	1,350		25	650	
	150		135	96	1,760		5	180	
	100		750		-		10		
			3,500		150		280		
					80		200		
Sub Totals	6,070	3,225	9,605	396	37,840	1,200	1,045	980	
HR (no of persons)	86	237	129	97	194		237	980	
Workshop (Maintenance Expenses)		8	468		723	1,199			
Same Department				493	493				
Common (Value of Investment)	6,157	394	1,159		4,458		146		
Administration (equally)		476	476		476		1,428		GT
Total Departmental Asset Distribution		4,340	11,837		44,184				60,361
Other assets in the schedule	-	1		-		1	-	-	2,509
Grand Total (as matching with Cost of Project)									62,870
<u>Basis of Distribution</u>									
No of Persons	8	22	12	9	18		22	91	
Maintenance Expenses		30	1,680		2,596	4,306			
Value of Investment so far	54,204	3,470	10,202		39,250		1,282		

Component wise Manufacturing Cost (Continued)

(All amounts in AED '000)

Particulars	95% w/o Yrs	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Addl Info
<u>Depreciation &amp; Assets Holding Schedule</u>										
<u>Quarrying - Blasting</u>										
Purchase / Sale		4,340								
Total Cost		4,340	4,340	4,340	4,340	4,340	4,340	4,340	4,340	
Current Depreciation	7	589	589	589	589	589	589	589	-	
Accumulated Depreciation		589	1,178	1,767	2,356	2,945	3,534	4,123	4,123	
Book Value		3,751	3,162	2,573	1,984	1,395	806	217	217	
<u>Quarrying - Material Movement</u>										
Purchase / Sale		11,837								
Total Cost		11,837	11,837	11,837	11,837	11,837	11,837	11,837	11,837	
Current Depreciation	7	1,606	1,606	1,606	1,606	1,606	1,606	1,606	-	
Accumulated Depreciation		1,606	3,212	4,818	6,424	8,030	9,636	11,242	11,242	
Book Value		10,231	8,625	7,019	5,413	3,807	2,201	595	595	
<u>Production</u>										
Purchase / Sale		44,184								
Total Cost		44,184	44,184	44,184	44,184	44,184	44,184	44,184	44,184	
Current Depreciation	7	5,996	5,996	5,996	5,996	5,996	5,996	5,996	-	
Accumulated Depreciation		5,996	11,992	17,988	23,984	29,980	35,976	41,972	41,972	
Book Value		38,188	32,192	26,196	20,200	14,204	8,208	2,212	2,212	
<u>Totals</u>										
Purchase / Sale		60,361	-	-	-	-	-	-	-	
Total Cost		60,361	60,361	60,361	60,361	60,361	60,361	60,361	60,361	
Current Depreciation		8,191	8,191	8,191	8,191	8,191	8,191	8,191	-	
Accumulated Depreciation		8,191	16,382	24,573	32,764	40,955	49,146	57,337	57,337	
Book Value		43,545	38,566	33,587	28,608	23,629	18,650	13,671	13,671	

Component wise Administrative Cost

(All amounts in AED '000)

Particulars	95% w/o Yrs	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Addl Info
Salaries of administrative personnel		555	1,110	1,221	1,343	1,477	1,625	1,788	1,967	
License & Sponsorship Fees		350	350	350	350	350	350	350	350	
Telephones, Courier & Communication		150	180	180	180	180	180	180	180	
Printing & Stationery		25	25	25	25	25	25	25	25	
Office Expenses		25	25	25	25	25	25	25	25	
Petrol & Other Conveyance		75	90	90	90	90	90	90	90	
Management Airfare & Entertainment		50	60	70	70	70	70	70	70	
Advertisement, Publicity & Donations		20	20	20	20	20	20	20	20	
Professional Fees		50	50	50	50	50	50	50	50	
Miscellaneous Expenses		22	34	17	25	21	29	23	51	
		<u>1,322</u>	<u>1,944</u>	<u>2,048</u>	<u>2,178</u>	<u>2,308</u>	<u>2,464</u>	<u>2,621</u>	<u>2,828</u>	

Financial Expenses

Amount borrowed will be about 60% of capital investment. To arrive at capital investment, from the total project cost of AED 62,870,000, almost all amounts except heavy machineries will be excluded. That is, on the whole, all figures in the list after light vehicles, comprising AED 11,304,000, will be excluded. This means that the amount to be considered by banks as capital outlay will be equivalent to a maximum of AED 51,566,000 only, or

say, AED 50,000,000

or AED 50,000 ('000)

Loan component allowable at above rate, for AED 30,000 ('000)

Own Component of total investment will be AED 32,870 ('000)

Interest on the above at about 9.50% pa will be as follows:

Average Interest	1,425	2,850	1,221	1,018	814	611	407	203
Bank Charges	12	12	12	12	12	12	12	12
Total Finance Costs	<u>1,437</u>	<u>2,862</u>	<u>1,233</u>	<u>1,030</u>	<u>826</u>	<u>623</u>	<u>419</u>	<u>215</u>

Moratorium for about 2 years

Repayment in about 7 years

Opening Balance	-	30,000	30,000	25,714	21,428	17,142	12,856	8,570
Addition / Repayment	30,000	-	4,286	-	4,286	-	4,286	-
Closing Balance	30,000	30,000	25,714	21,428	17,142	12,856	8,570	4,284

**Cost of Project**

				<u>UAE Dirhams</u>	
Crusher Plant	54.88%			29,600,000	47.08%
Crusher Installation				4,900,000	7.79%
<u>Other Equipments</u>	27.96%	<u>Nos</u>	<u>Cost</u>		
Tuvwxyz Drilling Machine Ranger 700		1	1,200,000	1,200,000	1.91%
Cdefghij X9x Bulldozer with Ripper		1	2,025,000	2,025,000	3.22%
Klmnopq Px 800 Backhoe Excavators with Bucket		2	1,960,000	3,920,000	6.24%
Cdefghij 34Xcc Backhoe Excavators with Bucket		1	1,180,000	1,180,000	1.88%
Grab Attachment		1	120,000	120,000	0.19%
Rock Breaker Attachment		1	135,000	135,000	0.21%
Cdefghij 9XXG Wheel Loader with Rock Bucket & Chain on Tyres		1	750,000	750,000	1.19%
Cdefghij 7XXD Rock Body Trucks (45mt)		7	500,000	3,500,000	5.57%
Mnopqrs 18cbm Tipper Truck for waste		-	135,000	-	0.00%
Mnopqrs 6 Wheel Truck with Water Tanker		1	150,000	150,000	0.24%
Mnopqrs 6 Wheel Truck with Half Tank & Serviceing Eqpt		1	150,000	150,000	0.24%
Bobcat		1	96,000	96,000	0.15%
Cdefghij 98XH Wheel Loader		1	1,350,000	1,350,000	2.15%
Cdefghij 96XH Wheel Loader		2	880,000	1,760,000	2.80%
Generators		-	600,000	-	0.00%
Weighbridge		1	150,000	150,000	0.24%
3.5 Ton Pickup		1	80,000	80,000	0.13%
Light Vehicles		7		500,000	0.80%
Office Furniture & Fixtures				25,000	0.04%
Computers & Peripherals				25,000	0.04%
Telephone & Fax Machines				5,000	0.01%
Miscellaneous Items				10,000	0.02%
Workshop Equipments				300,000	0.48%
Accommodation Furniture & Fixtures				100,000	0.16%
Canteen Equipments				50,000	0.08%
<u>Land &amp; Building</u>	12.77%	<u>Sqm</u>	<u>Cost</u>		
Quarry Development				5,000,000	7.95%
Road		9,000	80	720,000	1.15%
Water Well (including Municipality Permission, Pump & Tube Well)		1	100,000	100,000	0.16%
Administrative Offices		200	1,400	280,000	0.45%
Stores Section		200	1,000	200,000	0.32%
Workshop Building		1,000	900	900,000	1.43%
Labour Accommodations		500	1,300	650,000	1.03%
Canteen		225	800	180,000	0.29%
<u>Pre-Operative Expenses</u>	0.40%				
License Fees & Other Set-up Expenses				150,000	0.24%
Sign Boards, Logo Designing, Consultant Fees, Etc.				100,000	0.16%
<u>HR and Administrative Set-up</u>	1.08%				
BG for Labour Deposit for Work Permits		91	3,000	273,000	0.43%
Transfer Fee for atleast half the workers		45	9,000	405,000	0.64%
BG for Port, Diesel Suppliers, Chamber of Commerce			1,050,000		0.00%
Working Capital Margin			10,000,000		0.00%
Interest During Setup Period			4,200,000		0.00%
Miscellaneous for Rounding Off	2.91%	DDD			0.00%
Overall Project Contingencies				1,831,000	2.91%
Grand Total				<u>62,870,000</u>	100.00%

## **Calculations & Assumptions**

### **Cost of Crusher**

#### Crusher Plant

Cost of Crusher (in Euro)					4,900,000
Current Rate for Euro to AED					4.69
Cost of Crusher (in AED)					22,968,750
Customs Payments @		5%			1,148,438
Other Agents' Payments @		1%			229,688
Port to Site; Low Beds, Cranes, Etc.					50,000
Other Expenses, Currency Fluctuation, Etc.		0.5%			114,844
Contingencies		1%			229,688
Total					<u>29,641,413</u>
Say,					29,641,000
Or Say,					<u>29,600,000</u>

#### Erection of Plant

Civil Works for Retaining Wall,	350	cbm x Dhs	1,000	per cbm.	350,000
Civil Works for Primary Tunnel,	900	cbm x Dhs	1,000	per cbm.	900,000
Civil Works for Secondary Cr,	50	cbm x Dhs	1,000	per cbm.	50,000
Civil Works for Control Rooms,	32	cbm x Dhs	1,100	per cbm.	35,200
Civil Works Tertiary Crusher	150	cbm x Dhs	1,000	per cbm.	150,000
	0	cbm x Dhs	1,000	per cbm.	-
	0	cbm x Dhs	1,000	per cbm.	-
Machinery Hire and Specialised Personnel + Labour cost for Erection of Plant.					1,000,000
Power Deposit for atleast	4.0	MW of power @ AED	600	per KW.	2,400,000
MEP (excluding power deposit but including erection of circuits)					
Total					<u>4,885,200</u>
Say,					4,885,000
Or Say,					<u>4,900,000</u>

### **Equipments Needed**

Capacity of Secondary Crusher Input (on which all calculations are based)		tph	565
Basic Feed from Primary Crusher		tph	500
Return of Oversize from First Screen for Re-crushing		tph	65
<u>Quarry Operation</u>			
Capacity of Secondary Crusher Input (as above)		tph	500
Primary Crusher Total Rejection at an approx rate of 5.5%		tph	36
Primary Crusher Rejection at an approx calculation of 17.5%		tph	114
Primary Crusher Feeding Required by backward calculation		tph	650
Quarry Run Required for transport from Quarry to Primary Feed Hopper		tph	650
Quarry Rejections, mainly <u>armour rock</u> , approx prodn 7%		tph	52
Quarry Rejections, mainly <u>overburden</u> , approx prodn 5%		tph	37
Quarry Output Required by backward calculation		tph	739

**Equipments Needed (continued)**

Drilling

Blasted Material Required Per Day on average working	20	hrs	tpd	14,780
Blasted Material Required Per Month on average work	26	days	tpm	384,280
Cbm required at an average specific gravity of	2.8	mt	cbm	137,243
Average Burden on Blast Benches	3	m		
Average Spacing on Blast Benches	3.5	m		
Average (Drilling) Depth of Blast Benches	17	m		
Average Area to be Drilled (LxB)	8073	sqm		
Average L & B	89.85	m		
Average Area Covered by each set of 2 holes	10.5	sqm		
Average No of Holes Needed to blast the area	769	nos		
Average Drilling Depth Needed	13073	m		
Machine Rated Drilling Speed	60	m/hr		
Achievable Drilling Speed, excluding idle time	30	m/hr		
Actual Drilling Speed including shifting & idle time	17	m/hr		
Hours needed for drilling	769	hrs		
Hours available for drilling	520	hrs		
Machines needed for above operation	2	nos		<u><u>2</u></u>
Idle time with Machines	35%			

Production

Feeding to Secondary Crusher (Basic Feed as above)								500	
Feeding to Secondary Crusher (Total Feed including re-crushing)								565	
Outputs	<u>Oversize</u>	<u>Output 1</u>	<u>Output 2</u>	<u>0-5mm</u>	<u>R/o</u>	<u>Total</u>			
	11.50%	54.50%	25.50%	8.50%	0.00%	100.00%			
	65	308	144	48	-	565			
Feeding to Tertiary I Crusher (Output 1 & 2 Above)								452	80.00%
Feeding to Tertiary I Crusher (Output 1 & 2 Above + Oversize from this stage)								538	
Outputs	<u>Oversize 1</u>	<u>Oversize 2</u>	<u>Output I</u>	<u>Output II</u>	<u>0-5mm</u>	<u>R/o</u>	<u>Total</u>		
	2.40%	13.60%	63.40%	20.70%	0.00%	-0.10%	100.00%		
	13	73	341	111	0	-	538		
Input to Product Screen I (Output I + 50% of Output II above)								396	79.20%
Outputs	<u>5-10mm</u>	<u>Oversize 1</u>	<u>Oversize 2</u>	<u>10-20mm</u>	<u>5-10mm</u>	<u>0-5mm</u>	<u>R/o</u>	<u>Total</u>	
	10.00%	9.90%	7.00%	28.50%	9.90%	34.30%	0.40%	100.00%	
	40	39	28	113	39	136	1	396	
Feeding to Tertiary II Crusher (50% of Output II Above)								56	11.20%
Feeding to Tertiary II Crusher (50% of Output II Above + Oversize from this stage)								123	
Outputs			<u>10-20mm</u>	<u>5-10mm</u>	<u>0-5mm</u>	<u>R/o</u>	<u>Total</u>		
			36.50%	26.00%	37.50%	0.00%	100.00%		
			45	32	46	-	123		
Total Net Production								269	53.80%
	<u>Rejects</u>	<u>20-32mm</u>	<u>10-20mm</u>	<u>5-10mm</u>	<u>0-5mm</u>	<u>R/o</u>	<u>Total</u>		
	0.00%	0.00%	31.60%	22.20%	46.00%	0.20%	100.00%		
	0	0	158	111	230	1	500		



## **Manpower Needed**

<u>Designation</u>	<u>Details</u>	<u>Nos</u>	<u>Salary</u>	<u>HRA</u>	<u>Food</u>	<u>OT</u>	<u>Total</u>	<u>Ratio</u>
<u>Quarry</u>	38.71%							
Quarry Manager		1	10,000	2,000	-	-	12,000	4.82%
Blasting Engineer		-	8,000	2,000	-	-	-	0.00%
Quarry Supervisor	Night	1	6,000	-	300	-	6,300	2.53%
Drill Machine Operator	Day	1	1,500	-	300	750	2,550	1.02%
	Night	1	1,500	-	300	750	2,550	1.02%
Drilling Helpers	Day	1	800	-	300	400	1,500	0.60%
	Night	1	800	-	300	400	1,500	0.60%
Bulldozer Operator	Day	1	1,500	-	300	750	2,550	1.02%
	Night	1	1,500	-	300	750	2,550	1.02%
Excavator Operator	Day	5	1,500	-	300	750	12,750	5.12%
	Night	3	1,500	-	300	750	7,650	3.07%
Note: Half Quarry Excavators will work at night; Grab will work full time; Rock Breaker only Day Shift.								
Rock Truck Drivers	Day	6	1,500	-	300	750	15,300	6.14%
	Night	4	1,500	-	300	750	10,200	4.09%
Loader Operators	Day	2	1,500	-	300	750	5,100	2.05%
	Night	2	1,500	-	300	750	5,100	2.05%
6 Wheel Drivers	Day	2	1,300	-	300	650	4,500	1.81%
	Night	1	1,300	-	300	650	2,250	0.90%
Note: Only Waste Tipper & Water Tanker will work in Night Shift. Diesel Truck will work only Day Shift.								
Bobcat Operator	Day	1	1,200	-	300	600	2,100	0.84%
<u>Plant</u>	10.84%							
Primary Operator	Day	1	1,500	-	300	750	2,550	1.02%
	Night	1	1,500	-	300	750	2,550	1.02%
Secondary Operator	Day	1	1,500	-	300	750	2,550	1.02%
	Night	1	1,500	-	300	750	2,550	1.02%
Helpers	Day	6	600	-	300	300	7,200	2.89%
	Night	6	600	-	300	300	7,200	2.89%
Loadout Conveyor	Day	1	600	-	300	300	1,200	0.48%
	Night	1	600	-	300	300	1,200	0.48%
<u>Workshop</u>	15.05%							
Supervisor		1	6,000	-	300	-	6,300	2.53%
Crusher Mechanic		1	2,000	-	300	1,000	3,300	1.32%
Engine Mechanic		1	2,000	-	300	1,000	3,300	1.32%
Hydraulic Mechanic		1	2,000	-	300	1,000	3,300	1.32%
Electrician		1	2,000	-	300	1,000	3,300	1.32%
Welders		3	1,000	-	300	500	5,400	2.17%
Assistant Mechanics		3	1,000	-	300	500	5,400	2.17%
Helpers		6	600	-	300	300	7,200	2.89%
<u>Administration</u>	35.40%							
General Manager		1	30,000	3,000	-	-	33,000	13.25%
Administration Manager		1	8,000	2,000	-	-	10,000	4.01%
Purchase Assistant		1	4,000	-	-	-	4,000	1.61%
Finance Manager		1	8,000	2,000	-	-	10,000	4.01%
Chief Accountant		1	4,000	-	-	-	4,000	1.61%
Cashier / Data Entry		1	2,000	-	-	-	2,000	0.80%
Store Supervisor	Day	1	1,000	-	300	-	1,300	0.52%
	Night	1	1,000	-	300	-	1,300	0.52%
Weighbridge Supervisor	Day	1	1,500	-	300	-	1,800	0.72%
	Night	1	1,500	-	300	-	1,800	0.72%
Light Drivers	Day	3	1,200	-	300	600	6,300	2.53%
	Night	2	1,200	-	300	600	4,200	1.69%
Office Boys		1	800	-	300	-	1,100	0.44%
Cooks		4	1,000	-	300	-	5,200	2.09%
Security	Day	1	800	-	300	-	1,100	0.44%
	Night	1	800	-	300	-	1,100	0.44%
<b>Totals</b>		<b>91</b>					<b>249,150</b>	

Organisational Chart for ABC International LLC Crusher

Managing Director / Partner / Chairman

Crusher General Manager

