PEREGRINE DIAMONDS LTD.

WO Diamond Project
Process Flowsheet Development

Submitted to: Peregrine Diamonds Ltd.
Project No.: 154902

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amec

IMPORTANT NOTICE

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Appendix B: Scrubbing Plant Block Flow Diagrams For Each 60m Interval

LIST OF ABBREVIATIONS

NWT.. Northwest Territories
AMEC .... AMEC Americas Limited
HPRC... High Pressure Rolls Crusher
DMS.. Dense Medium Separation
FEL .... Front-End Loader
ROM .... Run-of-Mine
PKC .... Processed Kimberlite Containment
RPS .... Revolutions per Second
RPM.. Revolutions per Minute
EPCM .... Engineering, Procurement, Construction Management

1.0 EXECUTIVE SUMMARY

This report is an update to the process engineering conceptual study report prepared for Peregrine Diamonds Ltd. (Peregrine) by AMEC Americas Limited (AMEC). Since issuing the conceptual study in July 2007, specific process testwork has been completed to progress flowsheet development.

Scrubbing, High Pressure Rolls Crushing (HPRC) and settling testwork was completed using samples extracted at 60m downward intervals in the DO27 orebody. The process plant mass balances were revised to reflect the ore characteristics found from testwork in each 60m depth interval. The plant throughput capacity and overall utilization were maintained at two million tonnes per year (2 Mt/a) and 81% respectively.

To minimize project capital costs, a “scrub only” case was developed, whereby in a washing plant the ore will be crushed to produce appropriately sized ore for washing in a scrubber and screening. The clean and suitably sized material will be transported to another treatment plant nearby, and the unwanted -1 mm material will be pumped to a suitable storage impoundment. In the upper portions of DO27, from 61 m to 121 m, an estimated 90% of the kimberlite will report to the -1 mm stream after scrubbing for 3 to 4 minutes. In the next two 60m intervals an estimated 71% and 52% will be rejected respectively. The direct capital cost and operating cost for a washing plant were estimated to be US$39 million and US$5.35/t respectively.

An alternative washing process to scrubbing was investigated using high pressure water in a test unit called the Hydro-Clean.

2.0 INTRODUCTION

A conceptual study for a 2 Mt/a diamond process plant was completed by AMEC for Peregrine in June 2007. The plant design was based on information derived from other design work for similar soft, clay rich kimberlites, and limited metallurgical data specific to the DO27 orebody.

To obtain relevant design data, a short testwork program was initiated using fresh kimberlite core samples extracted from two vertical drill holes in DO27 during the winter of 2007. The test program was designed to provide preliminary scrubber and HPRC product size analyses to help generate more accurate mass balances and hence update the current plant flowsheet. The program was also designed to determine the process characteristics of the kimberlite for each 60m depth increments as mining progresses downward in the kimberlite pipe.

Block flowsheets were developed incorporating the test data obtained from each 60m depth increment for a 2 Mt/a diamond processing plant from primary crushing through to final diamond recovery. In support of flowsheet development, flocculant selection and settling tests were completed by Ciba representative, Ron Schaffer, using samples from each 60m depth increments in the kimberlite pipe.

Furthermore, the 2007 Ekati bulk sample program particle size distributions were determined for the plant tails after all treatment processes. This data, which predicts between 77% and 91% of head feed will report to the -1 mm fraction for disposal, was used to assist with the development of plant mass balances and supplement the test data.

Block flowsheets for each 60m depth increment were also developed for a 2 Mt/a kimberlite washing plant where mined kimberlite will be crushed using mineral sizers, washed using a conventional scrubber and screened to remove unwanted -1 mm material while +1 mm material will be transported to another processing facility such as Diavik Diamond Mines located nearby; about 23 km northwest of the WO project site. A cost estimate was completed for this option.

An alternate washing method to scrubbing using high pressure water was investigated to determine if more of the kimberlite can be reduced to -1 mm and hence improve concentration of the +1 mm fraction. Samples from each 60m depth increments were sent to Germany to be tested in a Hydro-Clean unit where contaminated material in a vertical washing chamber is subjected to water pressures up to 135 bar.

The assumptions and outcomes of this process flowsheet development study are outlined below; reference documents are listed in Section 9.2.

3.0 SCRUBBING TESTWORK

The objective of the scrubbing testwork was to determine the quantity of -1 mm material generated by the scrubbing process using material from four depth intervals within the DO27 kimberlite pipe.

The scrubbing testwork parameters were as follows:

- Scrubber size 1.486 m long x 0.749 m diameter for a volume of 0.65 m^3
- Targeted scrubber load 26% of volume or about 165 L of slurry
- Targeted scrubber feed percent solids 50% by mass. About 120 L of water were added to roughly 120 kg of ore. One test was performed at about 40% solids to determine if the quantity of clay balls forming could be reduced.

- Scrubber maximum feed size was 32 mm after crushing the core in the laboratory
- Scrubbing times of 3 and 4 minutes
- Scrubber speed 56.9% of critical speed (48.9 RPM) or 28 RPM.

The scrubbing testwork results[1] are summarized in Table 1.

Table 1: Scrubbing Testwork Results

Items	Unit	Intervals							
		61-121m			121-181m		181-241m		241-275m
Feed % -1 mm	%	56.6	51.2	51.2	40.3	51.7	23.6	29.3	23.7
Scrubbing Time	min	3	4	3	3	4	3	4	3
Feed % Solids	%	49.1	47.7	37.8	49.7	48	49.7	49.2	49.2
New % -1 mm	%	33.4	40.3	38.2	31.7	18.2	22.3	28.2	34.2
Total % -1 mm after Scrubbing	%	90.0	91.5	89.4	72	69.9	45.9	57.5	57.9

The following was observed from the testwork results:

- The percentage of -1 mm material after crushing decreases downward in the DO27 kimberlite pipe. Interval 61-121m averaged 53%, interval 121-181m averaged 46% and interval 181-241m averaged 26.5%.
- After scrubbing for 3 to 4 minutes, an average of 90.3% of the kimberlite in the first interval (61-121m) reports to -1 mm. This decreases to 71% and 51.7% for the second and third intervals, 121-181m and 181-241m respectively. The fourth depth interval from 241-275m performs similarly to the third depth interval.
- Most clay balls were produced during the testing of the first interval, for test parameters of 3 minutes scrubbing time and feed percent solids of 50%. Clay ball quantities were reduced by increasing the scrubbing time to 4 minutes and further reduced by decreasing the feed percent solids from around 50% to 40%. Fewer clay balls were observed in the second interval, while none were observed in the third interval.

A large scale scrubber being fed ROM ore crushed to -150 mm would be expected to at least replicate these results.

[1] "An Investigation into The Scrubbing and HPGR Characteristics of Samples from The Peregrine Deposit" Project 11614-001 – Final Report 4 September 2007 by SGS Mineral Services

4.0 HIGH PRESSURE ROLLS CRUSHER TESTWORK

After completion of the scrubbing tests the remaining +1 mm material from the four depth intervals were prepared to feed a small laboratory scale HPRC. The primary objective was to determine the percentage of material in the crusher product less than 1 mm and hence the degree of diamond liberation. The test crusher parameters were:

- Diameter of rolls – 0.25 m
- Width of rolls – 0.1 m
- Speed of rolls – 0.57 RPS

The test results are summarized in Table 2.

Table 2: HPRC Testwork

	Intervals					
Items	**61-121m**	**121-181m**	**181-241m**			**241-275m**
Feed 12.5mm						
F_{50} (µm)	3,461	5,098	5,548	5,548	5,548	1,805
F_{80} (µm)	8,796	8,800	8,804	8,804	8,804	8,808
% Passing 1 mm	4.4	2.9	1.5	1.5	1.5	2
% Moisture	7.6	8	7.9	8.1	8.1	7.7
Performance						
Operating Pressure (bar)	43	44	25	47	57	44
Specific Energy kWh/t (Gross)	1.17	1.22	1.10	1.31	1.31	1.16
Specific Energy kWh/t (Net)	0.63	0.66	0.57	0.73	0.71	0.63
P_{50} (µm)	1,590	1,374	2,165	1,805	1,863	1,493
P_{80} (µm)	4,783	4,556	5,321	4,786	4,788	4,399
% Passing 1 mm	39	43.3	29.6	35.4	34.6	40.1
% New -1 mm	34.6	40.4	28.1	33.9	33.1	38.1
Specific Throughput (ts/hm^3)	182	180	189	169	164	184

The following was observed from the testwork results:

- For depth interval 181-241m, three tests at operating pressures of 25 bar, 47 bar and 57 bar were completed. The product fineness (% new -1 mm generated by the HPRC) for these tests peaked at 33.9% with an operating pressure of 47 bar.
- Samples from depth intervals 61-121m, 121-181m and 241-275m were tested at around this optimum operating pressure of 47 bar (43 bar, 44 bar and 44 bar respectively). The product fineness ranged from 34.6% to 40.4% with an average of 37.7%.

- The average product fineness for tests around the optimum pressure was 36.7%. This product fineness was used in the mass balance calculations for each depth interval.

5.0 SETTLING TESTWORK

Settling testwork was done by Ciba representative, Ron Schaffer. As received slurry, of the scrubbing test fines, was diluted with tap water to produce a typical thickener feed of 7% to 9% solids. The size distribution of the solids was not determined but it was observed to be less than 1 mm. Table 3 presents the results.

Table 3: Settling Testwork

Intervals	Slurry % Solids	pH	Flocculant	Flocculant Dosage g/t dry solids	Coagulant	Coagulant dosage g/t dry solids
61-121m	8.6	7-7.5	Magnafloc 156 or Magnafloc 5250	75-80	Not Required	-
121-181m	8.6	7-7.5	Magnafloc 156 or Magnafloc 5250	70-75	Not Required	-
181-241m	9	7.5-8	Magnafloc 156 or Magnafloc 5250	20-25	Magnafloc 368	10
241-275m	7.3	8-8.5	Magnafloc 156 or Magnafloc 5250	20-25	Magnafloc 368	20

- The solids settle easily with moderate flocculant dosage rates of 70 to 80 g/t for the two shallower depths, despite an estimated average clay content of 28% of the total sample volume[2]. No coagulant is required to achieve good supernatant water clarity (less than 100 NTU).
- The two deeper samples tested require much less flocculant to achieve settling (20 to 25 g/t) however coagulant is required to improve the water clarity to less than 100 NTU.
- Settling rates varied between 0.203 m/min and 0.305 m/min. For a 14 m diameter deep cone compression type thickener selected during the conceptual study the expected solids feed capacity would be between 171 t/h and 257 t/h. From Figure 1, between 20% and 74% of plant feed (average 40%) is expected to report to the thickener after degritting as a slurry containing solids less than 0.25 mm. Therefore, a maximum of 215 t/h or an average of 116 t/h will report to the thickener. At the lowest settling rate, the thickener will be undersized for the

[2] "Bulk and Clay X-Ray Diffraction Analysis of Five Tailings Samples of Solids Collected from Various Depths at The Peregrine Diamond DO27 Location" EBA Engineering, September 2007

maximum expected solids (based on only one set of data) but it will easily handle the average conditions. Further testing should be done in the next phase of the project to ensure appropriate thickener selection.

Underflow density determinations using a graduated cylinder were completed and the results are shown in Table 4.

Table 4: Underflow Density Determinations using a Graduated Cylinder

Intervals	Treatment	Solids Level (cm^3)	Calculated Density (% solids w/w)
61-121m	Magnafloc 156 @ 60 g/t dry solids	240 after 18 hours of settling	35.8
	Magnafloc 5250 @75 g/t dry solids	235 after 18 hours of settling	34.4
121-181m	Magnafloc 156 @ 75 g/t dry solids	215 after 24 hours of settling	36.7
	Magnafloc 5250 @ 75 g/t dry solids	218 after 24 hours of settling	36.9
181-241m	Magnafloc 156 @ 25 g/t dry solids Magnafloc 368 @ 10 g/t dry solids	169 after 24 hours of settling	43.6
241-275m	Magnafloc 156 @ 25 g/t dry solids Magnafloc 368 @ 20 g/t dry solids	197 after 24 hours of settling	38.2

An average underflow density of 37.6% solids was achieved.

6.0 HYDRO-CLEAN TESTWORK

An alternative washing process to the traditional scrubbing process was investigated. Approximately 100 kg of sample from each depth interval was sent to Haver & Boecker's laboratory in Munster, Germany[3]. A laboratory scale machine consisting of a horizontal wedge wire cylinder (diameter 300 mm, 0.5 mm slotted openings), with four high pressure water nozzles was used to simulate a commercially available Hydro-Clean machine. The cylinder rotated very slowly at 20 RPM (26% critical) hence the energy to wash and break down the kimberlite was almost exclusively provided by the high pressure water jets rather than the rotating cylinder.

The testwork objective was to determine if more of the kimberlite could be reduced to the unwanted -1 mm fraction using the Hydro-Clean process in place of the traditional scrubbing process.

The best results were achieved by pre-screening material at its natural moisture content to remove as much liberated -1 mm material as possible before using the

[3] "Determination of Washing Resistance" Haver & Boecker 12 October 2007

Hydro-Clean process. A summary of the testwork results are presented below in Table 5.

Table 5: Hydro-Clean Testwork Summary

Process	Unit	Intervals			
		61-121m	121-181m	181-241m	241-275m
Hydro-Clean Process					
Pre-Screening Feed	kg	64.61	60.88	62.08	82.05
Material Loss % - 1mm	%	29.6	27.9	18	17.7
Washing Time @ 150 bar	sec	58.9	59.7	71.7	71.7
Material Loss % -0.5mm	%	88.7	84.2	55	60.3
Overall Material Reduction	%	92	88.6	63.1	67.3
Scrubber Process					
Material Loss % -1mm	%	90.3	71	51.7	57.9

The overall material reduction for the Hydro Clean process will be greater if the laboratory washer removed particles in the size range -1 +0.5 mm.

The tests show that the Hydro Clean process is more efficient at breaking down DO27 kimberlite to generate fines than the scrubbing process especially as the ore becomes more competent downwards in the pipe.

7.0 BULK SAMPLE PROCESSED KIMBERLITE SIZE DISTRIBUTION

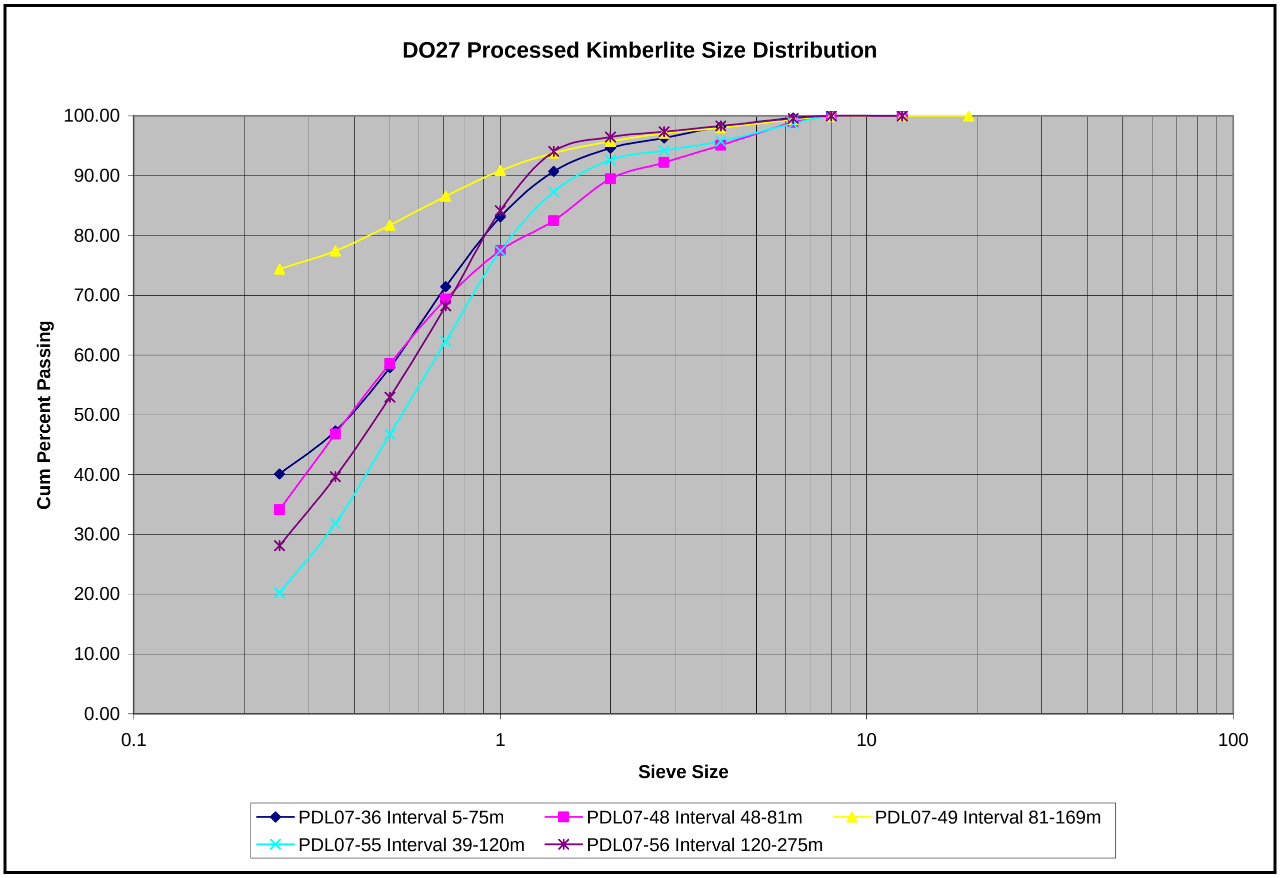
During the 2007 DO27 bulk sample campaign kimberlite samples generated from reverse circulation drilling were processed at the Bulk Sample Test Facility at BHP Billiton's Ekati Diamond Mine. For five of these samples, the particle size distribution was determined for the processed kimberlite after all treatment processes. A graph of this information is presented in Figure 1.

The following was observed from Figure 1:

- After all treatment processes in the bulk sample plant, the percentage of material reporting to -1 mm fraction ranges from 77% to 91%.
- The percentage of slimes (-0.25 mm) varies widely from 20% to 74% with sample PDL07-49 being extra fine.
- These fines percentages do not account for the fines already removed at the RC drill rig screen, in which only the oversize is collected and bagged for bulk sample

processing. It is difficult to estimate the amount of fines lost at the drill rig and hence a total fines balance from in-situ cannot be undertaken.

Figure 1: DO27 Processed Kimberlite Size Distribution



8.0 BLOCK FLOW DIAGRAMS AND MASS BALANCES (STAND-ALONE)

Block flow diagrams for a 2 Mt/a diamond processing plant from primary crushing to final diamond recovery for each 60m depth interval are included in Appendix A. The mass balances shown are based on the testing and information in Section 6 above, which is summarized in Table 6.

The DMS concentrate yield is 2.2% of head feed based on the 2005 bulk sampling campaign results.

Table 6: Summary of Mass Balances

Items	Percent Passing	Intervals		
		61-121m	121-181m	181-241m
Scrubber Feed	-50 mm (%)	97.0	94.0	67.0
	-25 mm (%)	94.0	87.0	52.0
	-1 mm (%)	53.0	46.0	27.0
HPRC Product	-1 mm (%)	36.7	36.7	36.7
After Scrubbing	-1 mm (%)	37.3	25.0	25.3

Table 7 compares the mass balance for the conceptual study block flow diagram against the mass balances prepared for each 60m depth interval by presenting major stream average hourly throughputs for each case.

Table 7: Mass Balance Summary

Stream	Unit	Conceptual Study 2 Mt/a	Intervals		
			61-121m 2 Mt/a	121-181m 2 Mt/a	181-241m 2 Mt/a
New Feed	(t/h)	290	290	290	290
Scrubber Feed	(t/h)	518	316	390	485
Tertiary Crusher Feed	(t/h)	96	9	17	96
HPRC Feed	(t/h)	228	26	100	195
DMS Feed	(t/h)	158	31	112	125
Coarse Rejects	(t/h)	178	181	192	200
Fines Rejects	(t/h)	110	107	96	88
Recovery Feed	(t/h)	6.4	6.4	6.4	6.4
Recovery Rejects	(t/h)	2.4	2.4	2.4	2.4

The following observations are noted regarding the above mass balances:

- Capacity requirements for the scrubber, tertiary crusher, HPRC and DMS increase as mining progresses downwards in the kimberlite pipe due to harder kimberlite and resultant higher circulating loads.
- If a plant was designed to process all ore types then the tertiary crusher, HPRC and DMS would be greatly under utilized until the 181-241m interval was reached.
- Coarse rejects (-6 +0.25 mm) increase slightly, while Fines rejects (-0.25 mm) decrease slightly, as mining progresses downwards in the kimberlite pipe.

The extent of diamond liberation and the ore characteristics are reflected by the quantity of -1 mm material predicted to leave the plant after all processes. A -1 mm analysis for the conceptual study plant and the three 60m interval cases are presented in Table 8.

Table 8: Process Plant -1 mm Analysis

Stream	Unit	Conceptual Study	Intervals		
			61-121m	121-181m	181-241m
-1 mm in Run-of-Mine (ROM)	(%)	25	53	46	27
-1 mm leaving plant	(%)	76	92	83	76
-1 mm generated in plant	(%)	51	39	37	49
-1 mm generated from +1 mm	(%)	68	83	69	67

The -1 mm analysis indicates the following:

- Material from depth interval 61-121m shows a high degree of liberation since 92% of the plant head feed reports to -1 mm after all treatment processes.
- For all cases except the 61-121m case, the -1 mm generated from the +1 mm material in the head feed is similar. The very high value of 83% for the 61-121m depth interval indicates the ease at which this material breaks down to -1 mm.
- The ore characteristics adopted for the “stand-alone’ plant in the conceptual study[4] are very similar to the ore characteristics found at the 181-241m depth interval.
- After all processes, the percentage of material reporting to -1 mm fraction ranges from 92% for the 61-121m case to 76% for the 181-241m case. This is very similar to the range obtained in the bulk sample plant (91% to 77% see Section 6 above).

9.0 WASHING PLANT OPTION (“SCRUBBING ONLY CASE”)

As part of the initial conceptual study, the option to crush and wash ROM ore so that unwanted material below the smallest diamond size required will be discarded while the remaining gravels will be transported elsewhere for diamond recovery, was considered to reduce project capital costs. Before completion of the scrubbing tests, only 40% of the ROM ore was estimated to report to the unwanted -1 mm fraction, so the remaining material (1.2 Mt/a) would have to be transported elsewhere. Now that the scrubbing tests have been completed an estimate of the quantity of material produced by the washing plant for transportation elsewhere is shown in Table 9 as mining advances.

[4] “WO Diamond Project, NWT – Conceptual Study Process Engineering” Final Report July 2007

Block flow diagrams for a 2 Mt/a washing plant from primary crushing to the load-out facility for washed ore in the size range -150 +1 mm for each 60m depth interval are included in Appendix B.

Table 9: Scrubbing Tests

Intervals	After Scrubbing Average % ROM to -1 mm (%)	Annual Estimated Tonnage to Diavik (t)
61-121m	90.3	194,000
121-181m	70.5	590,000
181-241m	51.7	966,000

The primary and secondary crushing sections of the washing plant are identical to those proposed for the 2 Mt/a process plant option and are described in the process engineering conceptual study report.

Minus 150 mm ore from secondary crushing will be fed into one 4.2 m diameter x 8.5 m long rubber-lined scrubber fitted with a discharge trommel screen. The scrubber will have lifter bars and will operate at 65% of critical speed, providing an average residence time of 4 minutes based on a solids feed of 50% by weight. The water feeding the scrubber will be unheated. Material leaving the scrubber will be screened into various fractions to facilitate efficient removal of the unwanted -1 mm fraction.

Trommel screen oversize (-150 +50 mm) will be conveyed to a 1,000 tonne load-out bin equipped with clam-shell gates, which open to fill a truck parked beneath the bin.

Trommel screen undersize (-50 mm) gravity will feed one, double-deck, horizontal screen. The top deck will act as a relieving deck and oversize from both decks (-50 +4 mm) will also be conveyed to the 1,000 tonne load-out bin. The -4 mm fraction will be pumped via cyclones to one, single-deck, banana screen where the -1 mm material will be separated. All -1 mm material will be pumped in slurry form to a PKC facility and the -4 +1 mm fraction will be conveyed with the -50 +4 mm fraction to the load-out bin.

The conveyors feeding the load-out bin will be equipped with weigh scales.

9.1 Capital and Operating Costs “Scrubbing Only” Option

9.1.1 Capital Cost

The capital cost estimate for the 2 Mt/a scrubbing only plant option (Area 3000) begins with the primary crusher and primary crusher ramp and continues with secondary crushing, scrubbing, screening, load-out bin and utilities to the scrubbing plant building.

The 2 Mt/a process plant equipment list as presented in the conceptual study, was modified to reflect the reduced scope of the scrubbing plant. The washing plant estimate was based on this modified equipment list. Equipment costs were based on historical data.

The scrubbing plant building cost was based on the 2 Mt/a "stand-alone" process plant building cost but adjusted to reflect the reduced building size.

Plate work was based on a percentage of mechanical equipment, in a similar ratio to available historical data.

Piping estimates were based on a percentage of mechanical equipment, in a similar ratio to available historical data.

Costs for instrumentation and controls are included in Area 4900, I&C Infrastructure, and was based on previous similar projects.

The direct capital cost for the process plant was estimated in Canadian dollars and converted to US dollars at a rate of CAD$1.08 to US$1.00. A cost summary is presented in Table 10. For comparison, the capital cost for the "stand-alone" diamond plant (Area 3000) was US$84.1 million. These costs do not include indirect costs, EPCM, or contingency.

Table 10: Summary of Scrubbing Plant Capital Cost

3000 Process Plant	Total Cost (US$)
3100 Primary Crushing and Conveying	12,148,127
3120 Secondary Crushing and Conveying	7,886,802
3210 Scrubbing, Screening and Load-Out	8,699,785
3220 HPRC	-
3311 DMS Module 1	-
3312 DMS Module 2	-
3430 Recovery	-
3500 Degritting and Slimes Thickening	-
3600 Water and Air Systems	1,238,847
3700 PK Disposal	3,080,167
3900 Process Building	5,935,129
Total	**38,988,857**

9.1.2 Operating Cost

The basis for the operating cost elements are given in Table 11.

Table 11: Scrubbing Plant Operating Cost Source of Data

Element	Parameters	Comments
Operating basis	2 Mt/a 290 t/h 365 d/a 81% overall utilization	Washing Plant Option
Number of personnel	42	Plant Management, operations, and maintenance
Cost of personnel	$100,000/person	Average cost including burden based on salary analysis for a similar diamond mine in the NWT
Power cost	$0.25/kWh	Based on on-site diesel generated power and power cost analysis for a similar diamond mine in the NWT
Power	8 kWh/t	Based on an installed power of 2,918 kW and 0.8 load factor
Wear and maintenance consumables	50% of labour cost	Includes pump parts, crusher parts, liners, conveyor spares, filters and lube oil
Operating consumables	30% of labour cost	Includes screen panels, cyclones and fuel for plant mobile equipment
Contingency	30%	-

The process plant unit operating cost estimate was calculated in Canadian dollars and is presented in Table 12. The unit operating cost was also converted to US dollars at a rate of CAD$1.08 to US$1.00. For comparison, the operating cost for the "stand-alone" diamond plant was US$10.57/t without contingency.

Table 12: Scrubbing Plant Operating Cost

Items	Unit Operating Cost
Fixed Costs	
No. of personnel	42
Total Cost ($M)	4.2
Cost per Tonne ($/t)	2.10
Variable Costs	
Power ($/t)	2.00
Wear and Maintenance ($/t)	1.05
Operating Consumables ($/t)	0.63
Subtotal	5.78
Contingency	1.73
Total (CAD$/t)	**7.51**
Total (US$/t)	**6.95**

Exclusions:

- freight
- G&A costs.

9.2 References

AMEC (2007c), "WO Diamond Project, NWT – Conceptual Study, Process Engineering" Final Report, July 2007

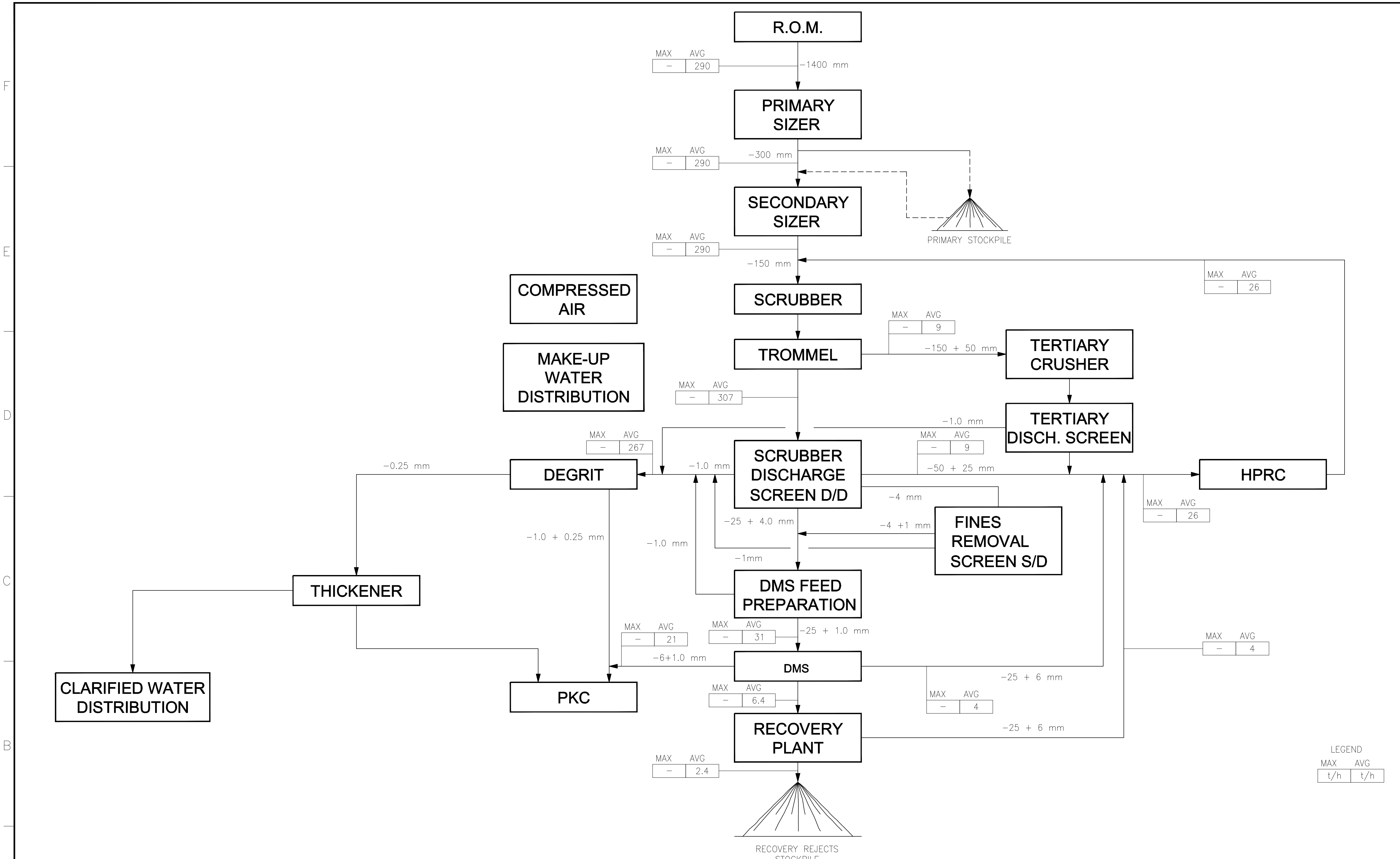
"The Scrubbing and HPGR Characteristics of Sample from the Peregrine Deposit", Final Report, 4 September 2007, SGS Mineral Services

"Bulk and Clay X-Ray Diffraction Analysis of Five Tailings Samples of Solids Collected from Various Depths at the Peregrine Diamond DO27 Location" September 2007, EBA Engineering

"Peregrine Diamonds Flocculant Testwork" Ciba Specialty Chemicals, email dated 21 September 2007

"Determination of Washing Resistance" Haver & Boecker 12 October 2007

APPENDIX A: BLOCK FLOW DIAGRAMS FOR EACH 60M INTERVAL "STAND-ALONE" PLANT



REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	APP
A	31/05/07	ISSED FOR CONCEPTUAL DESIGN	FBK	HR				

ISS	D/M/Y	APP	ISSUED FOR	REV
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REF	NUMBER	TITLE
–		

STAMP/SEAL

APPROVED FOR CONSTRUCTION

CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.

PROJECT PHASE

AREA

PROJECT NO. 154902 | ACTIVITY NO. 3802 | PACKAGE CODE

SCALE NTS

	BY	D/M/Y
DSN.	H. RYANS	09/07/07
DRN.	FBK	09/07/07

amec

SUBJECT

PERGRINE DIAMOND PROJECT
BLOCK FLOW DIAGRAM
2.0 Mt/y – SAMPLE 61-121

CLIENT DWG. NO.

DRAWING NO. A1-154902-3000-110-9008

REV. A

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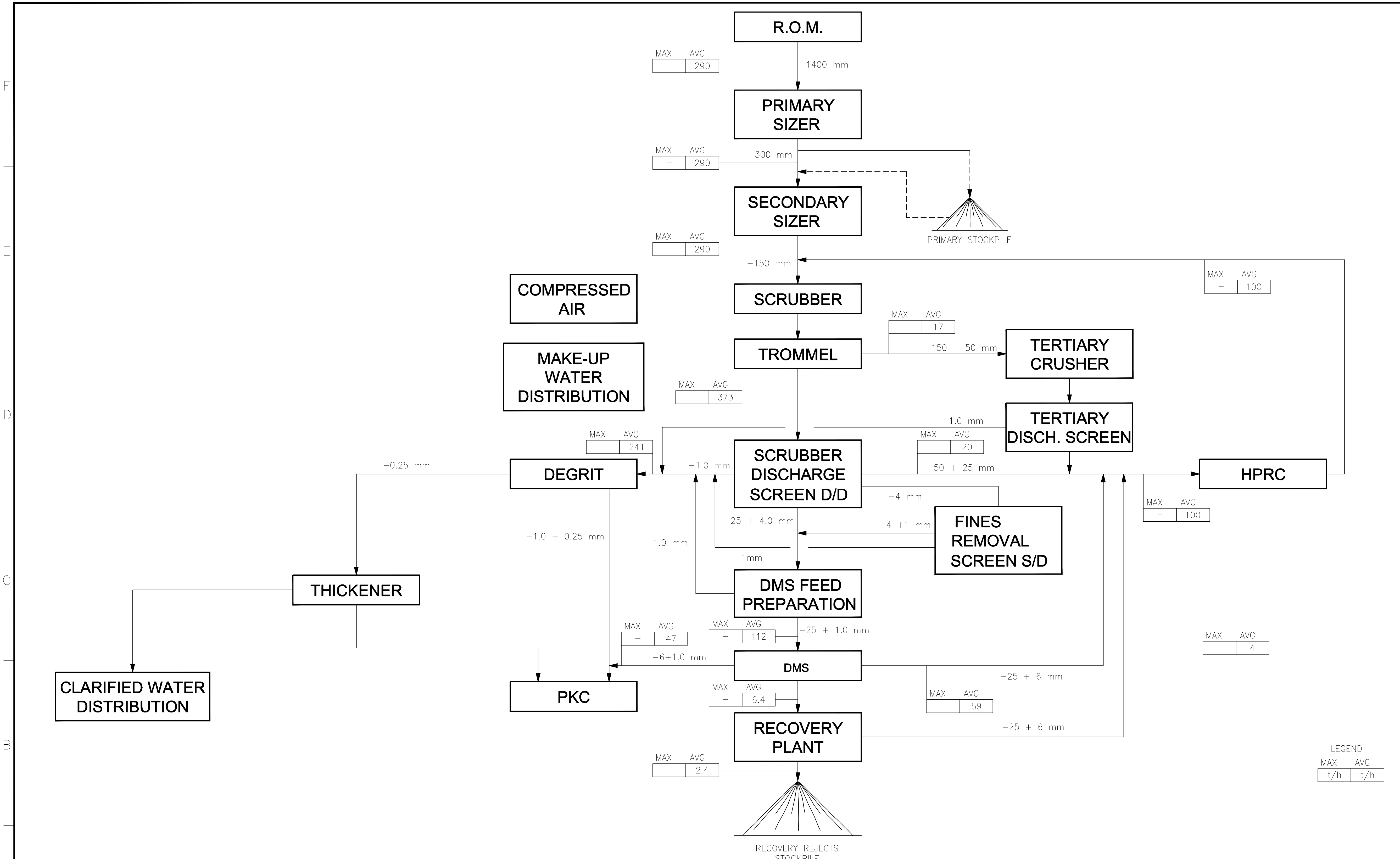

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ISS	D/M/Y	APP	ISSUED FOR	REV
-				

REF	NUMBER	TITLE
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CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.

PROJECT PHASE

PROJECT NO. 154902 | ACTIVITY NO. 3802 | PACKAGE CODE

SCALE NTS

	BY	D/M/Y
DSN.	H. RYANS	09/07/07
DRN.	FBK	09/07/07

amec

AREA

SUBJECT

PERGRINE DIAMOND PROJECT
BLOCK FLOW DIAGRAM
2.0 Mt/y – SAMPLE 121-181

CLIENT DWG. NO.

DRAWING NO. A1-154902-3000-110-9009 | REV. A

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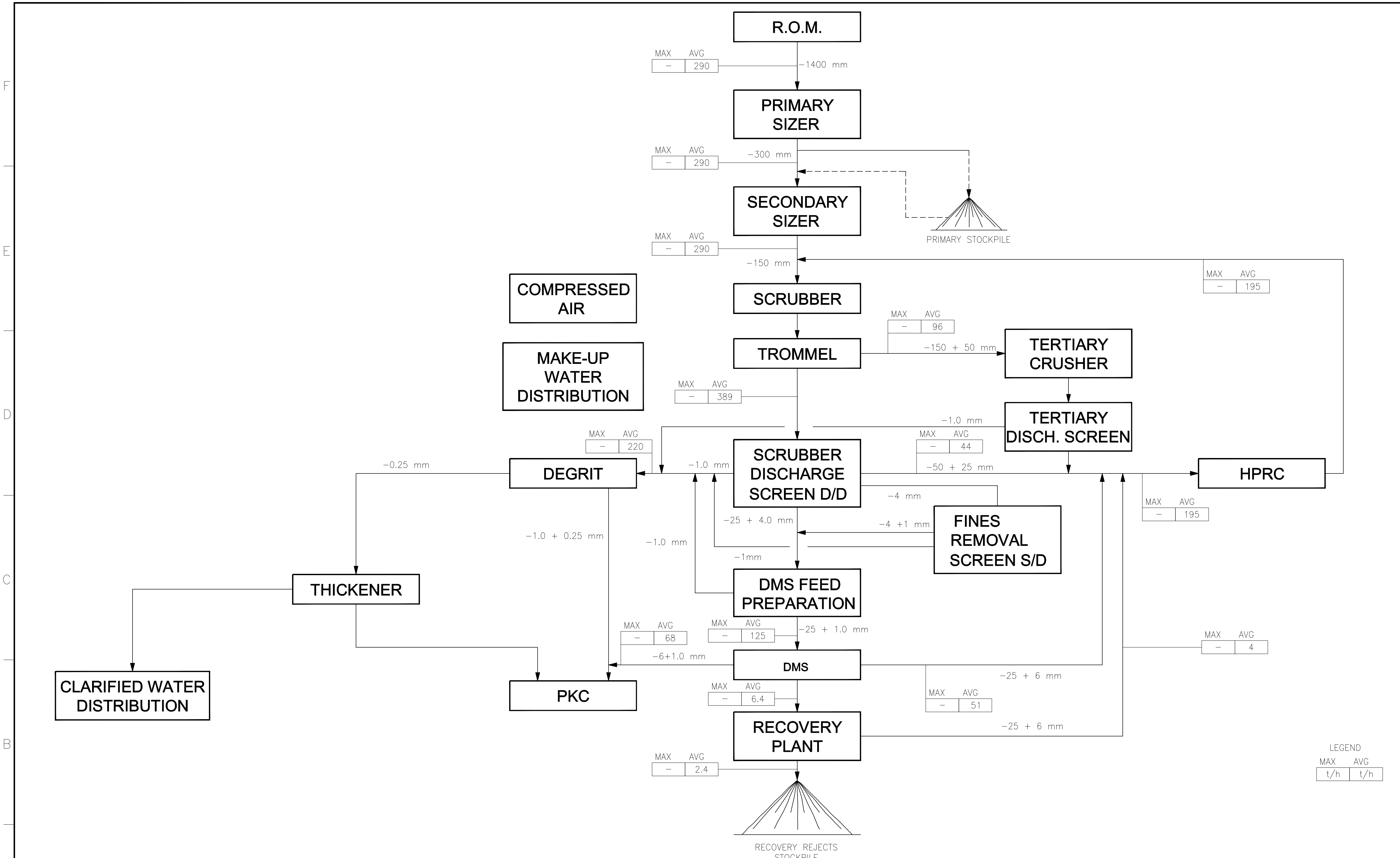

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ISS	D/M/Y	APP	ISSUED FOR	REV
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PROJECT PHASE

PROJECT NO. 154902 | ACTIVITY NO. 3802 | PACKAGE CODE

SCALE NTS

	BY	D/M/Y
DSN.	H. RYANS	09/07/07
DRN.	FBK	09/07/07

amec

AREA

SUBJECT
PERGRINE DIAMOND PROJECT
BLOCK FLOW DIAGRAM
2.0 Mt/y – SAMPLE 181 – 241

CLIENT DWG. NO.

DRAWING NO. A1-154902-3000-110-9010 | REV. A

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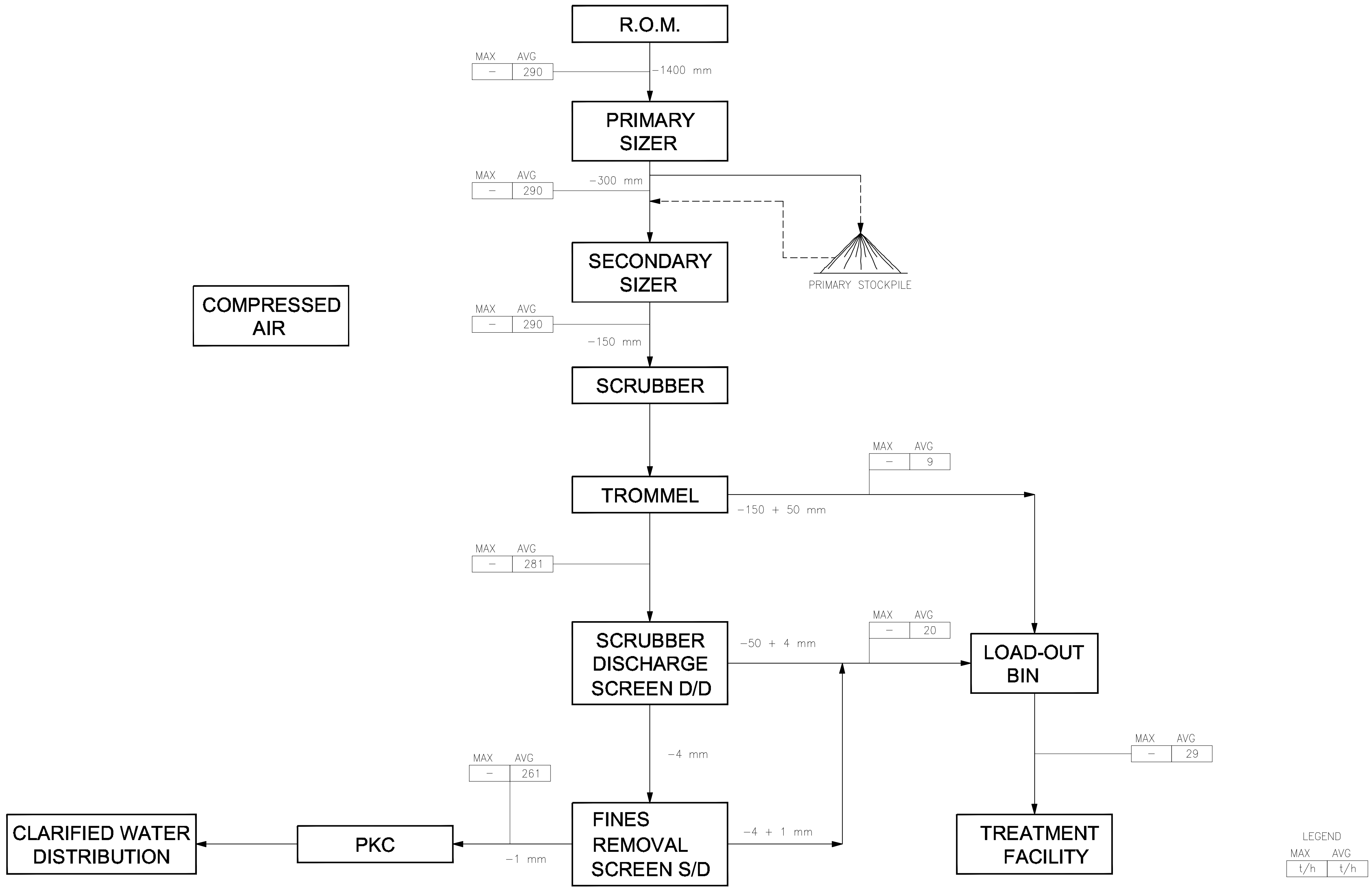
APPENDIX B: SCRUBBING PLANT BLOCK FLOW DIAGRAMS FOR EACH 60M INTERVAL



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PROJECT PHASE

AREA

PROJECT NO.: 154902
ACTIVITY NO.: 3802
PACKAGE CODE

SCALE: NTS

	BY	D/M/Y
DSN.	H. RYANS	12/07/07
DRN.	FBK	12/07/07

SUBJECT: PERGRINE DIAMOND PROJECT BLOCK FLOW DIAGRAM 2.0 Mt/y (SCRUB ONLY)– SAMPLE 61–121

CLIENT DWG. NO.

DRAWING NO.: A1–154902–3000–110–9011
REV.: A

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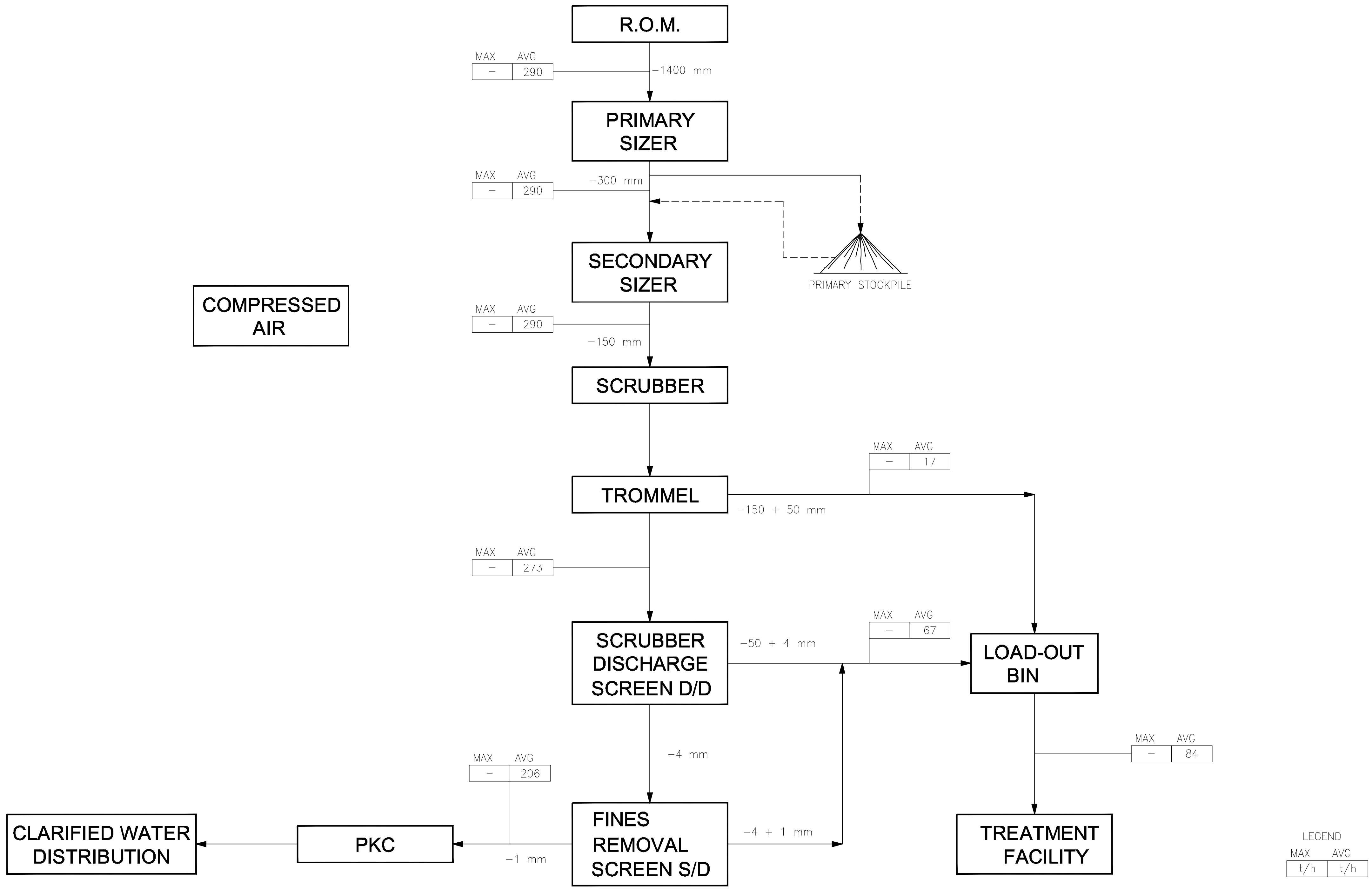

REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	APP
A	31/05/07	ISSED FOR CONCEPTUAL DESIGN	FBK	HR				

ISS	D/M/Y	APP	ISSUED FOR	REV
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REF	NUMBER	TITLE
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PROJECT PHASE

AREA

PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
154902	3802	

SCALE		BY	D/M/Y
NTS	DSN.	H. RYANS	12/07/07
	DRN.	FBK	12/07/07

SUBJECT

PERGRINE DIAMOND PROJECT
BLOCK FLOW DIAGRAM 2.0 Mt/y
(SCRUB ONLY)– SAMPLE 121 – 181

CLIENT DWG. NO.

DRAWING NO. A1–154902–3000–110–9012

REV. A

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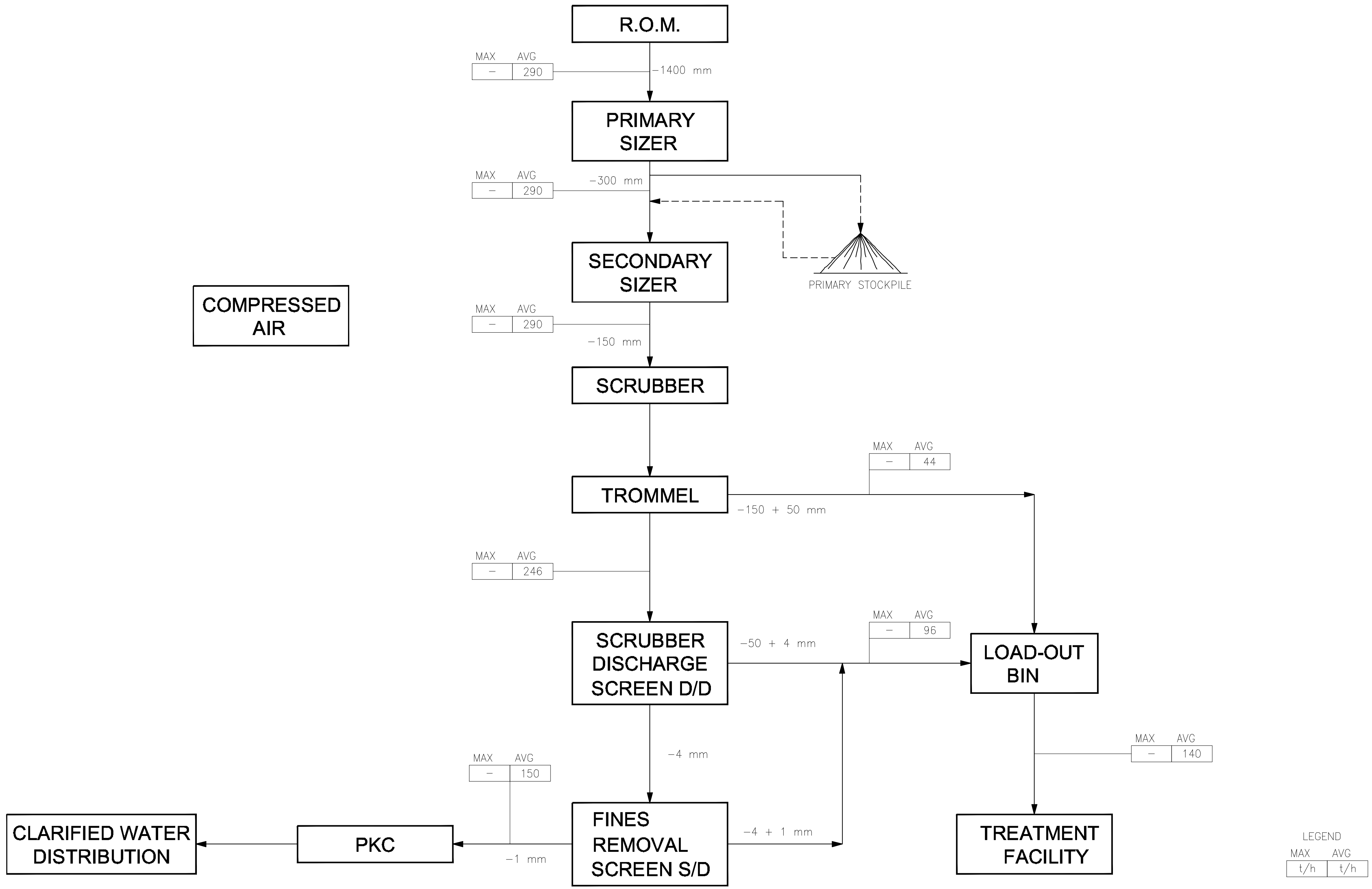

REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	APP
A	31/05/07	ISSUED FOR CONCEPTUAL DESIGN	FBK	HR				

ISS	D/M/Y	APP	ISSUED FOR	REV
–				

REF	NUMBER	TITLE
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REFERENCES

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PROJECT PHASE

AREA

PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
154902	3802	

SCALE		BY	D/M/Y
NTS	DSN.	H. RYANS	12/07/07
	DRN.	FBK	12/07/07

SUBJECT

PERGRINE DIAMOND PROJECT
BLOCK FLOW DIAGRAM 2.0 Mt/y
(SCRUB ONLY)- SAMPLE 181 – 241

CLIENT DWG. NO.

DRAWING NO. A1-154902-3000-110-9013 REV. A

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