

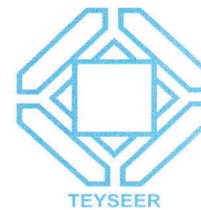
# TEYSEER LABORATORIES

P.O.BOX -1556, DOHA-QATAR

TEL : 44621254, FAX : 44568977

C. R. NO.3299/023

E-mail : lab@teyseergroup.com



TEYSEER

## TEST REPORT OF FLAKINESS INDEX

TESTED TO BS EN 933 – 3 : 1997

CLIENT	DESERT DIAMOND		
CONTRACTOR	M/s. DESERT DIAMOND		
PROJECT	GABBRO SUPPLY	SHEET NO.	607
MATERIALS	AGG. 10mm / GABBRO	SAMPLE DATE	06/02/2013
SOURCE	FUJAIRA (UAE)	TESTING DATE	09/02/2013
LOCATION	MESAIEED	REPORTING DATE	11/02/2013
SAMPLE ID NO.	12198	TLC NO.	2664

SIEVE ANALYSIS TO BS EN 933 – 1		
Sieves, mm	Wt. Retained, (g)	Passing (%)
25/31.5		
20/25		
16/20		
12.5/16	0	0
10/12.5	67	13
8/10	379	57
6.3/8	452	86
5/6.3	286	51
4/5	81	19

Total Wt. Retained	1265 g	Total Weight Passing 226 g
Flakiness index	17.9 %	

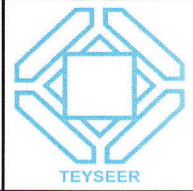
- QCS 2010 Limits : Maximum 30% For Coarse Aggregates
- MATERIALS SAMPLED AND DELIVERED BY : LAB TECHNICIAN

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

MAHMOUD T. ALI  
LABORATORY MANAGER

Page – 1 OF 1

Doc. No. F253, Rev. 00, 15<sup>th</sup> July, 2012



## **LABORATORY TEST REPORT**

### **TEST : PARTICLES SIZE DISTRIBUTION OF AGGREGATE**

**TESTED TO BS EN 933 - 1 : 2012 CLAUSE 7**

<b>SHEET No:</b>	25217	<b>LAB No:</b>	0	<b>TLC No:</b>	2662
<b>CLIENT :</b>	DESERT DIAMOND				
<b>CONTRACTOR:</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT:</b>	GABBRO AGGREGATES SUPPLY				
SAMPLE ID	12198				
SAMPLE RECEIVED DATE (LAB)	06/02/2013	TESTING DATE	09/02/2013		
MATERIAL DESCRIPTION	Agg. 10mm / Gabbro	REPORTING DATE	11/02/2013		
SOURCE OF MATERIAL	FUJAIRAH - U.A.E.	SAMPLING LOCATION	MESAIEED		
SAMPLED BY	LAB TECHNICIAN	DELIVERED BY	LAB TECHNICIAN		
TEST METHOD	WET METHOD	DATE OF SAMPLING (SITE)	06/02/2013		

### **RESULTS OBTAINED**

BS Seives,mm	Wt.Retained (g)	Passing %	Specification QCS 2010	
20	0	100	100	100
14	0	100	98	100
10	74	94	85	99
4	1196	3	0	20
2	34	1.0	0	5
<b>Passing 0.063 mm</b>	9			
<b>Total</b>	<b>1313</b>			

**Remarks :**

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

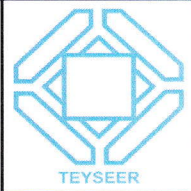
**Mahmoud T.Ali**

**Laboratory Manager :** \_\_\_\_\_

**مختبرات التيسير**  
**Teyseer Laboratories**  
 تليفون: 44621254 ص.ب. 1556 الدوحة - قطر  
 Tel: 44621254 P.O.Box: 1556 Doha-Qatar



**LB-069**



## LABORATORY TEST REPORT

### TEST :ELONGATION INDEX

**TESTED TO BS 812 : PART 105 SECTION 105.2 : 1990**

<b>SHEET No:</b>	<b>25238</b>	<b>LAB No:</b>	<b>0</b>	<b>TLC No:</b>	<b>2666</b>
<b>CLIENT :</b>	DESERT DIAMOND				
<b>CONTRACTOR:</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT:</b>	GABBRO AGGREGATES SUPPLY				
SAMPLE ID	12198				
SAMPLE RECEIVED DATE (LAB)	06/02/2013	TESTING DATE	09/02/2013		
MATERIAL DESCRIPTION	Agg. 10mm / Gabbro	REPORTING DATE	11/02/2013		
SOURCE OF MATERIAL	FUJAIRAH - U.A.E.	SAMPLE LOCATION	MESAIEED		
SAMPLED BY	LAB TECHNICIAN	DELIVERED BY	LAB TECHNICIAN		
CONDITIONS OF SAMPLE RECEIVED	Acceptable	DATE OF SAMPLING (SITE)	06/02/2013		

### TEST RESULTS

BS Sieves, mm	Seive analysis To BS 812 : Part 103.1,1985 - Procedure 7.3			Elongation Gauge Wt.Retained (g)
	Wt.Retained (g)	Retained %	Passing %	
14.0	0	0.0	100	0
10.0	74	8.0	92	4
6.3	854	92.0	0	260

TOTAL WT.RETAINED (M1) = 928 g

REDUCED WT. (M2) = 928 g

ELONGATION INDEX = 28 %

TOTAL WT.RETAINED (M3) = 264 g

**QCS 2010 LIMITS :** Each stockpile 30% maximum for all courses and the average of all stockpile shall not exceed 25% for Wearing corse And (35% Maximum for Concrete use Coarse Agg.)

**Remarks :**

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.



**LB-069**

مختبرات التيسير  
**Teyseer Laboratories**  
 تليفون: 44621254 ص.ب. 1556 الدوحة - قطر  
 Tel: 44621254 P.O.Box: 1556 Doha-Qatar

**Mahmoud T. Ali**  
 Laboratory Manager

*Doc. No. F109, Rev 02, 28th February, 2011*

## TEST REPORT OF THE BULK DENSITY OF AGGREGATES ( Unrodded)

Client	DESERT DIAMOND	SH. No. : 132	
Contractor	M/S. DESERT DIAMOND		
Project	GABBRO SUPPLY		
Material	AGG. 10mm / GABBRO	Sample Date	06/02/2013
Sampled by	LAB TECHNICIAN	Testing Date	10/02/2013
Source	FUJAIRA (UAE)	Reporting Date	11/02/2013
Sample ID. No.	12698	TLC NO	2668

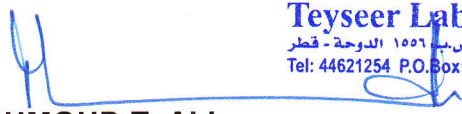
### TESTED TO ASTM C 29/C & 29M - 97 ( 2003 )

Test No.		1	2
Wt. of aggregates + cylindrical measure	kg	19.004	19.010
Wt. of cylindrical measure	kg	8.740	8.740
Wt. of aggregates = M	kg	10.264	10.270
Volume of cylindrical measure = V	m <sup>3</sup>	0.0063	0.0063
Bulk density of the aggregates = M/V	kg/m <sup>3</sup>	1629	1630
Average bulk density of the aggregates	kg/m <sup>3</sup>	1630 kg/m <sup>3</sup>	

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

  
MAHMOUD T. ALI  
LABORATORY MANAGER

Page 1 of 1

Doc. No. F170A , Rev. 01, 11<sup>th</sup> of September, 2011

## TEST REPORT OF THE MATERIAL FINER THEN 75 UM SIEVE

Client	DESERT DIAMOND	SHEET NO. : 141	
Contractor	M/s. DESERT DIAMOND		
Project	GABBRO SUPPLY		
Material	Agg. 10mm / GABBRO	Sample Date	06/02/2013
Sampled by	LAB TECHNICIAN	Testing Date	09/02/2013
Source	FUJAIRA (UAE)	Reporting Date	11/02/2013
Sample ID NO.	12198	TLC NO	2670

### TO ASTM C 117- 04

TEST	Result obtained ( % )	Method
Material finer then 75 um	0.5%	TEST. 8 - METHOD A

QCS 2010 LIMITS : Max. 2 % for coarse & 3 % for natural uncrushed/crushed AND  
2 % for coarse & 5 % for fine crushed aggregates.

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254، ص.ب. 1556، الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

MAHMOUD T. ALI  
LABORATORY MANAGER



## TEST REPORT OF THE SHELL CONTENT

Client	DESERT DIAMOND	SHEET NO. : 096	
Contractor	M/s. DESERT DIAMOND		
Project	GABBRO SUPPLY		
Material	AGG. 10mm / GABBRO	Sample Date	06/02/2013
Sampled by	LAB TECHNICIAN	Testing Date	10/02/2013
Source	FUJAIRA (UAE)	Reporting Date	11/02/2013
Sample ID NO.	12198	TLC NO	2672

### TESTED TO BS EN 933 - 7

TEST	RESULT OBTAINED (%)
SHELL CONTENT	0.0%

QCS 2010 Limits : Maximum 3% For fine & Course Aggregates.

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556 Doha-Qatar

MAHMOUD T. ALI  
LABORATORY MANAGER



## LABORATORY TEST REPORT

### TEST : PARTICLE DENSITIES AND WATER ABSORPTION

TESTED TO BS 812 : PART 2 : 1995

<b>SHEET No.</b>	25287	<b>LAB No</b>	0	<b>TLC No.</b>	2732
<b>CLIENT</b>	DESERT DIAMOND				
<b>CONTRACTOR</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT</b>	GABBRO AGGREGATES SUPPLY				
SAMPLE ID	12198				
MATERIAL DESCRIPTION	Agg. 10mm / Gabbro	SAMPLE LOCATION		MESAIEED	
SAMPLING DATE (SITE)	06/02/2013	SAMPLE RECEIVED DATE (LAB)		06/02/2013	
SOURCE OF MATERIAL	FUJAIRAH - U.A.E.	TESTING DATE		10/02/2013	
SAMPLED BY	LAB TECHNICIAN	REPORTING DATE		13/02/2013	
DELIVERED BY	LAB TECHNICIAN	CONDITION OF SAMPLE RECEIVED		SATISFACTORY	

### TEST RESULTS

<b>Test</b>	<b>Method</b>
<b>Particle Densities And Water Absorption</b>	<b>5.4</b>

### RESULT OBTAINED

Material	O. D Basis Mg/m <sup>3</sup>	S. S. Dry Basis Mg/m <sup>3</sup>	Apparent Mg/m <sup>3</sup>	Water Absorption%
Agg. 10mm / gabbro	2.895	2.911	2.941	0.5

**QCS 2010 Limits** : For Asphalt use - Water Absorption : Max. 1.5% for all courses and Max. 2% for Base course. And For Concrete use 2.3% Max. for fine Agg. and 2% Max. for Coarse Agg. And Particle Density : 2.6% Min. for fine Agg. & Coarse Agg.

**Remarks :**

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

**Mahmoud T. Ali**  
Laboratory Manager :

مختبرات التيسير  
**Teyseer Laboratories**  
تليفون: ٤٤٦٢١٢٥٤ ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



*Doc. No. F 110, Rev. 01, 10th of April, 2011*



## LABORATORY TEST REPORT

### TEST : LOS ANGELES ABRATION

**TESTED TO ASTM C131 & C535 : 1989**

<b>SHEET No:</b>	<b>25285</b>	<b>LAB No:</b>	<b>0</b>	<b>TLC No:</b>	<b>2730</b>
<b>CLIENT :</b>	DESERT DIAMOND				
<b>CONTRACTOR:</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT:</b>	GABBRO AGGREGATES SUPPLY				
SAMPLE ID	12198				
SAMPLE RECEIVED DATE (LAB)	06/02/2013	TESTING DATE	10/02/2013		
MATERIAL DESCRIPTION	Agg. 10mm / Gabbro	REPORTING DATE	13/02/2013		
SOURCE OF MATERIAL	FUJAIRAH - U.A.E.	SAMPLE LOCATION	MESAIEED		
SAMPLED BY	LAB TECHNICIAN	DELIVERED BY	LAB TECHNICIAN		
CONDITIONS OF SAMPLE RECEIVED	Acceptable	DATE OF SAMPLING (SITE)	06/02/2013		

### TEST RESULTS

Test	Method	Result Obtained (%)
<b>Los Angeles Abrasion</b>	<b>ASTM C131 , Procedure 8</b>	<b>15.1</b>

<b>QCS 2010 Limits</b>	For Asphalt use : Maximum 25% for wearing course & Maximum 30% for Intermediate & Base course And For Concrete use : 30% Maximum course Aggregates.
------------------------	---

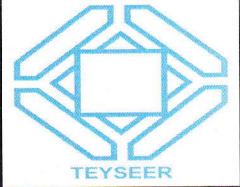
**Remarks :**

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

**Mahmoud T.Ali**  
 Laboratory Manager

مختبرات التيسير  
**Teyseer Laboratories**  
 تليفون: ٤٤٦٢١٢٥٤ ص.ب. ١٥٥٦ الدوحة - قطر  
 Tel: 44621254 P.O.Box: 1556, Doha-Qatar





## LABORATORY TEST REPORT

### TEST : TEN PERCENT FINES VALUE

TESTED TO BS 812 : PART 111 : 1990

SHEET No.	25377	LAB No	0	TLC No.	3002
CLIENT	DESERT DIAMOND				
CONTRACTOR	M/s. DESERT DIAMOND TRADING CO.				
PROJECT	GABBRO AGGREGATES SUPPLY				
SAMPLE ID	12198				
SOURCE OF MATERIAL	FUJAIRAH - U.A.E.	SAMPLING DATE (SITE)	06/02/2013		
SAMPLE RECIVED DATE (LAB)	06/02/2013	TESTING DATE	13/02/2013		
MATERIAL DESCRIPTION	Agg. 10mm / Gabbro	REPORTING DATE	15/02/2013		
SAMPLED BY	LAB TECHNICIAN	DELIVERED BY	LAB TECHNICIAN		
SAMPLE CONDITION	Acceptable	SAMPLE LOCATION	MESAIEED		

### TEST RESULTS

Test	Method	Result Obtained (kN)
Ten Percent Fine Value	Procedure - 7	346

QCS 2010 Limits : Minimum 150 kN For Concrete

#### Remarks :

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

Mahmoud T. Ali  
Laboratory Manager

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254، ص.ب. 1556، الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



LB-069

Doc. No. F113, Rev. 01, 1st of April, 2011

## TEST REPORT OF THE AGGREGATE IMPACT VALUE

CLIENT	DESERT DIAMOND	SHEET NO. : 141	
CONTRACTOR	M/s. DESERT DIAMOND		
PROJECT	GABBRO SUPPLY		
MATERIAL	Agg. 10mm / GABBRO	Sample Date	06/02/2013
SAMPLED BY	LAB TECHNICIAN	Testing Date	13/02/2013
SOURCE	FUJAIRA (UAE)	Reporting Date	15/02/2013
SAMPLE ID NO.	12198	TLC NO	3004

### TESTED TO BS EN 1097 - 2

TEST	RESULT OBTAINED (%)
AGGREGATE IMPACT VALUE	9.6 %

QCS 2010 Limits : 25% Maximum for Coarse Aggregates

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

MAHMOUD T. ALI  
LABORATORY MANAGER



LB-069

Doc. No. F239 , Rev. 01 , 15<sup>th</sup> June, 2012

## TEST REPORT OF THE CLAY LUMPS & FRIABLE PARTICLES

Client	DESERT DIAMOND	SHEET NO : 122	
Contractor	M/s. DESERT DIAMOND		
Project	GABBRO SUPPLY		
Material	Agg. 10mm / GABBRO	Sample Date	06/02/2013
Sample by	LAB TECHNICIAN	Testing Date	13/02/2013
Source	FUJAIRA (UAE)	Reporting Date	15/02/2013
Sample ID No.	12198	TLC NO	3006

### TESTED TO ASTM C 142 - 78 : 1990


TEST	METHOD	RESULTS OBTAINED (%)
Clay Lumps & Friable Particles	Procedure - 6	0.5 %

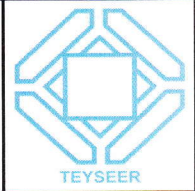
**QCS 2010 Limits : Maximum 2% for Fine Agg. And Max. 2% for Coarse Aggregates.**

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

مختبرات التيسير  
**Teyseer Laboratories**  
تليفون: ٤٤٦٢١٢٥٤ ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

  
**MAHMOUD T. ALI**  
LABORATORY MANAGER



## LABORATORY TEST REPORT

### TEST REPORT OF THE SOUNDNESS

TESTED TO ASTM C 88-1990

SHEET No.	25383	LAB No	0	TLC No.	3061
CLIENT	DESERT DIAMOND				
CONTRACTOR	M/s. DESERT DIAMOND TRADING CO.				
PROJECT	GABBRO AGGREGATES SUPPLY				
SAMPLE ID	12198				
DATE OF SAMPLING (SITE)	06/02/2013	SAMPLE RECEIVED DATE (LAB)	06/02/2013		
MATERIAL DESCRIPTION	Agg. 10mm / Gabbro	TESTING DATE	13/02/2013		
SOURCE OF MATERIAL	FUJAIRAH - U.A.E.	REPORTING DATE	16/02/2013		
SAMPLED BY	LAB TECHNICIAN	DELIVERED BY	LAB TECHNICIAN		
NO. OF CYCLES	5	CONDITION OF SAMPLE RECEIVED	SATISFACTORY		

### TEST RESULTS

Test	Method	Result Obtained (%)
SOUNDNESS	Procedure - 8	2.7

**QCS 2010 Limits :** For Asphalt use : Maximum 10% for Wearing & Intermediate course & Maximum 15% for Base course. And For Concrete use : 15% Maximum Fine Agg. & Course Agg.

#### Remarks :

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

Mahmoud T. Ali  
Laboratory Manager

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤ ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

Doc. No. F123, Rev. 01, 10th April, 2011

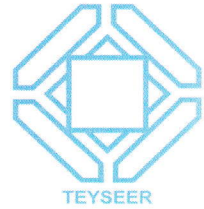
# TEYSEER LABORATORIES

P.O.BOX-1556, DOHA-QATAR – AL HILAL

TEL : 44621254, FAX : 44568977

C. R. NO.3299/023

E-mail : lab@teyseergroup.com



## TEST REPORT OF CHEMICAL ANALYSIS

CLIENT	DESERT DIAMOND		
CONTRACTOR	M/s. DESERT DIAMOND		
PROJECT	GABBRO SUPPLY	SHEET NO.	1551
MATERIAL	AGGREGATES 10mm / GABBRO	TLC NO.	3063
SOURCE	FUJAIRA (UAE)	SAMPLE DATE	06/02/2013
LOCATION	MESAIEED	TESTING DATE	14/02/2013
SAMPLE ID No.	112198	REPORT DATE	16/02/2013

### TESTED TO BS EN 1744 -5 & 1744 - 1

TEST	RESULT OBTAINED (%)
ACID SOLUBLE SULPHATE CONTENT (SO <sub>3</sub> )	0.052 %
ACID SOLUBLE CHLORIDE CONTENT (Cl)	0.022 %

QCS 2010 Limits : So<sub>3</sub> - Max. 0.3% For Coarse Aggregates And Max. 0.4% For Fine Aggregates

QCS 2010 Limits : Cl - Max. 0.03% For Coarse Aggregates And Max. 0.06% For Fine Aggregates

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

  
MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤ ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar