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## Quarry Operational Variations

Date: 8 January 2021

### This Report Reference: ZV1.3Public

Presented to: Environmental Assessment  
 Environment and Resources Authority  
 Hexagon House  
 Spenser Hill  
 Marsa MRS 1441 Attn Mr Bjorn Borg

Copied to: Environmental Permitting, ERA.  
 Mr Gilbert Bonnici, Zrar Ltd.

Permit Number EP 0020/09/D

Installation Location Details: Zrar Ltd, Bonnici Bros, No 35, Ta Zuta Quarry, Limits of Dingli, Dingli.

### Operation Changes: Installation and Operation of a Natural Limestone Sand and Spalls Washer.

#### 1.0 Objectives of this Presentation

1.1 Zrar Ltd appointed the undersigned to communicate with ERA in order to obtain the necessary approval to commission a washer plant to rinse freshly quarried and ground sand and spall for use in the cement batching process.

#### 2 Layout Plan with Locations.

2.1 The ta' Zuta quarry belonging to Zrar Ltd is shown in the google Diagram 1., with respect to the nearest towns and villages, as well as access from the major roads.

2.2 Diagram 6. Site Plan of the washer on the quarry site, clearly showing the distribution of the conveyor belts.

2.3 Diagram 3 shows a Site Plan of quarry with geographical bearings and location of washer.

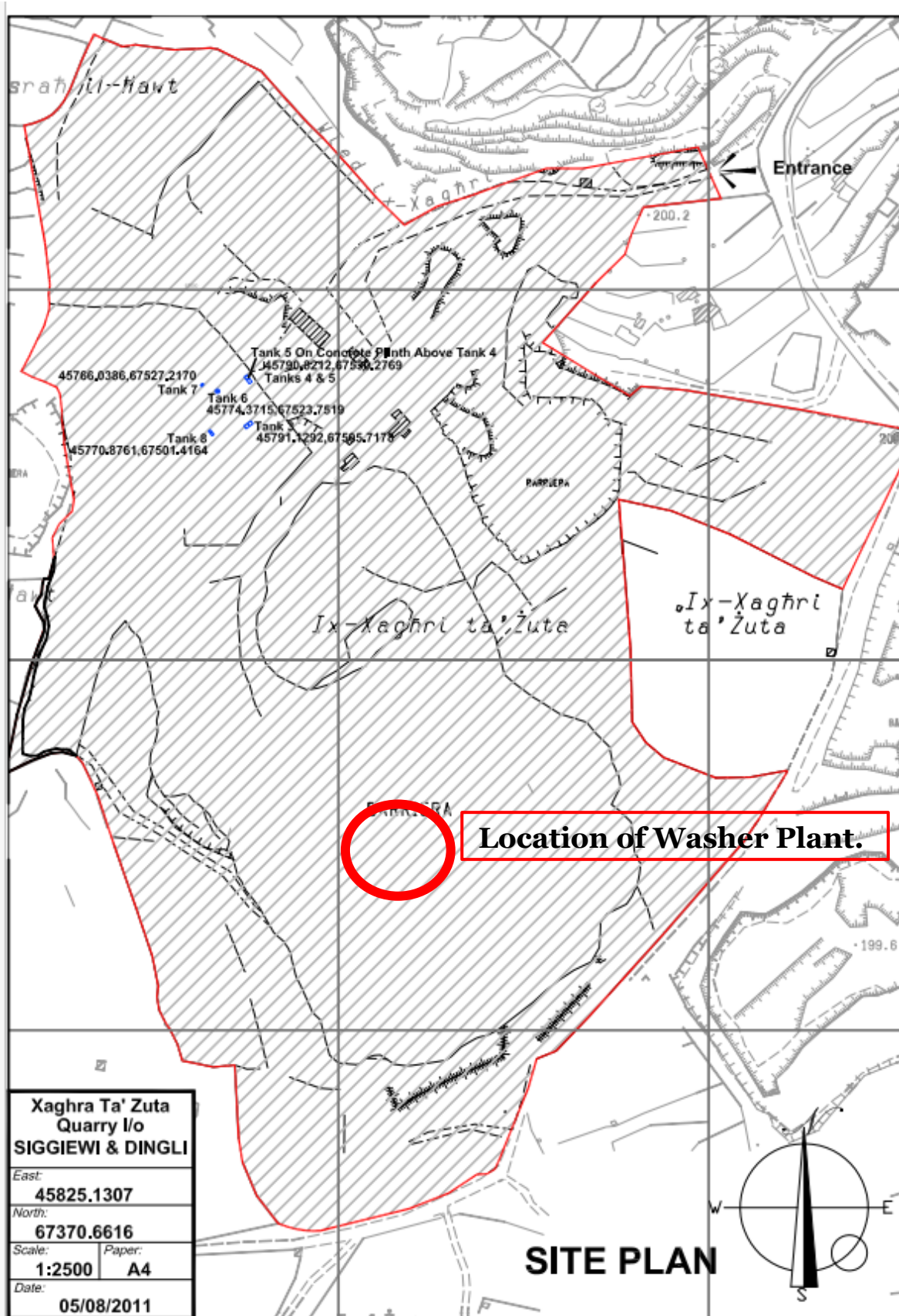


Diagram 3. Site Plan of quarry with geographical bearings and location of washer.

### **3 Mitigation Measures: dust emissions.**

- 3.1 The possible sources of dust emissions within the operations of the washer are as follows;
- 3.1.1 the chute and conveyor,
  - 3.1.2 the output separated sand mounds,
  - 3.1.3 the filter cake,
  - 3.1.4 truck transport.
- 3.2 The dust mitigation within these areas shall be conducted as follows:
- 3.2.1 Chute and conveyor – these shall be covered units to prevent spurious dust emissions to the atmosphere, as shown in Photo 1.
  - 3.2.2 Separated sand mounds – these shall invariably be wet particulates, being just generated by the washing phase of the machine, furthermore the mounds are secured by side wall barriers which mitigate against wind effects.
  - 3.2.3 The filter cake – the filter cake is generated a solid, moist, and compacted cake, as shown in Photos 4 and 5.
  - 3.2.4 Furthermore, the plant has been installed in a part of the quarry complex, which is in a relative recess, well below the general level of the surrounding works.



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