

# DDAS Accident Report

## Accident details

<b>Report date:</b> 05/03/2011	<b>Accident number:</b> 647
<b>Accident time:</b> 08:50	<b>Accident Date:</b> 12 <sup>th</sup> January 2009
<b>Where it occurred:</b> MF 397, Um Al Quttain Village, Almafraq Province	<b>Country:</b> Jordan
<b>Primary cause:</b> Unavoidable	<b>Secondary cause:</b> Unavoidable
<b>Class:</b> Excavation accident	<b>Date of main report:</b>
<b>ID original source:</b>	<b>Name of source:</b> Demining group
<b>Organisation:</b> [Name removed]	
<b>Mine/device:</b> M14 AP blast	<b>Ground condition:</b> rocky
<b>Date record created:</b>	<b>Date last modified:</b> 05/03/2011
<b>No of victims:</b> 1	<b>No of documents:</b>

## Map details

<b>Longitude:</b>	<b>Latitude:</b>
<b>Alt. coord. system:</b>	<b>Coordinates fixed by:</b>
<b>Map east:</b> 36 55' 56"E	<b>Map north:</b> 32 35' 37"N
<b>Map scale:</b>	<b>Map series:</b>
<b>Map edition:</b>	<b>Map sheet:</b>
<b>Map name:</b>	

## Accident Notes

Non injurious accident (?)  
No independent investigation available (?)  
Standing to excavate (?)  
Use of rake (?)  
Long handtool may have reduced injury (?)

## Accident report

An internal demining group accident report was made available. The conversion into a DDAS file has led to some of the original formatting being lost. Text in square brackets [ ] is editorial.

The internal report is reproduced below, edited for anonymity.

## **INCIDENT INVESTIGATION [Demining group] – MINE ACTION TEAM - JORDAN**

TASK NAME SABHA 6 (397): GRID REF: 32 35' 37"N: 36 55' 56"E

MINEFIELD NO – 397, MINEFIELD TASK ID - E 397 SABHA 6

INVESTIGATION CONDUCTED BY – [Demining group], [Name removed]

DEMINER: [the Victim]. DATE OF BIRTH: 4 / 5 / 1967

SECTION COMMANDER: [Name removed], TEAM LEADER: [Name removed]

TIME OF INCIDENT : 08:50 AM, DATE OF INCIDENT: 12 JAN 2009

NATURE OF INJURY: No Injury. TYPE OF MINE: Anti Personnel M 14

## **IMSMA DETAILED REPORT FOR MINE INCIDENT, Monday, 12 January 2009**

### **Part 1 – Description of the incident**

1. Organisation name: [Demining group], JORDAN. Team No: MANUAL TEAM SEVEN
2. Incident date: 12/01/2009. Time: 08:50 AM
3. Location of incident: EAST SECTOR, Province: ALMAFRAQ, Village: UM AL QUTTAIN, Project or task No: E 397 SABHA 6
4. Name of site manager or team leader: [Name removed]
5. Type of incident: M14 AP MINE uncontrolled detonation of a mine
6. Device was detonated by: deminer team
7. Device detonated while: Raking with Heavy Rake
8. Device was found in an area classified as: a known hazardous area
9. Narrative (Describe how the incident happened. Attach additional pages and photographs or diagrams to assist in clarifying the circumstances surrounding the incident):

While the deminer trying to recover an AP M14 mine using the heavy RAKE he applied a pressure in the pressure plate of a non visible M14 which in turn activated that mine in a depth of about 5-7 cm

### **Part 2 – Injuries**

10. Did the incident result in any injuries? No
11. List people injured and nature of injury: [None]

### **Part 3 – Equipment damages**

12. Did the incident result in any damage to equipment or property? No
13. List any mine action equipment or property damage. Nil
14. List damage to equipment or property owned by a member of the public or the government. [None]

### **Part 4 – Explosive hazard**

15. Provide details of mines/UXO/ other devices that were involved in the incident.

Device Type:	Method:	Determined by:
AP (Blast) Mine	Buried	RAKING

16. State specific device (if known): M 14 AP MINE

17. Comments (include measurements of any crater resulting from the explosion): Crater  
Depth: approx. 15 cm / Width: approx. 40 cm

**Part 5 - Site conditions**

18. Describe the conditions at the site at time of the incident

Ground/Terrain: Medium hard, Flat

Weather: Clear, Cold

Vegetation: None



The mine blast location.

**Part 6 – Team and task details**

20. Qualifications of Member(s) involved in the incident:

[the Victim], Deminer, Manual Team 7

21. How long had this team been?

a. At this site? 3 weeks

b. working on this task? 5 months

c. working on the day? Two Hours

22. Detector type: N/A. Tripwire feeler used? No

23. Hand tool: HEAVY RAKE

24. PPE: Vest, Visor, [Blast boots]

25. Comments: [None]

**Part 7 - Medical & First Aid**

Medical treatment required? no

26. Medical Support at Incident Site: Medic, 1st Aid Kit, Stretcher, Ambulance, Safety Vehicle,  
Radio to call forward medic.

27. Was a Mine Incident Drill carried out? Yes

28. Time and distance data

a. Time from incident to SECTION MEDICAL POINT: (01) minute

b. Time spent at site administering treatment: (15) minutes

c. Time from evacuation FROM to arrival King Abdullah Hospital: (50) minutes

## Part 8 – Reporting procedures

Reported by: [Name removed], [Demining group] Amman Office to: [Demining group] Offices & NCDR

Investigation conducted by: [Name removed], [Name removed]

Report compiled/translated by: [Name removed], [Name removed]

Verified by: [Name removed]

## Observations and Recommendations

According to the preliminary investigation the incident is caused due to a pressure applied to the mine from the heavy RAKE (the excavation tool) used by the deminer and the deminer didn't expect to find a mine in that spot with that depth and may like accident could be avoided by using the metal detector to locate the non visible mine before using the standard RAKE drill.

Signed: Operations Coordinator, 12 January 2009

## Attachments:

Statements by Injured Members

Statements by Witnesses

Photographs of Incident Site

Copy of Incident Report

## Victim Report

<b>Victim number:</b>	<b>Name:</b> [Name removed]
<b>Age:</b> 41	<b>Gender:</b> Male
<b>Status:</b> Deminer	<b>Fit for work:</b> Yes
<b>Compensation:</b> N/A	<b>Time to hospital:</b> N/A
<b>Protection issued:</b> Mask Visor, Vest, Blast boots	<b>Protection used:</b> Mask Visor, Vest, Blast boots

## Summary of injuries:

INJURIES: No injuries. See Medic's statement.

## Statements

### Statement 1: the Victim

I was working normally in group 18 of section 7 in Sabha 6 following the orders I was trained on, when I was searching for the 12 o'clock mine and after passing the required distance I

started preparing the box, when I started using the heavy rake in settling the edges of the box, the ground was very hard and grassy so the explosion happened at the front edge of the box note that I didn't use the digging process I used the pulling process using the heavy rake trying to fragment the balls of mud 2 cm depth from the edge.

Answers to Investigator Questions:

No, I wasn't complaining of anything and I was working with all my mental and physical powers.

Yes, the sector coordinator, team leader and section commander gave me a safety brief before I started working.

The distance between the central mine and the exploded mine was exactly 2 meters

No, I didn't experience an explosion before

### **Statement 2: Team leader**

When the accident happened I was at the end of section 6 near the IOE area about 50 meters far from the accident place.

I contacted the ambulance and informed them about the accident and the injured name then went to the accident place and calmed the injured while the sector coordinator was with me on the radio, I informed him and then done all the required procedures to evacuate the injured deminer outside the field with the other deminers help, put him in the ambulance and left everything at the scene as it is.

Answers to Investigator Questions:

I think the accident happened because of the hard ground and the presence of a thick grass which is hard to be searched.

Yes, I visited him and checked on his work 3 times before the accident happened.

Yes, I gave the team a safety brief before they started work.

He is an active deminer and does his work very well.

### **Statement 3: Section commander**

When the accident happened I was in the IOE area of section 8 checking deminers.

I heard a sound of explosion from the eastern area and immediately informed the ambulance and the team leader and headed to the accident place.

I found the injured deminer in a good situation and there were the team leader.

We evacuated him outside the field and took him to the ambulance.

Answers to Investigator Questions:

Yes, I gave them a safety brief after the team leader gave it to the team.

This deminer is a good worker and he obeys all the orders and follows them accurately.

Yes, I checked on the deminer twice and before the accident happened in 5 minutes.

### **Statement 4: Medic**

At 8:49 am Monday the 12th of January 2009 we heard a sound of an anti personnel mine explosion, we moved immediately meanwhile we were informed about an accident happened with the deminer [the Victim] from the team leader [Name removed]. We reached there at 8:50 am and evacuated the deminer from the accident place to the ambulance area, we checked on him, he was ok with no injuries and his biological signs was all good, we took him to the control point area and watched him for an hour, no complications happened and he was in a very good situation.

## **Analysis**

The primary and secondary cause of this accident are listed as *Unavoidable* because it seems that the Victim was working correctly at the time of the accident and that the risk mitigation provided by his PPE was effective. Unfortunately the report included no pictures of his PPE to determine whether it had been struck by blast debris.

The demining group who made this report available is thanked for its transparency and its professional concern to share lessons that can be learned from accidents. This record, along with several other records where rakes were used, provide compelling evidence that the controlled use of rakes can be both effective and tolerably safe (reducing risk of severe injury to tolerable levels).