

DDAS Accident Report

Accident details

Report date: 04/03/2011	Accident number: 608
Accident time: 10:20	Accident Date: 03/02/2009
Where it occurred: MF 397, Um AL Quttain Village, Almafraq Province	Country: Jordan
Primary cause: Victim inattention (?)	Secondary cause: Unavoidable (?)
Class: Excavation accident	Date of main report:
ID original source:	Name of source: Demining group
Organisation: [Name removed]	
Mine/device: M14 AP blast	Ground condition: hard rocks/stones
Date record created:	Date last modified: 04/03/2011
No of victims: 1	No of documents: 2

Map details

Longitude:	Latitude:
Alt. coord. system:	Coordinates fixed by:
Map east: 36 54' 83"E	Map north: 32 35' 47"N
Map scale:	Map series:
Map edition:	Map sheet:
Map name:	

Accident Notes

no independent investigation available (?)
inadequate investigation (?)
standing to excavate (?)
use of rake (?)
non injurious accident (?)

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' 47"N: 36 54' 83"E

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

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

DEMINER: [The victim]. DATE OF BIRTH: 10/6/1968

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

TIME OF INCIDENT: 10:20 AM, DATE OF INCIDENT: 3 FEB 2009

NATURE OF INJURY: No Injury

TYPE OF MINE: Anti Personnel M 14

IMSMA DETAILED REPORT FOR MINE INCIDENT Tuesday, 3 February 2009

Part 1 – Description of the incident

1. Organisation name: [Demining group], JORDAN. Team No: MANUAL TEAM FOUR
2. Incident date: 03/02/2009. Time: 10:20 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
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 palate 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: [None]
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: Hard, flat

Weather: Clear, Cold

Vegetation: Rocky

Part 6 – Team and task details

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

Name	Position in Location	Occupation
[The victim]	Deminer	Manual Team 4

21. How long had this team been?

- a. At this site? 5 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) minutes
- b. Time spent at site administering treatment: nil minutes
- c. Time from evacuation FROM to arrival King Abdullah Hospital: nil 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], [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, 03 February 2009

Attachments:

Statements by Injured Members

Statements by Witnesses

Copy of Incident Report

Victim Report

Victim number: 791	Name: [Name removed]
Age: 42	Gender: Male
Status: deminer	Fit for work: yes
Compensation: N/A	Time to hospital: N/A
Protection issued: blast boots	Protection used: Frontal apron, MAsk Visor, Blast boots
Frontal apron	
Mask Visor	

Summary of injuries:

COMMENT: No injuries recorded.

No Medical report made available.

See Medic's statement.

Statements

Statement 1: the Victim

While I was working in the centre lane line using the heavy rake (the area had heavy amount of stones and it was verified using the mine sweeper), there were a stone in front of me I tried strongly to pull it when another stone jumped to the fence direction and made an explosion in the southern area, I stopped working and the section commander ordered me to get out of the field.

Answers to Investigator Questions:

Yes, both the section commander and team leader gave us a safety brief before we started working.

Yes, both the section commander and team leader checked on me before the accident happen and the section commander modified the rake I was using with the pipe.

No, I wasn't upset or annoyed while working.

No, I wasn't hurt or injured because of the accident.

Yes, I pulled the heavy rake strongly to free the stone.

No, I didn't pull the rake strongly on purpose to make the stone drop outside the passage.

Statement 2: Team leader

I was in the same section 80 meters far from the de-miner [the Victim], and suddenly I heard a sound of explosion from the western southern area, immediately I informed the medic team and the sector coordinator and headed to the accident place, I found the de-miner [the Victim] standing holding the heavy rake I ordered him to get out of the field and asked him about the reason of the explosion he answered that he didn't know maybe it was a stone dropped on a mine while using the heavy rake and caused the explosion.

Answers to Investigator Questions:

Yes, I gave all the team the safety brief and work instructions before they started working.

No, the deminer wasn't suffering from any injuries but I ordered him to go to the medic team to check his blood pressure and to check on him.

Yes, he always works in the right way following all our instructions.

Statement 3: Section commander

I was standing near the deminer [Name removed] in section 15 and the distance between me and the deminer [the Victim] was about 50 meters, I heard a sound of explosion near the fence which was closer to the deminer [the Victim], I headed to the accident place and informed the deminer to stop working and get out of the field then I informed the Team Leader [Name removed] about the accident, when I reached to the deminer site I found that the site of explosion is 10 meters far from the deminers site, I asked him what happened he said he doesn't know maybe a stone was pulled while he was working using the heavy rake and jumped to the southern area and dropped on a mine was not supposed to be there.

Answers to Investigator Questions:

Yes, I gave them a safety brief and work instructions before they started working.

Yes, I checked on the deminer [the Victim], he was doing well but I found that the heavy rake he was using needed modification so I fixed it using the pipe.

Yes, he is a hard worker deminer and his work is well done.

Statement 4: Medic

After we heard a sound of explosion and informing us by the team leader [Name removed], we moved to the accident site and found the deminer standing there, we evacuated him outside the field walking, we checked on him and took his biological signs, he wasn't suffering

any injuries and he was in a good condition, we asked him if he wanted to go to the hospital he said no, we observed him for an hour nothing happened.

Analysis

The primary cause of this accident is listed as *Victim inattention* because the deminer either pulled a rock so hard that it flew ten metres and landed on a mine or pulled a mine so hard that it flew ten metres and landed on a rock, both of which would be an extraordinary feat requiring more force than is approved for use with the Heavy rake. The secondary cause is listed as *Unavoidable* because it is possible that the deminer had not been trained to loosen the earth around large stones slowly and cautiously.

The *Inadequate Investigation* referenced under Notes refers to the Operations Coordinator's recommendations which are copied from another report and not relevant to this accident. This may have been because a non-injurious accident did not warrant his attention.

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).