IADC

ISP PROGRAM

2014

Summary of Occupational Incidents
(Africa Water Totals)

Issued 15 June 2015
Table of Contents

IADC 2014 AFRICA WATER TOTALS (TABLE 1)................................................................. 1

Africa Water Total Incidence Rates vs Man-hours (Figure 1)........................................ 1
IADC 2014 AFRICA WATER CHARTS ........................................................................... 2
Africa Water Total Lost Time Incidents by Month (Chart 1)........................................ 2
Africa Water Total Recordable Incidents by Month (Chart 2)...................................... 3
Africa Water Total Lost Time Incidents by Occupation (Chart 3)................................. 4
Africa Water Total Recordable Incidents by Occupation (Chart 4)............................... 5
Africa Water Total Lost Time Incidents by Body Part (Chart 5).................................... 6
Africa Water Total Recordable Incidents by Body Part (Chart 6)................................. 7
Africa Water Total Lost Time Incidents by Incident Type (Chart 7)............................... 8
Africa Water Total Recordable Incidents by Incident Type (Chart 8)............................ 9
Africa Water Total Lost Time Incidents by Equipment (Chart 9)................................... 10
Africa Water Total Recordable Incidents by Equipment (Chart 10).............................. 11
Africa Water Total Lost Time Incidents by Operation (Chart 11).................................. 12
Africa Water Total Recordable Incidents by Operation (Chart 12)................................ 13
Africa Water Total Lost Time Incidents by Location (Chart 13).................................... 14
Africa Water Total Recordable Incidents by Location (Chart 14).................................. 15
Africa Water Total Lost Time Incidents by Time in Service (Chart 15)......................... 16
Africa Water Total Recordable Incidents by Time in Service (Chart 16)...................... 17
Africa Water Total Lost Time Incidents by Time of Day (Chart 17).............................. 18
Africa Water Total Recordable Incidents by Time of Day (Chart 18)........................... 19
Africa Water Total Lost Time Incidents by Age (Chart 19).......................................... 20
Africa Water Total Recordable Incidents by Age (Chart 20)....................................... 21
IADC 2014 AFRICA WATER PARTICIPANT DETAIL BY CATEGORY (TABLE 2) ........... 22
### IADC 2014 Africa Water Totals (Table 1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Manhours</td>
<td>32,506,703</td>
</tr>
<tr>
<td>Total Medical Treatment Incidents</td>
<td>39</td>
</tr>
<tr>
<td>Total Restricted Work Incidents</td>
<td>38</td>
</tr>
<tr>
<td>Total Lost Time Incidents</td>
<td>28</td>
</tr>
<tr>
<td>Total Fatalities</td>
<td>1</td>
</tr>
<tr>
<td>Total Recordables</td>
<td>106</td>
</tr>
</tbody>
</table>

#### Incidence Rates

- **MTO Incidence Rate**: 0.24
- **RWC Incidence Rate**: 0.23
- **LTI Incidence Rate**: 0.18
- **LTI Frequency Rate**: 0.89
- **DART Incidence Rate**: 0.41
- **DART Frequency Rate**: 2.06
- **Recordable Incidence Rate**: 0.65
- **Recordable Frequency Rate**: 3.26

#### Incidence Rate Formulas

- MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MANHOURS (LTIs NOT INCLUDED)
- RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MANHOURS (LTIs NOT INCLUDED)
- LOST TIME INCIDENCE RATE = (LTIs+FTLs) X 200,000 / MANHOURS
- LOST TIME FREQUENCY RATE = (LTIs+FTLs) X 1,000,000 / MANHOURS
- DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 200,000 / MANHOURS
- DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MANHOURS
- RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MANHOURS
- RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MANHOURS

### Africa Water Total Incidence Rates vs Man-hours (Figure 1)

![Incidence Rate vs Man-hours Graph](image-url)
IADC 2014 Africa Water Charts
Africa Water Total Lost Time Incidents by Month (Chart 1)
Based on 25 Incidents

February 16.00%
March 8.00%
April 20.00%
June 4.00%
July 4.00%
August 24.00%
October 8.00%
November 16.00%
March 8.00%
October 8.00%
November 16.00%
Africa Water Total Recordable Incidents by Month (Chart 2)
Based on 103 Incidents

- December: 5.83%
- November: 9.71%
- October: 10.68%
- September: 5.83%
- August: 12.62%
- July: 10.68%
- June: 8.74%
- May: 2.91%
- April: 6.80%
- March: 7.77%
- February: 9.71%
- January: 8.74%
Africa Water Total Lost Time Incidents by Occupation (Chart 3)
Based on 25 Incidents

- **Roustabout (Lease Hand)**: 28.00%
- **Floorman**: 16.00%
- **Driller (Asst. Dr.)**: 20.00%
- **Mechanic**: 8.00%
- **Motorman**: 4.00%
- **Welder**: 4.00%
- **Deck Supervisor (Deck Coordinator)**: 8.00%
- **Other**: 8.00%
- **Marine Crew**: 4.00%
- **Other**: 8.00%
Africa Water Total Recordable Incidents by Occupation (Chart 4)
Based on 103 Incidents

- Driller (Asst. Dr.) 18.45%
- Roustabout (Lease Hand) 23.30%
- Floorman 12.62%
- Marine Crew 3.88%
- Other 10.68%
- Roustanting 3.88%
- Derrickman 3.88%
- Toolpusher (Asst.TP, Tourpusher) 1.94%
- Electrician 2.91%
- Motorman 3.88%
- Deck supervisor (Deck Coordinator) 1.94%
- Catering / Camp Personnel 0.97%
- Welder 2.91%
- Barge Engineer/Ballast Control Op. 1.94%
- Crane / Forklift Operator 0.97%
- Mechanic 4.85%
- Subsea Engineer 4.85%
- Other 10.68%
Africa Water Total Lost Time Incidents by Body Part (Chart 5)
Based on 25 Incidents

- Finger(s): 32.00%
- Leg(s): 12.00%
- Feet/Ankles: 12.00%
- Hand(s) / Wrist(s): 8.00%
- Arm(s): 8.00%
- Back: 8.00%
- Eyes (eyelid): 4.00%
- Shoulder(s): 4.00%
- Toes: 4.00%
- Other: 8.00%
- Feat(s) / Wrist(s): 8.00%
Africa Water Total Recordable Incidents by Body Part (Chart 6)
Based on 103 Incidents

- Finger(s) 39.81%
- Hand(s) / Wrist(s) 5.83%
- Arm(s) 3.88%
- Back 5.83%
- Trunk/Torso (chest, abdomen, groin) 0.97%
- Head 7.77%
- Eyes (eyelid) 4.85%
- Other 4.85%
- Elbow(s) 0.97%
- Shoulder(s) 3.88%
- Toes 3.88%
- Feet/Ankles 8.74%
- Leg(s) 8.74%
- Trunk/Torso (chest, abdomen, groin) 8.74%
Africa Water Total Lost Time Incidents by Incident Type (Chart 7)
Based on 25 Incidents

- Struck By: 24.00%
- Struck Against: 4.00%
- Caught Between/In: 24.00%
- Caught On: 4.00%
- Sprain: 4.00%
- Exposure to Gas: 4.00%
- Cut: 16.00%
- Slip/Fall: Same Level: 4.00%
- Slip/Fall: Different Level: 12.00%
- Other: 4.00%
Africa Water Total Recordable Incidents by Incident Type (Chart 8)
Based on 103 Incidents

- Struck Against: 2.91%
- Struck By: 23.30%
- Caught Between/In: 21.36%
- Other: 11.65%
- Cut: 20.39%
- Slip/Fall: Same Level: 3.88%
- Slip/Fall: Different Level: 4.85%
- Strain/Overexertion: 3.88%
- Flame/heat/steam (contact/exposed): 0.97%
- Debris: 0.97%
- Sprain: 2.91%
- Exposure to Gas: 0.97%
- Heat Exhaustion/Heat Stroke: 0.97%
- Caught On: 0.97%
Africa Water Total Lost Time Incidents by Equipment (Chart 9)
Based on 25 Incidents

- Other: 40.00%
- Rig Floor Winch/Deck Winch (air/hydraulic): 4.00%
- Anchor Chains/Cables/Winches: 4.00%
- Slings (rope, cable, chain, web): 4.00%
- Elevators: 8.00%
- Engines/Pumps/Machinery: 8.00%
- Crane: 16.00%
- Top Drive (blocks, swivel, kelly): 4.00%
- Hand Tools: Manual: 4.00%
- Material: 4.00%
- Stairs: 4.00%
Africa Water Total Recordable Incidents by Equipment (Chart 10)
Based on 103 Incidents

- Boat Cargo (skids, tubulars, containers, etc.) 0.97%
- Rig Floor Winch/Deck Winch (air/hydraulic) 1.94%
- Anchor Chains/Cables/Winches 1.94%
- Top Drive (blocks, swivel, kelly) 1.94%
- Decks (grating, walkway) 3.88%
- Ladders 0.97%
- Crane 6.80%
- Pressure Hoses/Lines 1.94%
- E elevators 4.85%
- Tongs 1.94%
- Slips (drill collar clamp) 2.91%
- Iron Roughneck, Pipe Spinner, etc. 0.97%
- Rotary 0.97%
- Pipes/ Collins/Tubulars/Casing 4.85%
- Slings (rope, cable, chain, web) 2.91%
- Hand Tools: Manual 10.68%
- Hand Tools: Power 6.80%
- Engines/Pumps/Machinery 6.80%
- Boat 0.97%
- Stairs 0.97%
- Material 3.88%
- Tongs 1.94%
- Material 3.88%
- Top Drive (blocks, swivel, kelly) 1.94%
- Decks (grating, walkway) 3.88%
- Ladders 0.97%
- Crane 6.80%
- Pressure Hoses/Lines 1.94%
- Elevators 4.85%
- Other 30.10%

Based on 103 Incidents

Issued: 15 June 2015

Copyright © International Association of Drilling Contractors
Africa Water Total Lost Time Incidents by Operation (Chart 11)
Based on 25 Incidents

- Equipment Repairs or Maintenance: 16.00%
- Tripping in/out: 8.00%
- Routine Drilling Oper.: 4.00%
- Running Casing/Tubing: 8.00%
- Laying Down/Picking up Tubulars: 4.00%
- Material Handling: Manual: 8.00%
- Material Handling: Crane/Cherry Picker: 12.00%
- Material Handling: Rig Floor Winch: 4.00%
- Rigging Up/Down: 4.00%
- BOP Stack Install/Maintenance: 8.00%
- Special Operations: 4.00%
- Walking: 8.00%
- Material Handling: Manual: 8.00%
- Other: 12.00%
Africa Water Total Recordable Incidents by Operation (Chart 12)
Based on 102 Incidents

- Equipment Repairs or Maintenance: 19.61%
- BOP Stack Install/Maintenance: 3.92%
- Rigging Up/Down: 3.92%
- Mud Mixing/Pumping: 0.98%
- Handling Riser: 3.92%
- Tripping in/out: 9.80%
- Laying Down/Picking up Tubular: 4.90%
- Material Handling: Crane/C Picker: 5.88%
- Material Handling: Rig Floor Winch: 1.96%
- Walking: 5.88%
- Well Testing: 0.98%
- Abrasive Blasting/Paint/Scale Removal: 1.96%
- Special Operations: 1.96%
- Cementing: 0.98%
- Mud Mixing/Pumping: 0.98%
- Equipment Repairs or Maintenance: 19.61%
- BOP Stack Install/Maintenance: 3.92%

- Routine Drilling Oper.: 4.90%
- Running Casing/Tubing: 3.92%
- Material Handling: Manual: 6.86%
- Laying Down/Picking up Tubular: 4.90%
- Handling Riser: 3.92%
- Tripping in/out: 9.80%
- Other: 16.67%
Africa Water Total Lost Time Incidents by Location (Chart 13)
Based on 25 Incidents

- Other: 12.00%
- Rig Floor: 24.00%
- Pipe Rack/Pipe Deck: 12.00%
- Catwalk/V-door: 4.00%
- BOP Stack /well head/tree Area: 8.00%
- Mud Mixing Tank/Area: 8.00%
- Shale Shaker: 8.00%
- Rig Pad/Rig Decks: 8.00%
- Living/Camp Areas/Accommodations: 4.00%
- Crew/Work Boats: 4.00%
- Cellar / Sub / Moonpool: 4.00%
- Machinery Spaces: 4.00%
- Other: 12.00%
Africa Water Total Recordable Incidents by Location (Chart 14)
Based on 103 Incidents

- Rig Floor: 27.18%
- Pipe Rack/Pipe Deck: 15.53%
- Catwalk/V-door: 4.85%
- BOP Stack/well head/tree Area: 4.85%
- Mud Mixing Tank/Area: 1.94%
- Shale Shaker: 4.85%
- Mud Pits/Tanks: 0.97%
- Stairs/Ladders: 1.94%
- Engine Generator Room: 3.88%
- Rig Pad/Rig Decks: 2.91%
- Crew/Work Boats: 0.97%
- Living/Camp Areas/Accommodations: 2.91%
- Work Rooms change, storage, room: 1.94%
- Cellar / Sub / Moonpool: 1.94%
- Machinery Spaces: 2.91%
- Mud Pump Room: 2.91%
- Jacking House: 0.97%
- Other: 16.50%

Issued: 15 June 2015
Copyright © International Association of Drilling Contractors
Africa Water Total Lost Time Incidents by Time in Service (Chart 15)
Based on 25 Incidents

- 0 mo. < 3 mos.: 4.00%
- >6 mos. < 1 yr.: 16.00%
- >1 yr. < 5 yrs.: 56.00%
- >5 yrs. < 10 yrs.: 16.00%
- >10 yrs.: 8.00%
Africa Water Total Recordable Incidents by Time in Service (Chart 16)
Based on 100 Incidents

- >5 yrs. < 10 yrs.: 17.00%
- >1 yr. < 5 yrs.: 40.00%
- >3 mos. < 6 mos.: 9.00%
- >6 mos. < 1 yr.: 15.00%
- 0 mo. < 3 mos.: 9.00%
- 10+ yrs.: 10.00%
- >5 yrs. < 10 yrs.: 17.00%

Issued: 15 June 2015
Copyright © International Association of Drilling Contractors
Africa Water Total Lost Time Incidents by Time of Day (Chart 17)
Based on 25 Incidents

- 12:00: 12.00%
- 11:00: 8.00%
- 10:00: 8.00%
- 9:00: 4.00%
- 8:00: 4.00%
- 7:00: 12.00%
- 6:00: 4.00%
- 5:00: 4.00%
- 4:00: 4.00%
- 3:00: 4.00%
- 2:00: 4.00%
- 1:00: 8.00%
- 0:00: 4.00%
- 1:00: 8.00%
- 14:00: 8.00%
- 16:00: 8.00%
- 17:00: 8.00%
- 18:00: 4.00%
- 19:00: 4.00%
- 20:00: 4.00%
- 21:00: 4.00%
- 22:00: 4.00%
- 23:00: 4.00%
- 00:00: 4.00%
Africa Water Total Recordable Incidents by Time of Day (Chart 18)
Based on 101 Incidents

- 21:00: 5.00%
- 22:00: 2.00%
- 23:00: 1.00%
- 01:00: 4.00%
- 2:00: 9.00%
- 3:00: 5.00%
- 4:00: 5.00%
- 5:00: 2.00%
- 6:00: 3.00%
- 7:00: 2.00%
- 8:00: 7.00%
- 9:00: 3.00%
- 10:00: 3.00%
- 11:00: 8.00%
- 12:00: 6.00%
- 13:00: 4.00%
- 14:00: 6.00%
- 15:00: 4.00%
- 16:00: 3.00%
- 17:00: 4.00%
- 18:00: 2.00%
- 19:00: 3.00%
- 20:00: 1.00%
- 21:00: 5.00%
- 22:00: 2.00%
- 23:00: 1.00%
- 24:00: 2.00%

Issued: 15 June 2015
Copyright © International Association of Drilling Contractors
Africa Water Total Lost Time Incidents by Age (Chart 19)
Based on 19 Incidents

- 26 - 35: 52.63%
- 36 - 45: 26.32%
- 46 - 55: 10.53%
- 56 - 65: 10.53%
Africa Water Total Recordable Incidents by Age (Chart 20)
Based on 86 Incidents

- 26 - 35: 43.02%
- 36 - 45: 36.05%
- 46 - 55: 10.47%
- 56 - 65: 6.98%
- 18 - 25: 3.49%