SUMMARY OF OCCUPATIONAL INCIDENTS (SOUTH AMERICA WATER TOTALS)

Issued 15 July 2016
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IADC 2015 South America Water Totals (Table 1)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
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<tbody>
<tr>
<td>Total Man-hours</td>
<td>19,218,896</td>
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<tr>
<td>Total Medical Treatment Incidents</td>
<td>12</td>
</tr>
<tr>
<td>Total Restricted Work Incidents</td>
<td>17</td>
</tr>
<tr>
<td>Total Lost Time Incidents</td>
<td>21</td>
</tr>
<tr>
<td>Total Fatalities</td>
<td>0</td>
</tr>
<tr>
<td>Total Recordables</td>
<td>50</td>
</tr>
</tbody>
</table>

- **MTO Incidence Rate**: 0.12
- **RWC Incidence Rate**: 0.18
- **LTI Incidence Rate**: 0.22
- **LTI Frequency Rate**: 1.09
- **DART Incidence Rate**: 0.40
- **DART Frequency Rate**: 1.98
- **Recordable Incidence Rate**: 0.52
- **Recordable Frequency Rate**: 2.60

**Companies Reporting**: Water – 13

Medical Treatment Incidence Rate = MTOs X 200,000
Restricted Work Incidence Rate = RWCs X 200,000
Lost Time Incidence Rate = LTIs + FTLs X 1,000,000
Lost Time Frequency Rate = LTIs + FTLs X 1,000,000
DART Incidence Rate = LTIs + RWC X 200,000
DART Frequency Rate = LTIs + RWC X 1,000,000
Recordable Incidence Rate = RCRD X 200,000
Recordable Frequency Rate = RCRD X 1,000,000

**South America Water Total Incidence Rates vs Man-hours (Figure 1)**
IADC 2015 South America Water Charts
South America Water Total Lost Time Incidents by Month (Chart 1)
Based on 20 Incidents
South America Water Total Recordable Incidents by Month (Chart 2)
Based on 49 Incidents
South America Water Total Lost Time Incidents by Occupation (Chart 3)
Based on 20 Incidents

- Roustabout (Lease Hand): 25.00%
- Floorman: 15.00%
- Derrickman: 5.00%
- Driller (Asst. Dr.): 5.00%
- Electrician: 10.00%
- Mechanic: 15.00%
- Superintendent/other Supervisors: 5.00%
- Rig Helper: 5.00%
- Subsea Engineer: 10.00%
- Medic: 5.00%
- Driller (Asst. Dr.): 5.00%
- Floorman: 15.00%
- Derrickman: 5.00%
- Subsea Engineer: 10.00%
- Medic: 5.00%
South America Water Total Recordable Incidents by Occupation (Chart 4)
Based on 49 Incidents

- Catering / Camp Personnel: 2.04%
- Crane / Forklift Operator: 2.04%
- Mechanic: 12.24%
- Electrician: 4.08%
- Driller (Asst. Dr.): 4.08%
- Floorman: 26.53%
- Derrickman: 6.12%
- Subsea Engineer: 8.16%
- Marine Crew: 4.08%
- Roustabout (Lease Hand): 20.41%
- Superintendent/other Supervisors: 2.04%
- Rig Helper: 2.04%
- Superintendent/other Supervisors: 2.04%
- Crane / Forklift Operator: 2.04%
- Mechanic: 12.24%
- Electrician: 4.08%
- Driller (Asst. Dr.): 4.08%
South America Water Total Lost Time Incidents by Body Part (Chart 5)
Based on 20 Incidents

- Finger(s): 40.00%
- Head: 15.00%
- Hand(s) / Wrist(s): 10.00%
- Arm(s): 5.00%
- Leg(s): 10.00%
- Feet/Ankles: 20.00%
South America Water Total Recordable Incidents by Body Part (Chart 6)
Based on 49 Incidents

Shoulder(s) 2.04%
Feet/Ankles 14.29%
Leg(s) 6.12%
Knee(s) 2.04%
Head 10.20%
Arm(s) 4.08%
Hand(s) / Wrist(s) 8.16%
Finger(s) 46.94%
Eyes (eyelid) 6.12%
South America Water Total Lost Time Incidents by Incident Type (Chart 7)
Based on 17 Incidents

- Catched Between/In: 52.94%
- Struck By: 11.76%
- Slip/Fall: Different Level: 17.65%
- Electrical Shock: 5.88%
- Flame/heat/steam (contact/exposed): 5.88%
- Sprain: 5.88%
South America Water Total Recordable Incidents by Incident Type (Chart 8)
Based on 45 Incidents

- Sprain: 4.44%
- Cut: 13.33%
- Contact With Chemicals/Fluids: 6.67%
- Strain/Overexertion: 2.22%
- Slip/Fall: Different Level: 6.67%
- Slip/Fall: Same Level: 4.44%
- Struck Against: 4.44%
- Struck By: 6.67%
- Caught Between/In: 42.22%
- Debris: 2.22%
- Electrical Shock: 2.22%
- Flame/heat/steam (contact/exposed): 4.44%
- Strain/Overexertion: 2.22%
South America Water Total Lost Time Incidents by Equipment (Chart 9)
Based on 20 Incidents

- Boat Cargo (skids, tubulars, containers, etc.): 5.00%
- Anchor Chains/Cables/Winches: 5.00%
- Decks (grating, walkway): 10.00%
- Crane: 5.00%
- Material: 5.00%
- Stairs: 10.00%
- Elevators: 10.00%
- Iron Roughneck, Pipe Spinner, etc.: 5.00%
- Pipes/Collars/Tubulars/Csg.: 10.00%
- Slings (rope, cable, chain, web): 5.00%
- Hand Tools: Manual: 5.00%
- Engines/Pumps/Machinery: 15.00%
- BOP Stack (well head, tree): 10.00%
South America Water Total Recordable Incidents by Equipment (Chart 10)
Based on 49 Incidents

- Anchor Chains/Cables/Winches: 2.04%
- Boat Cargo (skids, tubulars, containers, etc.): 2.04%
- Boat Cargo: 2.04%
- Pressure Hoses/Lines: 4.08%
- Crane: 4.08%
- Decks (grating, walkway): 16.33%
- Welding, Cutting, Grinding Equipment: 4.08%
- Chemicals (sack, drum, pail, bulk hopper): 2.04%
- BOP Stack (well head, tree): 4.08%
- Elevators: 6.12%
- Iron Roughneck, Pipe Spinner, etc.: 4.08%
- Pipes/Collars/Tubulars/Csg.: 8.16%
- Slings (rope, cable, chain, web): 6.12%
- Welding, Cutting, Grinding Equipment: 4.08%
- Engines/Pumps/Machinery: 8.16%
- Stairs: 4.08%
- Hand Tools: Manual: 8.16%
- Material: 12.24%

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South America Water Total Lost Time Incidents by Operation (Chart 11)
Based on 20 Incidents

- Jacking Up/Down Oper.: 5.00%
- Tripping in/out: 20.00%
- Laying Down/Picking up Tubulars: 10.00%
- Material Handling: Manual: 10.00%
- Material Handling: Crane/Cherry Picker: 5.00%
- Equipment Repairs or Maintenance: 20.00%
- BOP Stack Install/Maintenance: 5.00%
- Rigging Up/Down: 10.00%
- Walking: 15.00%
South America Water Total Recordable Incidents by Operation (Chart 12)
Based on 49 Incidents

- Walking: 8.16%
- Tripping in/out: 12.24%
- Routine Drilling Oper.: 10.20%
- Laying Down/Picking up Tubulars: 6.12%
- Material Handling: Manual: 22.45%
- Equipment Repairs or Maintenance: 14.29%
- BOP Stack Install/Maintenance: 4.08%
- Rigging Up/Down: 8.16%
- Material Handling: Crane/Cherry Picker: 6.12%
- Abrasive Blasting/Paint/Scale Removal: 2.04%
- Jacking Up/Down Oper.: 2.04%
- Special Operations: 2.04%
- Cementing: 2.04%
- BOP Stack Install/Maintenance: 4.08%
- Rigging Up/Down: 8.16%
- Material Handling: Crane/Cherry Picker: 6.12%
- Abrasive Blasting/Paint/Scale Removal: 2.04%
- Jacking Up/Down Oper.: 2.04%
- Special Operations: 2.04%
- Cementing: 2.04%
South America Water Total Lost Time Incidents by Location (Chart 13)
Based on 20 Incidents

- Rig Floor: 25.00%
- Rig Pad/Rig Decks: 10.00%
- Stairs/Ladders: 10.00%
- SCR/Electrical Room: 10.00%
- Dash / Tree Area: 10.00%
- Living/Camp Areas/Accommodations: 5.00%
- Machinery Spaces: 5.00%
- Pipe Rack/Pipe Deck: 15.00%
- Derrick/Mast: 10.00%

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South America Water Total Recordable Incidents by Location (Chart 14)
Based on 49 Incidents

- BOP Stack /well head/tree Area: 4.08%
- Shale Shaker: 6.12%
- SCR/Electrical Room: 4.08%
- Stairs/Ladders: 4.08%
- Rig Pad/Rig Decks: 10.20%
- Living/Camp Areas/Accommodations: 4.08%
- Cellar / Sub / Moonpool: 2.04%
- Movements Area: 2.04%
- Mud Pump Room: 2.04%
- Derrick/Mast: 4.08%
- Rig Floor: 34.69%
- Pipe Rack/Pipe Deck: 12.24%
- Machinery Spaces: 2.04%
South America Water Total Lost Time Incidents by Time in Service (Chart 15)
Based on 19 Incidents

- 0 mo. < 3 mos. 15.79%
- >3 mos. < 6 mos. 21.05%
- >1 yr. < 5 yrs. 42.11%
- >5 yrs. < 10 yrs. 10.53%
- 10+ yrs. 10.53%
- 0 mo. < 3 mos. 15.79%

Based on 19 Incidents
South America Water Total Recordable Incidents by Time in Service (Chart 16)
Based on 46 Incidents

- >1 yr. < 5 yrs. 54.35%
- >6 mos. < 1 yr. 15.22%
- >3 mos. < 6 mos. 8.70%
- 0 mo. < 3 mos. 8.70%
- >5 yrs. < 10 yrs. 8.70%
- 10+ yrs. 4.35%
South America Water Total Lost Time Incidents by Time of Day (Chart 17)
Based on 20 Incidents

- 21:00: 5.00%
- 20:00: 10.00%
- 19:00: 10.00%
- 18:00: 10.00%
- 17:00: 10.00%
- 16:00: 15.00%
- 15:00: 10.00%
- 14:00: 5.00%
- 13:00: 5.00%
- 12:00: 15.00%
- 11:00: 15.00%
- 10:00: 5.00%
- 9:00: 5.00%
- 8:00: 5.00%
- 7:00: 2.00%
- 6:00: 2.00%
- 5:00: 2.00%
- 4:00: 5.00%
- 3:00: 5.00%
- 2:00: 5.00%
- 1:00: 5.00%
- 12:00: 15.00%
- 11:00: 15.00%
- 10:00: 5.00%
- 9:00: 5.00%
- 8:00: 5.00%
- 7:00: 2.00%
- 6:00: 2.00%
- 5:00: 2.00%
- 4:00: 5.00%
- 3:00: 5.00%
- 2:00: 5.00%
- 1:00: 5.00%
South America Water Total Recordable Incidents by Time of Day (Chart 18)
Based on 46 Incidents

- 23:00: 6.52%
- 22:00: 2.17%
- 21:00: 4.35%
- 20:00: 4.35%
- 19:00: 4.35%
- 18:00: 4.35%
- 17:00: 6.52%
- 16:00: 10.87%
- 15:00: 13.04%
- 14:00: 2.17%
- 13:00: 8.70%
- 12:00: 4.35%
- 11:00: 4.35%
- 10:00: 4.35%
- 09:00: 8.70%
- 08:00: 4.35%
- 07:00: 2.17%
- 06:00: 2.17%
- 05:00: 2.17%
- 04:00: 2.17%
- 03:00: 4.35%
- 02:00: 4.35%
- 01:00: 4.35%
- 00:00: 2.17%
South America Water Total Lost Time Incidents by Age (Chart 19)
Based on 16 Incidents

- 18 - 25: 6.25%
- 26 - 35: 37.50%
- 36 - 45: 37.50%
- 46 - 55: 6.25%
- 56 - 65: 12.50%
- 56 - 65: 12.50%
South America Water Total Recordable Incidents by Age (Chart 20)
Based on 42 Incidents

- 26 - 35: 42.86%
- 36 - 45: 38.10%
- 18 - 25: 7.14%
- 46 - 55: 7.14%
- 56 - 65: 4.76%