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## IADC 2014 South America Land Totals (Table 1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Manhours</td>
<td>31,975,404</td>
</tr>
<tr>
<td>Total Medical Treatment Incidents</td>
<td>19</td>
</tr>
<tr>
<td>Total Restricted Work Incidents</td>
<td>36</td>
</tr>
<tr>
<td>Total Lost Time Incidents</td>
<td>31</td>
</tr>
<tr>
<td>Total Fatalities</td>
<td>0</td>
</tr>
<tr>
<td>Total Recordables</td>
<td>86</td>
</tr>
</tbody>
</table>

- **MTO Incidence Rate**: 0.12
- **RWC Incidence Rate**: 0.23
- **LTI Incidence Rate**: 0.19
- **LTI Frequency Rate**: 0.97
- **DART Incidence Rate**: 0.42
- **DART Frequency Rate**: 2.10
- **Recordable Incidence Rate**: 0.54
- **Recordable Frequency Rate**: 2.69

### Formulas:

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

### Figure 1:

**South America Land Total Incidence Rates vs Man-hours**

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South America Land Total Lost Time Incidents by Month (Chart 1)
Based on 31 Incidents

- **January**: 12.90%
- **February**: 3.23%
- **March**: 9.68%
- **April**: 6.45%
- **May**: 6.45%
- **June**: 12.90%
- **July**: 3.23%
- **August**: 16.13%
- **September**: 12.90%
- **October**: 6.45%
- **November**: 6.45%
- **December**: 3.23%
South America Land Total Recordable Incidents by Month (Chart 2)
Based on 86 Incidents

- January: 5.81%
- February: 6.98%
- March: 11.63%
- April: 8.14%
- May: 9.30%
- June: 12.79%
- July: 9.30%
- August: 9.30%
- September: 6.98%
- October: 6.98%
- November: 6.98%
- December: 5.81%
- February: 6.98%
- March: 11.63%
- April: 8.14%
- May: 9.30%
- June: 12.79%
South America Land Total Lost Time Incidents by Occupation (Chart 3)
Based on 31 Incidents

 Floorman 35.48%
 Derrickman 16.13%
 Electrician (Electronic Technician) 3.23%
 Driller (Asst. Dr.) 3.23%
 Motorman 3.23%
 Mechanic (Repair Technician) 6.45%
 Superintendent/other Supervisors 3.23%
 Truck Driver (Truck Pusher) 3.23%
 Rig Helper 9.68%
 Other 6.45%
 Roustabout (Lease Hand) 6.45%
 Welder 3.23%
South America Land Total Recordable Incidents by Occupation (Chart 4)
Based on 86 Incidents

- Floorman: 41.86%
- Roustabout (Lease Hand): 13.95%
- Derricke: 12.79%
- Welder: 1.16%
- Other: 6.98%
- Rig Helper: 4.65%
- Truck Driver (Truck Pusher): 1.16%
- Superintendent/other Supervisors: 1.16%
- Crane Operator (Forklift Operator): 1.16%
- Mechanic (Repair Technician): 3.49%
- Electrician (Electronic Technician): 3.49%
- Toolpusher (Asst.TP, Tourpusher): 2.33%
- Driller (Asst. Dr.): 1.16%
- Motorman: 4.65%
- Roustabout: 13.95%
- Other: 6.98%
- Rig Helper: 4.65%

Based on 86 Incidents
South America Land Total Lost Time Incidents by Body Part (Chart 5)
Based on 31 Incidents

- Finger(s): 32.26%
- Head: 9.68%
- Back: 6.45%
- Hand(s) / Wrist(s): 9.68%
- Trunk/Torso (chest, abdomen, groin): 6.45%
- Leg(s): 6.45%
- Toes: 3.23%
- Digestive/Internal: 3.23%
- Other: 12.90%
- Feet/Ankles: 9.68%
- Head: 9.68%
South America Land Total Recordable Incidents by Body Part (Chart 6)
Based on 86 Incidents

- Finger(s): 45.35%
- Hand(s) / Wrist(s): 13.95%
- Arm(s): 1.16%
- Trunk/Torso (chest, abdomen, groin): 2.33%
- Back: 2.33%
- Head: 9.30%
- Eyes (eyelid): 2.33%
- Other: 5.81%
- Digestive/Internal: 1.16%
- Toes: 1.16%
- Feet/Ankles: 11.63%
- Leg(s): 3.49%
South America Land Total Lost Time Incidents by Incident Type (Chart 7)
Based on 31 Incidents

- Caught Between/In: 29.03%
- Slip/Fall: Different Level: 6.45%
- Struck By: 45.16%
- Struck Against: 9.68%
- Flame/heat/steam (contact/exposed): 3.23%
- Strain/Overexertion: 3.23%
- Jump: 3.23%
South America Land Total Recordable Incidents by Incident Type (Chart 8)
Based on 86 Incidents

- Caught Between/In: 31.40%
- Struck By: 34.88%
- Jump: 1.16%
- Sprain: 2.33%
- Cut: 2.33%
- Flame/heat/steam (contact/exposed): 1.16%
- Strain/Overexertion: 1.16%
- Slip/Fall: Different Level: 4.65%
- Slip/Fall: Same Level: 4.65%
- Struck Against: 16.28%
- Struck By: 34.88%
South America Land Total Lost Time Incidents by Equipment (Chart 9)
Based on 31 Incidents

- Other: 32.26%
- Decks (grating, walkway): 3.23%
- Forklift: 3.23%
- Pressure Hoses/Lines: 3.23%
- Well Control (BOP) Stack (well head, tree): 6.45%
- Iron Roughneck, Pipe Spinner, etc.: 9.68%
- Pipes/Collars/Tubulars/Csg.: 19.35%
- Cathead/Drawworks: 3.23%
- Slings (rope, cable, chain, web): 3.23%
- Engines/Pumps/Machinery: 3.23%
- Slips (drill collar clamp): 3.23%
- Car, truck, bus: 3.23%
- Iron Roughneck, Pipe Spinner, etc.: 9.68%
South America Land Total Recordable Incidents by Equipment (Chart 10)
Based on 86 Incidents

- Tongs: 8.14%
- Elevators: 9.30%
- Slips (drill collar cla): 3.49%
- Iron Roughneck, Pipe S: 3.49%
- Rotary: 1.16%
- Pipes/Collars/Tubulars/It: 17.44%
- Cathead/Drawworks: 1.16%
- Slings (rope, cable, chain, web): 1.16%
- Hand Tools: Manual: 6.98%
- Engines/Pumps/Machinery: 5.81%
- Stairs: 1.16%
- Car, truck, bus: 1.16%
- Pressure Hoses/Lines: 1.16%
- Forklift: 2.33%
- Crane: 1.16%
- Decks (grating, walkway): 3.49%
- Top Drive (blocks, swivel, kelly): 1.16%
- Anchor Chains/Cables/Winches: 1.16%
- Other: 25.58%
South America Land Total Lost Time Incidents by Operation (Chart 11)
Based on 31 Incidents

- Rigging Up/Down (rig move preparation, rig move) 22.58%
- Laying Down/Picking up Pipe/Tubulars 16.13%
- Running Casing/Tubing (rig up/down csg. tools) 9.68%
- Routine Drilling Operations 3.23%
- Making Connection 6.45%
- Other 3.23%
- Tripping in/out (makeup/brakeout BHA, test tools, etc.) 9.68%
- Cementing 3.23%
- Routine Drilling Operations 3.23%
- Running Casing/Tubing (rig up/down csg. tools) 9.68%
- Rigging Up/Down (rig move preparation, rig move) 22.58%
- Laying Down/Picking up Pipe/Tubulars 16.13%
- Making Connection 6.45%
- Other 3.23%
- Tripping in/out (makeup/brakeout BHA, test tools, etc.) 9.68%
- Cementing 3.23%
- Routine Drilling Operations 3.23%
South America Land Total Recordable Incidents by Operation (Chart 12)
Based on 86 Incidents

- Tripping in/out (makeup/brakeout BHA, test tools, etc.) 20.93%
- Rigging Up/Down (rig move preparation, rig move) 18.60%
- Laying Down/Picking up Pipe/Tubulars 9.30%
- Running Casing/Tubing (rig up/down csg. tools) 5.81%
- Rig/Equipment Repairs or Maintenance 13.95%
- Routine Drilling Operations 3.49%
- Material Handling: Forklift 1.16%
- Material Handling: Manual 3.49%
- Well Control (BOP Stack (well head/tree) Install/Maintenance 6.98%
- Special Operations (wireline, perforating, etc.) 4.65%
- Cementing 1.16%
- Walking 2.33%
- Other 3.49%
- Making Connection 4.65%
- Routine Drilling Operations 3.49%
South America Land Total Lost Time Incidents by Location (Chart 13)
Based on 31 Incidents

- Rig Floor (rotary, pipe set back area): 38.71%
- Pipe Rack/pipe Deck: 16.13%
- Derrick/Mast (crown, monkey/stabbing board, a-frame): 3.23%
- Mud Pits/Tanks: 3.23%
- Machinery Spaces: 3.23%
- Cellar/Substructure/Moonpool: 6.45%
- Rig Pad/Rig Decks: 12.90%
- Mud Pump Room: 6.45%
- Forklift: 3.23%
- Other: 6.45%
South America Land Total Recordable Incidents by Location (Chart 14)  
Based on 86 Incidents

- **Rig Floor (rotary, pipe set back area):** 38.37%
- **Pipe Rack/ Pipe Deck:** 9.30%
- **Derrick/Mast (crown, monkey/stabbing board, a-frame):** 10.47%
- **Well Control (BOP) Stack (well head/tree) Area:** 3.49%
- **Mud Pits/Tanks:** 5.81%
- **Shale Shaker:** 1.16%
- **Engine Room/Generator Room:** 1.16%
- **Rig Pad/Rig Decks:** 8.14%
- **Cellar / Substructure / Moonpool:** 4.65%
- **Work Rooms (change house, storage house/room):** 1.16%
- **Machinery Spaces:** 1.16%
- **Mud Pump Room:** 6.98%
- **Forklift:** 2.33%
- **Other:** 5.81%
South America Land Total Lost Time Incidents by Time in Service (Chart 15)
Based on 30 Incidents

- 0 mo. < 3 mos.: 23.33%
- >3 mos. < 6 mos.: 16.67%
- >6 mos. < 1 yr.: 13.33%
- >1 yr. < 5 yrs.: 33.33%
- >5 yrs. < 10 yrs.: 10.00%
- 10+ yrs.: 3.33%
- >1 yr. < 5 yrs.: 33.33%
- >3 mos. < 6 mos.: 16.67%
- >6 mos. < 1 yr.: 13.33%
- >1 yr. < 5 yrs.: 33.33%
- >5 yrs. < 10 yrs.: 10.00%
- 10+ yrs.: 3.33%
South America Land Total Lost Time Incidents by Time of Day (Chart 17)
Based on 30 Incidents

- 14:00: 23.33%
- 13:00: 10.00%
- 12:00: 6.67%
- 11:00: 3.33%
- 10:00: 6.67%
- 9:00: 3.33%
- 8:00: 6.67%
- 7:00: 6.67%
- 6:00: 3.33%
- 5:00: 3.33%
- 4:00: 6.67%
- 3:00: 3.33%
- 2:00: 3.33%
- 1:00: 3.33%
- 0:00: 3.33%
- 19:00: 6.67%
- 18:00: 6.67%
- 17:00: 3.33%
- 16:00: 6.67%
- 15:00: 6.67%
- 14:00: 23.33%
- 13:00: 10.00%
- 12:00: 6.67%
- 11:00: 3.33%
- 10:00: 6.67%
- 9:00: 3.33%
- 8:00: 6.67%
- 7:00: 6.67%
- 6:00: 3.33%
- 5:00: 3.33%
- 4:00: 6.67%
- 3:00: 3.33%
- 2:00: 3.33%
- 1:00: 3.33%
- 0:00: 3.33%
South America Land Total Recordable Incidents by Time of Day (Chart 18)
Based on 85 Incidents

14:00: 9.41%
13:00: 10.59%
22:00: 3.53%
24:00: 2.35%
23:00: 2.35%
21:00: 5.88%
20:00: 4.71%
19:00: 3.53%
18:00: 2.35%
17:00: 3.53%
16:00: 12.94%
15:00: 4.71%
14:00: 9.41%
13:00: 10.59%
12:00: 3.53%
11:00: 10.59%
10:00: 4.71%
9:00: 1.18%
8:00: 1.18%
7:00: 3.53%
6:00: 1.18%
5:00: 3.53%
4:00: 1.18%
3:00: 1.18%
2:00: 1.18%
1:00: 2.35%
South America Land Total Lost Time Incidents by Age (Chart 19)
Based on 25 Incidents

- 18 - 25: 24.00%
- 26 - 35: 28.00%
- 36 - 45: 36.00%
- 46 - 55: 12.00%
South America Land Total Recordable Incidents by Age (Chart 20)
Based on 70 Incidents

- 36 - 45: 35.71%
- 26 - 35: 35.71%
- 18 - 25: 15.71%
- 46 - 55: 11.43%
- 56 - 65: 1.43%