IADC ISP Program 2021



Issued 15 June 2022





IADC ISP Program 2021

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Summary of Occupational Incidents Introductory Briefing

Data gathered in the IADC Incident Statistics Program (ISP) data base, shows that the oil and gas well drilling industry continues work toward reducing incidents on rigs. With the increase in rig demand in 2021, the incidence rates decreased slightly over 2021. Although IADC ISP calculates both Incidence rates and Frequency rates, this report is based on Incidence rates which are calculated on incidents per 200,000 man-hours.

The Summary of Occupational Incidents (SOI) is compiled annually from data volunteered by drilling contractors worldwide to the IADC ISP Program. During 2021, 73 contractors participated in the ISP representing a total of 289,560,722 million man-hours worked. Contractors striving for safety improvement by participating in the ISP program reported 842 Recordable incidents, 234 Lost Time incidents including 7 fatalities.

REGIONAL REPORTING

Safety data is compiled separately for Land and Offshore operations for nine geographic regions. This report is not designed to measure region against region, but to provide companies operating within each region tools to measure their efforts and make improvement in their safety efforts year over year.

INDUSTRY IMPROVEMENT

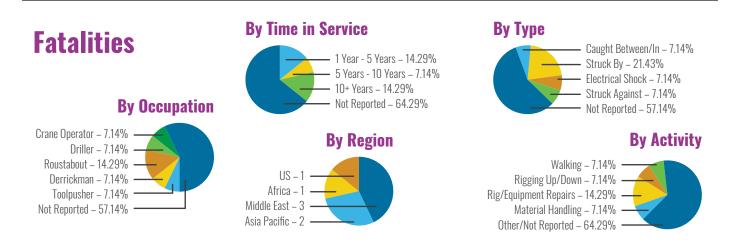
2021 saw the drilling industry's worldwide Lost Time Incidence Rate increase to 0.17 which is a 30.8% change of the 2020 report of 0.13. The 2021 Recordable Incident rate increased to 0.58 which is a 20% change over the 2020 report of 0.48. The oil and gas well drilling industry's efforts towards safety have resulted in the industry's occupational LTI Incidence rate to improve from more than 14.00 in 1963 to 0.17 in 2021, which is a 99% improvement.

FATALITIES

In 2021 the industry's fatalities increased to 7 incidents compared to 4 incidents reported in 2020. According to the data reported in 2021, one (1) fatality occurred to an employee who had more than five but less than ten years of service with the company. Two (2) fatalities occurred to employees who had more than one year but less than five years of service. One (1) fatality occurred during Rigging up/down. Two (2) of the fatalities occurred to roustabouts. One (1) occurred to derrickmen and one (1) occurred to drillers. While seven (7) fatalities were reported, details were only provided for six (6).

<u>Regional Summaries: Man-Hours vs Fatalities</u>

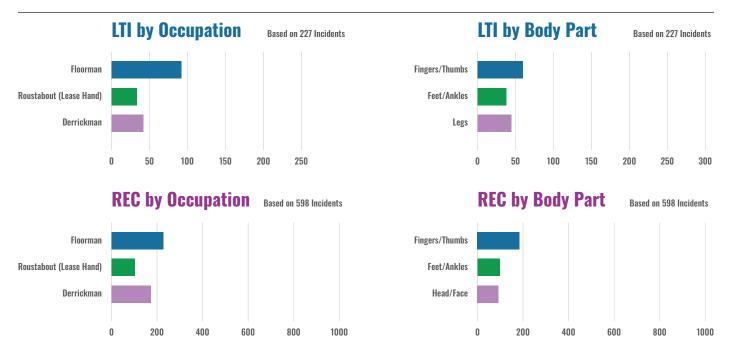
European Land and Offshore categories together worked more than 30.2 million man-hours in 2021 with zero (0) fatalities. European offshore accounted for 25.7 million man-hours with zero (0) fatalities while European Land had 4.5 million man-hours and zero (0) fatalities. US Land and Offshore contractors together worked more than 46 million man-hours with one (1) fatality. US Land had 34.5 million manhours with one (1) fatality while US water had 11.6 million man-hours and zero (0) fatalities. Canadian contractors accounted for 4.3 million man-hours and zero (0) fatalities. Canadian Land had 3.9 million man-hours and zero (0) fatalities while offshore had 356.046 man-hours and no fatalities. Central America and Caribbean accounted for 6.7 million man-hours with zero (0) fatalities. Land operations reported 770 thousand man-hours and no fatalities while water operations reported just over 5.9 million man-hours and no fatalities. Africa combined land and offshore accounted for 41 million man-hours with one (1) fatality. Africa Land accounted for 31 million manhours with one (1) fatality while Africa Water had 9.7 million man-hours and no fatalities. The Middle East region accounted for 111 million man-hours with three (3) fatalities. The Land division had 74 million man-hours and two (2) fatalities while there were 36.7

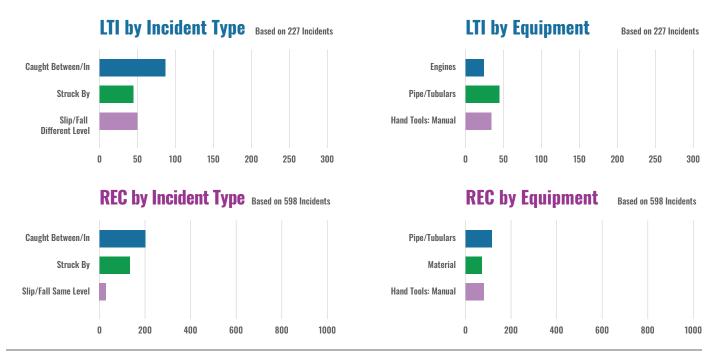


million man-hours and one (1) fatality for the offshore division. Asia Pacific accounted for 29.6 million manhours and two (2) fatalities. Water had 23.3 million man-hours and two (2) fatalities while the Land Division had 6.3 million man-hours with no fatalities. South America made up 15.5 million man-hours with no fatalities. Land had 6.8 million man-hours and no fatalities while Water had 8.6 million man-hours and no fatalities. Australasia made up 4 million man-hours with no fatalities. Land had 2 million man-hours with no fatalities while offshore had 2 million man-hours with no fatalities.

Lost Time and Recordable Incidents by Region

Lost time incidents among US Land workers worsened 50% from 0.3 in 2020 to 0.45 in 2021. The Total Recordable Incidence Rate worsened 44% from 1.09 in 2020 to 1.57 in 2021. US Offshore LTI Incidence rate improved 10% from 0.11 in 2020 to 0.10 in 2021 and Recordable Incidence Rate worsened 63% from 0.41 in 2020 to 0.67 in 2021. European Land workers saw their LTI rate improve 29% from 0.31 for 2020 to 0.22 for 2021. The Recordable Incidence Rate improved 7.5% from 0.42 in 2020 to 0.39 in 2021. European Offshore workers LTI rate remained the same at 0.13 in 2020 to 0.13 in 2021 while the Recordable Incidence rate improved 11% from 0.44 in 2020 to 0.37 in 2021. Canada Land had a 2020 LTI rate of 0.61 which improved 75% to 0.15 for 2021, while their Recordable Incidence improved 78% from 1.34 in 2020 to 1.05 for 2021. Canada Offshore workers saw their 2020 LTI rate of 0.00 remain the same of 0.00 for 2021. The Recordable Incidence rate of 1.39 for 2020 improved 59% to 0.56 for 2021. Central America and Caribbean Land 2020 LTI rate of 1.00 increased to 1.30 for 2021. Their 2020 Recordable Incidence rate of 1.26 increased to 2.08 for 2021. Central America and Caribbean Water 2020 LTI Rate of 0.15 worsened 60% to 0.24 in 2021. The Recordable rate of 0.47 for 2020 improved 79% to 0.37 for 2021. Africa Land LTI rate decreased from 0.40 in 2020 to 0.37 in 2021. The Recordable Incidence rate decreased from 1.61 in 2020 to 1.39 in 2021. Africa Water LTI rate decreased 0.08 in 2020 to 0.04 in 2021 and their Recordable Incidence rate improved 47% from 0.34 in 2020 to 0.16 in 2021. In 2020, Middle East Land had a LTI rate of 0.08 which remained the same to 0.08 in 2021. Their 2020 Recordable Incidence rate of 0.33 improved 73% to 0.24 in 2021. Middle East Water LTI rate of 0.04 in 2020, worsened to 0.05 in 2021 and their Recordable Incidence rate worsened 25% from 0.16 in 2020 to 0.20 in 2021. Asia Pacific Land 2020 LTI rate was 0.06 and improved to 0.00 in 2021, while their Recordable Incidence rate improved from 64% 0.25 in 2020 to 0.16 in 2021. Asia Pacific Water 2020 LTI rate of 0.03 worsened 200% to 0.09 for 2021 and their Recordable Incidence rate worsened 33% 0.18 in 2020 to 0.24 in 2021. In 2020, South America Land had an LTI rate of 0.09 which worsened to 0.20 in 2021 and a 2020 Recordable rate of 0.31 which worsened 142% to 0.75 in 2021. South America Water 2020 LTI rate was 0.08 which improved 75% to 0.02 in 2021 and a 2020 Recordable rate of 0.21 that stayed the same in 2021. Australasia Land had a 2020 LTI rate of 0.13 which decreased to 0.10 for 2021 and Recordable incident rate of 0.64 for 2020 which decreased to 0.29 for 2021. Australasia Water had a 2020 LTI rate of 0.09 which worsened 111% to 0.19 for 2021 and a 2020 Recordable incident rate of 0.72 which worsened 49% to 1.07 for 2021.





<u>Greatest Risks</u>

Incidents occur in many places around the rig and to all crewmembers. Many types of equipment and rig operations are involved in incidents and all parts of the body are at risk. Incident data are analyzed by occupation, body part, incident type, equipment type, operation, location time in service and time of day the incident occurred.

Data from the IADC ISP show that of all the categories, as with previous years, the Floorman position suffers the largest percentage of Lost Time and Recordable injuries.

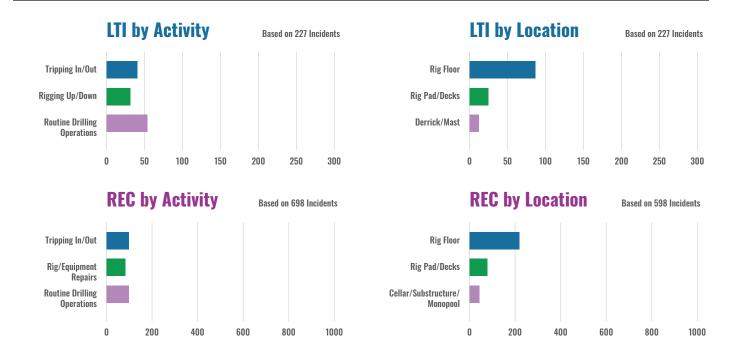
Fingers remained the most vulnerable part of the body.

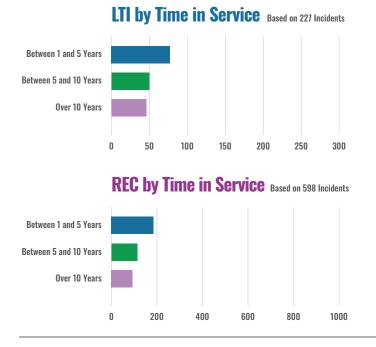
Caught Between accounted for the most Lost Time Injuries and Total Recordable injuries.

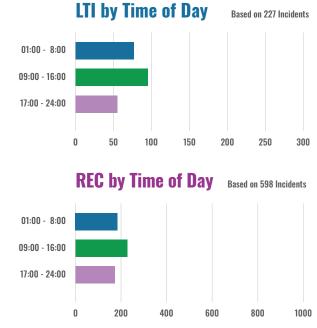
Pipe/Tubulars is the equipment responsible for the most Lost Time and Recordable incidents.

"Routine Drilling Operations" accounted for the most LTI and recordable incidents.

The most Lost Time and Recordable injuries in drilling operations occurred on the rig floor.





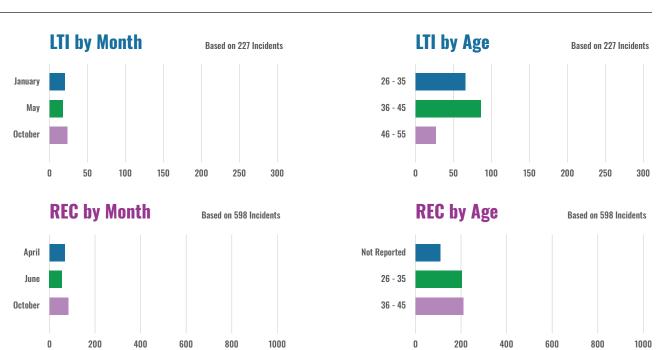


Lost Time and Recordable injuries based on Time in Service were led by employees with between one to five years of service.

The Most LTI and Recordable incidents occurred between 09:00-16:00 hours.

October and January accounted for the most Lost Time and October accounted for the most Recordable incidents.

36 – 45 age range accounted for the most Lost Time and Recordable incidents.



<u>Conclusion</u> Activity in most sectors of the industry decreased in 2021. Overall, Lost Time incidents rates and Recordable incident rates increased slightly in 2021 as compared to 2020, an increase attributable to regions which experienced an uptick in rig activity.

2021 ISP Program Industry Totals

2021 Final Report (Table 1)

January – December (Note: Figures are unaudited)

CATEGORY	TOTAL MAN-HOURS	TOTAL MTOs	TOTAL RWCs	TOTAL LTIs	TOTAL FTLs	TOTAL RCRD	LTI INCD. RATE	LTI FREQ. RATE	DART INCD. RATE	DART FREQ. RATE	RCRD INCD. RATE	RCRD FREQ. RATE
US - Land	34,562,598	81	113	77	1	272	0.45	2.26	1.11	5.53	1.57	7.87
US - Water	11,666,529	14	19	6	0	39	0.10	0.51	0.43	2.14	0.67	3.34
Canada - Land	3,984,470	2	16	3	0	21	0.15	0.75	0.95	4.77	1.05	5.27
Canada - Water	356,046	0	1	0	0	1	0.00	0.00	0.56	2.81	0.56	2.81
Central America & Caribbean - Land	770,092	1	2	5	0	8	1.30	6.49	1.82	9.09	2.08	10.39
Central America & Caribbean - Water	5,944,712	3	1	7	0	11	0.24	1.18	0.27	1.35	0.37	1.85
European - Land	4,579,954	2	2	5	0	9	0.22	1.09	0.31	1.53	0.39	1.97
European - Water	25,708,388	17	14	17	0	48	0.13	0.66	0.24	1.21	0.37	1.87
Africa - Land	31,356,565	38	122	57	1	218	0.37	1.85	1.15	5.74	1.39	6.95
Africa - Water	9,736,148	5	1	2	0	8	0.04	0.21	0.06	0.31	0.16	0.82
Middle East - Land	74,722,959	25	34	27	2	88	0.08	0.39	0.17	0.84	0.24	1.18
Middle East - Water	36,829,557	10	18	8	1	37	0.05	0.24	0.15	0.73	0.20	1.00
Asia Pacific - Land	6,320,057	4	1	0	0	5	0.00	0.00	0.03	0.16	0.16	0.79
Asia Pacific - Water	23,341,362	10	7	9	2	28	0.09	0.47	0.15	0.77	0.24	1.20
South America Land	6,899,226	7	12	7	0	26	0.20	1.01	0.55	2.75	0.75	3.77
South America Water	8,670,193	3	5	1	0	9	0.02	0.12	0.14	0.69	0.21	1.04
Australasia – Land	2,058,271	2	0	1	0	3	0.10	0.49	0.10	0.49	0.29	1.46
Australasia – Water	2,053,595	3	6	2	0	11	0.19	0.97	0.78	3.90	1.07	5.36
US Combined	46,229,127	95	132	83	1	311	0.36	1.82	0.93	4.67	1.35	6.73
Canada Combined	4,340,516	2	17	3	0	22	0.14	0.69	0.92	4.61	1.01	5.07
Central America & Caribbean Com.	6,714,804	4	3	12	0	19	0.36	1.79	0.45	2.23	0.57	2.83
European Combined	30,288,342	19	16	22	0	57	0.15	0.73	0.25	1.25	0.38	1.88
Africa Combined	41,092,713	43	123	59	1	226	0.29	1.46	0.89	4.45	1.10	5.50
Middle East Combined	111,552,516	35	52	35	3	125	0.07	0.34	0.16	0.81	0.22	1.12
Asia Pacific Combined	29,661,419	14	8	9	2	33	0.07	0.37	0.13	0.64	0.22	1.11
South America Combined	15,569,419	10	17	8	0	35	0.10	0.51	0.32	1.61	0.45	2.25
Australasia Combined	4,111,866	5	6	3	0	14	0.15	0.73	0.44	2.19	0.68	3.40
INDUSTRY TOTAL	289,560,722	227	375	234	7	842	0.17	0.83	0.42	2.12	0.58	2.91

MTO=Medical Treatment Only	IN(1) = Incidence Rate	LTI INCD Rate = (LTI s+ FTLs) * 200000 / Total Man-hours
RWC =Restricted Work Case	(200,000 man-hours):	DART INCD Rate = (RWC + LTI + FTL) * 200000 / Total Man-hours RCRD INCD Rate = (MTOs + RWCs + LTIs + FTLs) * 200000 / Total Man-hours
LTI =Lost Time Incident	FREQ = Frequency Rate	LTI FREQ Rate = (LTI s+ FTLs) * 1000000 / Total Man-hours
FTL =Fatalities	(1,000,000 man-hours):	DART FREQ Rate = (RWC + LTI + FTL) * 1000000 / Total Man-hours RCRD FREQ Rate = (MTOs + RWCs + LTIs + FTLs) * 1000000 / Total Man-hours

RCRD =Total Recordables

5 Year Summary Report (Table 2)

Lost Time and Total Recordable Incidence/Frequency Rate

CATECODY		20	21	20	20	20)19	20	18	20	017
CATEGORY	TYPE	INCD. RATE	FREQ.RATE	INCD.RATE	FREQ.RATE	INCD.RATE	FREQ.RATE	INCD. RATE	FREQ.RATE	INCD.RATE	FREQ.RATE
	LTI:	0.45	2.26	0.3	1.52	0.48	2.42	0.51	2.56	0.43	2.13
US Land	DART:	1.11	5.53	0.68	3.40	0.92	4.62	1.05	5.25	0.91	4.56
00 Lund	RCRD:	1.57	7.87	1.09	5.44	1.51	7.53	1.61	8.03	1.5	7.52
	LTI:	0.10	0.51	0.11	0.53	0.08	0.39	0.07	0.37	0.11	0.53
US Water	DART:	0.43	2.14	0.31	1.53	0.34	1.71	0.26	1.28	0.25	1.27
	RCRD:	0.67	3.34	0.41	2.06	0.47	2.35	0.42	2.12	0.46	2.28
	LTI:	0.15	0.75	0.61	3.04	0.41	2.05	0.27	1.37	0.39	1.97
Canada Land	DART:	0.95	4.77	1.15	5.77	0.64	3.19	0.78	3.88	0.79	3.94
	RCRD:	1.05	5.27	1.34	6.68	1.32	6.62	0.91	4.57	1.18	5.91
	LTI:	0.00	0.00	0.00	0.00	0.14	0.69	0	0	0.16	0.78
Canada Water	DART:	0.56	2.81	1.19	5.96	0.14	0.69	0.42	2.12	0.47	2.34
	RCRD:	0.56	2.81	1.39	6.96	0.28	1.38	0.42	2.12	0.62	3.12
	LTI:	1.30	6.49	1.00	5.02	0.25	1.25	1.25	6.27	0.5	2.5
Central America & Caribbean Land	DART:	1.82	9.09	1.26	6.28	0.25	1.25	2.09	10.45	0.5	2.5
a cambbean Eana	RCRD:	2.08	10.39	1.26	6.28	1.25	6.25	2.93	14.63	0.5	2.5
Central America	LTI:	0.24	1.18	0.15	0.73	0.06	0.29	0.23	1.13	0.37	1.84
Central America & Caribbean Water	DART:	0.27	1.35	0.26	1.32	0.47	2.33	0.73	3.63	0.63	3.16
	RCRD:	0.37	1.85	0.47	2.35	0.47	2.33	0.91	4.54	1.05	5.27
South Amorica	LTI:	0.20	1.01	0.09	0.44	0.16	0.8	0.25	1.26	0.25	1.26
South America Land	DART:	0.55	2.75	0.26	1.31	0.54	2.68	0.41	2.06	0.59	2.94
	RCRD:	0.75	3.77	0.31	1.53	0.79	3.93	0.54	2.69	0.84	4.2
South Amorica	LTI:	0.02	0.12	0.08	0.39	0.14	0.72	0.14	0.69	0.2	1.02
South America Water	DART:	0.14	0.69	0.10	0.51	0.21	1.03	0.25	1.26	0.2	1.02
	RCRD:	0.21	1.04	0.21	1.03	0.33	1.65	0.3	1.49	0.27	1.36
	LTI:	0.22	1.09	0.31	1.57	0.23	1.16	0.39	1.93	0.21	1.04
European Land	DART:	0.31	1.53	0.37	1.83	0.41	2.07	0.39	1.93	0.24	1.22
	RCRD:	0.39	1.97	0.42	2.09	0.59	2.97	0.48	2.42	0.29	1.45
	LTI:	0.13	0.66	0.13	0.64	0.2	0.98	0.11	0.56	0.15	0.74
European Water	DART:	0.24	1.21	0.24	1.21	0.32	1.58	0.31	1.53	0.26	1.32
	RCRD:	0.37	1.87	0.44	2.21	0.51	2.56	0.5	2.51	0.48	2.41
	LTI:	0.37	1.85	0.40	2.01	0.44	2.18	0.57	2.83	0.14	0.71
Africa Land	DART:	1.15	5.74	1.28	6.41	1.24	6.19	1.51	7.53	0.25	1.23
	RCRD:	1.39	6.95	1.61	8.06	1.55	7.73	1.67	8.34	0.52	2.59
	LTI:	0.04	0.21	0.08	0.40	0,06	0.31	0.06	0.31	0.06	0.29
Africa Water	DART: RCRD:	0.06 0.16	0.31 0.82	0.20	0.99	0.18 0.3	0.88	0.32	1.62 2.17	0.16 0.29	0.79
	LTI:	0.08	0.39	0.08	0.41	0.07	0.34	0.43	0.36	0.29	0.44
	DART:	0.03	0.84	0.08	1.05	0.07	0.34	0.07	0.96	0.09	1.13
Middle East Land	RCRD:	0.24	1.18	0.33	1.65	0.33	1.64	0.28	1.41	0.23	1.89
	LTI:	0.05	0.27	0.04	0.18	0.05	0.27	0.06	0.29	0.06	0.3
Middle East	DART:	0.05	0.76	0.11	0.53	0.03	1.1	0.00	0.96	0.00	1.08
Water	RCRD:	0.21	1.03	0.16	0.79	0.33	1.66	0.28	1.39	0.34	1.7
	LTI:	0.00	0.00	0.06	0.32	0.08	0.41	0.04	0.22	0.02	0.1
Asia Pacific Land	DART:	0.03	0.16	0.13	0.63	0.08	0.41	0.09	0.45	0.06	0.29
	RCRD:	0.16	0.79	0.25	1.26	0.12	0.61	0.22	1.12	0.14	0.68
	LTI:	0.09	0.47	0.03	0.17	0.17	0.85	0.06	0.31	0.07	0.34
Asia Pacific	DART:	0.15	0.77	0.08	0.40	0.22	1.08	0.13	0.63	0.15	0.76
Water	RCRD:	0.24	1.20	0.18	0.89	0.28	1.42	0.22	1.09	0.22	1.12
	LTI:	0.10	0.49	0.13	0.64	0	0	0.52	2.62	0.18	0.9
Australasia Land	DART:	0.10	0.49	0.26	1.28	0.37	1.86	0.84	4.2	0.36	1.8
	RCRD:	0.29	1.46	0.64	3.20	0.65	3.25	1.31	6.56	0.54	2.7
	LTI:	0.19	0.97	0.09	0.45	0.18	0.88	0.31	1.56	0.61	3.03
Australasia Water	DART:	0.78	3.90	0.36	1.79	0.26	1.31	0.47	2.35	0.91	4.55
. astraiasia water	RCRD:	1.07	5.36	0.72	3.58	0.53	2.63	0.47	2.35	1.52	7.58
	LTI:	0.17	0.84	0.13	0.63	0.18	0.92	0.21	1.04	0.16	0.81
INDUSTRY	DART:	0.43	2.13	0.31	1.57	0.41	2.07	0.49	2.43	0.33	1.67
TOTALS	RCRD:	0.58	2.91	0.46	2.28	0.64	3.12	0.68	3.39	0.54	2.7

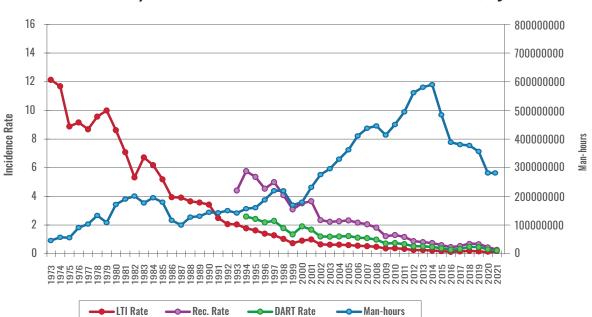
2021 - IADC Industry Totals (Table 3)

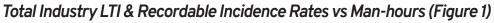
	LAND	WATER	COMBINED
TOTAL MAN-HOURS	165,254,192	124,306,530	289,560 ,722
TOTAL MEDICAL TREATMENT INCIDENTS	162	65	227
TOTAL RESTRICTED WORK INCIDENTS	302	72	374
TOTAL LOST TIME INCIDENTS	182	52	234
TOTAL FATALITIES	4	3	7
TOTAL RECORDABLES	650	192	842
MTO INCIDENCE RATE	0.20	0.10	0.16
RWC INCIDENCE RATE	0.37	0.12	0.26
LTI INCIDENCE RATE	0.23	0.09	0.17
LTI FREQUENCY RATE	1.13	0.44	0.83
DART INCIDENCE RATE	0.59	0.20	0.42
DART FREQUENCY RATE	2.95	1.02	2.12
RECORDABLE INCIDENCE RATE	0.79	0.31	0.58
RECORDABLE FREQUENCY RATE	3.93	1.54	2.91

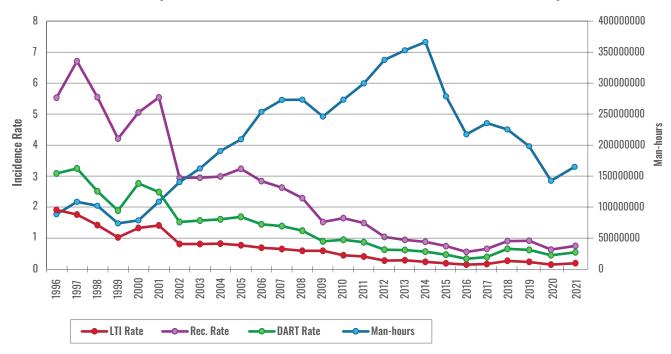
MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCS) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Number of participating companies: 73 - Total; 49 - Land; 40 - Water

Please note, some companies participate in both categories.

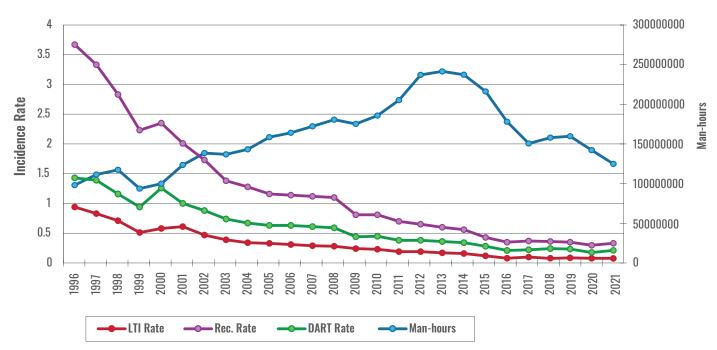


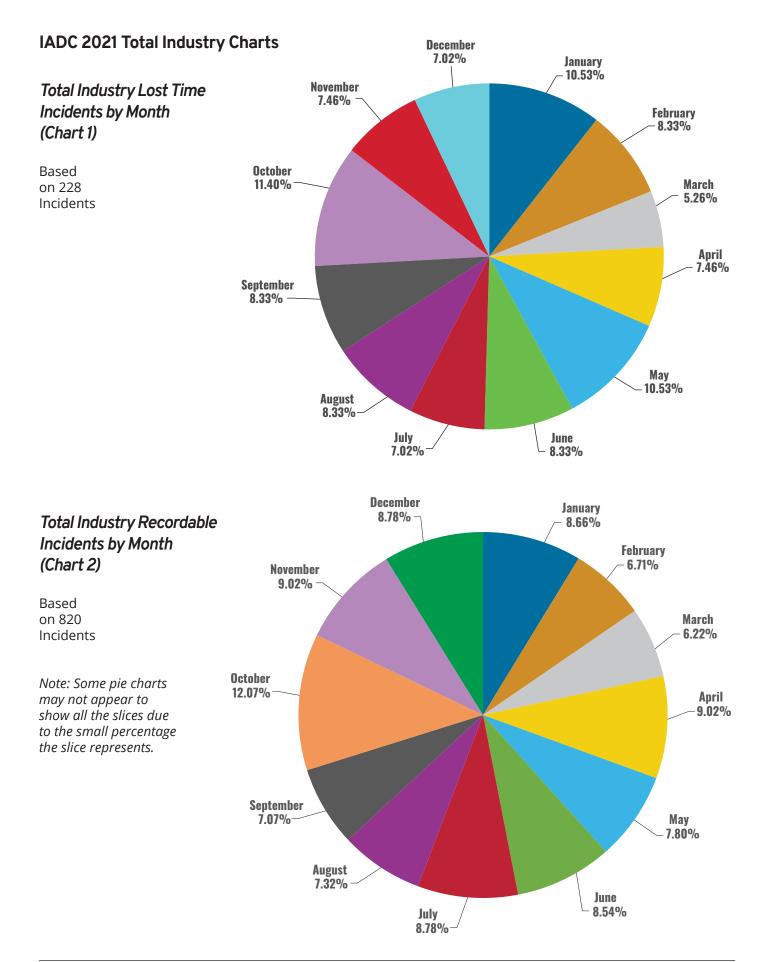


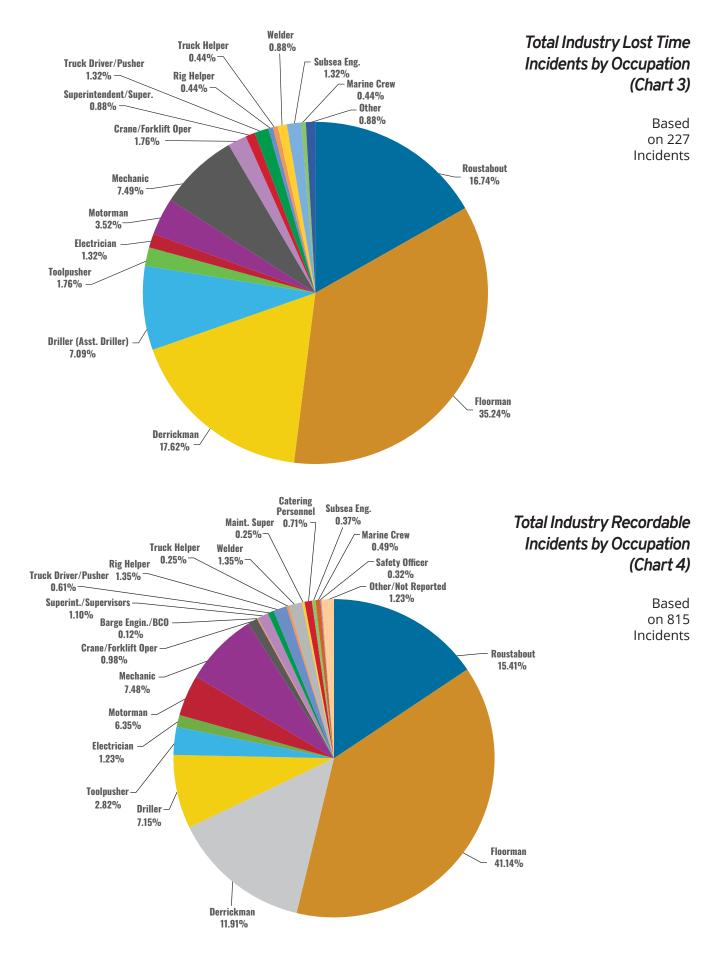


Total Industry Land LTI & Recordable Incidence Rates vs Man-hours (Figure 2)

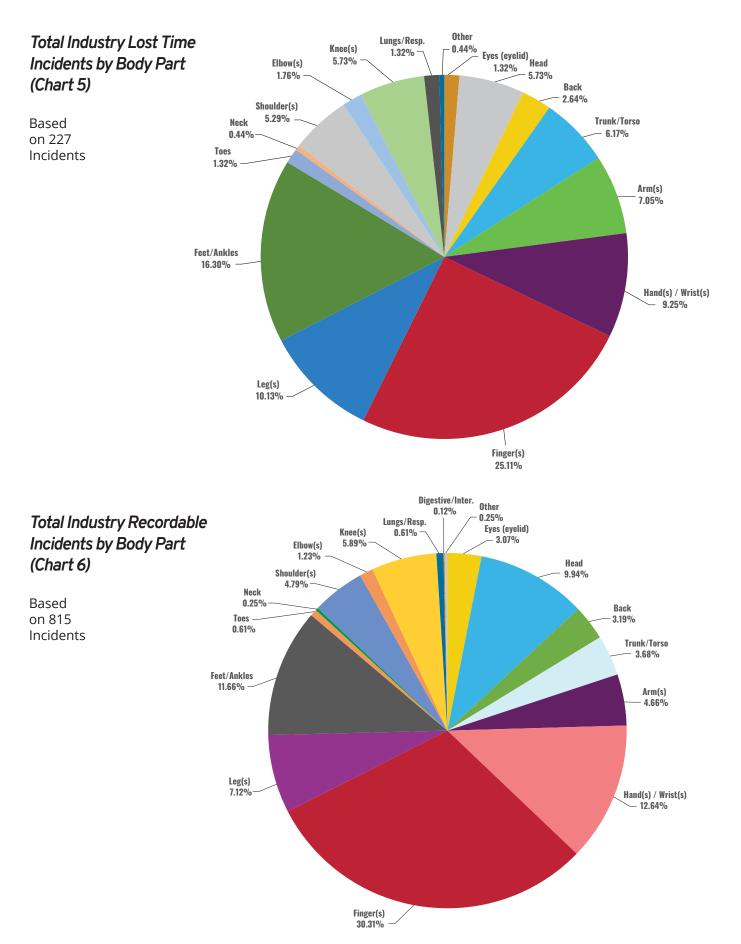
Total Industry Water LTI & Recordable Incidence Rates vs Man-hours (Figure 3)

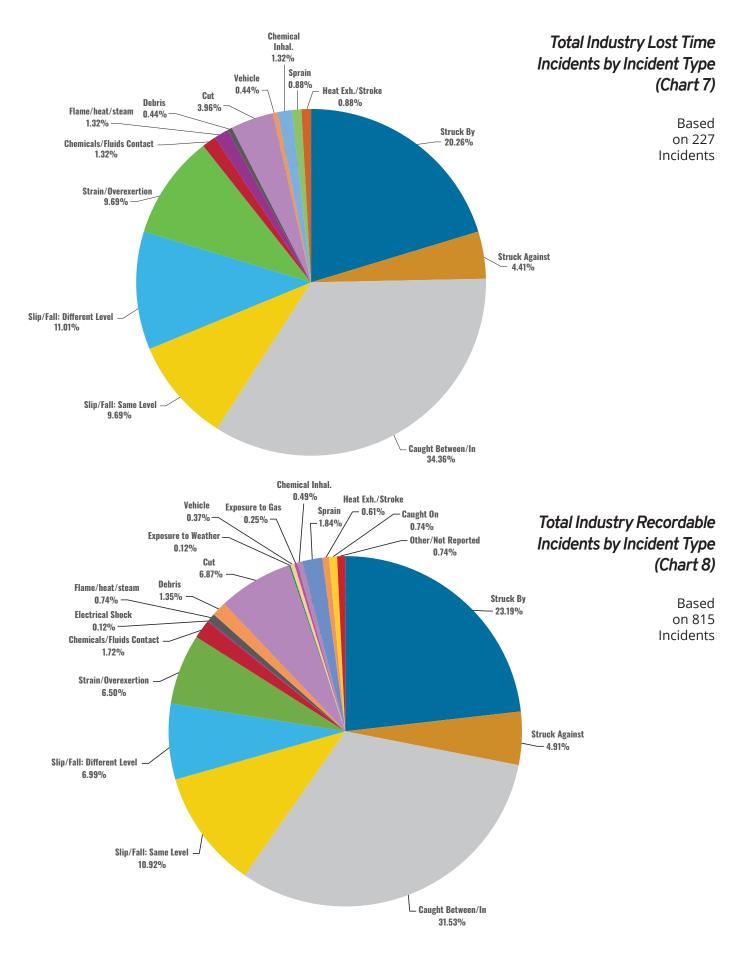


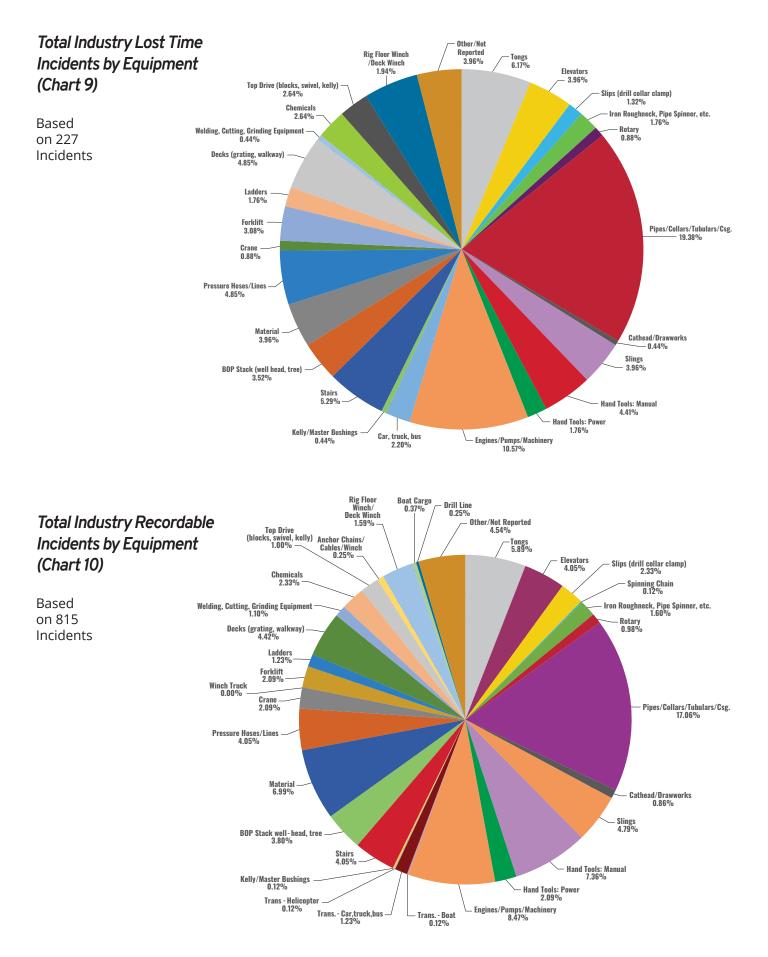


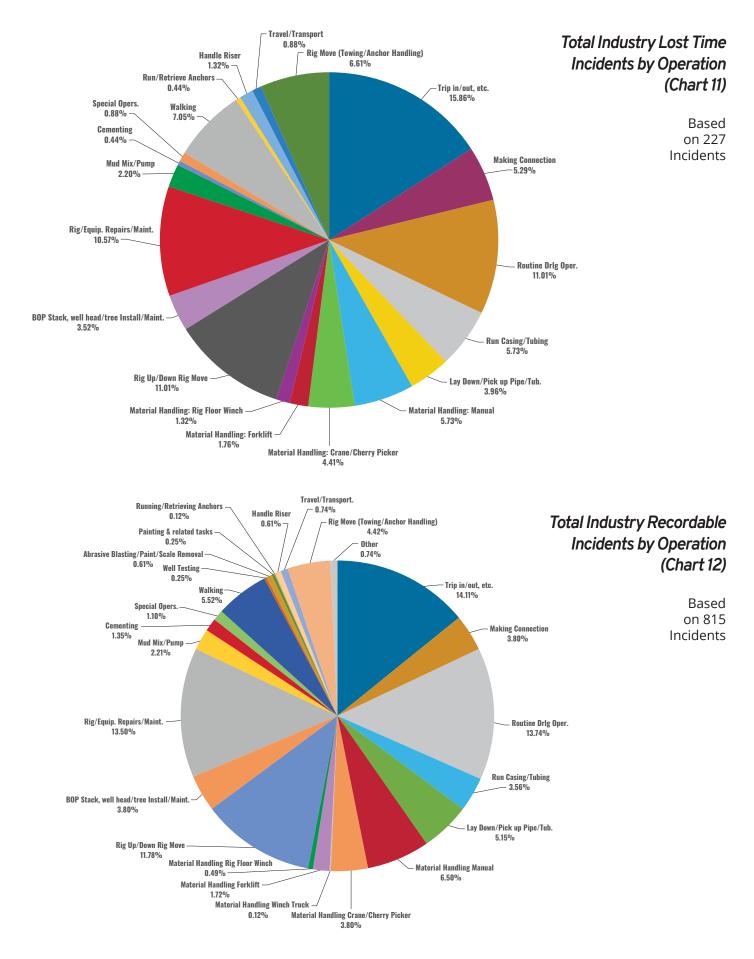


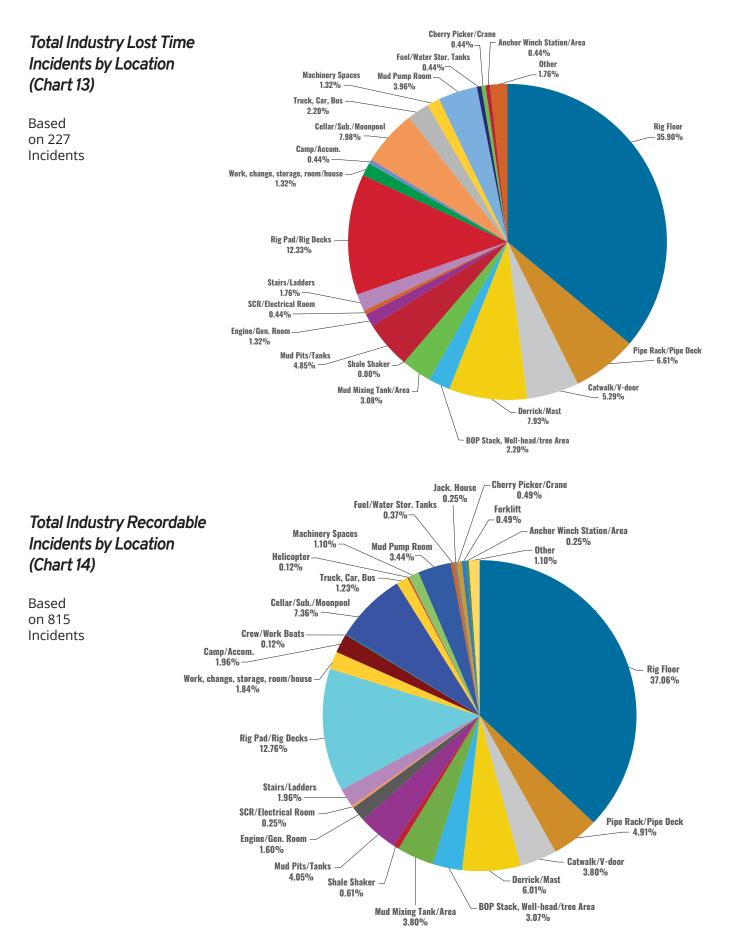
IADC ISP PROGRAM 2021

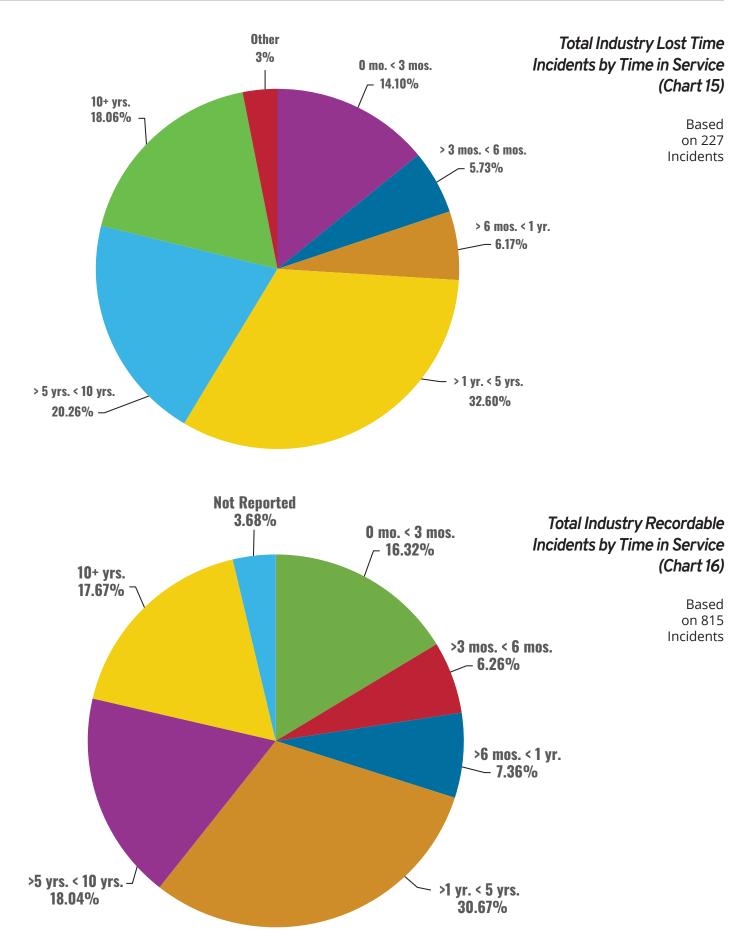


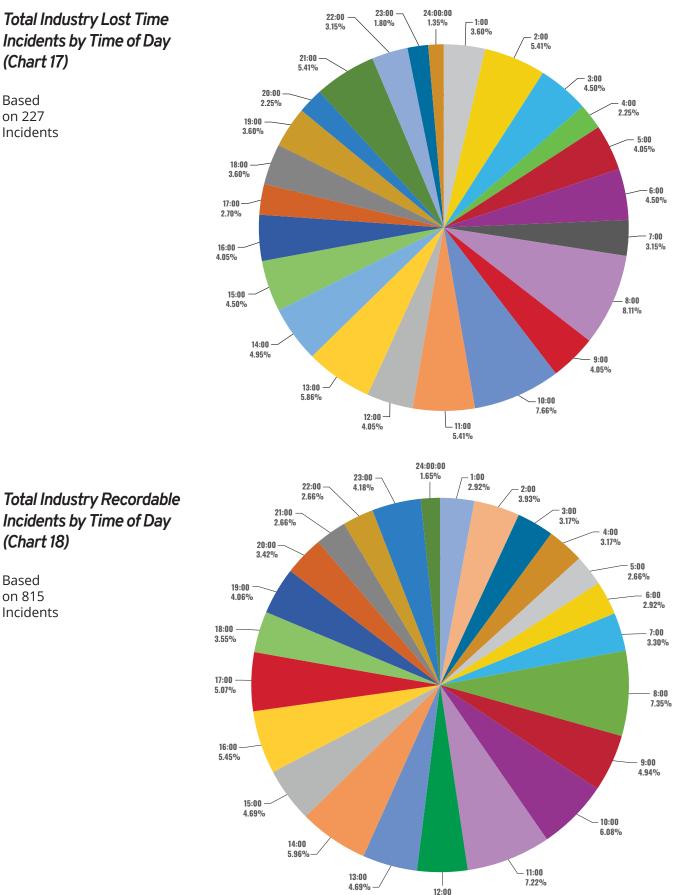












Total Industry Recordable Incidents by Time of Day (Chart 18)

Based on 815 Incidents

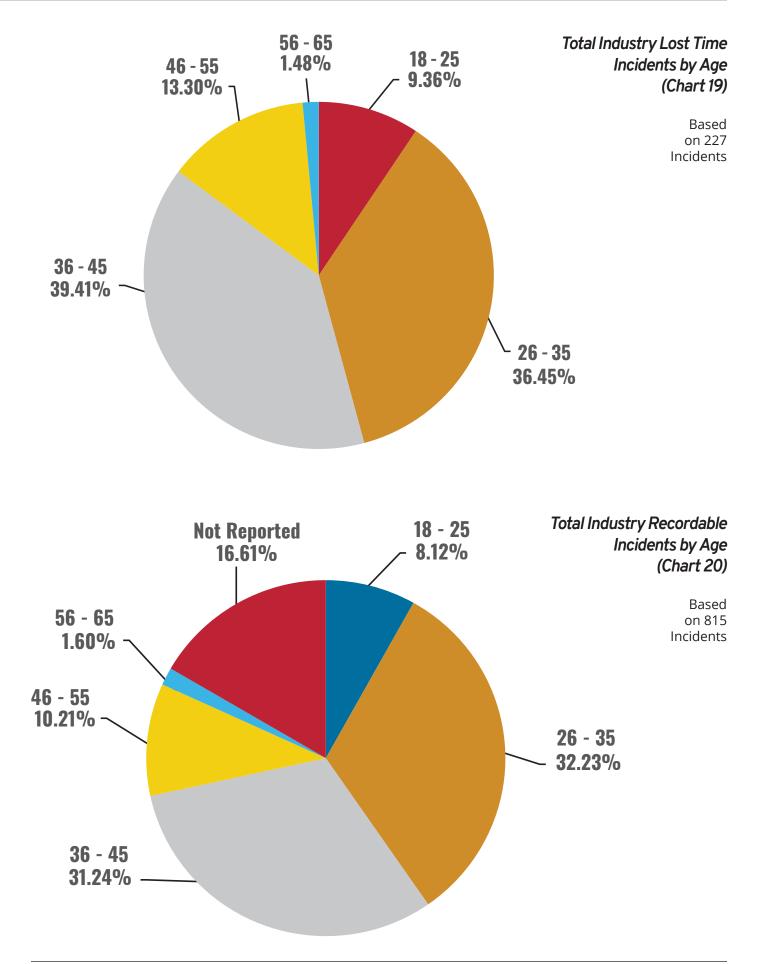
(Chart 17)

Based

on 227

Incidents

4.31%



2021 ISP Program Regional Totals

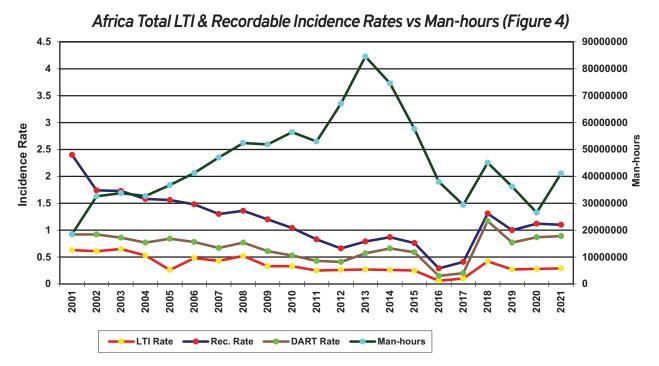
Combined Land & Water

IADC 2021 Africa Totals (Table 4)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	31,356,565	9,736,148	41,092,713
TOTAL MEDICAL TREATMENT INCIDENTS	38	5	43
TOTAL RESTRICTED WORK INCIDENTS	122	1	123
TOTAL LOST TIME INCIDENTS	57	2	59
TOTAL FATALITIES	1	0	1
TOTAL RECORDABLES	218	8	226
MTO INCIDENCE RATE	0.24	0.1	0.21
RWC INCIDENCE RATE	0.78	0.02	0.6
LTI INCIDENCE RATE	0.37	0.04	0.29
LTI FREQUENCY RATE	1.85	0.21	1.46
DART INCIDENCE RATE	1.15	0.06	0.89
DART FREQUENCY RATE	5.74	0.31	4.45
RECORDABLE INCIDENCE RATE	1.39	0.16	1.1
RECORDABLE FREQUENCY RATE	6.95	0.82	5.5

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCS) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 9 Water – 14

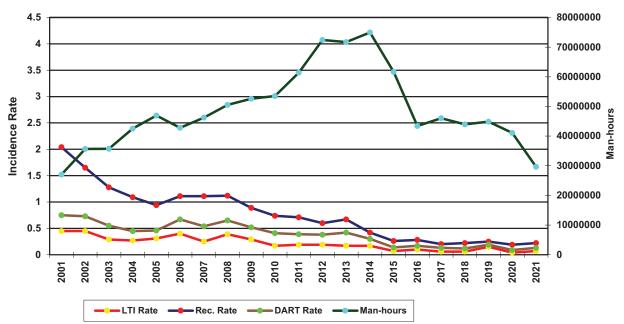


IADC ZUZI ASIA FACILIC TULAIS (TADIC J)			
	LAND	WATER	COMBINED
TOTAL MAN-HOURS	6,320,057	23,341,362	29,661,419
TOTAL MEDICAL TREATMENT INCIDENTS	4	10	14
TOTAL RESTRICTED WORK INCIDENTS	1	7	8
TOTAL LOST TIME INCIDENTS	0	9	9
TOTAL FATALITIES	0	2	2
TOTAL RECORDABLES	5	28	33
MTO INCIDENCE RATE	0.13	0.09	0.09
RWC INCIDENCE RATE	0.03	0.06	0.05
LTI INCIDENCE RATE	0	0.09	0.07
LTI FREQUENCY RATE	0	0.47	0.37
DART INCIDENCE RATE	0.03	0.15	0.13
DART FREQUENCY RATE	0.16	0.77	0.64
RECORDABLE INCIDENCE RATE	0.16	0.24	0.22
RECORDABLE FREQUENCY RATE	0.79	1.2	1.11

IADC 2021 Asia Pacific Totals (Table 5)

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCs) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land - 5 Water - 22



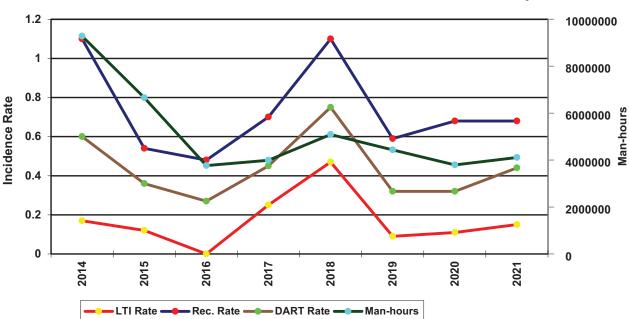


IADC 2021 Australasia Totals (Table 6)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	2,058,271	2,053,595	4,111,866
TOTAL MEDICAL TREATMENT INCIDENTS	2	3	5
TOTAL RESTRICTED WORK INCIDENTS	0	6	6
TOTAL LOST TIME INCIDENTS	1	2	3
TOTAL FATALITIES	0	0	0
TOTAL RECORDABLES	3	11	14
MTO INCIDENCE RATE	0.19	0.29	0.24
RWC INCIDENCE RATE	0	0.58	0.29
LTI INCIDENCE RATE	0.1	0.31	0.15
LTI FREQUENCY RATE	0.49	0.97	0.73
DART INCIDENCE RATE	0.1	0.78	0.44
DART FREQUENCY RATE	0.49	3.9	2.19
RECORDABLE INCIDENCE RATE	0.29	1.07	0.68
RECORDABLE FREQUENCY RATE	1.46	5.36	3.4

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCS) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCS) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 3 Water – 4



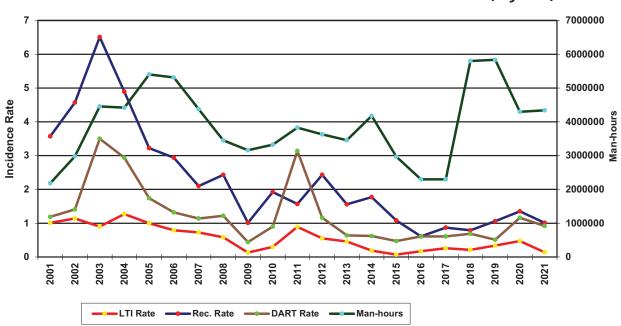
Australasia Total LTI & Recordable Incidence Rates vs Man-hours (Figure 6)

IADC 2021 Canada Totals (Table 7)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	3,984,470	356,046	4,340,516
TOTAL MEDICAL TREATMENT INCIDENTS	2	0	2
TOTAL RESTRICTED WORK INCIDENTS	16	1	17
TOTAL LOST TIME INCIDENTS	3	0	3
TOTAL FATALITIES	0	0	0
TOTAL RECORDABLES	21	1	22
MTO INCIDENCE RATE	0.1	0	0.09
RWC INCIDENCE RATE	0.8	0.56	0.78
LTI INCIDENCE RATE	0.15	0	0.14
LTI FREQUENCY RATE	0.75	0	0.69
DART INCIDENCE RATE	0.95	0.56	0.92
DART FREQUENCY RATE	4.77	2.81	4.61
RECORDABLE INCIDENCE RATE	1.05	0.56	1.01
RECORDABLE FREQUENCY RATE	5.27	2.81	5.07

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE - (LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE = (LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCs) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land - 4 Water - 3



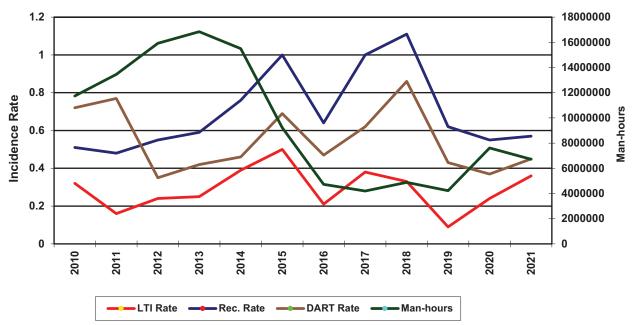
Canada Total LTI & Recordable Incidence Rates vs Man-hours (Figure 7)

IADC 2021 Central America & Caribbean Totals (Table 8)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	770,092	5,944,712	6,714,804
TOTAL MEDICAL TREATMENT INCIDENTS	1	3	4
TOTAL RESTRICTED WORK INCIDENTS	2	1	3
TOTAL LOST TIME INCIDENTS	5	7	12
TOTAL FATALITIES	0	0	0
TOTAL RECORDABLES	8	11	19
MTO INCIDENCE RATE	0.26	0.1	0.12
RWC INCIDENCE RATE	0.52	0.03	0.09
LTI INCIDENCE RATE	1.3	0.24	0.36
LTI FREQUENCY RATE	6.49	1.18	1.79
DART INCIDENCE RATE	1.82	0.27	0.45
DART FREQUENCY RATE	9.09	1.35	2.23
RECORDABLE INCIDENCE RATE	2.08	0.37	0.57
RECORDABLE FREQUENCY RATE	10.39	1.85	2.83

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCS) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCS) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 4 Water – 7



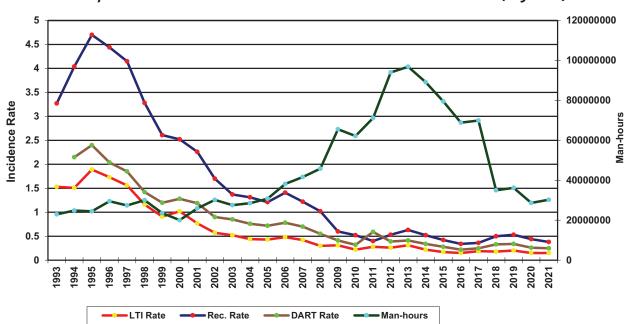
Central America & Caribbean Total LTI & Recordable Incidence Rates vs Man-hours (Figure 8)

IADC 2021 European Totals (Table 9)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	4,579,954	25,708,388	30,288,342
TOTAL MEDICAL TREATMENT INCIDENTS	2	17	19
TOTAL RESTRICTED WORK INCIDENTS	2	14	16
TOTAL LOST TIME INCIDENTS	5	17	22
TOTAL FATALITIES	0	0	0
TOTAL RECORDABLES	9	48	57
MTO INCIDENCE RATE	0.09	0.13	0.13
RWC INCIDENCE RATE	0.09	0.11	0.11
LTI INCIDENCE RATE	0.22	0.13	0.15
LTI FREQUENCY RATE	1.09	0.66	0.73
DART INCIDENCE RATE	0.31	0.24	0.25
DART FREQUENCY RATE	1.53	1.21	1.25
RECORDABLE INCIDENCE RATE	0.39	0.37	0.38
RECORDABLE FREQUENCY RATE	1.97	1.87	1.88

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCs) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land - 7 Water - 17



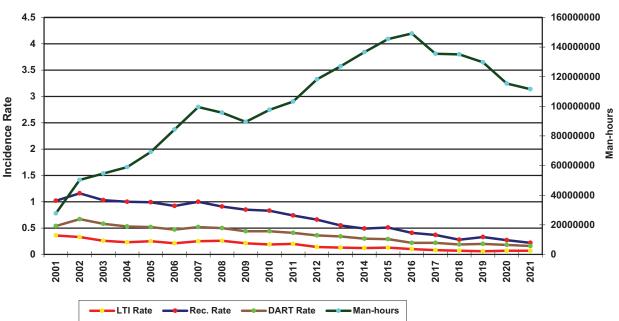
European Total LTI & Recordable Incidence Rates vs Man-hours (Figure 9)

IADC 2021 Middle East Totals (Table 10)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	74,722,959	36,829,557	111,552,516
TOTAL MEDICAL TREATMENT INCIDENTS	25	10	35
TOTAL RESTRICTED WORK INCIDENTS	34	18	52
TOTAL LOST TIME INCIDENTS	27	8	35
TOTAL FATALITIES	2	1	3
TOTAL RECORDABLES	88	37	125
MTO INCIDENCE RATE	0.07	0.05	0.06
RWC INCIDENCE RATE	0.09	0.1	0.09
LTI INCIDENCE RATE	0.08	0.05	0.07
LTI FREQUENCY RATE	0.39	0.24	0.34
DART INCIDENCE RATE	0.17	0.15	0.16
DART FREQUENCY RATE	0.84	0.73	0.81
RECORDABLE INCIDENCE RATE	0.24	0.2	0.22
RECORDABLE FREQUENCY RATE	1.18	1	1.12

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCS) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 12 Water – 17



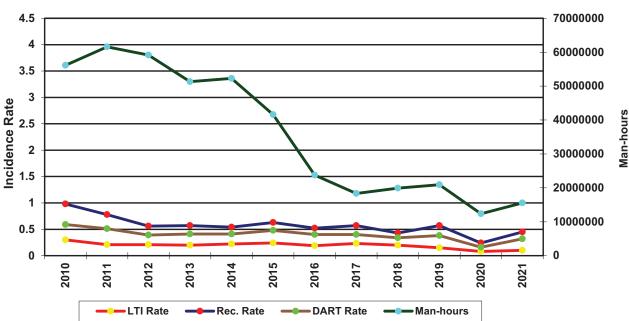
Middle East Total LTI & Recordable Incidence Rates vs Man-hours (Figure 10)

IADC 2021 South American Totals (Table 11)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	6,899,226	8,670,193	15,569,419
TOTAL MEDICAL TREATMENT INCIDENTS	7	3	10
TOTAL RESTRICTED WORK INCIDENTS	12	5	17
TOTAL LOST TIME INCIDENTS	7	1	8
TOTAL FATALITIES	0	0	0
TOTAL RECORDABLES	26	9	35
MTO INCIDENCE RATE	0.2	0.07	0.13
RWC INCIDENCE RATE	0.35	0.12	0.22
LTI INCIDENCE RATE	0.2	0.02	0.1
LTI FREQUENCY RATE	1.01	0.12	0.51
DART INCIDENCE RATE	0.55	0.14	0.32
DART FREQUENCY RATE	2.75	0.69	1.61
RECORDABLE INCIDENCE RATE	0.75	0.21	0.45
RECORDABLE FREQUENCY RATE	3.77	1.04	2.25

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCs) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 5 Water – 7



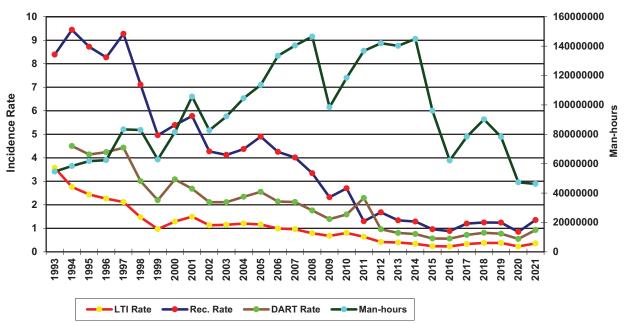
South America Total LTI & Recordable Incidence Rates vs Man-hours (Figure 11)

IADC 2021 US Totals (Table 12)

	LAND	WATER	COMBINED
TOTAL MAN-HOURS	34,562,598	11,666,529	46,229,127
TOTAL MEDICAL TREATMENT INCIDENTS	81	14	95
TOTAL RESTRICTED WORK INCIDENTS	113	19	132
TOTAL LOST TIME INCIDENTS	77	6	83
TOTAL FATALITIES	1	0	1
TOTAL RECORDABLES	272	39	311
MTO INCIDENCE RATE	0.47	0.24	0.41
RWC INCIDENCE RATE	0.65	0.33	0.57
LTI INCIDENCE RATE	0.45	0.1	0.36
LTI FREQUENCY RATE	2.26	0.51	1.82
DART INCIDENCE RATE	1.11	0.43	0.93
DART FREQUENCY RATE	5.53	2.14	4.67
RECORDABLE INCIDENCE RATE	1.57	0.67	1.35
RECORDABLE FREQUENCY RATE	7.87	3.34	6.73

MEDICAL TREATMENT INCIDENCE RATE = MTOS X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIS NOT INCLUDED) LOST TIME INCIDENCE RATE -(LTIS+FTLS) X 200,000 / MAN-HOURS LOST TIME FREQUENCY RATE =(LTIS+FTLS) X 1,000,000 / MAN-HOURS DART INCIDENCE RATE - (LTIS+FTLS+RWCs) X 200,000 / MAN-HOURS DART FREQUENCY RATE - (LTIS+FTLS+RWCS) X 1,000,000 / MAN-HOURS RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 23 Water – 11



US Total LTI & Recordable Incidence Rates vs Man-hours (Figure 12)