

# Apex Oilfield Services Cuts Injury Rate in Half with Hand Protection Trial

Apex Oilfield Services (2000) Inc. based in Alberta, Canada, began a glove trial in August 2010 with the goal of dramatically lowering the rate of hand injuries among their employees. The process was simple: they trialed 15 gloves, chose the 3 highest-performing gloves that were suitable for the work being done, outfitted and educated their employees on the three gloves chosen, and then tracked the results. During the two year span of the glove trial, Apex achieved a drastic decrease in hand and finger injuries.

# TRIAL PARTICIPANTS HAD SPECIFIC ITEMS TO Observe and document:

- $\bullet \, \text{Back}$  of hand protection
- Cut protection on palm
- Puncture protection
- Grip consistency
- Grip when dry
- Grip when wet
- Comfort/Fatigue
- Fit
- Dexterity
- Durability/Abrasion
- Overall satisfaction



### **IDENTIFYING THE SITUATION**

Apex specializes in areas such as oilfield rentals, solids control, fluid management, pumps and tanks, and energy services. After reviewing safety data that showed 48% of Apex employee injuries from 2006-2010 were hand injuries – finger, thumb, and wrist – Corporate HSE Manager Darcy Brown made it his mission to set a new standard of safety for his company. These types of injuries are not uncommon among oil and gas workers, due to the constant use of hazardous machinery. The discovery that almost half of all injuries at Apex were hand-related made it clear that Mr. Brown had to find a way to educate his workers on hand safety issues and to provide them with the most effective hand protection solution he could find.

## APEX USES HEXARMOR® AS PART OF THE SOLUTION

In order to address these workplace hazards and decide what PPE would be needed, Apex developed a glove comparison program. This program involved extensive testing of gloves from a variety of manufacturers, and each glove was rated on a scale of 1-10 for a pre-defined list of required features. These ratings were used to calculate an overall score for each glove. When the results came in, the winner was clear. HexArmor<sup>®</sup> gloves ranked in the top



The GGT5® 4020X, the Chrome Series® 4026 and the Chrome Series® 4022

three spots for cut and puncture resistance, dexterity, and overall safety. Because the gloves from HexArmor<sup>®</sup> performed exceptionally well throughout the field tests, proving that the SuperFabric<sup>®</sup> inside would hold up against realworld hazards and protect workers' hands from cuts, Apex was confident in their decision to outfit their crews with three models of HexArmor® high-performance gloves. The GGT5<sup>®</sup> 4020X was selected as a heavy duty glove intended for solids crews and cable handling; the Chrome Series® 4026 was chosen for its high level of dexterity and impact protection; and the Chrome Series<sup>®</sup> 4022 was identified as a high dexterity glove designed for mechanics. Later in 2012, the Rig Lizard® became Apex's top rated glove for solids crews and cable handling.



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# **PROTECTIVE FEATURES**

#### **CUT RESISTANCE**

HexArmor<sup>®</sup> with proprietary SuperFabric<sup>®</sup> exceed today's industry leading ISEA Level 5 and CE cut resistance ratings. SuperFabric<sup>®</sup> provides resistance against lacerations, punctures, and slashes like no other material in the industry today.

#### PUNCTURE PROTECTION

HexArmor<sup>®</sup> gloves were laboratory and field tested to validate industry standards puncture resistance performance and prevent sharp tools, blades and protruding hazards from penetrating the glove.

#### **SMASH PROTECTION**

Proprietary HexArmor<sup>®</sup> IR-X<sup>®</sup> Impact Exoskeleton<sup>™</sup> with advanced shock-absorbing materials deliver a superior level of protection and have the ability to absorb blunt force impacts better than any other product on the market.

## **TRIAL CHALLENGES**

Identifying problem areas, such as a disproportionate number of hand injury incidents, can offer huge economic and safety advantages for companies, and provide workers with the highest standard of protection. Tackling these issues, however, is not without challenges. First, Apex needed to address the issue of identifying gloves most suited for the array of applications done by each worker. It is virtually impossible to find a one-glove-solution when you have employees in a variety of roles, who deal with task-specific hazards, and need different levels of protection. Another challenge was encouraging workers to acknowledge the new safety guidelines, and adapt to a new and safer mindset. As with any new process or protocol, it takes time to be fully accepted and implemented.



## **THE RESULTS**

Implementing HexArmor<sup>®</sup> gloves brought remarkable results. Between August 2010 and December 2012 there was a 51% reduction in hand and finger injuries. Four workers documented saves in which their HexArmor® gloves protected them from hazards that could have resulted in serious injury. The first man was moving a frayed cable when he was suddenly stabbed in the hand by a burr - had it not been for the SuperFabric® layer in his Chrome Series 4026 glove, he would have sustained a severe laceration injury. The second man was on a rig, using a rigging ladder. The ladder slipped, and the rungs came down one by one, smashing his hands between them. Because he was wearing HexArmor<sup>®</sup> gloves with impact protection, his hands didn't have a scratch or broken bone on them. The third was using a box cutter and the fourth was an incident where the gloves provided impact resistance from a generator door. All workers went home in exactly the same condition they came to work that day.

HexArmor® is an industry-leading manufacturer of high performance personal protective equipment (PPE). We develop technologies that push the limits of cut, puncture, needle, and abrasion resistance. Our mission is simple: give you better products, with better technology, designed collaboratively to meet end user needs. HexArmor® works with major industries including oil and gas, construction, mining, food processing, and waste recycling to design the most effective and protective work glove available today.



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