

Dropped Object Seriously Injures Worker

What Happened?

A wireline crew was getting ready to remove a tool assembly from the well with wireline equipment already suspended overhead.

One of the crew's operators asked a third party to operate the winch controls and lift the tool while he and the other wireline operator cleaned the assembly as it was removed from the well.

The third party operated the mast extension control lever instead of operating the winch line control lever in the hoist mode and the tool assembly lifted from the well. The wireline crew continued their task assuming that the winch was being operated correctly.

A secondary winch held the pack off and crossover sub near the top of the mast. As the mast telescoped, the ball on the winch line was pulled into the sheave. The secondary winch line parted and the suspended equipment fell.

The wireline crew heard the line part and tried to get clear of the falling equipment, but the wellhead impact guard prevented them from moving outside the strike zone.

A wireline operator's forearm was struck by the falling pack off/sub-assembly. The result was a serious injury and hospitalization.

Why did it happen?

- A third party at the wellsite was asked to operate the wireline lifting equipment.
- The third party misunderstood the instructions from the wireline crew and operated the mast extension control lever.
- As the mast extended, the wireline tool assembly lifted. This movement was expected during normal operation, so the wireline crew did not look up to confirm the winch line was moving as intended.



Crew's position before the incident



View of the lifting equipment mast



View of the dropped equipment

DID YOU KNOW?

Using the [DROPS calculator](#) to estimate the potential severity if someone were directly struck, the mast height of 10.7 m (35 ft.) and equipment mass of 54 kg (120 lb.) equals an outcome of 5,666 joules, which would cause death from injury or trauma.



- Wireline equipment was already suspended over the work site when the tool assembly was being prepared to lift.
- As the mast continued extending, the ball on the secondary winch line that was holding wireline equipment, but not moving, contacted a sheave. This caused the winch line to fail.
- The injured wireline operator's ability to get clear of the falling equipment was limited because the wellhead impact guard remained in place during the work activity.

- Address identified hazards. The wellhead impact guard was not removed after being identified as a hazard during pre-job planning.
- Reduce the risk. Work was conducted under a suspended load that could have been laid down.

What did they learn?

- Do not authorize third parties to operate equipment.
- Improve communication. The wireline crew supervisor was on site but unaware that a third party was operating lifting equipment.
- Redesign the winch control panel with clear labelling of all controls and add a mast extension lock out.

Ask yourself or your crew:

How could this happen here?

How can we tell if lifting equipment is being operated correctly for the current task?

How can we ensure that potential dropped objects are identified before starting work?

When do we work under suspended loads? Can it be avoided?

Before we start work, what can we do to prevent a similar event?

What other actions could have been taken?

Energy Safety Canada Resources:

- [Are You in the Line of Fire? Program](#)
- [Dropped Objects Program](#)
- [Life Saving Rules](#)
- [Energy Wheel Awareness Video](#)

Other Resources:

- [DROPS Calculator](#)

Help industry by sharing lessons learned from an incident. [Submit your Safety Alert.](#)

SHARE AND COLLABORATE

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