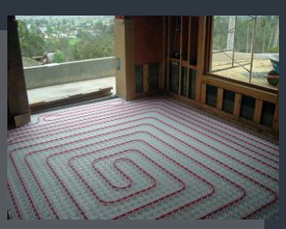
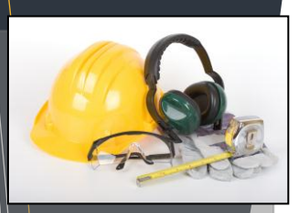
Winter/Spring 2012

MAVERICK NEWSLETTER

In This Issue:





Application Spotlight: *A Case Study of Critical Crane Lifts*

These images show a 2009 crane accident in China due to subsurface deficiencies. Fortunately there were no injuries to personnel or additional damages to the plant site from this accident.

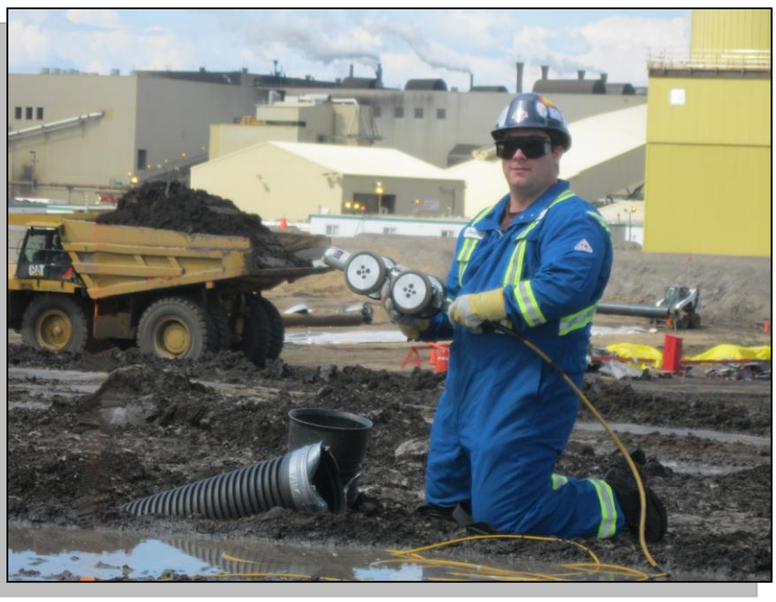
How do we look for underground hazards? Maverick regularly performs Ground-penetrating Radar (GPR) on sites to gather data for coordinators and engineers to evaluate subsurface conditions prior to setting up for critical crane lifts. This work - and similar data gathering for ice roads, pipeline crossings, bridge components, structural slabs, and other radar applications - helps us trust the ground we walk and work on.

The Problem: An industrial complex in the middle of Alberta's industrial heartland was expanding. In order to accommodate this expansion, a 65 tonne crane lift was planned to remove a vessel from an existing unit, and replace it with a newer technology. The critical lift was planned for the following shutdown, a few months ahead of time. It had been years since the concrete pad had been installed. Because of the weight and positioning of the lift it was imperative that key information be known regarding the underground stability prior to trusting the concrete pad to handle the weight. A ground failure could cause a serious accident which could result in major injuries or deaths along with millions of dollars in damage and hundreds or thousands of hours of unplanned downtime.

The Solution: The plant site called Maverick, who suggested the use of GPR to examine the area ahead of time. Specifically, attention would be paid to signatures in the data related to the existence of subsurface saturations, voids or other subsurface movements. Enough data was gathered in a half-day to provide the safety-critical information required by the client. The data was then re-interpreted on a Maverick Inspection Ltd. workstation, using a combination of our experience and sophisticated computerized interpretation methods. A report was generated within one or two business days. The complete results of the inspection were therefore provided to the client's qualified engineering staff months prior to the critical lift, allowing for ample time to alter lift-plans or correct deficiencies.

The Result: During the inspection, Maverick noted some significantly unusual radar signal returns. The unusual returns centered on an open-topped storm sewer catch-basin. The data from the area immediately surrounding the catch-basin showed significant indications of voiding. The area surrounding the likely voiding showed significant water saturation signatures, and the abnormal signal was several meters across. It appeared that some water leakage had caused a significant washout void in this area in the years since the concrete pad and the sewer catch basin had been installed, and in exactly the spot planned for one of the crane outriggers. Had the crane lift proceeded on the assumption that there were no subsurface hazards, then a serious accident would likely have ensued. However, because the client contacted Maverick Inspection Ltd. prior to the lift they were able to provide the appropriate professionals with enough information to determine there was a hazard and engineer a safe solution. After multiple truckloads of fill material, the crane was set up for a safe and successful lift.

T66 Explosion-Proof Pipeline Crawler



The T66 crawler & camera system is small and robust with pan and tilt features for pipelines as small as 4" up to 30" diameter.
The T66 can travel over 660' and can maneuver around 45°/ 90° elbows.
The system is equipped with a built in ATC (Automatic Tilt Compensation).
The EX rating of the crawler is ideal for hazardous environments, such as work in the oil & gas industry.

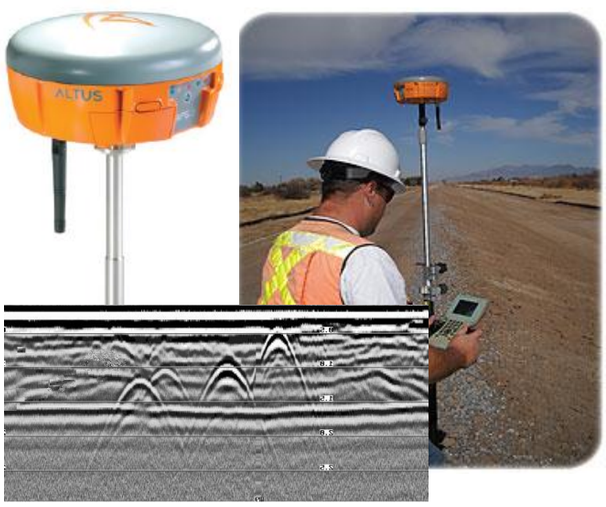
For more information on video inspection technology, please contact Ryan Brosda @ 780-467-1606

IR for Building Science Applications

Infrared (IR) complements GPR for in-slab locates.
Many more of the today's commercial, residential, and institutional buildings are using in-floor heating. Anchors, cores, and other disturbances will easily damage these complex and expensive systems.
Infrared thermography can visually locate the heating supply and return line patterns when the glycol system is operational, and can also indicate problems such as air-locked headers and blocked or damaged heating lines.

For more information on IR applications, please contact Ryan Cote @ 780-467-1606

Altus APS3 GPS & GPR Working Together



We are continually increasing our ability to provide accurate positional data of subsurface features for utility-locates, cemetery surveys, archeological studies, and other radar applications.
In addition, the embedded GPS data can be combined with a wide range of powerful data analysis software for unparalleled data presentation and interpretation.

For more information about GPR capabilities, please contact James Harrison @ 780-467-1606

Maverick's Comprehensive Safety Program

Safety is an integral part of Maverick Inspection's daily operations. Evidence of the company's Safety First culture is seen in safety records, showing zero lost time injuries and fatalities in 17 years of operation, with employee exposure hours averaging 21356 per year. Congratulations to Maverick's technicians and administrative staff for over 360,000 hours accident free!

Maverick's program data is also available online with compliance companies including:

- **ISNetworld**
- **CanQual**
- **ComplyWorks**

For more information about Maverick's safety program, please contact Leslie Tessari @ 780-467-1606

Company Culture ○ Safe Behaviour ○ Accountability ○ Safe Environment

MAVERICK INSPECTION, LTD.

HOW TO CONTACT US:
Phone: (780) 467 1606 Fax: (780) 467 9987
Email: feedback@maverickinspection.com
Website: www.maverickinspection.com
#22, 161 Broadway Blvd. Sherwood Park, AB T8H 2A8