

## LINE ALERT TYPE "A" HARD PAN CASE STUDY

**Date:** July 2007  
**Location:** Southeast Saskatchewan, Canada  
**Job Type:** New Gas Pipeline Installation  
**Soil Type:** Type A Hard Pan  
**Crossing Type:** One 6" Gas Line, One 3" Gas Line 1" apart - Fiberglass  
**Facility Depth:** Approximately 65"

**Results:** Two previous crossings were completed prior to using LINE ALERT. The previous line

crossings were performed in one day with an average exposure time of 3.5 hours. The significant time to expose the line was caused by the very hard ground conditions. LINE ALERT was installed on the 6" line (higher than the 3") the day before. Excavation began with the panel being encountered and shearing properly. The site inspector, as the dig progressed and LINE ALERT provided clear depth measurements, approved digging to 16" from the line with excavation taking a total of 8 minutes. Manual excavation

proceeded and the line was fully exposed after one hour and twenty five minutes, two hours faster than crossings performed without LINE ALERT.



**This photo shows the green section of the LINE ALERT panel exposed identifying a depth of 36"-25" from the line without any labourers required in the ditch.**

**Safety Benefits:** Two hours of manual digging was avoided reducing the risk of strain and other possibly injuries to labourers. Time savings were caused by not having to constantly manually reconfirm the line depth.

Clear indications of the depth of the line allowed for safe mechanized excavation to the no dig zone.

**Financial Benefits:** Two hours of excavator/operator costs, two labourers hourly wage and two hours on-site inspector costs were saved.