

CREWES in the field, 2012

Kevin L. Bertram*, Malcolm B. Bertram, Kevin W. Hall, Eric V. Gallant, Gary F. Margrave and Kristopher Innanen
klbertra@ucalgary.ca

ABSTRACT

CREWES carries out several acquisition and field experiments each year. In 2012 CREWES has completed the following acquisition projects: a) an extensive GPS survey of the often used Priddis test site; b) a pulse-probe experiment at the Priddis test site; c) the 2012 GOPH549 undergraduate Field School project with a seismic line along a road near Beaver Mines, Alberta; d) a refraction survey at the Priddis test site.



...but still hard at work.

Equipment

CREWES is unique in that it has access to commercial grade acquisition equipment which is used regularly for field experiments. This allows for the staff and students of CREWES to validate theories from the office with real world acquisition data.



FIG. 1. Some of the Equipment that CREWES has access too.

Priddis GPS

With the Priddis tests site being used for so many experiments over the years and a new GPS system needing to be broken in a decision was made to take a fairly complete GPS survey of the North field. This was mainly prompted by the upcoming pulse probe experiment and the desire to bury a permanent seismic monitoring system.



FIG. 2. The new differential GPS system.

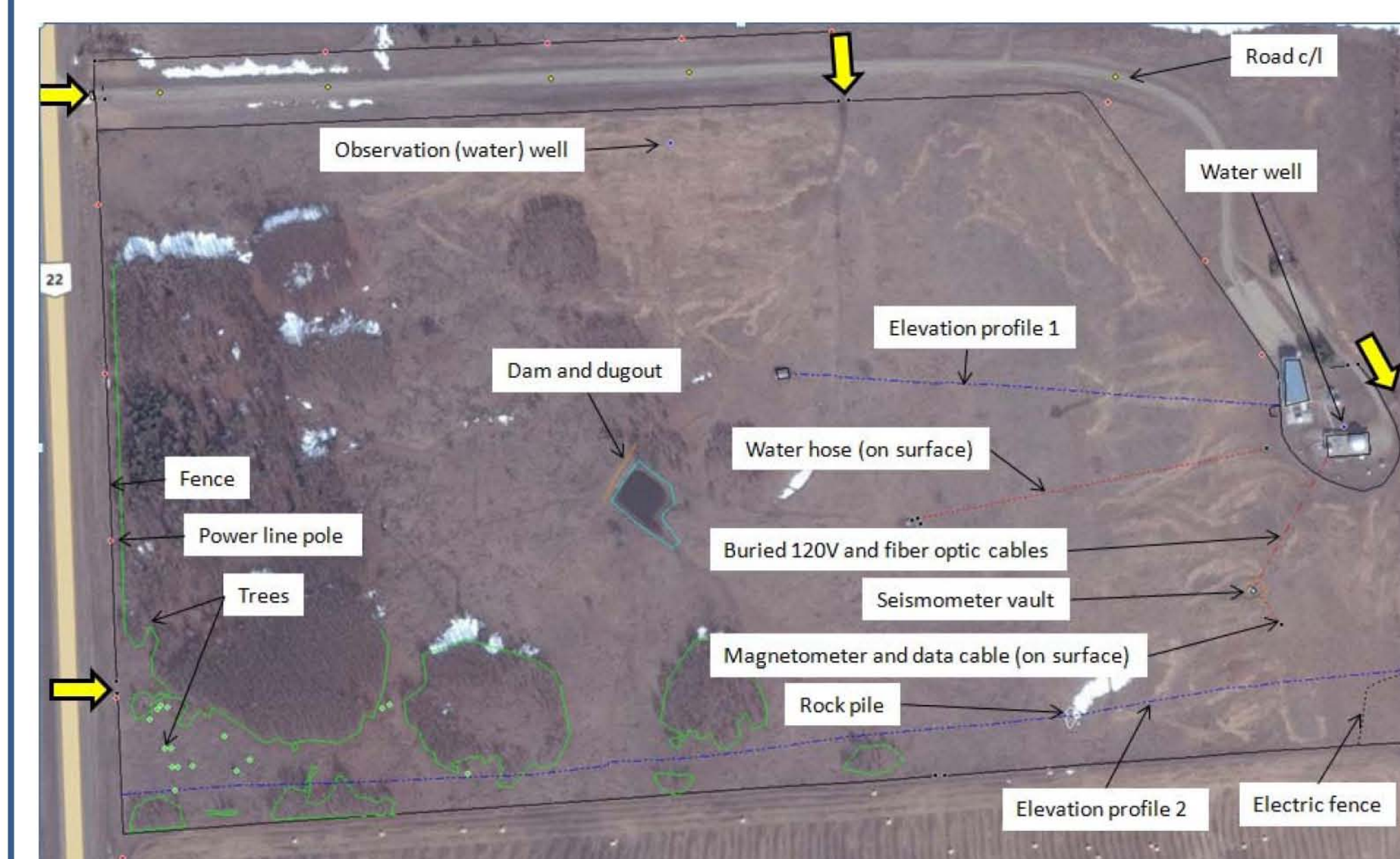


FIG. 3. The results of the GPS survey.

Priddis Pulse Probe Experiment

The pulse probe experiment was carried out in July. Like the Hussar low frequency experiment of 2011 it involved several of CREWES' Sponsors. The original purpose of this experiment was to see if a vibe running a mono frequency sweep could affect the data recorded using another vibe running a more traditional linear sweep.



FIG. 4. In the field at Priddis.

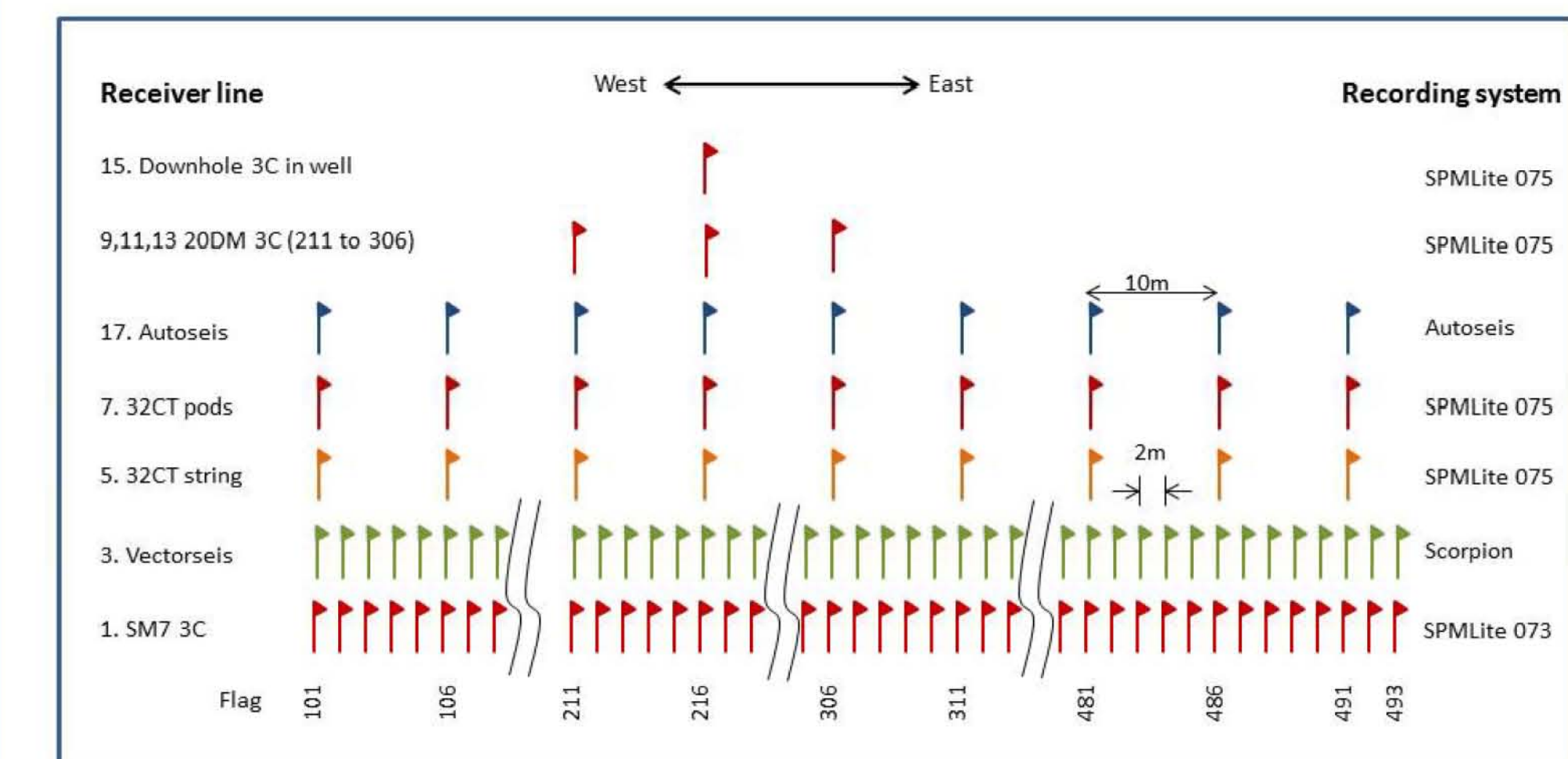


FIG. 5. Priddis experiment layout overview.

Field School

For the past several years CREWES has aided the Geoscience Department at the University of Calgary to run its geophysical field school by providing equipment, people, and experience.



FIG. 6. Students learning about seismic acquisition.



FIG. 7. Worn out part requiring field repair.

Priddis Refraction Survey

In September an opportunity to perform a refraction survey alongside a resistivity survey performed by Larry Bentley's research group at Priddis presented itself.

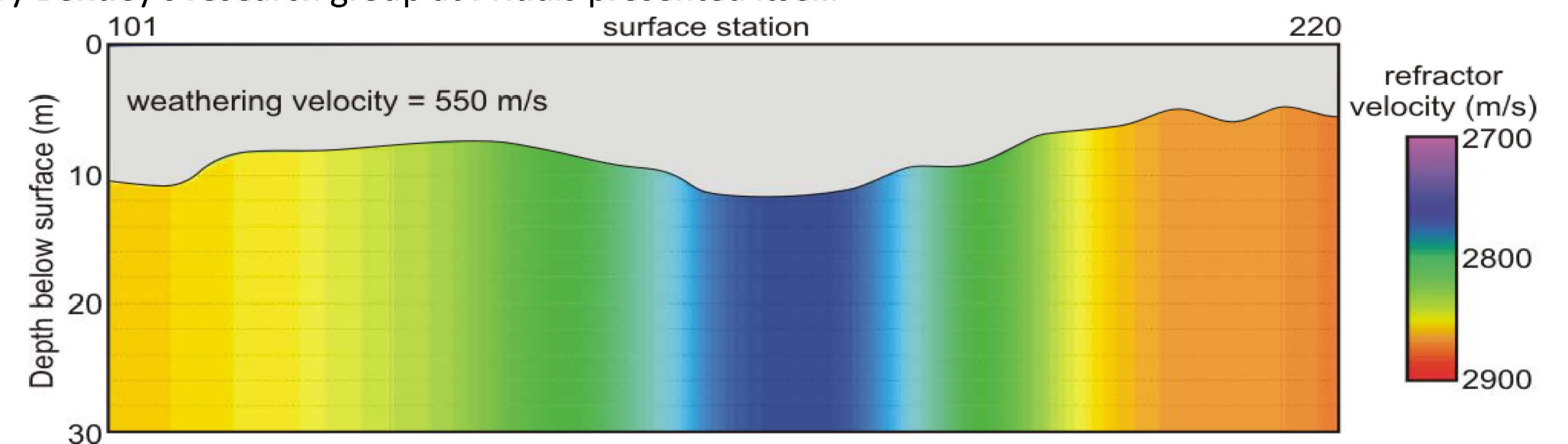


FIG. 8. near surface velocity model done by Helen Isaac

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Helen Isaac for the velocity model of the refraction data

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CREWES staff and students
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