HISTORY
An operator in South-Western Alberta was preparing for a 2012 horizontal acid fracturing project, but found the hydrochloric acid supply had dramatically diminished. Noting there was minimal acidizing treatments being performed in the immediate area they were not confident their present suppliers could ensure timely operations, which would greatly affect project economics, production and optimization.

PROPOSAL
During discussions with the operator it was explained that the manufacturing of the Enviro-Syn® HCR2000 was in no way related to hydrochloric acid supply. The required volume of treatment acid for the project was “guaranteed” to be available. Samples of production oil from the area were third party tested for compatibility with an Enviro-Syn® HCR2000 blend with exceptional results.

OPERATIONS
Up to 400 m³ of the concentrated Enviro-Syn® HCR2000 blend was delivered to location and stored in lined tanks (either acid or sour service lined). Each tank was then blended at a 1:1 ratio with fresh water, supplied from a local source. If there was any concern over freezing of the blended product (-15°C limit) then heated fresh water would be added to the concentrate (-30°C limit) prior to the treatment being performed. Various fracturing procedures were implemented throughout the project to optimize results.

RESULTS (operator quotes)
“The first Rundle horizontal light oil well in a multi-well drilling program in the area has been completed with a multi-stage acid fracture stimulation. Its current production rate is in excess of 225 boe per day. The well has been on production for over three weeks and while still recovering load fluid, has demonstrated strong fluid production rates and continually improving water cuts.”
“the first five Rundle light oil horizontal wells had 90 day average production rates of 120 boe per day per well, and a number of the wells continue to demonstrate decreasing water cuts and increasing oil rates, as expected.”

VALUE
Aside from the significant value of providing product volumes in a timely fashion to allow the project to actually proceed, the operator saw additional value add benefits. Reduced trucking costs by delivering concentrated product to location, reduced tankage costs (sour service vs. acid lined), and local fresh water supply to blend the concentrate down are just a few. The HS&E benefit and reduced liabilities are less measurable with hard numbers, however quite notable considering the area was environmentally sensitive and large numbers of on-site personnel had potential to be exposed.