Storage tanks need to be routinely monitored to determine sediment, water, hydrocarbon, and/or emulsion levels.

The Tracerco specialist scanning technique can quickly provide information to plant personnel regarding the contents within a tank.

Routine scans of tanks and spheres can determine sludge and product levels and if there are any plugging issues in vent lines. Results from the scans are available onsite, allowing operators optimal time to schedule shutdowns and preparation of the storage facility for startup.

Project Field Test

A refinery requested a scan of their product storage tank using a Tracerco scan to determine the presence of solids within the tank. Figure 1 illustrates the scan positions used for the tank measurements.

Figure 1 - Product storage tank neutron backscatter scan orientation

Figure 2 - Scan result graph indicating the liquid level was seen at approximately the 13’ elevation.

Project Analysis

Scan results indicated that the liquid level in the tank was measured at approximately the 4m elevation from the base of the tank. (Figure 2) Considerable amounts of solids deposits were found within the tank at different elevations. Scan counts slightly decreased approximately 30 to 60cm below the liquid level indicating solids in suspension.

Customer Conclusion

Measurements from the scans for liquid and sludge were compared to samples (solids and liquids) taken at the time of a previous scan. The ratios observed between the current scan and the samples were comparable indicating the deposits identified were more likely solids in suspension rather than a static solids layer.