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Marvin Blan #1 Image Log Report

(as conducted by Ray Reid)

Summary

- Weatherford's CMI™ imaging tool recorded sufficient quality data to allow visualization of vugs and moderate correlation to whole and slabbed core
- Secondary porosity computations compromised by uncertainty in the array induction and the general conductive signature of the brecciated rock fabric
- Stress regime orientation (~E-W SHmax) and fracture trends were interpreted
- Correlating fractures with high perm test zone in the Upper Knox difficult due to brecciated rock fabric and rubblized whole core
- Higher fracture count intervals in the Rose Run sandstone indicate a moderate relationship to the boron log

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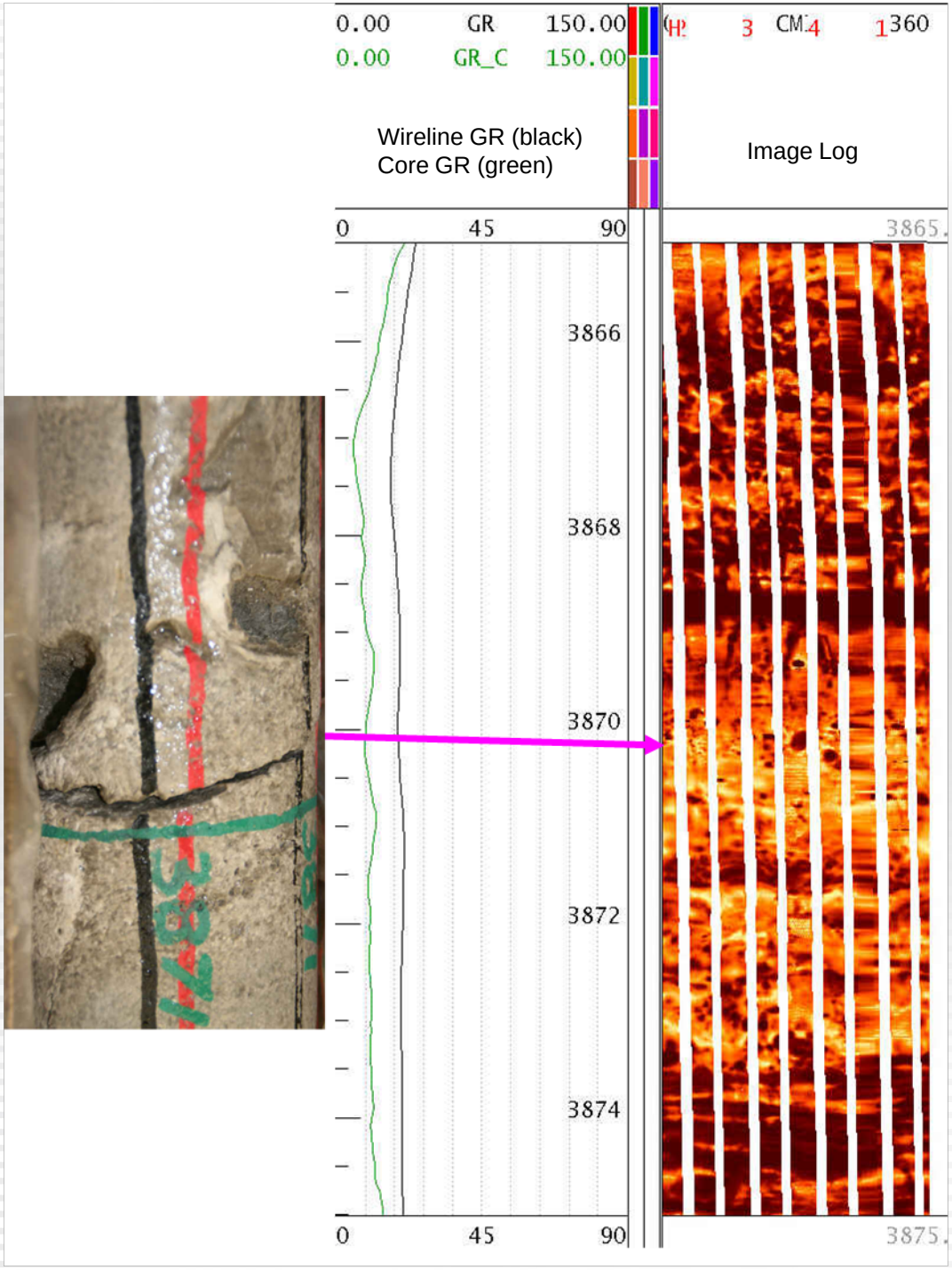

Vuggy zones in core correlate to vugs seen in image log

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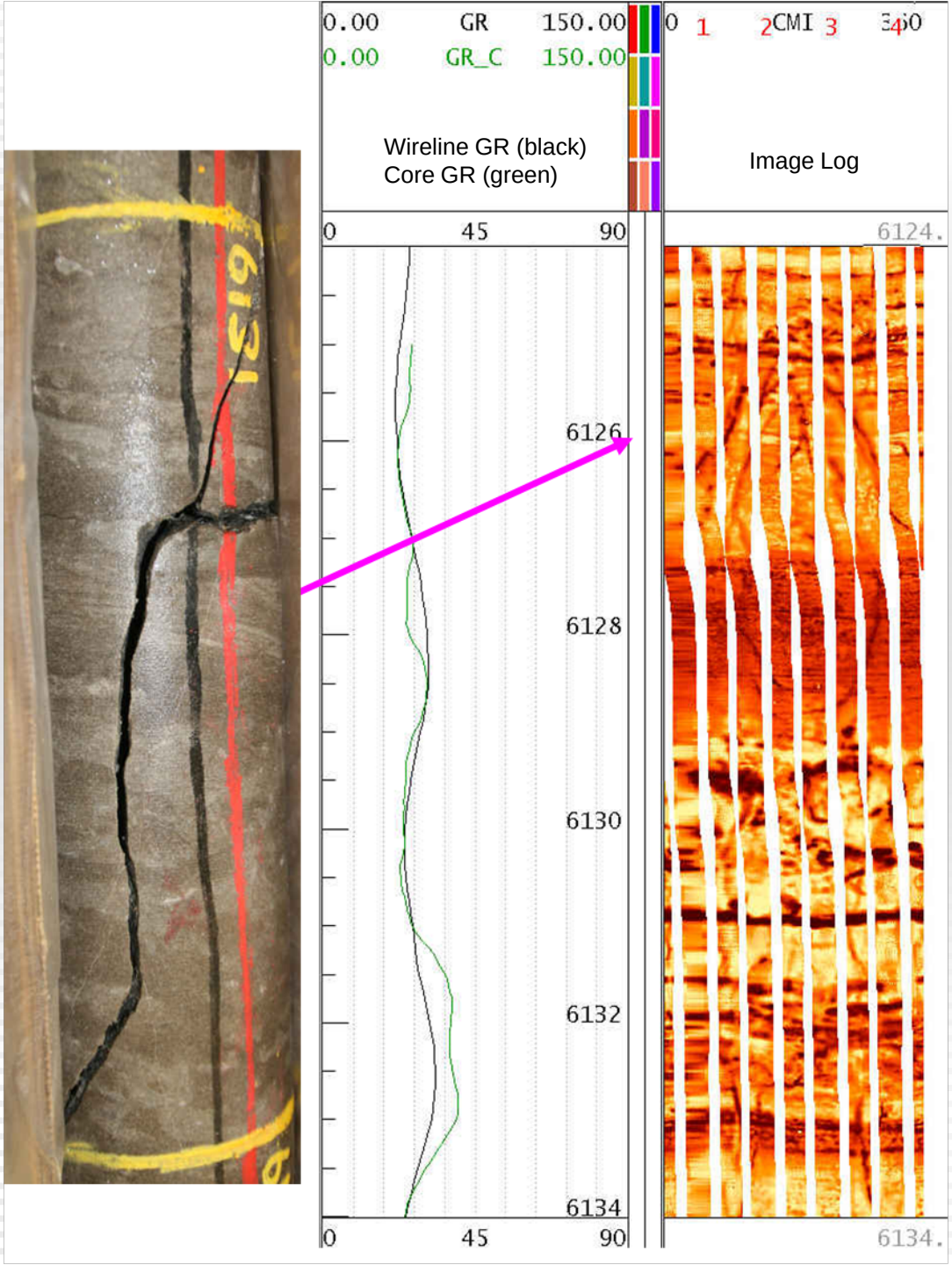

Fracture in core as seen on image log

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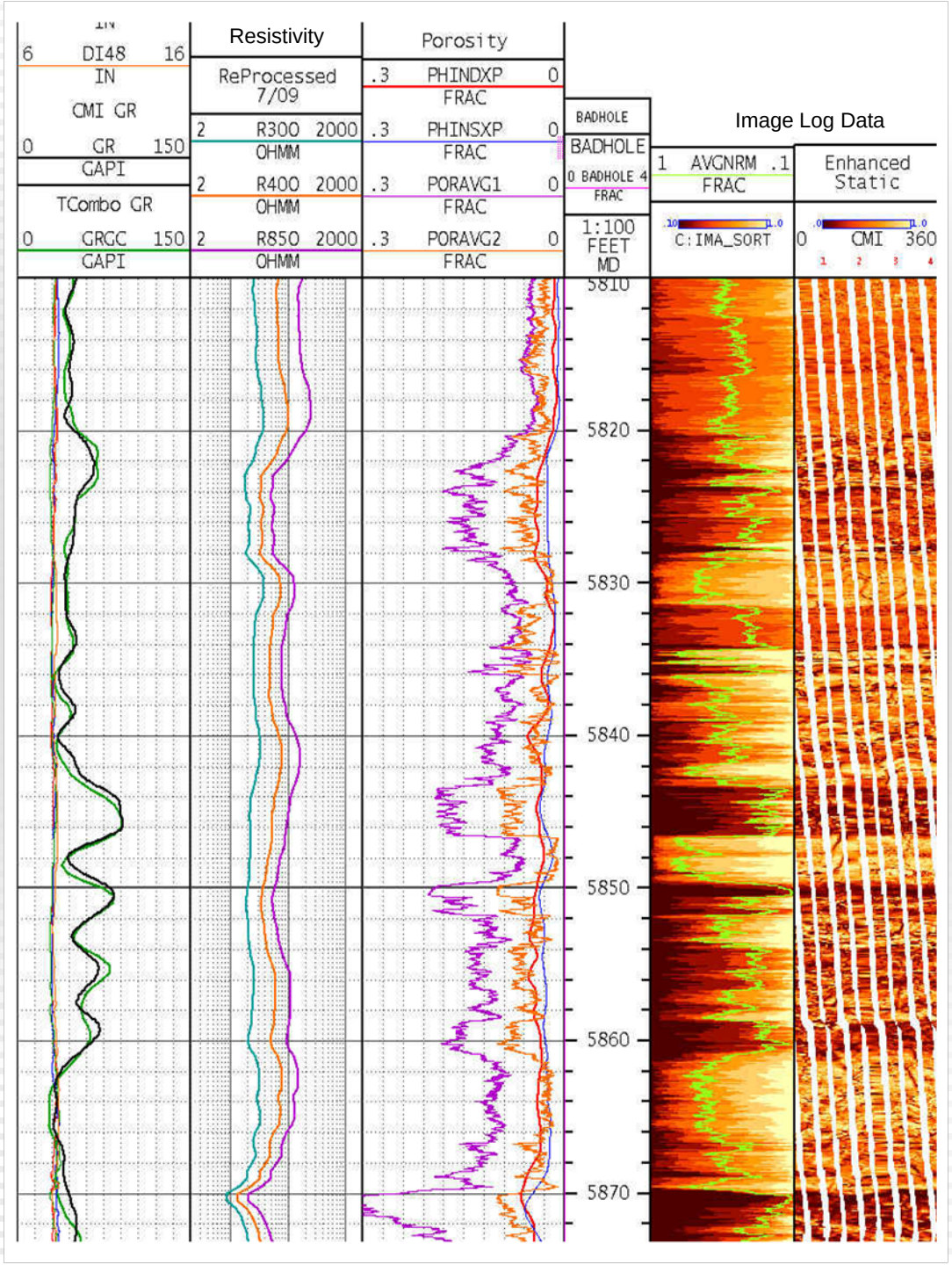

Attempt to enhance porosity log using image log data

Porosity Tract Explanation

PHINDXP = Neutron-Density Cross-Plot Porosity
PHINSXP = Neutron-Sonic Cross-Plot Porosity
PORAVG1 = Image Log Enhanced Porosity 1
PORAVG2 = Image Log Enhanced Porosity 2

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Recommendations

- Acquire acoustic borehole images along with the higher resolution micro-resistivity images to differentiate vug / fracture signature from brecciated conductive rock fabric
- Continue acquiring whole core in high interest intervals for borehole image calibration as well as conventional core and geomechanical analysis

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