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## SUPPLEMENTARY INFORMATION FOR:

PRELIMINARY STUDIES ON THE IMPACT OF IN SITU OIL SAND EXTRACTION METHODS ON THE MOVEMENT OF WATER SOLUBLE ORGANICS AND INORGANICS BY PILOT SCALE TEST

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Figure S1 – Pilot plant tubular reactor configuration. The pilot plant has been modified to run as a batch reactor instead of a tubular reactor in this study.

Table S1 – Pilot plant capabilities at a glance

Maximum Temperature	500°C	932°F
Maximum Pressure	207 bar	3000 psig
Feed Rate	400-2000g/h	0.88-4.4 lb/h
Maximum Gas Rate	3000 nL/h	112 scf/h

**Procedure for making bitumen-coated sand**: 15 g of bitumen was added in 70 g toluene in a round bottom flask and the mixture was swirled until fully dissolved. 1.5 kg of sand was then added to the flask and mixed. A stream of air was used to evaporate the solvent in the fume hood and the mixture was occasionally mixed/stirred with spatula. The total time under air was about 7 h. Afterwards the mixture was put into a vacuum oven at 60°C for about 30 h.