

Case Study

Well Barrier and Isolation

Setting a Critical Well Barrier in Tubing with Damaged Nipple Profiles

The Challenge

During plug and kill operations prior to a well workover, contingency steps were taken after several attempts to set a deep-set plug failed. The operator decided that a slickline-set, nippleless type plug was required to provide the critical well barrier. It was suspected that the nipple profiles had been damaged by sand production and wire tracking from multiple slickline runs through the nipple profiles.

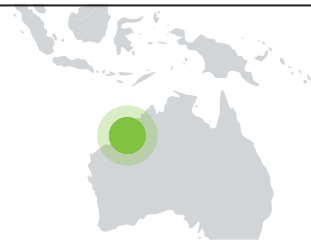
Considerations

The following key requirements and concerns were highlighted by the customer:

- Debris expected after well kill and circulation
- High pick-up weights expected
- Small setting window – adequate depth control required
- Preference to utilize the onsite slickline crew
- e-line setting option required as a backup to slickline if excessive pick-up weights were encountered



▲ SIM Retrievable Bridge Plug



Location: NW Shelf, Australia

Customer: Independent Oil Company

Well Type: 4 ½-in oil producer (57 degree deviation, 220 degF)

Products/Services:

4 ½-in SIM Retrievable Bridge Plug and SIM Running Tool

100%

The customer mitigated the potential risks and expense of the operation by opting for a 100% mechanical solution

7 days

SIM retrievable bridge plug successfully tested and remained in well for approximately 7 days

1st

SIM Retrievable Bridge Plug recovered on first attempt

Peak's Solution

- SIM Retrievable Bridge Plug drift simulation carried out
- Correlated against nipple profile and set 4 ½-in SIM Retrievable Bridge Plug and Prong
- SIM Retrievable Plug successfully tested and remained in the well for approximately seven days
- Bailing operations performed – significant amount of debris recovered
- SIM Retrievable Bridge Plug recovered on first attempt using the SIM Pulling Tool

Value to Customer

- Contingency option one successful
- All operations performed safely and efficiently
- SIM Plug successfully retrieved in high-debris environment
- The customer mitigated the potential risks and expense of the operation by opting for a 100% mechanical solution
- Short-term rental option preferred by the customer avoiding further unnecessary expenditure
- Workover operations progressed and were completed successfully



▲ SIM Running Tool

Product Code(s): SIM Retrievable Bridge Plug – 351, SIM Running Tool – 350

info@peakwellsystems.com

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