NORMAN WELLS PROJECT REVIEW

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

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INFORMATION PIPELINE

ISLANDS WITHSTAND BREAK-UP

Break-up of ice on the Mackenzie River is always a big event at Norman Wells and one that generates a lot of talk and wagers over when it will actually take place. It means river traffic and the intensive work schedules of summer. It means the pressures of meeting summer's deadlines for construction.

But this year it meant a little more. Although this year was not as spectacular as usual, it is the first year any of Esso Resources Canada Limited's man-made islands have been complete and jutting out of the river, obstacles for the incredible forces of moving ice.

According to Esso engineers, the islands are designed to stay intact through virtually any river conditions and withstand water levels 2.6 metres higher than any on record for the Mackenzie River. The ice, explained project superintendent Tom Melnyk, will pile up at the toe of the islands rather than go over the top.

Nevertheless, drilling work on the islands was called to a halt once break-up seemed imminent. Most of the rig crews were ashore, though a few shirtless rig hands were out doing spring cleaning, while helicopters made frequent hops between the islands and the mainland, moving people and equipment.

DENE THA BAND
ʔEGHÁLAGENDA T'ÁH
UNDAA GOGHA ʔEDEGHA
SÉÉ NÍOGʃʔÁH mezhí goghájnda

Long before break-up occurred at Norman Wells, Esso's ice reconnaissance team was flying over the river, taking aerial photographs and charting ice conditions many kilometres to the south. The research being done is adding new information not only on the behavior of the Mackenzie River, but on major ice-covered rivers in general.

This intensive monitoring of ice on the big river has been going on for six years now. The reconnaissance team is already familiar with many of the patterns of break-up. They predicted a very unspectacular break-up this year, and they were right. The ice broke at Norman Wells on May 21, after a lot of melting had already taken place.

Needless to say, this year's monitoring group had the added task of watching for any disturbances to the islands from the break-up. But they were also watching for the effects of the islands on the break-up, noted engineer Terry Kemp, head of the monitoring team. The islands behaved exactly as planned, he said, after break-up was over.

"There's a lot of measuring going on, and all of it will be tied into one big picture of the entire event," said Sanjay Shinde, island designer. Information systems built into the islands radio data on ice pressures to the mainland every fifteen minutes, he said.

Esso is committed to doing the river and ice monitoring before the islands can go into production, under agreements with the federal government. The program will continue at least until 1990.■

Norman Wells facilities just before break-up (CPF at left, Esso HQ and camp, yard at right)

Terry Kemp and Margareta Kuypers, in reconnaissance team, with their pilot Arnie Desang

Esso Island at break-up.

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