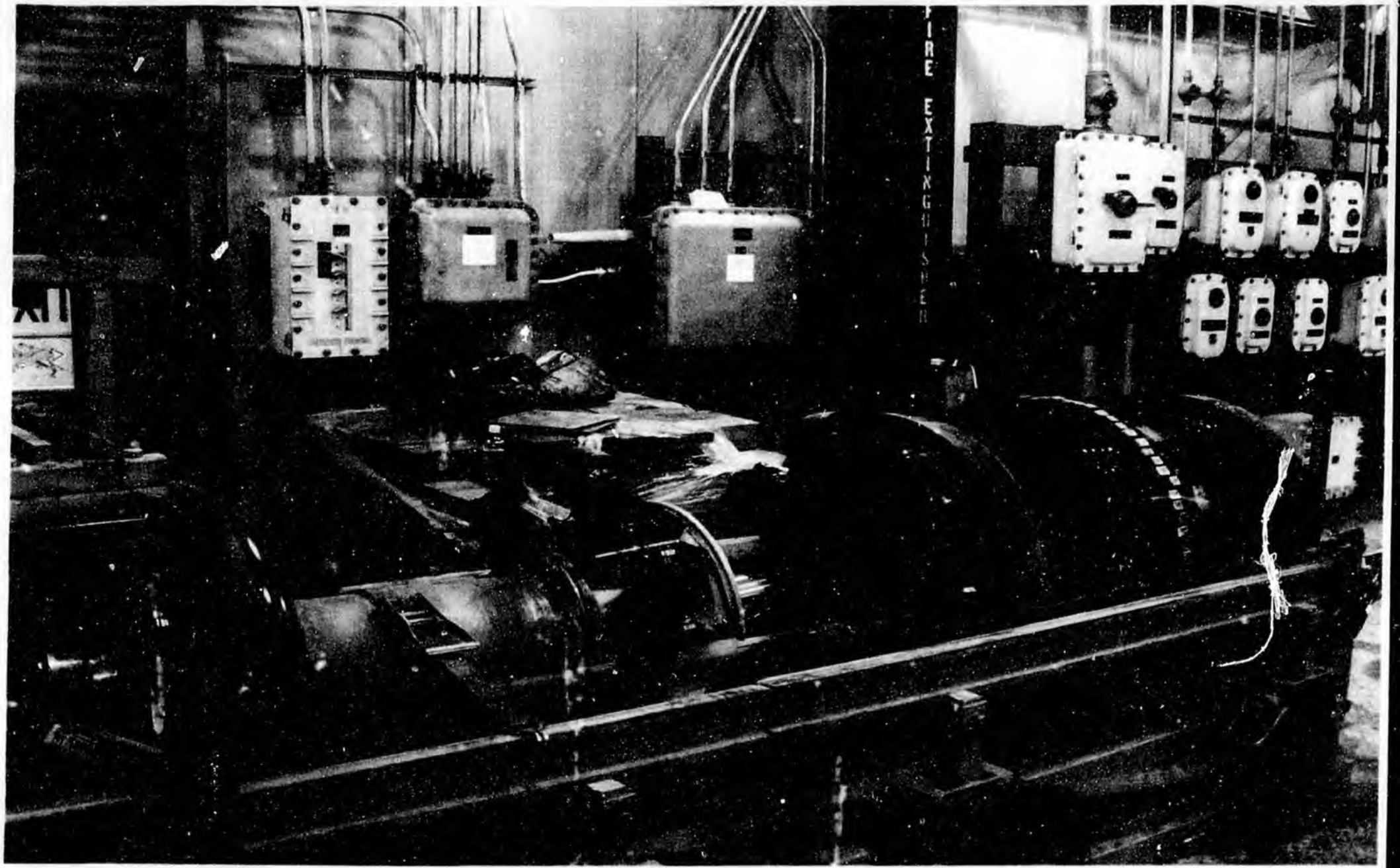
12244 HOUSE RES

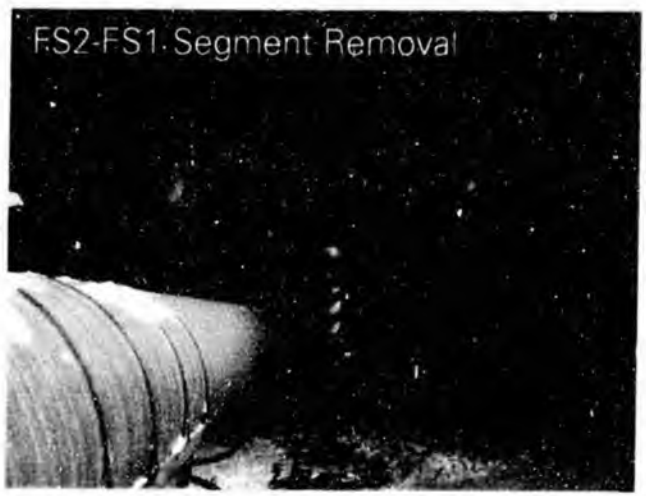
# Inline Inspection Tool ("smart pig")

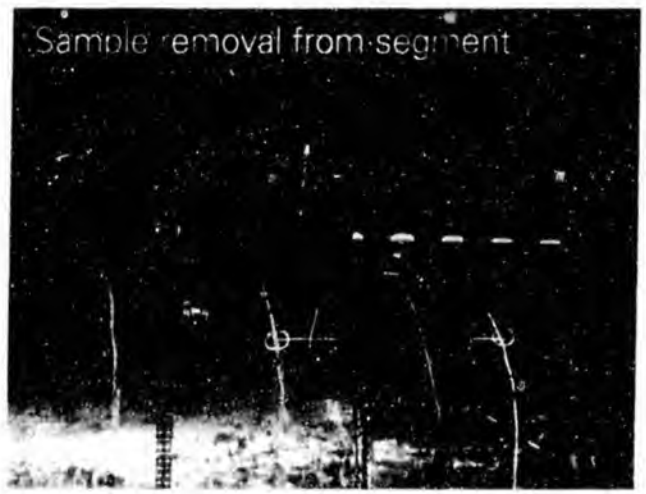
bp

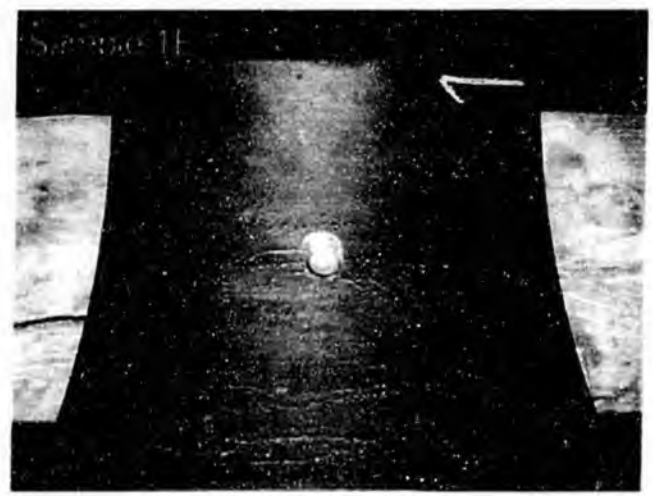


# Oil Transit Lines Corrosion Management

- Corrosion Mechanism
  - WOA – OT21
    - Dr. David Duquette investigation completed 1Q07
    - Primary cause was Microbiological Influenced Corrosion (MIC)
  - EOA – FS2-FS1
    - ~40ft section removed Feb 3rd
    - Samples were cut out and shipped to labs for analysis
    - Tentative report delivery 2Q07



# Continuous Improvement

- Support of 2 Alaska Pigging Conferences in 4Q06
- New Corrosion Control Strategy Developed 1Q07
  - BP, CPAI, XOM, Consultants
  - Implementation in progress
- 60% increase in CIC Team Staffing
  - Moving to 100%
- Commitment to recruit a CIC Lead in every N.Slope Area in 2007
- 5 year smart pig plan developed
  - 18 smart pigs in 2007 (historical average 2-3/year)
- NACE "Advanced Corrosion" Cc irse development
  - 100% BP Funding

# Ongoing Pipeline Surveillance

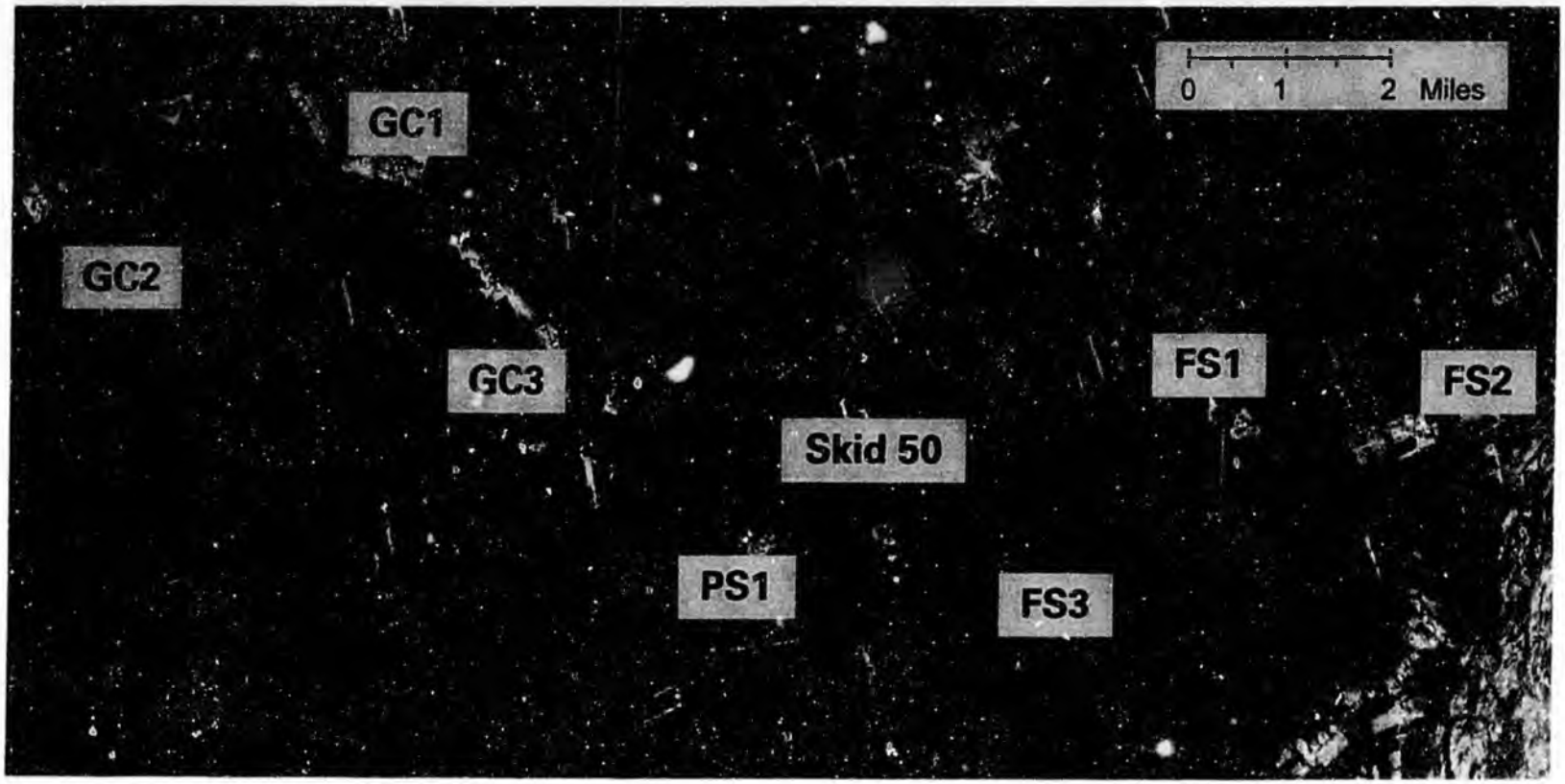
- 4x daily handheld FLIR on all OTL lines and bypasses – total 80 miles per day covered
- Use of 2 snow-CAT machines to access pipelines during heavy snow
- Daily overhead FLIR flights
- Added 2 x 25 man shifts added since August
- New operating procedures for (FLIR) surveillance includes equipment, training and reporting

bp

# Oil Transit Line System Replacement

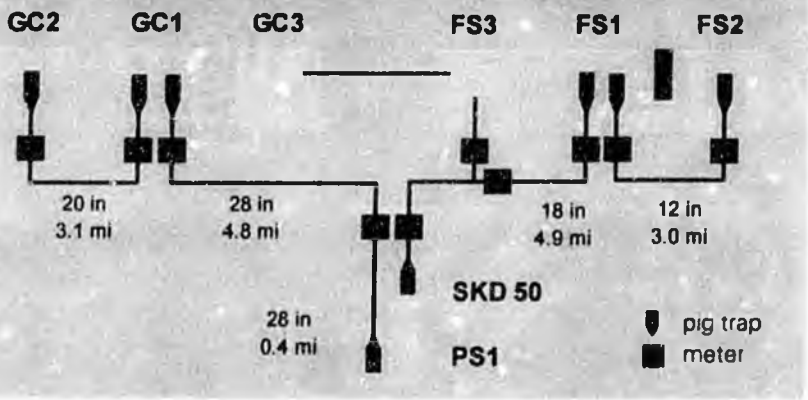
Status as of May 07

# Route and Scope




- Five segment manifold
- Eight new launcher/receivers
- Ten new leak detection meters
- Twenty new modules/skids

## Process Schematic



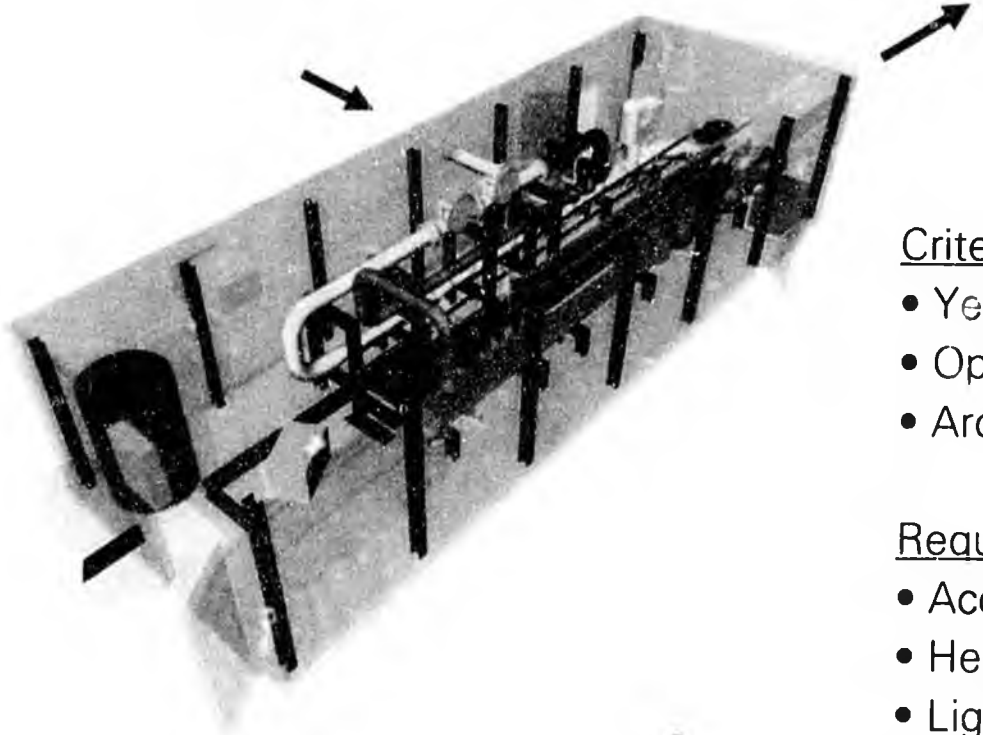
# System Upgrades

bp

| | **Improvements** |
|---|---|
| Pig Launcher/Receivers | all segrnents<br>smart/maintenance pigable |
| Dedicated Chemical Injection | all segments<br>continuous injection<br>automated controls |
| Leak Detection System | more sensitive and repeatable<br>new turbine flow meters<br>new ATMOS software package<br>LEOS pilot |
| Pipelines | DOT 49 CFR part 195 design<br>Fusion Bond Epoxy external coating<br>30 yr life accommodating viscous dev<br>smaller diameters to increase velocity<br>new VSM's at 7ft for visibility and caribou<br>more access platforms for inspection<br>additional corrosion coupons<br>concrete anchor replacement<br>double block isolation all segments |

# Typical Pig Launcher Module

bp

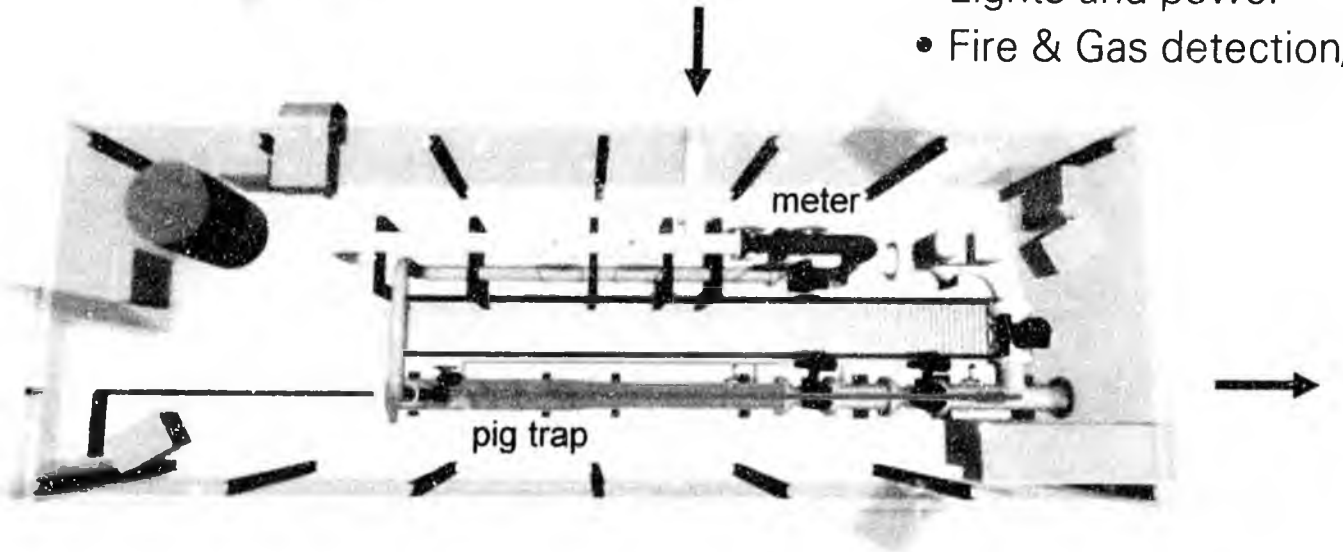


Criteria

- Year round access
- Operations and maintenance
- Arctic environment

Requirements

- Access and clearance
- Heat and ventilation
- Lights and power
- Fire & Gas detection/suppression



# Permitting

| | OTL-WOA | OTL-EOA |
|---|---|---|
| Approved | 11 | 11 |
| Pending | 1 | 2 |

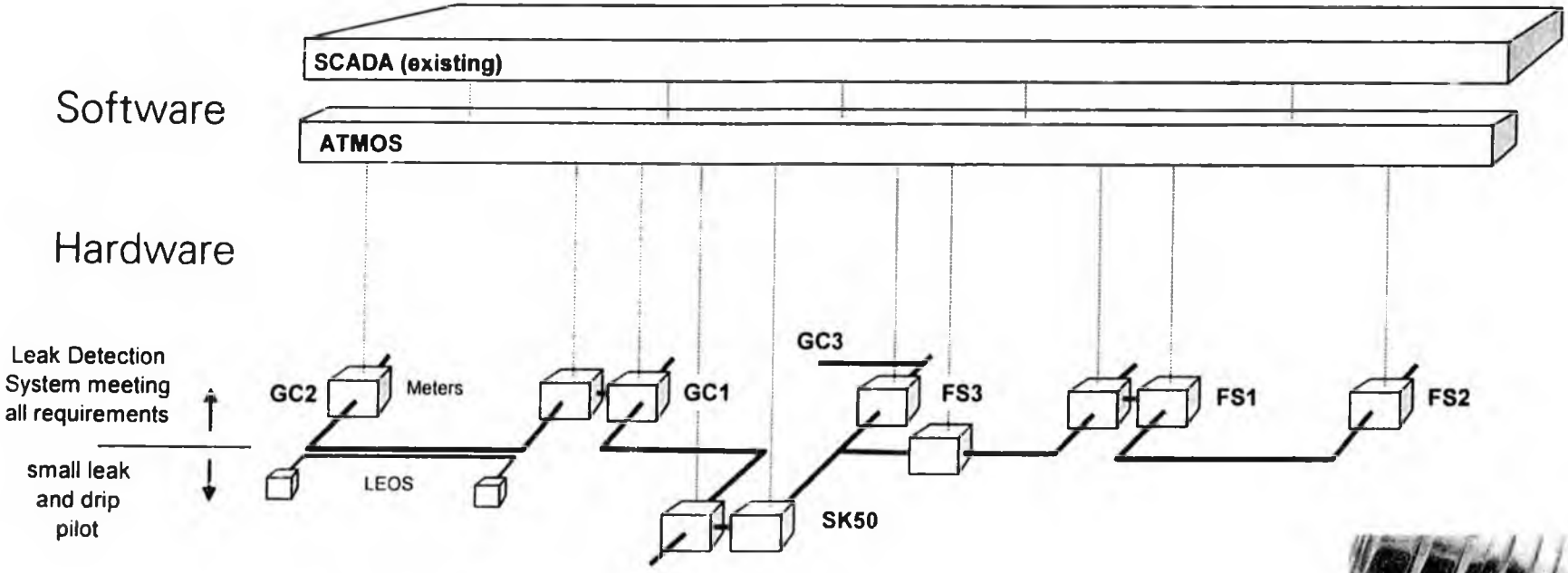
- Full Cooperation of all Local, State and Federal Agencies
- Timely approval of Permits

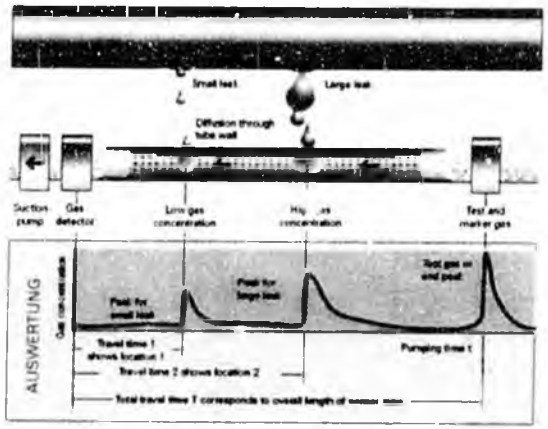
# Upgraded Leak Detection System

bp

Software

Hardware



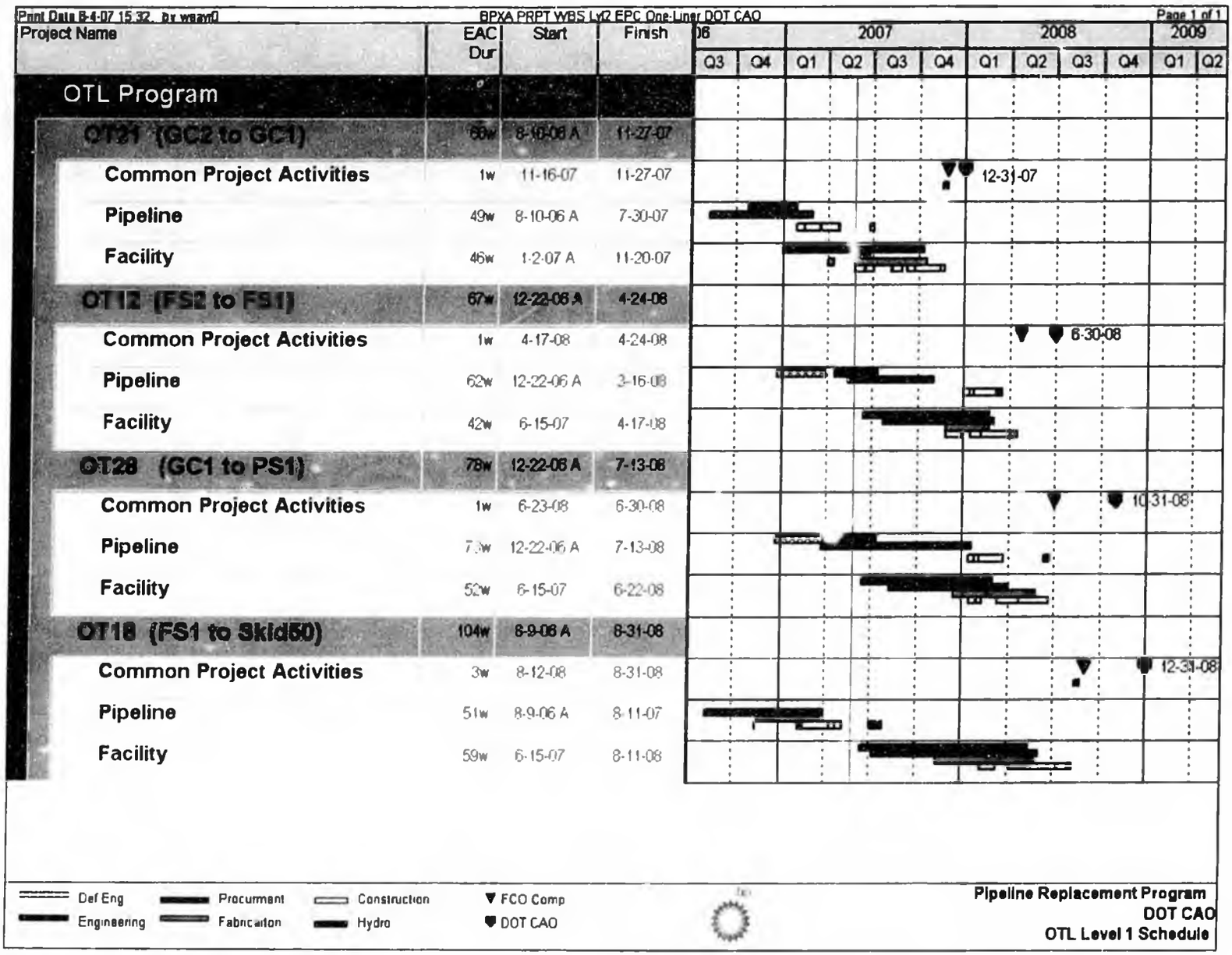




LEOS small leak detection system

LEOS tubing under OT21 line

# Current Execution Schedule

## OTL Level 1 Schedule



# Project Accomplishments

bp

## Engineering and Design:

- WOA P/L segments 95% complete
- EOA P/L segments 95% complete
- Facilities 40% complete

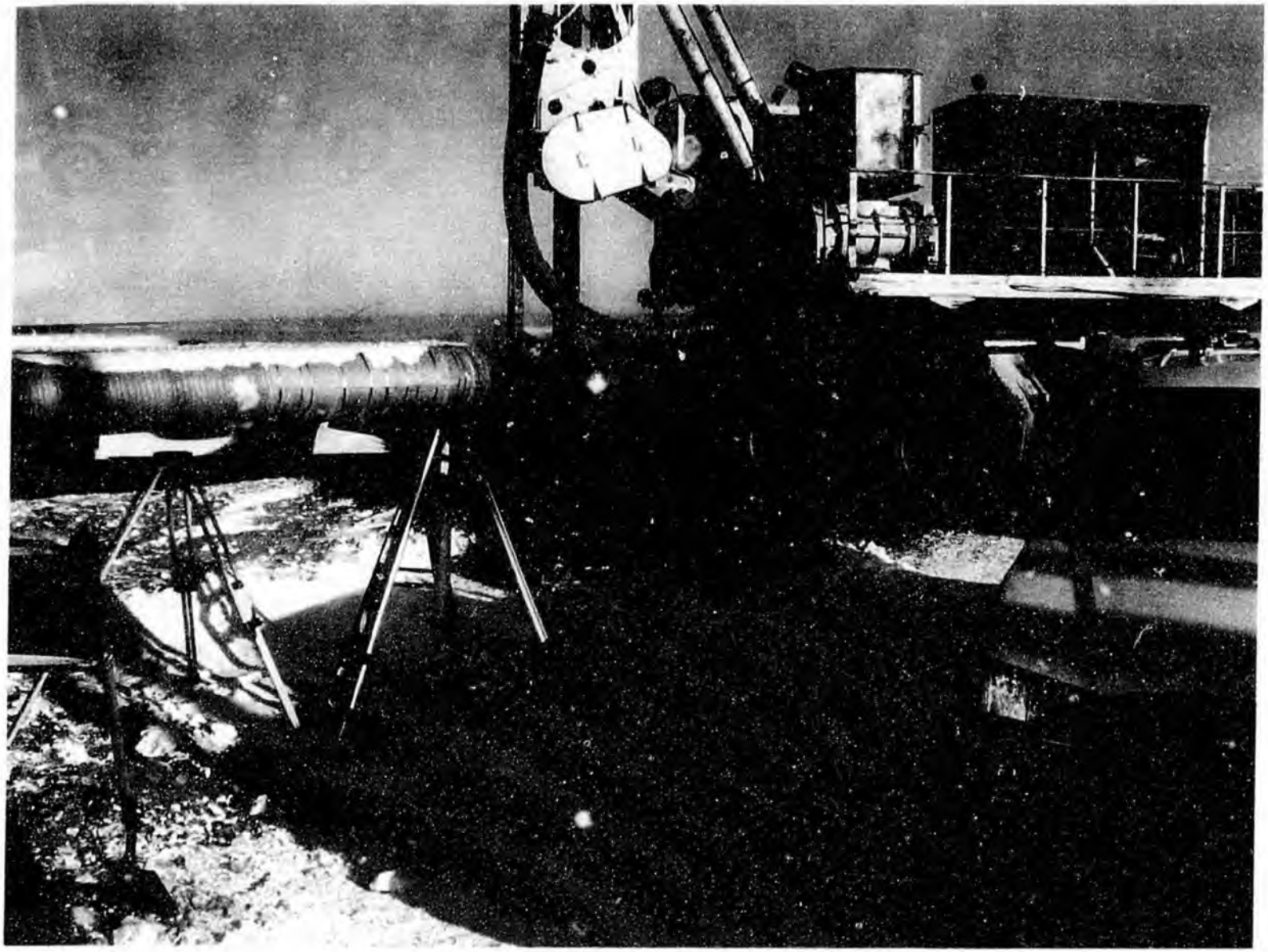
## Materials and Fabrication:

- All Pipe Ordered
- Pipe coating, insulation and delivery in progress
- Early module fabrication in progress
- 80% of long lead items ordered

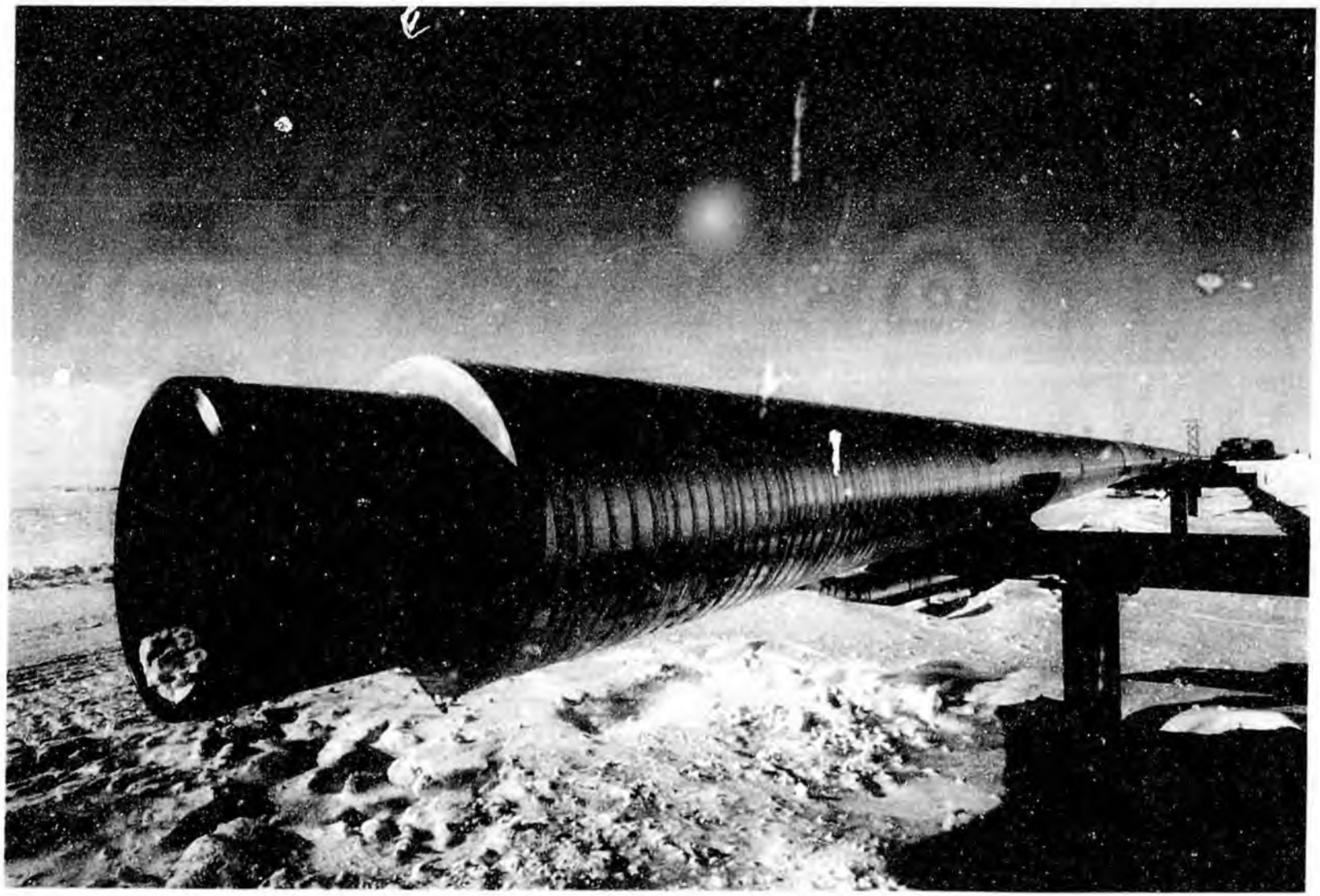
## Construction:

- 20" and 18" segments installed
- Leos system installed

# Drilling permafrost / Pipeline VSM installation



# End of coated, insulated pipe spool



# VSM - Vertical Support Members

bp

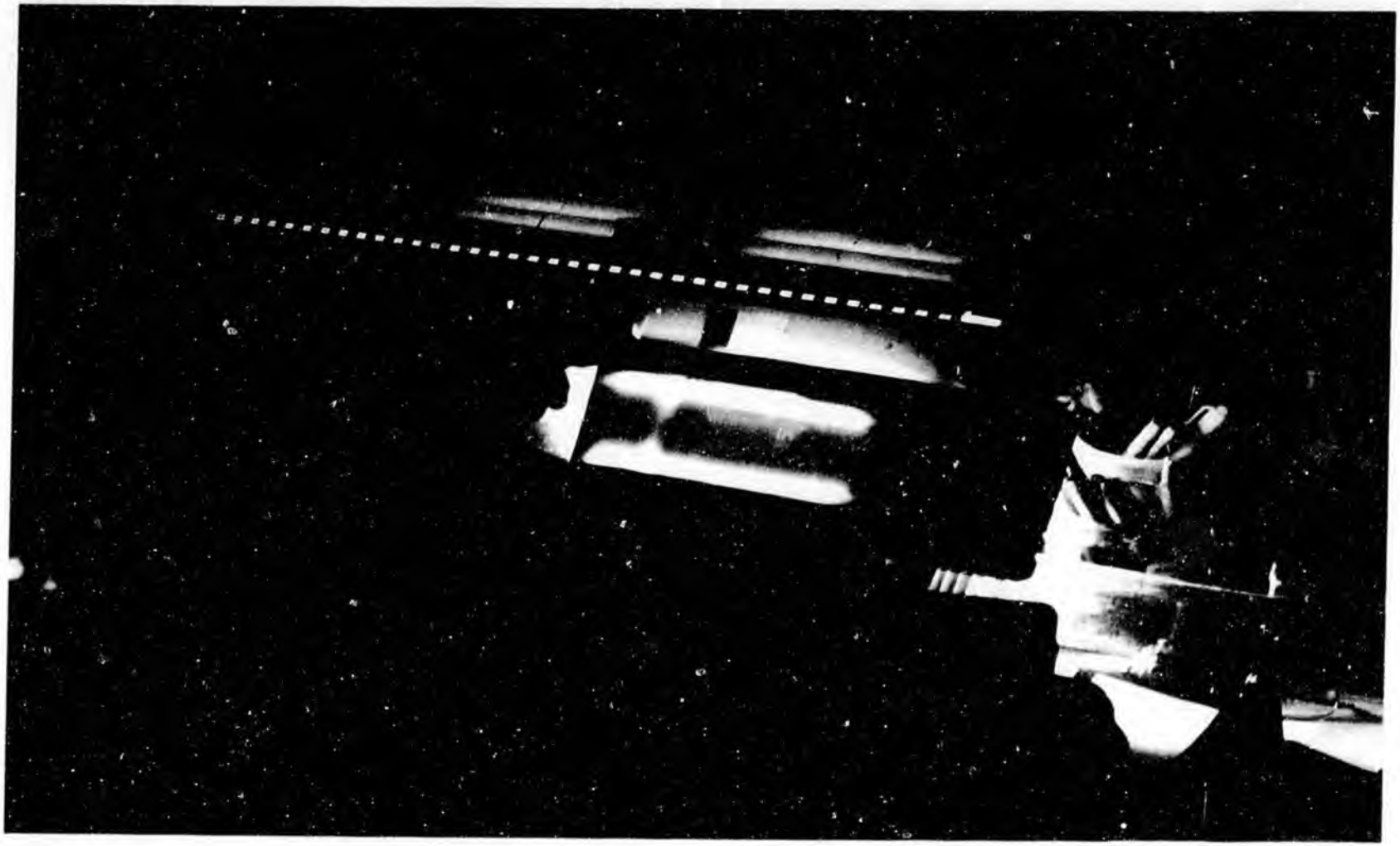
# OTL welding

bp

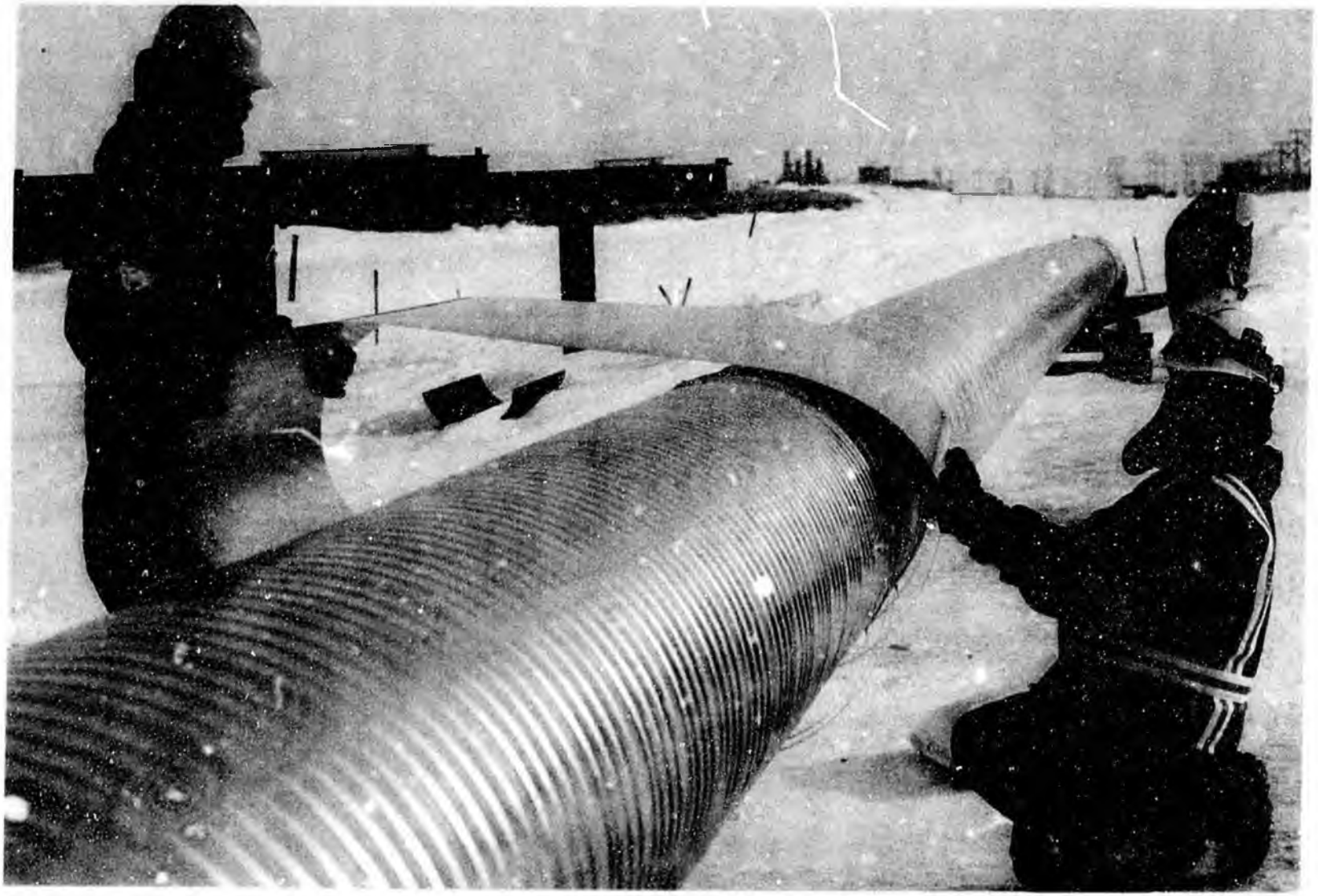
# Sand blasting pi

bp

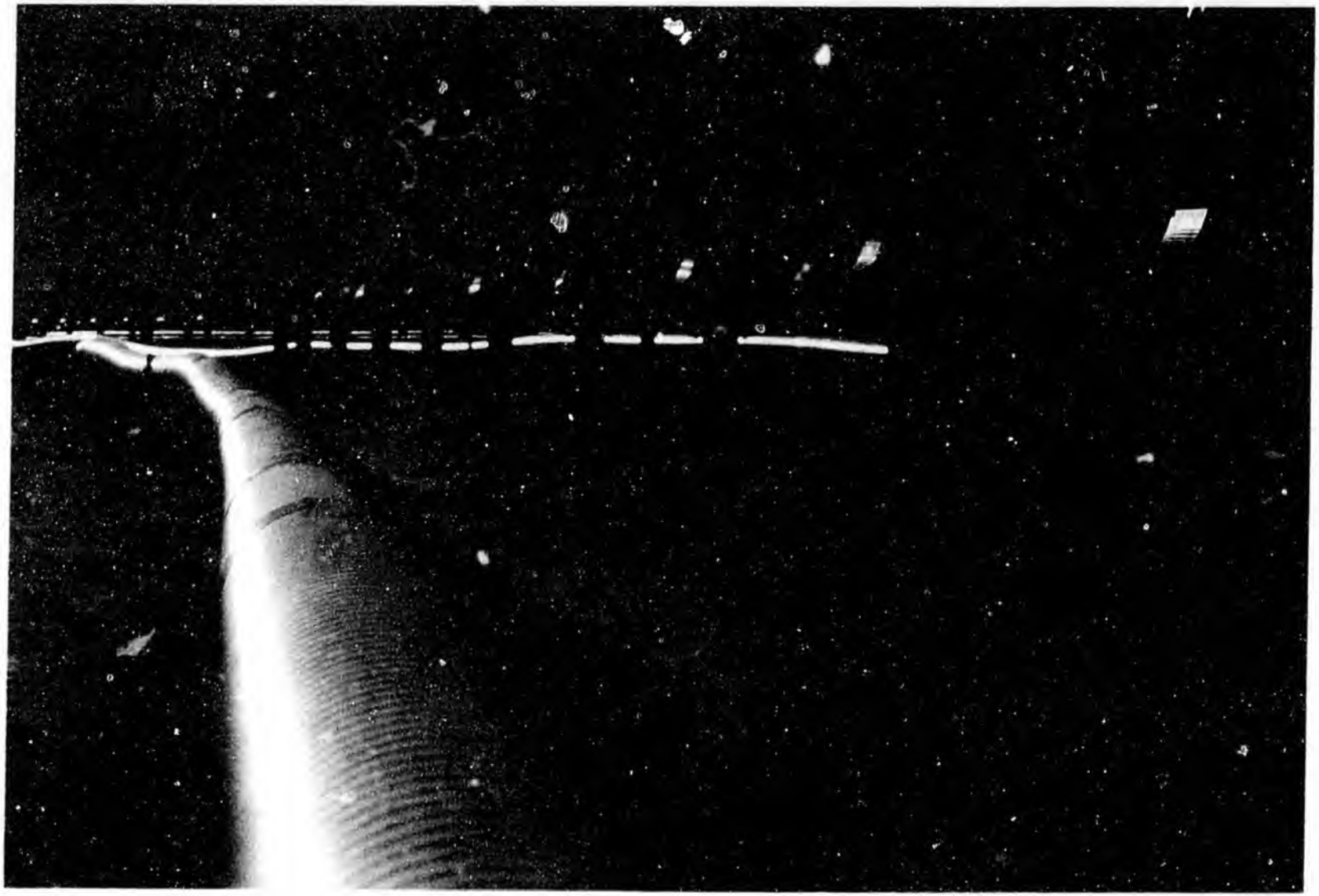
# Field X-Ray inspection of pipe welds



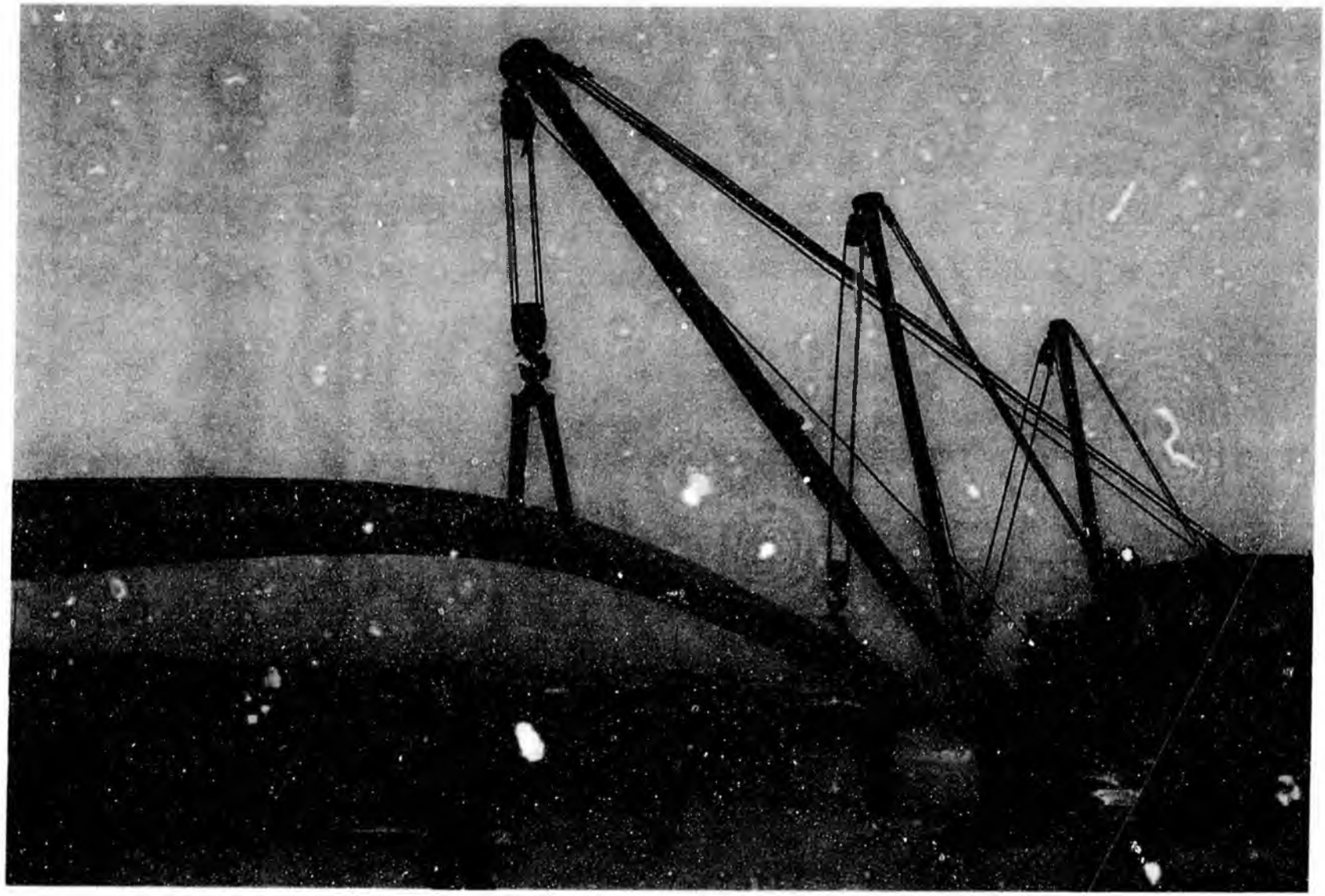
# Installing insulation, sheathing over welds



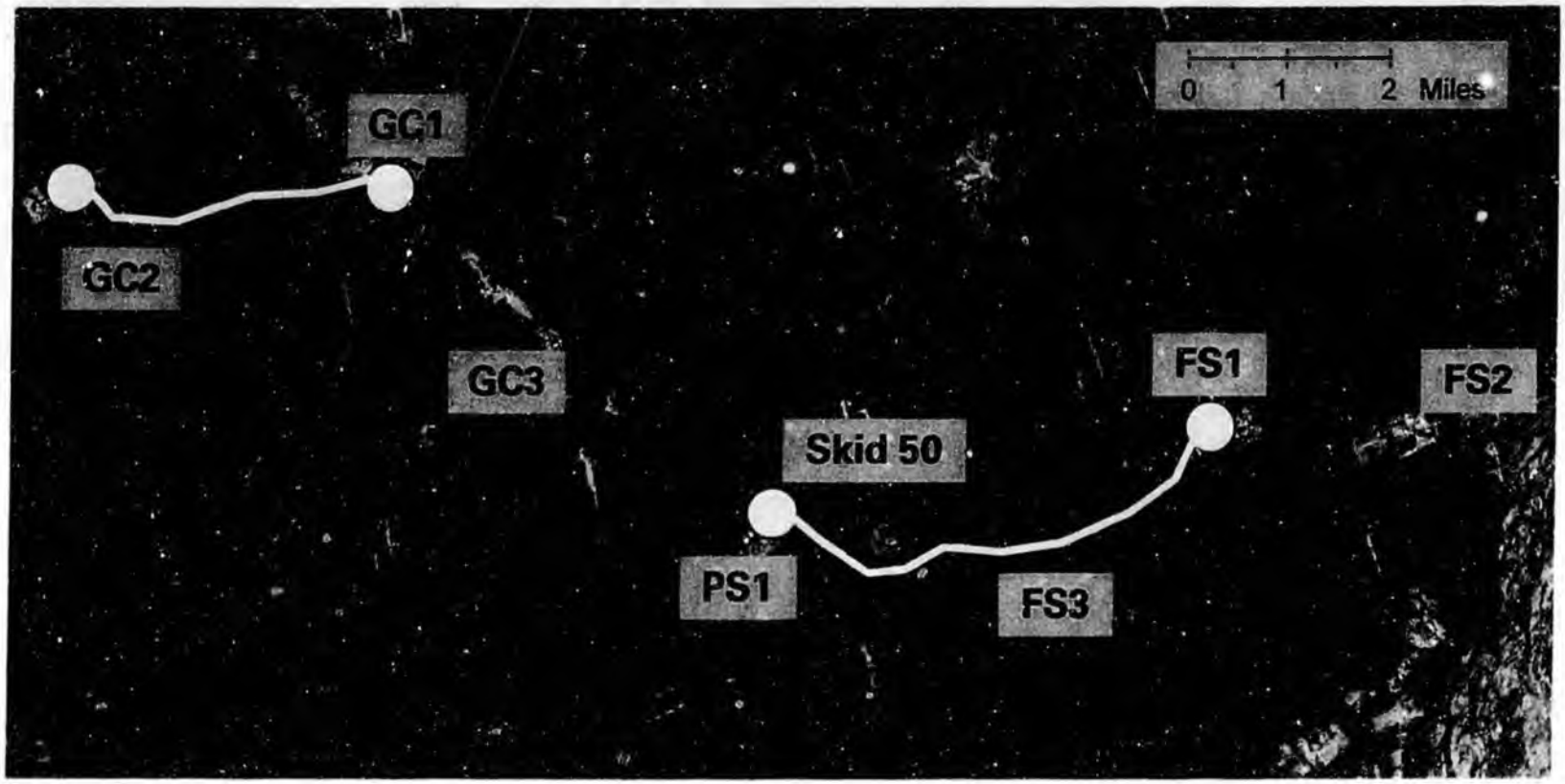
# Welded line ready to lift into place



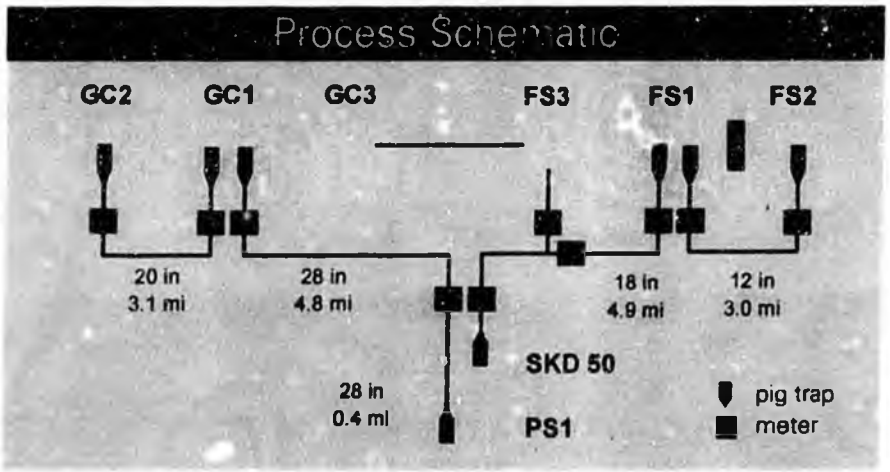
# New OTL lifted onto VSM



# Route and Scope




- Five segment manifold
- Eight new launcher/receivers
- Ten new leak detection meters
- Twenty new modules/skids
- Yellow overlay shows progress of line replacement



# Foundation for the Future
# BP Alaska Renewal Plan

bp

## Listening and Learning

- Close Corrosion Management Gaps
- Improve Risk Management
- Renew the Infrastructure
- Show Visible Leadership
- Get the balance right on Cost Management
- Get the Organization Right
- Pay Attention to Communication and Culture

**People**
- Organizational Changes
- Accountability Clarifications
- Workforce Renewal
- Expanded Communications
- Culture Improvements

**Plant**
- Immediate OTL Mitigations
- Comprehensive Inspections
- OTL Replacement
- Renewal of Additional Infrastructure
- Standard Technical Practices

**Process**
- Compliance to New Regulation/CA
- Improved Risk Management
- Comprehensive Corrosion Strategy
- Improved Inspection
- Conformance to BP Standards

**Performance**
- Clear Leading and Lagging Metrics
- Accountable Technical Authorities
- Transparent Reporting

Plan

- Growth and renewal
- High integrity, purpose-built infrastructure
- Enhanced risk management approaches
- Leading corrosion management systems and processes
- Accountable and capable organization
- Improved communication
- Transparent and cooperative regulatory relationships
- Restored reputation
- Reliable production

Objectives

**Public Trust**

**An Industry Leader**

**Transformed Culture**

**Sustainable Performance Through a System of Systems (OMS)**

Goals

# Brena, Bell & Clarkson, P.C.

## Presentation
## to
## House Resources Committee

## Overview of TAPS Rate Litigation and FERC Judge Cintron's May 17, 2007, Initial Decision

## June 7, 2007

# Overview

- **Alaska's Oil and Gas Resources are Transported Through Pipelines with No Competition.**

- **Economic Regulation of These Noncompetitive Pipelines Must Meet Two Basic Goals:**
  - **(1) Fair access, and**
  - **(2) Just and reasonable rates.**

- **Meeting These Goals will Optimize:**
  - **(1) The development of our oil and gas resources,**
  - **(2) Royalty and severance taxes, and**
  - **(3) Value-added manufacturing and jobs in Alaska.**

# The TAPS Settlement

- **TAPS Settlement:** In 1985, the TAPS Carriers and the State of Alaska settled prior rate issues and agreed that the State would not protest future rates as unjust and unreasonable so long as those rate filings were at or below the ceiling rates established under the TAPS Settlement Method ("TSM").

- **Request to Review TAPS Settlement Under "Public Interest" Standard:** The TAPS Carriers and the State asked the FERC and the RCA to review the TAPS Settlement under the "public interest" standard and not to review it under the "just and reasonable" rate standard.

- **Representation that Shippers Could Protest Future TSM Rates:** The TAPS Carriers and the State represented to the FERC and the RCA that if their TAPS Settlement was approved, any third-party shipper could protest future TSM ceiling rates as unjust and unreasonable and have the FERC or the RCA set just and reasonable rates.

- **Establishing Just and Reasonable Rates Does Not Violate the TAPS Settlement:** No party has requested the premature termination of the TAPS Settlement. The rate litigation before the FERC and the RCA is consistent with, and does not contradict, any term of the TAPS Settlement. The TAPS Carriers and the State continue to receive every benefit under the TAPS Settlement. The State still enjoys rates at or less than the TSM ceiling rates. The TAPS Carriers still enjoy the resolution of all prior rate issues and not having the State protest their TSM rates as unjust and unreasonable.

# Rate Methods for TAPS

- **TAPS Settlement Method ("TSM")**
  - Settlement method for ceiling rates only.
  - Rejected by the RCA, the Superior Court of Alaska, and Judge Cintron for establishing just and reasonable rates.

- **Stand Alone Cost ("SAC") Method**
  - Based on hypothetical costs of new pipeline.
  - Rejected by Judge Cintron for establishing just and reasonable rates.

- **Original Cost Rate Methods**
  - Depreciated Original Cost ("DOC") Method. RCA applied to TAPS for establishing just and reasonable rates in RCA Order P-97-4(151).
  - Trended Original Cost ("TOC") Method. FERC adopted for all oil pipelines, with some modification, through FERC Opinion 154-B. Judge Cintron applied to TAPS in Initial Decision.

# RCA Rate Proceedings

- **Major Claims:**
  - In 1997, Tesoro claimed the state rates were unjust and unreasonable and asked the RCA to establish rates based on the DOC method.
  - The TAPS Carriers and the State of Alaska defended the state rates and asked the RCA to continue to charge TSM rates.

- **RCA Decision:**
  - In Order P-97-4(151), the RCA rejected the use of the TSM and established rates based on the DOC method. The state rate today is $1.96 for all carriers.

- **Procedural Status of RCA Decision:**
  - In January 2006, Superior Court Judge Suddock "affirmed the decision of the RCA in all respects."
  - The TAPS Carriers appealed to the Supreme Court of Alaska. The case has been argued before the Supreme Court and is awaiting decision.

# FERC Rate Proceedings

- **Major Claims:**
  - In 2005, Anadarko/Tesoro claimed the federal rates ranging from $3.78 to $4.41 (2006) were unjust and unreasonable and asked the FERC to establish a $2.04 (2006) federal rate based on Opinion 154-B.
  - The State of Alaska claimed the federal rates were discriminatory because they were higher than the state rate and asked the FERC to lower the federal rates.
  - The TAPS Carriers claimed the state rate was noncompensatory and a burden on interstate commerce and asked the FERC to raise the state rate.

- **Judge Cintron's initial Decision:**
  - Established a $2.04 (2006) federal rate based on Opinion 154-B.
  - Dismissed the State of Alaska's claims as moot.
  - Dismissed the TAPS Carriers' claims as moot.

- **Procedural Status of Initial Decision:**
  - Appeal to FERC
  - Appeal to the D.C. Circuit

# Summary of Initial Decision

- **TSM:**
  - The TAPS Carriers failed to provide cost support for the TSM rate elements, so the TSM rates could not be found to be just and reasonable.

- **Opinion 154-B:**
  - Opinion 154-B must be used to establish just and reasonable rates;
  - Opinion 154-B does not permit the Carriers to double recover their investment, deferred earnings, AFUDC, or ADIT;
  - The Carriers are not entitled to a starting rate base write up;
  - Return must be based on a representative proxy group without a risk premium; and
  - Anadarko/Tesoro's Opinion 154-B calculation was adopted.

- **DR&R:**
  - Collections and earnings must be accounted for; and
  - Overcollections may be refunded.

- **Uniform Rate**

- **State of Alaska's Discrimination Claims:**
  - Dismissed as moot

- **TAPS Carriers' Section 13(4) Claims:**
  - Dismissed as moot.

- **Remedies:**
  - Refunds of rate increases for 2005 and 2006.
  - Cost-based Opinion 154-B rates going forward.

# Just and Reasonable Rates

- Just and reasonable rates are generally rates based upon the costs of providing service.

- Just and reasonable rates permit the Carrier an opportunity to recover:
  - (1) Operating costs,
  - (2) Investment, and
  - (3) A reasonable return on remaining unrecovered investment.

# TSM Rates Are Not Just and Reasonable

- **EXCESSIVE COLLECTIONS:** From 1977 through 2004 the TSM has resulted in $18 billion in overcollections under the DOC method. During this period, the TAPS Carriers have invested $10 billion in capital to build TAPS and $15 billion to operate TAPS, but have collected $60 billion in rates.

- **THE TSM IS FATALLY FLAWED:**
  - Allowance Per Barrel
  - Rates Are Based on Subjective Projections
  - Depreciation Based on the Wrong Economic Life
  - True-up of Total Revenue
  - Faulty Jurisdictional Separations

- **IMPACT TO STATE:** The TSM has cost the State of Alaska $4.5 billion in royalty and severance taxes ($18 billion * 25 percent) plus earnings.

# TSM Rates Filed by TAPS Carriers

| Carrier | Rates | | | |
|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 |
| BP Pipelines (Alaska) Inc. | $3.01 | $3.86 | $4.08 | $5.10 |
| ConocoPhillips Transportation Alaska, Inc. | $3.09 | $3.52 | $3.78 | $5.29 |
| ExxonMobil Pipeline Company | $3.07 | $3.60 | $3.93 | $4.95 |
| Koch Alaska Pipeline Company, LLC | N/A | $3.97 | $4.41 | $4.75 |
| Unocal Pipeline Company | $3.00 | $3.59 | $3.92 | $4.63 |

# Comparison of
# Anadarko/Tesoro's 154-B and TAPS Carriers' 154-B
# Total 2006 Revenue Requirements and Rates
# ($Millions)

| Line No. | Description | A/T 154-B | TAPS Carriers' 154-B |
|---|---|---|---|
| 1 | Operating Expenses | $559.65 | [illegible] |
| 2 | Depreciation Expense | $13.48 | [illegible] |
| 3 | Amortization of Deferred Earnings | $7.13 | [illegible] |
| 4 | Amortization of AFUDC | $0.86 | [illegible] |
| 5 | DR&R Allowance | $0.00 | [illegible] |
| 6 | Return Allowance | | |
| 7 | Return on Equity | $30.58 | [illegible] |
| 8 | Interest | $13.77 | [illegible] |
| 9 | Total Return Allowance | $44.34 | [illegible] |
| 10 | Income Tax Allowance | $22.13 | [illegible] |
| 11 | Non-Transportation Revenues | ($0.27) | [illegible] |
| 12 | Total Revenue Requirement | $647.32 | [illegible] |
| 13 | Composite System Barrels (Millions) | 326.795 | [illegible] |
| 14 | Composite Rate ($/Bbl) | $1.98 | [illegible] |
| 15 | Valdez Interstate Rate ($/Bbl) | $2.04 | [illegible] |

## Differences Between
## TAPS Carriers' 2006 154-B Proxy Revenue Requirement and Rate and Anadarko/Tesoro's 154-B Revenue Requirement and Rate
## ($Millions)

| | Revised Revenues | Revised Rate |
|---|---|---|
| TAPS Carriers' 154-B | $1,751.18 | [illegible] |
| Less Revenue from Deferred Earnings | ($580.60) | [illegible] |
| Less Revenue from Starting Rate Base | ($95.02) | ($0.29) |
| Less Revenue from Accelerated Portion of Depreciation and Other | ($428.23) | ($1.31) |
| Anadarko/Tesoro's 154-B | $647.32 | $1.98 |

2.04 volumes

# Dismantlement, Removal & Restoration ("DR&R")

- DR&R is the cost of taking a pipeline out of service at the end of its economic life.

- A pipeline carrier is entitled to collect DR&R from its shippers. DR&R should be a zero-sum game for the carrier.

- The TAPS Carriers have collected $1.5 billion for DR&R from 1977 to date. They have had the unrestricted use of these shipper funds for decades and have actually earned approximately $15.7 billion on those funds through 2005. The TAPS Carriers have said they only need $2.6 billion (2005) for DR&R.

Judge Disagreed w/

(2.9 Billion)

# History of the State of Alaska's Pipeline Positions

- **Out Resourced**
  - Out litigated
  - Out negotiated
  - Out staffed
- **Limited Successes**
  - Never established a just and reasonable rate
- **Bad Settlements**
  - Negotiating away the basic right to ensure the settlement remains fair
  - TAPS Settlement
  - Feeder lines to TAPS (Depreciation/DR&R)
  - Murkowski Gas Line Agreement
  - CIPL
- **Restrictive Interpretation of Duty to Defend in the TAPS Settlement**
  - Forecloses the State from protesting TSM ceiling rates as unjust and unreasonable
  - Does not foreclose the State from clarifying that shippers have the right to request just and reasonable rates (TAPS Carriers' misrepresentations concerning the TAPS Settlement)
  - Does not foreclose the State from litigating issues not settled in the TAPS Settlement (DR&R)
  - Does not require the State to continue to litigate against shippers trying to get just and reasonable state rates (P-97-4, P-86-2)
- **No Clear and Consistent Policy or Client**
  - No clear policy concerning access
  - No clear policy concerning just and reasonable rates
  - No clear client. AS 42.06.140(a)(10) Attorney General—Attorney and Client

# State of Alaska's Financial Stake

- 25 Percent of Refunds and Interest for 2005 and 2006.
- 25 Percent of Lower Refunds and/or Interest for 2007 Forward.
  - DOR Understates Benefit to State by Assuming Benefit Ends in 2008.
  - Example: $211.7 Million for 2007
    [($4.94 - $2.04) * 800,000 BPD] * 365 * 25%
- 25 Percent of DR&R Refunds

# Lessons for the Gas Line

- Don't Leave Anything to the FERC
- Resource the Effort
- Get Gas for Alaskans
- Get Access Right
- Get Rates Right
- Have a Very Good Reason If You Decide to Give Control of the Line to a Few Major Producers (Alignment)
  - Impact on Access
  - Impact on Rates
  - Impact on State of Alaska's Power to Manage and Tax its Own Resources

# Additional Materials

- **RCA's Order 151:**
  Order Rejecting 1997,1998,1999 and 2000 Filed TAPS Rates; Setting Just and Reasonable Rates; Requiring Refunds and Filings; and Outlining Phase II Issues (11/27/02)
  http://www.state.ak.us/rca/orders/pipeline/1997/p97004_151.pdf

- **Judge Suddock's Decision Affirming Order 151:**
  Decision and Order (01/19/06)
  http://rca.alaska.gov/data/docketDetail.html?docket=P-97-004A(1) at 012020060858327

- **Judge Cintron's Decision:**
  Initial Decision (05/17/07)
  http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20070522-0215

  **Errata to Judge Cintron's Decision:**
  Errata to Initial Decision (05/31/07)
  http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20070531-3066

# DUTY TO DEFEND

The State is party to a Settlement Agreement with the TAPS Carriers that was executed by the parties and approved by the FERC in 1985. I'll refer to that settlement as the TSA. T' TSA is a legally binding contract between its parties, and its term runs through at least the end of 2008.

The TSA provides a formula and criteria under which the Carriers annually calculate and file new TAPS rates.

The TSA expressly requires the parties to defend against any litigation that affects the validity and enforceability of the Agreement, or any provision thereof. [Section I-3]

This duty to defend is a contractual duty, and in essence it requires the State to support and defend TAPS rates filed in conformance with the TSA.

If the State were to protest TSA--conforming TAPS rates at the FERC, the TAPS Carriers would surely petition the FERC to dismiss the State Protest (as they have repeatedly done in the current FERC litigation), and in our judgment, the FERC would dismiss the State to keep it from breaching its FERC-approved contract.

# STATE'S DISCRIMINATION PROTEST

In December 2004, the TAPS Carriers filed 2005 interstate rates for TAPS shipments from PS-1 to Valdez that averaged $3.71 / bl.

The RCA-regulated intrastate rates for shipments from PS-1 to Valdez have remained at $1.96 / bl since the RCA's decisions on Tesoro's protests in dockets P-97-4 and P-03-4.

Thus, the 2005 TAPS rates for identical shipping services varied by $1.75 / bl depending on whether the shipments were in interstate or intrastate commerce.

The final paragraph of the TSA rate methodology [II-11(e)] provides that 'notwithstanding any other provision of the TSA, rates charged for TAPS services are subject to legal prohibitions on unjust discrimination and undue preference.' [paraphrased]

In other words, rates that are unjustly discriminatory or unduly preferential are not TSA conforming rates.

The TSA duty to defend applies only to TSA conforming rates, and thus does not apply to unjustly discriminatory rates. The State therefore protested the TAPS 2005 interstate rates on the grounds of unjust discrimination and undue preference.

The legal prohibitions on unjust discrimination and undue preference are set out in sections 2 and 3 of the Interstate Commerce Act. The ICA was enacted in 1885, and there is a long history of rate discrimination caselaw to rely on in applying its terms.

The basic premise of the ICA discrimination caselaw is that rates charged for substantially identical services must be substantially identical. Thus the State's protest cites to the nearly double rates charged for interstate vs intrastate services on TAPS as proof of unjust discrimination.

The remedy for unjust discrimination under ICA section 2, is to reduce the higher rate to a level comparable to the lower rate. The State is therefore seeking to have the interstate TAPS rate reduced to approximately the level of the $1.96 intrastate rate.

# PROCESS THROUGH HEARING

The State initiated the current litigation by filing its discrimination protest of the 2005 TAPS rates. A day after the State filed its protest, Anadarko and Tesoro jointly filed a protest of the 2005 TAPS rate on separate grounds. The FERC consolidated the protests for hearing. The parties have since continued their protests on the TAPS 2006 and 2007 rates, on the same grounds

Anadarko / Tesoro are not parties to the TSA. They are not subject to the duty to defend and have taken no position in this litigation on whether the 2005, 2006 and 2007 TAPS rates are calculated and filed in conformance with the TSA.

A/T instead challenges the rates as not in conformance with the FERC **non**-settlement rate methodology -- the "Opinion 154-B" methodology.

In response to the A/T evidence regarding its TAPS 154-B calculation, the TAPS Carriers filed their own (much higher) 154-B calculation.

In response to the State's discrimination protest, the Carriers claimed that their 154-B calculation showed that the intrastate rate was too low, and that any discrimination should be alleviated by increasing the intrastate rate.

The State therefore responded by presenting its own 154-B reference rate calculation, and thereby established that the $1.96 intrastate rate did indeed cover its fair share of the costs of TAPS operations. The State's 154-B

evidence presents rates and rate components very close to those presented by A/T.

The focus of the litigation thus became an argument over the proper calculation of non-settlement 154-B rates for TAPS.

# JUDGE CINTRON'S DECISION

Following a lengthy review of the filed testimony and arguments from all of the parties regarding the appropriate calculation of TAPS rates under the 154-B methodology, Judge Cintron ruled in favor of A/T's protest and found that the Carriers should be required to file new rates going forward (after 2006) at approximately $2 / bl.

She then moves on to address the State's discrimination claim, and in paragraph 263, at pages 112-113 she rules:

> "this decision contemplates new rate filings that will be substantially less than the Carriers 2005 and 2006 original filings . . . A/T's Opinion 154-B interstate rate calculation . . . is $2.04 for 2005 and $1.83 for 2006. The State's Opinion 154-B reference rate . . . for interstate rates . . . is $1.96 and $2.05 for 2005 and 2006, respectively. The intrastate rate set by the RCA is $1.96 . . . THE DIFFERENCE BETWEEN THESE RATES AND THE RCA ESTABLISHED RATE ARE MINIMAL. ACCORDINGLY, THE DISCRIMINATION HAS BEEN ALLEVIATED AND THE STATE'S DISCRIMINATION CLAIMS ARE RENDERED MOOT.

In summary, Judge Cintron found that by equalizing the TAPS interstate and intrastate rates going forward, her ruling for Anadarko/Tesoro alleviated the discrimination.

Now that sounds reasonable, as far as it goes, HOWEVER

the State's discrimination protest does not seek relief only from discrimination in rates charged after 2006, we also seek to cure the discrimination in rates already charged in 2005 and 2006.

And in ordering refunds for 2005 and 2006, Judge Cintron ignores our discrimination protest (which she found to be moot) and relies on a legal precedent that has applied only in a select few J&R -- that is, non-discrimination -- rate cases.

The precedent she relies on limits refunds to the difference between the rates actually charged and the last permanent (unprotested) rate that was in effect prior to the filing of the current protested rate. In this case she ruled that the 2004 TAPS rate was the "last legal rate" for calculation of refunds.

So, based on that narrow precedent, Judge Cintron has limited the refunds for 2005 and 2006 to the difference between the TAPS rates charged and the 2004 TAPS rate -- which averaged about $3.05 / bl.

Her decision to limit the refunds is subject to legal challenge even when applied in the context of a J&R rate protest, and the FERC staff has well presented that legal challenge in their Reply Brief.

The State has an alternative, perhaps stronger, argument to raise against the refund limitation ruling through its discrimination protest.

That's because, under ICA Sections 2 and 3, rates that are unjustly discriminatory and/or unduly prejudicial are illegal, and the remedy for such illegal rates is to remove all of the discrimination by resetting the interstate rates at a level comparable to the lower intrastate rate charged for comparable services.

Judge Cintron acknowledged this requirement for equivalence in the interstate and intrastate rates when she determined (as I quoted earlier)

that by setting interstate rates that are "minimally" different from the intrastate rates, she had "alleviated" the rate discrimination protested by the State.

**However**, the effect of her proposed refund decision is to allow the Carriers to retain tariff payments at a $3.05 / bl rate for 2005 and 2006.

This is still $1 more than the $1.96 intrastate rate or than the rate that she established as J&R for 2005 forward.

Her refund decision thus does not create the "minimal" difference between interstate and intrastate rates that she relied upon to support her finding that the State's discrimination claim is moot.

# STATE'S RESPONSE

So, where do we go from here?

The State is considering possibly filing exceptions to Judge Cintron's decision along the following lines:

First that the State's discrimination claim is not moot since, as the judge's refund decision shows, different rules apply to the calculation of refunds in in J&R rate litigation, as opposed to in discrimination litigation, and

Second, that allowing the Carriers to retain a $3.05 / bl rate in calculation of the refunds for 2005 and 2006, does not appropriately remedy the discrimination in rates for those years. In accordance with her ruling on the discrimination claim, the refunds must result in no more than minimal differences between the TAPS interstate and intrastate rates for 2005 and 2006, as well as going forward.

ARCO Alaska Inc. Internal Correspondence

Date: June 5, 1990 File Code: Corrosion File

Subject: Inspection of Oil Sales Lines

From: M. A. Morris/G. D. Herring PRB Box 5

To: S. J. Massey/J. D. Ottoson PRB Box 20

As previously discussed, the Corrosion Group recommends smart pig inspections of the oil sales lines from Flow Station 2 to Flow Station 1 and from Flow Station 1 to Skid 50. A discussion of this recommendation, an alternative and the advantages and disadvantages of each follows.

## Background

Sales oil flows from FS 2 through a 30" pipeline (15,794' long) to Module 4922 at FS 1, where it is commingled with oil from FS 1. The combined stream is transported through a 34" line (25,996' long) to Skid 50 and then to Pump Station 1. Production from FS 3 goes through a 30" line which tees into the 34" line near FS 3. The normal operating temperature of the lines is about 115 degrees F., although they have been operated in the 140 degree range in the past.

To date, only minimal monitoring and inspection data has been gathered on the lines. A coupon location has been added to the FS 2 line at FS 1's Module 4922. This location has been pulled only two times. The first pull, from the fourth quarter of 1989, was graded "D" due to a single pit in one of the coupons which may have been mechanical in origin. The coupons from the first quarter of 1990 were graded "A". No organic deposits, such as paraffin, were on the coupons. Coupon locations will be added to the FS 1 and FS 3 lines and the main line outside of Skid 50 as soon as operationally feasible. Only about 115 square feet of piping at the 4922 modules and Skid 50 has been inspected with automated UT (C-scan); no corrosion indications were identified. The lines are insulated with GE insulation, which is scheduled to be replaced this year due to external corrosion concerns.

Because of the low water content of the crude in the sales lines (the spec is 0.35%), significant internal corrosion is not expected. To our knowledge, none has been detected by the smart pig inspections performed to date in the TAPS line. On the other hand, severe corrosion has been experienced in the uninhibited flowlines and tubing strings of wells making only trace amounts of water early in the life of the field. If the water in the sales line segregates and flows along the bottom of the line, there is the potential for bacterial or underdeposit corrosion, which could result in scattered pitting, or carbonic acid attack, which could lead to a more continuous channelling type of damage. In either case, the most severe damage would be expected at bottom dead center of the lines.

There are two proven inspection methods which could be used on the sales lines: smart pigging and C-scan. The other option, of course, is to do no inspection. The Corrosion Group believes that the "do nothing" option is not prudent. The inspection options are discussed below.

**Smart Pigging - (Recommended)**

Smart pigging would involve running a series of cleaning pigs and the inspection pigs through the lines from FS 2 to FS 1 and from FS 1 to Skid 50. As far as we know, the lines have not been pigged since field start-up. Tentative plans have been made to run the Pipetronix smart pig in October, 1990. Preliminary cleaning and gauge pigs could be run as soon as operationally feasible.

Advantages

- Comprehensive inspection: The smart pig inspection would yield information about the entire circumference of the line, from the launcher to the receiver. It would locate external as well as internal corrosion. However, because the insulation on the sales lines is to be reconditioned this year, external corrosion should not be an issue. In addition, future repeat inspections would be relatively simple to perform.

- Production impact: Since the entire operation can be done on line, no reduction in production rates is necessary.

- Cost: The estimated cost of the entire smart pigging operation for both lines, including support labor and cleaning runs, is about $150,000.

Disadvantages

- Risk of sticking: Although the risk of sticking either a cleaning pig or an inspection pig is very low, we acknowledge that the cost of such a mishap would be quite high. The chance of an incident can be minimized by planning thoroughly and following a carefully developed procedure. The Corrosion Group is developing a detailed procedure for preparing the lines and running the smart pigs. In addition, a contingency plan will be developed to minimize the down time in the event that a pig does get stuck.

**Automated UT - (Second choice)**

If the C-scan UT method of inspection were to be employed on the sales lines, the scanning would probably be limited to the bottom 6" or 12" of the line. We would recommend scanning all accessible areas of the lines. As discussed above, if there is significant internal corrosion in the lines, it is most likely to occur at bottom dead center. The lines will be stripped of insulation later in the summer; this provides an opportunity to perform a C-scan inspection without the incremental cost of insulation removal.

Advantages

- No production impact or risk of sticking: C-scan can be performed on the lines while in service. Of course, there is no risk of getting anything stuck or lost in the line when using an external NDT device.

Disadvantages

- More expensive: If a one foot wide strip of pipe is C-scanned, the cost of inspection would probably be about $30 per linear foot. Scanning all accessible areas of the lines would cost about $1,065,000.

- Less comprehensive: The proposed C-scan inspection would yield no information concerning the existence of corrosion or defects anywhere away from the bottom of the

lines. A 12-inch wide scan would give us 11% radial coverage on the 34-inch line and 13% on the 30-inch line. Saddle areas, anchor blocks and eleven road and caribou crossings would not be inspected, further reducing our confidence in finding corrosion. The road and caribou crossings are of particular concern, as there are currently no plans to replace the GE insulation in these areas.

- Recurring inspections more difficult: After the insulation is reconditioned, any external NDT method becomes much more difficult. Any repeat scans would involve stripping the new insulation, coating and tape wrap, which would be considerably more expensive.

**Summary**

The Corrosion Group recommends smart pigging the sales lines because it is a reliable, comprehensive inspection method. We believe the risk of encountering significant operational difficulties is small. The alternative, C-scanning the bottom of the accessible areas of the lines, is a viable alternative. However, it is considerably more expensive than smart pigging. The proposed C-scan inspection would give us a lower confidence in finding corrosion or defects because we would not be inspecting the road crossings, anchor blocks and saddle areas and because radial coverage is limited. Since very little monitoring or inspection has been done on these lines in the past, we strongly recommend against doing no inspection

Marshall C. Mains

Corrosion Control Supervisor

| | | |
|---|---|---|
| cc: | D. F. Scheve | ATO 1576 |
| | E. W. Skaalure | ATO 1526 |
| | W. W. Patterson | ATO 1796 |
| | D. E. Powell | ATO 1788 |
| | J. M. McCarthy/J. S. Dayton | PRB Box 10 |
| | R. Farque/D. Siekkinen | PRB Box 15 |
| | D. Cavin/D. Beaudry | PRB Box 14 |
| | H. Hong/ | PRB Box 13 |
| | N. J. Mabile/M. R. Engblom | PRB Box 5 |
| | B. A. Servin/A. L. Dahlquist | PRB Box 5 |

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## Sprague, Kip P

**From:** PBU, CIC Flow Lines
**Sent:** Thursday, July 17, 1997 5:44 PM
**To:** PBU, CIC Supt
**Cc:** PBU, CIC Fld TL Felix/Woollam
**Subject:** RE: Oil Transit Pigging

Greg,

We have been UT monitoring the oil transit line since 1988. Excluding the by-pass at Skid 50, CIC has identified ~70 locations with internal corrosion between GC2 and Sk 50. The by-pass (320' ft) @ Sk 50 is corroded almost the entire length and three sleeve repairs were made in 1991. Today we have three locations at the by-pass with an MAOP below design. Joel/Chuck have these listed on the PMP tracker for action, (MOC to derate the line).

In 1995 a substantial increase of internal corrosion was observed. During the 1996 survey, a baseline Automated UT program (CRM) was established to determine internal corrosion rates. We hope this years CRM program will provide current internal corrosion activity/rates.

Of equal or more concern is external damage on the line. The oil transit was last smart pigged in 1990 at which time there were a few locations of CUI detected, worst case near 50% wall loss. Unfortunately because of the type of insulation and diameter of the line, reliance on spot TRT examination for integrity assurance will not eliminate a whole lot of risk. We had initially planned to smart pig examine the oil transit this year but, the launcher and trap will no longer accommodate the new high resolution smart pig vehicles without modification. As it stands, plans are to modify launcher and trap and smart pig in '98. Depending on completion of some of the other projects there is still some consideration to perform limited spot TRT inspections this year.

Kind of a brief summary but if you want more detail let me know. .... Kip

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**From:** PBU, CIC Fld TL Felix/Woollam
**Sent:** Thursday, July 17, 1997 3:40 PM
**To:** PBU, CIC Flow Lines
**Subject:** FW: Oil Transit Pigging

Kip - response pls.

Thx, Rick

---

**From:** PBU, CIC Supt
**Sent:** Wednesday, July 16, 1997 12:08 PM
**To:** PBU, CIC Fld TL Felix/Woollam
**Subject:** FW: Oil Transit Pigging

Rick;

Do we already have UT or TRT info on this transit line? Could let me know how much we already may know.

Greg

---

**From:** PBU, Pigging Operators
**Sent:** Saturday, July 12, 1997 6:15 PM
**To:** PBU, CIC Fld TL Felix/Woollam; PBU, CIC Fac TL Phillips/Merrett; PBU, Prod Ctl & Optimization
**Cc:** PBU, CIC Corrosion Engr; PBU, CIC Flow Lines; PBU, CIC Prod Chem Todd/Wasem; PBU, CIC QA/Vessel; PBU, CIC Supt; PBU, Chemical Foreman
**Subject:** Oil Transit Pigging

Rick,

I talked to Tom Carnahan (Pump Station #1 Planner) and he only recalls one problem when Arco pigged their transit line and that was plugging the strainers.

I contacted Kevin Mahoney (Pigging Tech that performed that job). He informed me that they had two people at the strainers to change them as they plugged off. It takes about 1.5 hours to pull a strainer. He also stated by blocking in a strainer for about 10 seconds after it plugged, the heavy solids would fall to the bottom and then they could reopen the strainer and get approximately 80% flow. The metering had to be bypassed also to prevent damage to meters. The finer solids that passed through the strainers collected in the Pump Station tanks.

Based on the current daily average production the run would take approximately 6.5 hours actual run time.

GC-2 to GC-1 102 MBPD 1.1 fps 255 minutes
GC-1 to GC-3 176 + 102 = 278 MBPD 3.0 fps 68 minutes
GC-3 to Sk-50 73 + 278 = 351 MBPD 3.8 fps 56 minutes

379 minutes (6.5 Hours) actual run. + set up and returns cleaning etc....

Still need to get approval from Alyeska.

Hope this helps. A lot of people are out of the office at Arco. 4&3 schedule which limited my information gathering. Please respond if you need more info.

Doug

## Sprague, Kip P

**From:** PBU, CIC Fld TL Felix/Woollam
**Sent:** Sunday, July 27, 1997 2:15 PM
**To:** PBU, Field Ops Mgr
**Cc:** PBU, CIC Flow Lines; PBU, CIC Supt; GPB, Prod Opt TL; PBU, CIC Fac TL Phillips/Merrett; PBU, CIC Fld TL Felix/Woollam; GPB, Pigging Operators
**Subject:** RE: Smart Pigging of oil transit line

John,

Thanks for the support on this issue.

This line has been both maintenance pigged and smart pigged in the past, so we do have some history on this line. The main concern is the fact that velocities in this line have been significantly reduced over the last few years and the quantity of solids which are laying in the bottom is entirely unknown.

Should these solids be significant, then we will have a problem at Pump 1 with the meter sleves blocking off. The conern therefore has to be to have sufficient contingency plans in place to allow us to pig and capture the solids without knocking Pump 1 over.

We are currently working through Bill and Garry with Pump 1 to get a consensus with Alyeska as to the contingencies which we need to have in place, and plan to maintenance pig the line a couple of months prior to to the smart pig run in 1998.

We are at present working with British Gas to come up with a long term smart pigging contract which will secure a price b eak on BGs services in exchange for minimum/maximum number of lines to be pigged in any given year. Our approach, is likely to consist of a rolling 5-10 year program which Inspect ALL the major WOA flow lines, gas/oil/water, over the life of the contract. This will require putting together an suitable long term AFE.

As plans progress I'll keep you informed, however, if you have any comments or questions please let me know.

Thanks.

Richard.

---

**From:** PBU, Field Ops Mgr
**Sent:** Sunday, July 27, 1997 1:59 PM
**To:** PBU, Field Maint Ctlr; PBU, CIC Fld TL Felix/Woollam
**Cc:** PBU, Facility Ops Mgr; PBU, Prod Controllers
**Subject:** Smart Pigging of oil transit line

Richard,

I understand Smart pigging of the Oil Transit line was considered this year, but decided against given the short preparation time. Can you please work towards making a recommendation on Smart pigging of this line for 98 and work the schedule and any budget issues with Bill/Garry and Dan/Dennis. We'll also need to address the operational issues/risks of which I believe you are aware and I would appreciate your assessment of them.

Thx,

John

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rcw_home
From: Woollam, Richard C
rcw_home Thursday, June 03, 1999 4:31 PM
To: Felix, Rick D; PBU, CIC NS TL Felix/Phillips
Subject: RE: Draft - Budget Review 1 Pager

Rick/John,

Sounds like a plan, 9:00 am ASCG Monday morning - 7th June, OK?

Richard.

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From: PBU, CIC NS TL Felix/Phillips
Sent: Thursday, June 03, 1999 11:40 AM
To: Felix, Rick D
Cc: Woollam, Richard C.
Subject: RE: Draft - Budget Review 1 Pager

RDF/RCW,
I'll plan to be in Sunday night, back to Fairbanks Monday PM.
JP

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From: Felix, Rick D
Sent: Thursday, June 03, 1999 7:56 AM
To: PBU, CIC NS TL Felix/Phillips; Woollam, Richard C.
Subject: RE: Draft - Budget Review 1 Pager
Importance: High

Let's do it on 6/7 - better to get this phase of work off of our plate. I'm assuming that FMT & Dave are "comfortable" with the associated risks.

John - can you make it in Sun. night?
Thx,
*Rick*

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From: Woollam, Richard C.
Sent: Wednesday, June 02, 1999 8:05 PM
To: PBU, CIC NS TL Felix/Phillips; Felix, Rick D
Subject: RE: Draft - Budget Review 1 Pager

John/Rick,

My impression from the FMT meeting is that we will not be getting any relief on the budget. They all think that PW inhibition is the right thing to do, but, no one is prepared to let loose the purse strings. However, I think we might be able to make a better case in 2000, if we go into the budget process with PW as additional line item.

So we would move forward assuming this to be the case and plan on taking out the PW and x% on the Corrosion Inhibition and y% on the inspection program - ugly I'm afraid.

When would be a good opportunity in the near future to get together and plan the way-forward? Monday 7th or the 14th June?

**rcw_home**
**From:** Woollam, Richard C
**Sent:** Friday, June 04, 1999 6:09 PM
**To:** PBU, CIC NS TL Felix/Phillips
**Subject:** RE: PW Inhibitor at GC2 and GC3

John,

Excellent! Good note - when we've decided what we wish to trim from the budget on Monday, we should write something similar to Dave Calvin et al, explaining and making sure that they do realise what they are asking us to do.

Richard.

---

**From:** PBU, CIC NS TL Felix/Phillips
**Sent:** Friday, June 04, 1999 2:53 PM
**To:** PBU, Operations Manager
**Cc:** Woollam, Richard C.; PBU, Field OTL; PBU, GC1 OpsTmLdr; PBU, GC2 OpsTmLdr; PBU, GC3 OpsTmLdr
**Subject:** FW: PW Inhibitor at GC2 and GC3

Frank,

FYI - We have conducted the field "trial" of the PW inhibition chemical and found it to be very successful at cleaning up the PW system and arresting corrosion activity. Unfortunately, we did not budget for a full year's chemical expense as the program was highly experimental at the time of the budget planning process. We are now at a point where the original monies for this program are used up, so we will be shutting it down till year's end, with the intent of raising it as a line item for next year's budget.

In the meantime, the PW system may be subject to increased corrosion activity and fouling. This may have some impact on corrosion repair activity and also possibly BS&W quality during pigging operations. We will be putting the remainder of our EC1081A inventory into the S pad PW line for the rest of the year, as this is our highest risk cross country PW line at this time.

I presume you may be getting some feedback on this so wanted to assure you're informed (You may have been at the session with Richard Woollam the other day where this was discussed).

Regards,
John

---

**From:** PBU, CIC Prod Chem Todd/Spano
**Sent:** Friday, June 04, 1999 11:42 AM
**To:** PBU, GC2 OpsTmLdr; PBU, GC2 Lead Techs; PBU, GC3 OpsTmLdr; PBU, GC3 Lead Techs
**Cc:** PBU, Mail Coord - FOC; PBU, CIC NS TL Felix/Phillips; Crawford, Gary R; Paisley, Dominic M.; Woollam, Richard C.; 'RA Brown'; Sprague, Kip P
**Subject:** PW Inhibitor at GC2 and GC3

All,

Due to budgetary constraints, the decision has been made to discontinue the PW inhibitor (EC1081A) currently being injected at GC2 and GC3. The GC2 bulk tank should run out within the next two days and it will not be refilled. Please shut the pump down and flush the equipment with water once the tank is empty. The GC3 tank was recently filled and is

estimated to last about 13 more days (around June 17th). Again, when the tank is empty, please shut the pump down and flush the equipment with water.
The current plan is to inject the remaining inventory of EC1081A into the high risk S-69 line that runs from M to S pads. At a 40 ppm rate, we will have enough product to treat this 40,000 BWD for about 250 days.

Best Regards,

John Todd

rcw_home

**From:** Paisley, Dominic M
**Sent:** Tuesday, June 08, 1999 4:06 PM
**To:** PBU, CIC Prod Chem Todd/Spano
**Cc:** Woollam, Richard C.
**Subject:** RE: MOC for Discontinuation of EC1081A

Andy,

Here are a couple of paragraghs to summarise the technical aspects of shutting off the PW treatment.

The corrosion mechanism in the PW system is microbially induced corrosion. Bacteria thrive in dirty systems and treatment requires injection of a chemical with strong surfactant and biocidal properties to clean the lines and reduce bactena numbers. Various chemicals have been tried at GC-2 over the past year with the aim of finding a suitable, low cost chemical. The program has been successful and the data shows that the PW systems at GC-2 and GC-3 have been cleaned and bacterial numbers have been reduced. The corrosion monitoring and inspection data have also improved significantly.

The net effect of these improvements is to significantly increase the projected life of the PW system. Much of the system is in poor condition and, without injection of supplemental chemical, well line replacements are predicted from 2001 onwards, with flow lines from 2003 onwards. Supplemental injection is estimated to delay these near-term line replacements by approximately 7 years and many of the replacements would be delayed indefinitely. For example, the retirement of S-69 is predicted to be delayed from 2003 to 2016.

Suspending the supplemental injection in to the PW system is therefore unlikely to cause loss of containment or equipment retiral in the short term (1 to 2 years). However, it will shorten the life of the system, resulting in either abandonment or expensive repair/replacement in the medium to long term (3 years+). The longer the corrosion continues at the uncontrolled rate, the harder it will be to arrest it and achieve satisfactory life of the equipment.

Feel free to cut and paste so it fits in with the rest of the MoC document and the data from the QPR that Richard sent.

Dominic

---

**From:** Woollam, Richard C.
**Sent:** Saturday, June 05, 1999 10:43 AM
**To:** PBU, CIC Prod Chem Todd/Spano
**Cc:** Crawford, Gary R; PBU, CIC NS TL Felix/Phillips; Paisley, Dominic M.; Felix, Rick D
**Subject:** RE: MOC for Discontinuation of EC1081A

John/Andy,

I would suggest that you use as the basis of the risk assessment, not only technical but financial, the following material which we was lifted staright out of the QPR.

<<File: PW CI Injection FMT II.ppt>>

As far as the requirement to complete the MOC is concerned, surely any action which increases the risk of significant HSE/financial impact to the business or the environment should be thoroughly reviewed and documented by senior management prior to implementation. This is the point, isn't it, of the MOC process to ensure that any

process/system changes should be thoroughly reviewed and documented in order to indentify risks associated with that actions - exactly what is happening here!

In the mean time, please move ahead with the stopping the program and implementing the S pad injection as quick as possible as noted in your E-mail yesterday.

Thanks.

Richard.

---

**From:** PBU, CIC Prod Chem Todd/Spano
**Sent:** Saturday, June 05, 1999 10:58 AM
**To:** Paisley, Dominic M.
**Cc:** Crawford, Gary R; PBU, CIC NS TL Felix/Phillips; Woollam, Richard C
**Subject:** MOC for Discontinuation of EC1081A

<<File: CIHAZA~1.DOC>>

Dominic,

I have been asked by Richard and John P. to initiate an MOC to document the discontinuation of the EC1081A Cl injection at GC2 and GC3. This is a somewhat unique MOC, as far as I am concerned, and it is probably not legally required. However, the idea is to make management formally sign off on the change and to briefly outline the risks. I will discuss the process impacts (BS&W and possibly water quality), but I need you (or Gary) to outline the corrosion risks to the PW system. It doesn't need to be terribly detailed or something that takes a lot of your time. Andy and I use the enclosed Hazard Review document most of the time for chemical changes, and it is nothing more than a one or two paragraph statement. However, you may have other documentation that you want to add. Your input will constitute part of the Technical Review (Stage 3 of the MOC) and I will then present all the data to Operations for signatures at Stage 4 and 5. Thanks for your help.

Best Regards,

John T.

rcw_home

**From:** PBU, Operations Manager
**Sent:** Wednesday, June 09, 1999 2:08 AM
**To:** PBU, CIC NS TL Felix/Phillips
**Cc:** Woollam, Richard C.; PBU, Field OTL
**Subject:** RE: PW Inhibitor at GC2 and GC3

John/Rick,

Thanks for the warning. Is this the right thing to do?

-does this place the line integrity in jeopardy in the short term and give us a risk of a spill near term? I assume not or you wouldn't be recommending this?
-does this jeopardise or significantly shorten the life of these lines? If so does the discounted cost of accelerated repair exceed the cost of the inhibitor for this year?
-are we putting our expenditure on chemicals in the critical areas? I thought that the PW lines were the ones least in control and therefore the ones we are most worried about Could we discontinue chemical injection on some other lower risk systems to provide the financial space to continue this treatment?

How much money are we talking about if we continue the chemical injection at the optimal rate?

Frank

---

**From:** PBU, CIC NS TL Felix/Phillips
**Sent:** Friday, June 04, 1999 2:53 PM
**To:** PBU, Operations Manager
**Cc:** Woollam, Richard C.; PBU, Field OTL; PBU, GC1 OpsTmLdr; PBU, GC2 OpsTmLdr; PBU, GC3 OpsTmLdr
**Subject:** FW: PW Inhibitor at GC2 and GC3

Frank,

FYI - We have conducted the field "trial" of the PW inhibition chemical and found it to be very successful at cleaning up the PW system and arresting corrosion activity. Unfortunately, we did not budget for a full year's chemical expense as the program was highly experimental at the time of the budget planning process. We are now at a point where the original monies for this program are used up, so we will be shutting it down till year's end, with the intent of raising it as a line item for next year's budget.

In the meantime, the PW system may be subject to increased corrosion activity and fouling. This may have some impact on corrosion repair activity ar also possibly BS&W quality during pigging operations. We will be putting the remainder of our EC1081A inventory into the S pad PW line for the rest of the year, as this is our highest risk cross country PW line at this time.

I presume you may be getting some feedback on this so wanted to assure you're informed. (You may have been at the session with Richard Woollam the other day where this was discussed).

Regards,
John

---

[redacted]

**From:** [redacted]
**Sent:** Friday, June 04, 1999 8:48 PM
**To:** [redacted]
**Subject:** FW: PW Inhibitor at GC2 and GC3

Here's one for our HSE files. We'll see if this is a "safe" way to do business
[redacted]

---

**From:** PBU, CIC Prod Chem Todd/Spano
**Sent:** Friday, June 04, 1999 11:42 AM
**To:** PBU, GC2 OpsTmLdr; PBU, GC2 Lead Techs; PBU, GC3 OpsTmLdr; PBU, GC3 Lead Techs
**Cc:** PBU, Mail Coord - FOC; PBU, CIC NS TL Fells/Phillips; Crawford, Gary R; Paisley, Danielle M.; Woolam, Richard C.; 'RA Brasfi'; Sprague, Kip P
**Subject:** PW Inhibitor at GC2 and GC3

All,

Due to budgetary constraints, the decision has been made to discontinue the PW inhibitor (EC1051A) currently being injected at GC2 and GC3. The GC2 bulk tank should run out within the next two days and it will not be refilled. Please shut the pump down and flush the equipment with water once the tank is empty. The GC3 tank was recently filled and is estimated to last about 13 more days (around June 17th). Again, when the tank is empty, please shut the pump down an flush the equipment with water.
The current plan is to inject the remaining inventory of EC1051A into the high risk S-69 line that runs from M to S pads. At a 40 ppm rate, we will have enough product to treat this 40,000 BWD for about 250 days.

Best Regards,

John Todd



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**From:** Daniel_G_Rey@nalcoexxon.com
**Sent:** Wednesday, June 09, 1999 6:53 AM
**To:** "David Horsup at SUG_HUB.CCNEEC"@nalcoexxon.com; "Daniel G Rey at SUG_HUB.CCNEEC"@nalcoexxon.com; Crawford, Gary R
**Cc:** PBU, CIC Prod Chem Todd/Spano; Brown, Richard A (NEEC)
**Subject:** Re[2]: Urgent - Please Review and Comment

Additional Header Information:
Received: from amgw3.bp.com ([208.221.178.129]) by mail.nalcoexxon.com (Lotus SMTP MTA v4.6.1 (569.2 2-6-1998)) with SMTP id 86256789.007B350E; Mon, 7 Jun 1999 17:25:45 -0500
Received: by amgw3.bp.com; id SAA19350; Mon, 7 Jun 1999 18:22:21 -0400

Received: from amclvx8.clv.am.bp.com(161.99.146.100) by amgw3 via smap (V2.1)
id xma019311; Mon, 7 Jun 99 18:21:55 -0400
Received: by AMCLVX8 with Internet Mail Service (5.5.2232.9)
id <M36MQY5G>; Mon, 7 Jun 1999 18:21:55 -0400
Message-ID: <05481C2F274CD011882A0000F8024BCD02E70A91@AMANCX2>
From: "Crawford, Gary R" <CrawfoGR@BP.com>
To: "'David_Horsup@nalcoexxon.com'" <David_Horsup@nalcoexxon.com>,
"'D. Rey'" <Daniel_G_Rey@nalcoexxon.com>
Cc: "PBU, CIC Prod Chem Todd/Spano" <PBUCICProdChem@BP.com>,
"Brown, Richard A (NEEC)" <BrownR1@BP.com>
Subject: RE: Urgent - Please Review and Comment
Date: Mon, 7 Jun 1999 18:20:41 -0400
MIME-Version: 1.0
X-Mailer: Internet Mail Service (5.5.2232.9)
Content-Type: multipart/mixed;
boundary="----_=_NextPart_000_01BEB134.25EDA1BE"

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David and Danny,

We will be pursuing field conversion of 99VD049 on an accelerated schedule to help meet the budget pressure for this year (Discontinuing EC1081A is the other key part to meeting the budget). We feel that this is less risky than an across-the-board cut of 10% which we are most confident would allow significant measurable c rosion damage to occur. The good news is that we have enough 98VD019 and 99VD054 in Alaska or on its way, that conversion cannot logistically happen before September 1 which is just in time to meet the budget! Also, very importantly, this gives us time to gather more B, X, and R LDF data as well as complete the well line test at A-13.

Attached, are some slides summarizing our intentions at this time.
The
timeline is critical and we have been instructed to work back from September
1 to nail down the dates for ordering and shipping 99VD049. Please review these slides and provide input regarding the drop-dead order and ship dates.
We will not be ordering any more 98VD019 or 99VD054 unless something goes wrong with the 99VD049.

Preliminary ER probe data from X pad indicates no change in performance.
However, R pad data may show a shift toward slightly higher corrosivity (2.8 to 4.3 mpy) but we feel it is still too early to judge that small of change.

Also, significant production changes from R pad have been occurring, creating more complexity. The EOA still has no corrosion data from their well line test sites.

Are there any other concerns that need to be addressed before we finalize the plan for Richard?

John/Andy - I assume we still have EB at the WPM's and GC's to inject if OIW/BS&W become a problem?

Thanks,

Gary

<<99VD049ExpPlan.ppt>>

> ----------
> From:
> David_Horsup@nalcoexxon.com[SMTP:David_Horsup@nalcoexxon.com]
> Sent: Monday, June 07, 1999 9:48 AM
> To: Paisley, Dominic M.; Crawford, Gary R; Woollam, Richard C.
> Cc: "Richard A Brown at SUG_HUB.CCNEEC"@nalcoexxon.com; PBU, CIC NS TL
> Felix/Phillips; Felix, Rick D; PBU, CIC Prod Chem Todd/Spano; "Daniel G
> Rey at SUG_HUB.CCNEEC"@nalcoexxon.com
> Subject: Re: Urgent - Please Review and Comment
>
>
>
> Richard,
>
> The team discussed this, this morning and the general consensus was
> that migration over to the 049 chemistry would offer the minimum risk
> scenario. Obviously there are risks associated with it but these
> would be less than a total field-wide reduction in dosage of 10%.
> Since this product contains a new demulsifier at a lower dosage, it
> might be wise to have some of this on hand in case of an upset at the
> Gathering Centres. In terms of logistics I do not foresee any
> problems at this end. Danny will be able to give you a clearer
> indication of timings for subsequent rail car quantities. How soon
> would you look to implement this?
>
> Best wishes,
> David
>
>
> _____ Reply Separator
> _____
> Subject: Urgent - Please Review and Comment
> Author: "Woollam, Richard C." <WoollaRC@BP.com> at NEEC
> Date: 06/06/99 21:29
>
>
> Additional Header Information:
> Received: from amgw3.bp.com ([208.221.178.129]) by mail.nalcoexxon.com
> (Lotus SMTP MTA v4.6.1 (569.2 2-6-1998)) with SMTP id
> 86256788.00766E10; Sun, 6 Jun 1999 16:33:34 -0500

> Received: by amgw3.bp.com; id RAA08296; Sun, 6 Jun 1999 17:30:15
-0400
>
> Received: from amclvx8.clv.am.bp.com(161.93.146.100) by amgw3 via
smap
> (V2.1)
>      id xma008266; Sun, 6 Jun 99 17:30:10 -0400
> Received: by AMCLVX8 with Internet Mail Service (5.5.2232.9)
>      id <LX5S10HJ>; Sun, 6 Jun 1999 17:30:11 -0400
> Message-ID: <05481C2F274CD011882A0000F8024BCD02E6A68D@AMANCX2>
> From: "Woollam, Richard C." <WoollaRC@BP.com>
> To: "Paisley, Dominic M." <PaisleDM@BP.com>,
>         "Crawford, Gary R"
>       <CrawfoGR@BP.com>
> Cc: "'Brown, Richard A (NEEC - Anchorage)'"
>       <Richard_A_Brown@nalcoexxon.com>,
>         "PBU, CIC NS TL Felix/Phillips"
>       <PBUCICNSTL@BP.com>,
>         "Felix, Rick D" <FelixRD@BP.com>,
>         "PBU, CIC Prod Chem Todd/Spano" <PBUCICProdChem@BP.com>,
"'Rey,
>         Danny (NEEC - Sugarland)'"
> <Daniel_G_Rey@nalcoexxon.com>,
>        "'Horsup, David (NEEC - Sugarland)'"
> <David_Horsup@nalcoexxon.com>
> Subject: Urgent - Please Review and Comment
> Date: Sun, 6 Jun 1999 17:29:05 -0400
> Importance: high
> X-Priority: 1
> Return-Receipt-To: "Woollam, Richard C." <WoollaRC@BP.com>
> MIME-Version: 1.0
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>
>
> ----------
>
>
>
>
>
>
> Gary/Dominic,
>
> As we discussed we are under significant pressure to reduce the budget.
>
> One of the options that was discussed was to reduce chemical
injection
> rates
> by approximately 10% through the remainder of the year. As
alternative
> I
> would like to also consider expanding the 049 to the pads shown in
the
> attached, effective immediately.
>
> If we were to pursue the 049 expansion, I think we would get almost
as
> much
> cost reduction as we would be cutting 10% on injection rates, can
you
> please
> confirm this is the case including the timing and logistics. Can we
> target an August 1st start date?

>
> From a risk perspective, if we need to reduce cost by 10% then with
> the current corrosion inhibitor technology we would simply be taking
> 10% out of the system with the resultant increase in corrosion rate.
> If we move to 049, we will get the 10% reduction in corrosion
> inhibitor costs and we
may
> not
> get the increase in corrosion rate.
>
> I fully accept that this is a risky call and we will have to review
> the risks associated with it.
>
> In order to maximize the benefit from such a move we will have to
make
> some
> decisions very quickly. John, Rick and I are meeting Monday to
discuss
> this
> and a number of other budget options. Could you please have your
> thoughts together, cost implications, timing, logistics etc., by noon
> Monday, June 7th, so we can make a decision in the afternoon.
>
> The above, and the cessation of the PW injection (with the exception
> of S
> pad) should put us on track for the budget through the remainder of
> the year.
>
> If you have any questions, concerns then please let me know (break
> into the TL's meeting as required).
>
> Thanks and sorry for the short notice - it only occurred to me
> yesterday that this was an option!
>
> Richard.
>
>  <<Chemical Budget Buster.xls>>
>
> PS Danny/David - Can you please start working some of the issues
first
> thing
> in Houston - the logistics are going to be a big part of this one! I
> would also like some thoughts from Sugarland on the potential risks -
likely
> performance of 049 in essence!
>
>

Gary:

Thanks for the heads up. You indicate in the PPT slides that you will order RC quantities of 99VD049 on July 7 for a July 15 ship date. What is the anticipated quantity? Are staggered ship dates ok?

We need to make sure we're ready on this end with production scheduling, raw materials, etc.

Thanks, Danny

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**From:** Woollam, Richard C.
**Sent:** Wednesday, March 08 2000 10:57 AM
**To:** PBU, APC Manager
**Cc:** Martin, Michelle O; 'Gabrielson, Lee'; 'Burrows, Don'; Laasch, Jack (APCI); PBU, Chemical Foreman; PBU, CIC NS TL Felix/Phillips
**Subject:** RE: APC Budget

Bob,

Thanks for the note.

Unfortunately, the oil business is essentially assessed on lifting cost not on the oil price, therefore, as the production level at PBU continues on its relentless decline so must our costs follow. The general decline rate over the last few years has been between 12 and 15% and while the forecast is for this to reduce it still represents a reduction of some 10% per annum. Just to emphasise the point, the amount of money/budget is almost completely independent of the oil price.

As a consequence, the overall PBU budget is declining and the CIC Group, as part of that overall, is also declining. The type of performance we are asking of you is not different to that which we expect of anybody in the organization.

The idea behind a managed service is that you, as the expert, are best able to reduce cost and increase efficiency, if this is something that you do not wish to do then please let me know and I'll do it. However, clearly, if I manage the program rather than yourselves then we need to look at the contract structure in detail.

We have a meeting scheduled for next week - I will be available between now and then if to discuss the way-forward.

Thanks.

Richard.

---

**From:** PBU, APC Manager
**Sent:** Tuesday, March 07, 2000 7:16 PM
**To:** Woollam, Richard C.
**Cc:** Martin, Michelle O; 'Gabrielson, Lee'; 'Burrows, Don'; Laasch, Jack (APCI); PBU, Chemical Foreman; PBU, CIC NS TL Felix/Phillips
**Subject:** APC Budget

Richard,

Thank you for your response to our proposal to reduce the APC budget by 8% for the year 2000. I am disappointed in your answer.

Over the last several years, the management and employees of APC have worked tirelessly to meet BP expectations for service quality and cost. 1999 was our most challenging year yet. Our crews worked hard and made many personal sacrifices to try to meet your goals. Now, they're tired. They haven't had raises in years. There aren't enough people to do the demanded work load. They are frustrated because they can't get everything done; frustrated because they can't meet their own expectations for a high quality of thorough work; and frustrated because your employees are quick to make negative comments about APC as an employer.

When oil prices were below $10.00 per barrel, we were all willing to pitch in and help reduce costs. We did as much work as before (or as close as we could get) with reduced resources. Now, with oil at over $30.00 per barrel, you are asking us to cut another approximately $300,000.00.

We can't cut people (we don't have enough to do the work now!), we can't cut wages (we'll lose the excellent people we have worked so hard to keep!), and about $55,000 of the cuts is from money paid to vendors (VECO, PEAK, ARCO, etc.) over which we have little hope of control.

So, what you are asking us to do is to give up almost $300,000.00 in corporate profits. Profits that have already

been cut from what was available in previous years. Profits that go to Alaska Natives - not a nameless corporation but real people who depend on this money for their existence, for basic human services, and to develop a future for their children.

You have demanded that I take $300 000.00 away from our shareholders, and then continue to find some way to make our employees continue to work beyond their capacity, deny them any additional help (or finance help by taking even more money from the shareholders), and then expect the employees to keep their high standards of service quality, safety and environmental stuardship.

I can not, in any manner of good faith, make such a suggestion to my employer, my employees, or even to BP. I will be meeting with Lee tomorrow (March 8) here in Deadhorse and will discuss my concerns with him. I urge you to reconsider your demands. In my opinion, they are not in the best interests of your company.

Bob Carmichael

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