District Engineer Alaska District Corps of Engineers, U S Army Anghorage, Alaska

BARKOW REPORT

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12 July 1955.

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Ret Inspection of Line and Right-of-Way during Test

Gentlemen:

This is to report on my observations on pipeline and right-of-way inspection between Heines and Station 2B starting 5 July 1955.

Hydrostatic test procedure was observed on the line section between Station 2A and Station 2B. It is believed that both the test procedure and equipment is adequate for the work. A visual patrol by two man teams is made of the test section during the precaure period. It is understood that this patrol also notes some of the deficiencies of the right-of-way.

In the company of Captain Trimble, the writer spot ehecked the rightof-way and line at 20 or 30 points between Haines and Station 28 and at several points walked the line for several miles or more. Thus a reasonably fair picture of line and right-of-way conditions could be gathered.

No indications of leaks or oil sweats were found on any of the pipe examined at this time. Part of the pipe visited had been under oil pressure since July lat and should have shown even the smallest pinhole leak had there been one. Appreximately four miles of line were walked in this section.

Inspection of the right-of-way conditions at the points of spot checking and over the sections patrolled by the writer showed a number of undesirable conditions which should be remedied before acceptance of the line. The following is an enumeration of such conditions.

- 1. Clean-Up: Clean-up of brush and stones as well as leveling of right-of-way is probably the most obviously objectional condition found. Some right-of-way was so out up by tractor and truck tracks made during muddy conditions that no vehicle could now pass. It was also noted that the pipeline was frequently completely off the right-of-way and in the brush.
- Lack of properly installed flumes 2. Plumes. Earsh. Streams: and filling of drains, particularly on nountain sides will cause washes and maintenance problems. Blocking of small mountain streams causing diversion along the right-of-way should be corrected.

It was noted that treatment of pipe through swamp conditions frequently was not as desirable as it should have been.

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- 3. Rooks: At several places pipe was found to rest on rocks or adjacent to rocks and abrasion of the pipe wall was noted. Nost often such conditions could be remedied without undue offert. Removal of such rock or padding would eliminate the condition.
- 4. <u>Suspensions</u> One outstanding fault frequently found on all sections of the line is the suspension of line over distances of 50 feet to several hundred feet. Of perticular concern are points where suspension is found on the slope of a hill and in a sag with the overbend tight on the ground. In warm weather the sag should be tight on the ground and the overbend slightly off the ground.
- 5. Lack of Slack: There appears to be a considerable lack of sufficient slack over many miles of the line. Stretches of line several miles long appeared to have no side deviations of any kind to take up temperature changes. This lack of slack also will contribute to excessive swing in sags when temperature drops.
- 6. <u>location of line on Right-of-Nay</u>: It was noted that the pipe was frequently located on the road side of the right-of-way. This means that maintenance equipment will have to cross the line before it can travel along the right-of-way.

In conclusion the writer would state that these comments are not meant to be hyper-critical and any correction made at this time will save considerable maintenance time and aid in the proper servicing in time of energency.

The inspection did show some right-of-way that was beautifully cleaned up and some cross and swamp crossings that were all that could be desired.

The writer wishes also to express his appreciation to Captain Trimble for his assistance in making this tour possible and enjoyable.

Sincerely.