

**ASSESSMENT OF EROSION AND PLANT COVER
ON THE TRANS ALASKA PIPELINE
RIGHT OF WAY
MILEPOSTS 0 TO 800
VOLUME 1 OF 3**

**PREPARED FOR
THE STATE PIPELINE COORDINATOR'S OFFICE
ALASKA DEPARTMENT OF NATURAL RESOURCES
SEPTEMBER, 1992**

**PREPARED BY
ALASKA PLANT MATERIALS CENTER
DIVISION OF AGRICULTURE
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SUMMARY

Maintenance of the workpad is a continual process. Most of the workpad appears to be in excellent condition, although access could be improved in some sections with gravel fill and grading.

Erosion problems are minor and appear to be related to thaw or surface erosion on particularly steep slopes.

Plant cover varies from a relatively sparse cover near Milepost 0 to 100% cover in many areas farther south. Native species have invaded the workpad and seem to provide the greatest amount of plant cover.

The densest stands of Meadow Foxtail and Smooth Brome, revegetation species seeded in 1977, were found growing over sections of buried pipe. Red fescue has persisted since 1977 along the entire length of the pipeline.

If erosion is not a potential problem along the workpad future disturbances should not be seeded and left to revegetate naturally. The site should be scarified to enhance the invasion of native species. Seeding should be limited to areas that are likely to erode before native vegetation can become established.

Priorities for future evaluations of erosion and plant cover should be given to areas where problems are known to exist. For instance, the

workpad around Pump Station 7 experienced erosion as a result of the rapid spring breakup. This area could be reevaluated in the spring of 1993. Small segments of the workpad could be evaluated each rather than trying to evaluate the entire pipeline at one time. In this way, the entire pipeline would be inspected once every few years.

INTRODUCTION

The intent of this report is to provide a cursory overview of the present condition of the Trans Alaska Pipeline Right-of-Way (ROW) workpad. A mile-by-mile survey was conducted between September 1991 and June 1992. All non-flood plain portions of the work pad were evaluated for erosion, plant cover and taxa at each milepost. Any erosion between the mileposts was also noted.

Plant cover and the taxa present were noted, including those species found in the original seed mixes used by Alyeska Pipeline Service Company for revegetating the workpad in 1977. The information gained from this project will be useful for developing future revegetation plans.

The project was initiated and paid for through a Reimbursable Services Agreement with the State of Alaska Department of Natural Resources Pipeline Coordinators offices. Alyeska Pipeline Service Company provided logistical support in the field and personnel to participate in

the evaluation

METHODS

Evaluation of erosion and plant cover along the Trans Alaska Pipeline ROW began on September 3, 1991, at Pump Station 1, Mile 0 of the pipeline and proceeded south. The first phase of the evaluation ended when the snow fell in October and resumed in June 1992. The field work portion of the study was completed on July 10, 1992.

This evaluation often coincided with the ground surveillance conducted by Alyeska personnel as part of Alyeska's general maintenance program. A P&CM (Pipeline and Construction Manager) also drove the workpad, inspected the pipeline, explained the maintenance program and indicated which locations along the workpad were scheduled for repair.

Inspection of the pipeline ROW included a mile-by-mile drive of the workpad. This procedure made it possible to detect any erosion problems that occurred between mileposts. Two photographs, one to the north and another to the south, were taken at each mile. The percent cover of vascular plants on the workpad was estimated and recorded in one of four cover classes: 0-25%, 25-50%, 51-75%, and 75-100%. When plant cover on the road side of the workpad differed from the plant cover in areas affected by the pipeline, the differences were noted. The plant taxa were recorded and identified to

species if possible. In most cases, the genus was noted; occasionally the plant family was the closest identification possible. Approximately five minutes were spent at each stop.

HOW THE RESULTS ARE REPORTED

The tables in section A report erosion and plant cover. The first column indicates whether any significant erosion was observed. The 'n' represents no erosion, 'minor' represents a small or potential problem in the area. No other erosion notations were necessary and any other comments are self explanatory. The next four columns report the percent plant cover. The 'X' represents the estimated cover on the pipeline side of the workpad and the 'R' represents the estimated cover for the access road side of the workpad.

The headings of the next series of three to five columns are symbols for plant names. These symbols identify the species used in Alyeska's revegetation seed mixes. The pipeline corridor was divided into four different regions in 1977, each with its own seed mix (Table 1). Each component of the seed mixes is listed separately except for Mix #3 in which two varieties of red fescue and one variety of hard fescue are combined in a general heading, FESTUCA. The remaining components of Mix #3 are listed separately. A space for comments occurs at the end of each

line.

The symbols used to denote each taxa are based on the 1982 National List of Scientific Plant Names, Volume 1. These symbols are designed to provide a simple five letter code for each taxa. When more than one species with the same symbol occurs, a number is added to the symbol to clarify which species is being referenced. Five letter symbols are also used for the genus and family names.

The tables in section B list the taxa that were observed at each milepost. New taxa were added to the list as they occurred during the drive southward. Table 2 lists the symbols for the taxa as they occur in section B as well as their scientific names. No voucher specimens were collected to verify these notations. The observations were made quickly and as accurately as possible, however some taxa may not have been recorded.

The photo section (Section P) presents two photos for each mile. The photos taken to the north were placed on the left side of the page and the photos taken to the south were placed on the right side of the page. Odd numbered miles of above ground pipe were not marked with mileposts. However, the VSMS are marked with the measured distance from Pump Station 1 in feet. The position of the odd numbered miles were either calculated and matched with the VSM most closely corresponding to the calculation; or the distance was measured by the

odometer of an Alyeska truck.

Photos are missing for some of the miles. There are, however, records of erosion problem areas and notations regarding plant cover and plant taxa.

RESULTS AND DISCUSSION

The workpad appears to be in excellent condition with minimal erosion and adequate plant cover. Native plants have invaded much of the workpad and in other areas, particularly where the pipe was buried, plant cover consisted almost entirely of species seeded in 1977 during the original revegetation program.

Values reported for plant cover reflect the differences in geographic area, soils and growing season. The northern 403 miles and alpine areas through the Alaska Range and over Thompson Pass were evaluated in the fall. In these areas plant cover and taxa may have been under reported since the plants had senesced and therefore exhibited less cover than they may have earlier in the growing season. Hopefully, the broad cover classes used to report data in Section A compensated for this problem.

The northern section of the workpad contains the fewest number of plant taxa. Plant diversity and plant cover increases in the more southern sections of the ROW.

Vegetation along the workpad Mile 0-61 consisted primarily of red fescue,

native grasses, forbs and willows. Sections of the workpad near the floodplain south of the Sagwon Bluffs and the Atigun River Valley have been invaded by willow and nitrogen fixing species such as native legumes and soapberry, Shepherdia canadensis. Red fescue, probably part of the original a seed mix, was also present.

Although cover data report only vascular plant cover, mosses and to a lesser extent lichens can contribute 25-50% or more of the total plant cover.

Willows, Salix sp., are the most dominant woody plants along the workpad north of Milepost 190. White spruce and poplar are invading the workpad beginning at Milepost 190. The diversity of woody plants continues to increase further south on the ROW and includes, alder, birch, black spruce and several shrubby species.

Woody species, particularly willow and alder increase the plant cover dramatically and provide effective erosion control.

Fescue, fireweed and moss was found most consistently along the workpad except in areas where the pipe was buried. In the interior some sections of buried pipe are covered primarily by grasses consisting primarily of dense stands of Brome or Meadow Foxtail. Further south, woody vegetation, primarily alder provides the dominant plant cover on the buried

and above ground sections of the ROW. Larch is an important component of the vegetation community along the workpad in the Pump Station 8 and 10 areas.

Alder, willow and poplar had grown to a height of 8-12 feet in some areas. Plants of this size apparently interfere with the visual inspection of the pipeline and workpad, particularly from the air. Alyeska began a brush cutting program in September, 1991. The program began near Pump Station 5 and moved south. Sections of the workpad with heavy brush cover in the vicinity of Pump Stations 5, 6, 7, 8, 10 and 12 have been identified for brush removal.

Surface erosion at the time of the evaluation did not appear to be a problem. Thermokarst activity, particularly near Happy Valley and Pump Station 3, appears to present the greatest potential for problems. Some sections of the access road were rough but still passable. These areas were scheduled for repair.

Another potential thermal erosion problem that was first observed near Pump Station 6 occurs when fill material around the base of the VSMS subsidizes and creates a depression that collects water. This problem is being analyzed by engineering staff in Anchorage.

Some of the steeper slopes of the workpad in the interior, particularly near Pump Station 7, and sections near Thompson Pass exhibited erosion along

the tire tracks in the drive lane. Spring runoff and heavy rain showers probably cause this problem which appears to require annual repair.

CONCLUSIONS AND RECOMMENDATIONS

In general the workpad appeared to be in excellent condition. No major erosion problems were apparent, probably because Alyeska addresses the minor erosion problems when they first appear. Any erosion problems noted during the inspection were scheduled for repair or were being analyzed by engineering staff for the most effective solution.

The vegetative cover on the workpad is adequate. Native plants have invaded much of the workpad and appear to provide more cover than the revegetation species seeded in 1977. Three species from the original seed mixes have persisted; they include Red Fescue, Meadow Foxtail and Smooth Brome. Red Fescue was observed along the entire length of the workpad. Foxtail and Brome were observed at several locations but were found growing in the densest stands over the buried pipe.

Judging from the general lack of erosion problems and the ability of native plants to colonize the workpad, seeding with revegetation grasses does not appear to be necessary. Grass seeding should be limited to areas where erosion potential is high. In both situations the site should be scarified.

REFERENCES

Hulten, E. 1968. Flora of Alaska and neighboring territories: A manual of vascular plants. Stanford Univ. Press, Stanford, Calif. 1008 pp.

Report No. RV-001.2. May, 1974. Revegetation. Alyeska Pipeline Service Company, Anchorage, Alaska.

U.S. Department of Agriculture, Soil Conservation Service-SCS-TP-159. 1982. National List of Scientific Plant Names. Volume 1, List of Plant Names. U.S. Government Printing Office. Washington, D.C.

Alyeska provided considerable support for this project. Questions were answered quickly and every effort was made to help this project go as smoothly as possible. This project is extensive and perhaps it would be best to spread the evaluation process over several years. This would allow sections of the workpad which are most susceptible to erosion to be evaluated more frequently or as problems arise. Other sections could be placed on a rotating schedule and evaluated every few years. In this way an evaluation of the entire pipeline ROW would occur approximately every five years.

TABLE 2. LIST OF PLANT SYMBOLS AND SCIENTIFIC NAMES

LIST OF TAXA PAGE 1

POA	POA SPECIES
ARLA2	ARCTAGROSTIS LATIFOLIA
MOSS	MOSS SPECIES
FERU2	FESTUCA RUBRA
DRYAS	DRYAS SPECIES
CRUCI	CRUCIFERAE
SALIX	SALIX SPECIES
EPLA	EPILOBIUM LATIFOLIUM
GRAMI	GRAMINEAE
ARAR9	ARTEMISIA ARCTICA
COMPO	COMPOSITAE
SAOP	SAXIFRAGA OPPOSITIFOLIA
PARNA	PARNASSIA SPECIES
LUPIN	LUPINUS SPECIES
CARYO	CARYOPHYLLACEAE
JUNCU	JUNCUS SPECIES
ERIOP	ERIOPHORUM SPECIES
HEDYS	HEDYSARUM SPECIES
CRNA	CREPIS NANA
OXYTR	OXYTROPIS SPECIES

ASAL7	ASTRAGALUS ALPINUS
ASTER	ASTER SPECIES
ACHIL	ACHILLEA SPECIES
HOJU	HORDEUM JUBATUM

LIST OF TAXA PAGE 2

SHCA	SHEPERDIA CANADENSIS
TARAX	TARAXACUM SPECIES
POFR4	POTENTILLA FRUTICOSA
ALNUS	ALNUS SPECIES
ARTI	ARTEMISIA TILESII
LICHE	LICHEN SPECIES
EPAN2	EPILOBIUM ANGUSTIFOLIUM
SATR5	SAXIFRAGA TRICUSPIDATA
PAPAV	PAPAVER SPECIES
PICEA	PICEA SPECIES
CAREX	CAREX SPECIES
POBA2	POPULUS BALSAMIFERA
JUNIP	JUNIPERUS SPECIES
BEGL	BETULA GLANDULOSA
TOFIE	TOFIELDIA SPECIES
BETUL	BETULA SPECIES
EQUIS	EQUISETUM SPECIES
RIBES	RIBES SPECIES
PYROL	PYROLA SPECIES
RUBUS	RUBUS SPECIES
UNKWN	UNKNOWN TAXA
LEDUM	LEDUM SPECIES
POTEN	POTENTILLA SPECIES
POTRT	POPULUS TREMULOIDES

LIST OF TAXA PAGE 3

VACCI	VACCINIUM SPECIES
SPIRA	SPIRAEA SPECIES
VAVI	VACCINIUM VITIS-IDAEA
ARCTO3	ARCTOSTAPHYLOS SPECIES
TRIFO	TRIFOLIUM SPECIES
POAC	POLEMONIUM ACUTIFLORUM
MEPA	MERTENSIA PANICULATA
PLANT	PLANTAGO SPECIES

LALA	LARIX LARICINA ALASKENSIS
CASTI	CASTILLEJA SPECIES
AQUIL	AQUILEGIA SPECIES
ROSA	ROSA SPECIES
CHENO	CHENOPODIUM SPECIES
PEDIC	PEDICULARIS SPECIES
CORNU	CORNUS SPECIES
EMNI	EMPETRUM NIGRUM
FRAGA	FRAGARIA SPECIES
SANGU2	SANGUISORBA SPECIES
LIBO3	LINNAEA BOREALIS
ELCO	ELAEAGNUS COMMUTATA
SAXIF	SAXIFRAGA SPECIES
SIPR	SIBBALDIA PROCUMBENS
SORBU	SORBUS SPECIES
TSUGA	TSUGA SPECIES
FERN	FERN SPECIES

TABLE 1. SPECIES IN ALYESKA'S 1977 REVEGETATION SEED MIXES.

Seed Mix	Arctared Fescue	Nugget Kentucky Bluegrass	Red Top Bentgrass	Boreal Red Fescue	Annual Rye	Climax Timothy	Meadow Foxtail	Manchar Smooth Bromegrass	Ducar Hard Fescue	Sydsport Bluegrass
#1	X	X	X	X	X					
#2	X	X	X	X	X	X	X			
#3				X	X		X	X	X	
#4	X			X	X		X			X

SECTION B

LIST OF TAXA BY MILEPOST

PAGE 1

POA
ARLA2
MOSS
FERU2
DRYAS
CRUCI
SALIX
EPLA
GRAMI
ARAR9
COMPO
SAOP
PARNA
LUPIN
CARYO
JUNCU
ERiop
HEDYS
CRNA
OXYTR
ASAL7
ASTER
ACHIL
HOJU
POA SPECIES
ARCTAGROSTIS LATIFOLIA
MOSS SPECIES
FESTUCA RUBRA
DRYAS SPECIES
CRUCIFERAE
SALIX SPECIES
EPILOBIUM LATIFOLIUM
GRAMINEAE
ARTEMISIA ARCTICA
COMPOSITAE
SAXIFRAGA OPPOSITIFOLIA
PARNASSIA SPECIES
LUPINUS SPECIES
CARYOPHYLLACEAE
JUNCUS SPECIES
ERIOPHORUM SPECIES
HEDYSARUM SPECIES
CREPIS NANA
OXYTROPIS SPECIES
ASTRAGALUS ALPINUS
ASTER SPECIES
ACHILLEA SPECIES
HORDEUM JUBATUM

PAGE 2

SHCA
TARAX
POFR4
ALNUS
ARTI
LICHE
EPAN2
SATR5
PAPAV
PICEA
CAREX
POBA2
JUNIP
BEGL
TOFIE
BETUL
EQUIS
RIBES
PYROL
RUBUS
UNKWN
LEDUM
POTEN
POTRT
SHEPERDIA CANADENSIS
TARAXACUM SPECIES
POTENTILLA FRUTICOSA
ALNUS SPECIES
ARTEMISIA TILESII
LICHEN SPECIES
EPILOBIUM ANGUSTIFOLIUM
SAXIFRAGA TRICUSPIDATA
PAPAVER SPECIES
PICEA SPECIES
CAREX SPECIES
POPULUS BALSAMIFERA
JUNIPERUS SPECIES
BETULA GLANDULOSA
TOFIELDIA SPECIES
BETULA SPECIES
EQUISETUM SPECIES
RIBES SPECIES
PYROLA SPECIES
RUBUS SPECIES
UNKNOWN TAXA
LEDUM SPECIES
POTENTILLA SPECIES
POPULUS TREMULOIDES

PAGE 3

VACCI
SPIRA
VAVI
ARCTO3
TRIFO
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MEPA
PLANT
LALA
CASTI
AQUIL
ROSA
CHENO
PEDIC
CORNU
EMNI
FRAGA
SANGU2
LIBO3
ELCO
SAXIF
SIPR
SORBU
TSUGA
FERN
VACCINIUM SPECIES
SPIRAEA SPECIES
VACCINIUM VITIS-IDAEA
ARCTOSTAPHYLOS SPECIES
TRIFOLIUM SPECIES
POLEMONIUM ACUTIFLORUM
MERTENSIA PANICULATA
PLANTAGO SPECIES
LARIX LARICINA ALASKENSIS
CASTILLEJA SPECIES
AQUILEGIA SPECIES
ROSA SPECIES
CHENOPODIUM SPECIES
PEDICULARIS SPECIES
CORNUS SPECIES
EMPETRUM NIGRUM
FRAGARIA SPECIES
SANGUISORBA SPECIES
LINNAEA BOREALIS
ELAEAGNUS COMMUTATA
SAXIFRAGA SPECIES
SIBBALDIA PROCUMBENS
SORBUS SPECIES
TSUGA SPECIES
FERN SPECIES

SECTION A

EROSION AND PLANT COVER DATA BY MILEPOST

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #1)				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	AGTE	
0	n	X-R				X				R is the percent plant cover on the workpad adjacent to the access road, and opposite the pipeline
1	n		X-R							VSM 60-79
2	n	X		R		X				
3	n		X		R					VSM 16-116
4	n	X	R							
5	n	X-R				X				VSM 268-82
6	n	X	R			X				
7	n	X			R					VSM 371-50
8	n	X	R			X				
9	n	X	R			X				VSM 475-11
10	n	X		R		X				
11	n	X-R				X				
12	n		X-R			X				depressions created by thaw settlement have been recently filled -transition to below ground
13	n		R	X		X				fill areas have no vegetative cover
14	n			X-R		X				
15	n			R	X	X				
16	n	X-R				X				
17	n			X-R		X				
18	n	R		X		X				
19	n	R		X						
20	n	R			X					recently disturbed areas from cathodic protection work
21	n		X-R			X				
22	PIPELINE	IN	FLOOD	PLAIN						
23	n			R	X	X				cathodic protection construction in the vicinity
24	n			R	X	X				
25	n	R		X		X				
26	n	X-R				X				
27	n	X-R				X				fine material stockpiled and will be spread over gravel

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present (Mix #1)				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	AGTE	
28	PIPELINE	IN	FLOOD	PLAIN						
29	n	R			X	X				
30	PIPELINE	IN	FLOOD	PLAIN						
31	n		X-R			X				
32			R	X		X				
33	n	R			X	X				
34	minor	R			X	X				standing water created by thawing ice lenses; some subsidence is occurring on the drive lane side of the workpad; organic material will be spread this week 9-4-91;
35	n	R			X	X				
36	n	R			X	X				
37	n	R			X	X				
38	n		R	X		X				
39	n	R		X		X				
40	n		R	X		X				
41	n		R		X	X				
42	n		R		X	X				
43	n	R			X	X				
44	n		R		X	X				
45	n		R		X	X				
46	n			R	X	X				
47	n		R		X	X				
48	n			R	X	X				
49	n		R		X	X				
50	n			R	X	X				
51	n			R	X	X				
52	n	R			X	X				small areas have been disturbed
53	n	R			X	X				
55	n	R		X		X				VSM 2005-36
56	n		R	X		X				

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present (Mix #1)				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	AGTE	
57	n	X-R				X				VSM 3011+71
58	n			X-R		X				
59	n	R			X	X				
60	n	X		R		X				
61	n	R	X			X				
62	PIPELINE	IN	FLOOD	PLAIN						
63	n		R	X		X				
64	minor			R	X	X				Drive lane affected by thermokarst-passable but very rough
65	n		R	X		X				
66	n		R		X	X				
67	n				X-R	X				
68	n			R	X	X				
69	n			R	X	X				
70	n			R	X	X				
71	n			R	X	X				
72	n	X	R			X				area recently disturbed
73	n		R		X	X				
74	n	R			X	X				
75	n			R		X				
76	n		X	R		X				
77	n		R	X		X				
78	n		X-R			X				
79	n				X-R	X				
80	n		R		X	X				
81	n			X-R		X				
82	n				X-R	X				
83	n		R		X	X				
84	n		X-R							

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present (Mix #1)				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	AGTE	
85	n		R	X		X				VSM 4495+77
86	n			X-R		X				
87	n		X	R		X				VSM 4593+89
88	n	R	X			X				
89	n		X	R		X				VSM 4699+20
90	minor				X-R	X				ponding along the edge of the workpad - thaw settlement causing rough access road
91	n		R		X	X				VSM 4804+80 this section should be backfilled and regraded in 1992
92	n			R	X	X				
93	n				X-R	X				VSM 4910+40
94	n				X-R	X				
95	n				X-R	X				VSM 5016+00
96	n		R	X		X				
97	n		R	X		X				VSM 5121+60
98	n			R	X	X				
99	n			X-R		X				VSM 5227+12
100	n				X-R	X				
101	minor				X-R	X				VSM 5332+80 depressions in workpad need fill material
102	n				X-R	X				
103	n				X-R	X				VSM 5438+40
104	n			X		X				the access road side of the workpad has no plant cover, it is all gravel
105	n				X-R	X				
106	n				X-R	X				
107	n				X-R	X				
108	n			R	X	X				
109	n		R	X		X				
110	n	R		X		X				
111	n	X-R				X				VSM 5860+80
112	n	X	R			X				

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #2-Species Present					Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	PHPR3	AGTE	
124	n		X-R			X					
125	n		X-R			X					VSH 6600-00
126	n	X	R			X					
127	n	X-R				X					VSH 6705+46
128	n	X-R				X					
129	n			X-R		X					VSH 6811+20
130	n	R	X			X					
131	n		X-R			X					VSH 6916+80
132	n			X-R		X					
133	n				X-R	X					VSH 7022+40
134	n			R	X	X					
135	n		R	X		X					VSH 7128+00
136	n		R	X		X					
137	n			X	R	X					VSH 7233+60
138	n		X-R			X					
139	n		X-R			X					VSH 7339+20
140	n			X-R		X					
141	n			X-R		X					VSH 7444+80
142	n		X-R			X					
143	n			X	R	X					VSH 7550+40
144	n	X-R				X					Pump Station 4
145	n	X	R			X					VSH 7656+21
146	n		X-R			X					
147	n	R	X			X					VSH 7761+53
148	n	X-R				X					
149	n	X-R				X					VSH 7867+20
150	n				X-R	X					
151	n		R		X	X					VSH 7972+80

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #2 - Species Present					Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	PHPR3	AGTE	
152	n			X		X					
153	n	R	X			X					VSH 8078+28
154	n			X	R	X					
155	n		R	X		X					VSH 8184+03
156	n	X	R			X					
157	ATIGUW	REROUTE									
158	"	"									
159	"	"									
160	"	"									
161	"	"									
162	"	"									
163	"	"									
164	"	"									
165	"	"									
166	n	X-R				X					
167	n	X-R									Plant cover absent
168	n	X-R									Plant cover absent
169	n	R	X			X					
170	n		X	R		X					VSH 888976+00
171	PIPELINE	IW	FLOOD-	PLAIN							
172	n	X-R									VSH 9079+00 Plant cover absent Area excavated in '90 and will be disturbed again in '92
173	n		R	X		X			X		
174	n			X-R		X			X		
175	MONITOR	R			X	X					Thermokarst on tundra adjacent to the pad-should be monitored
176	n		R		X	X			X		
177	n		X-R		X						
178	n		X		R				X		Plant cover absent at milepost; cover values reflect plant cover in the vicinity
179	n				X-R	X					VSH 9451+20 stream crossing at VSH 9440.38 needs improvement to ensure access

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #2 - Species Present					Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	PHPR3	AGTE	
180	PIPELINE	IN	FLOOD-	PLAIN							
181	PIPELINE	IN	FLOOD-	PLAIN							
182	PIPELINE	IN	FLOOD-	PLAIN							
183	PIPELINE	IN	FLOOD-	PLAIN							
184	PIPELINE	IN	FLOOD-	PLAIN							
185	n		X-R			X					
186	n		X-R			X					
187	n				X-R	X					
188	n			X-R		X			X		
189	n		X-R			X					
190	n		R		X	X					
191	n			R	X	X					VSN 10083+19
192	n				X-R	X			X		
193	PIPELINE	IN	FLOOD-	PLAIN							
194	n			X-R		X					Photo taken from the road--did not access directly
195	PIPELINE	IN	FLOOD-	PLAIN							
196	n			R	X	X			X		
197	n	R			X	X					VSN 10399+33
198	n			X	R	X					
199	n		R		X	X					VSN 10506+80
200	n				X-R	X					
201	MILEPOST	INACCESS-	IBLE								Access temporarily blocked
202	n	R			X	X					
203	n				X-R	X			X		VSN 10722+32
204	n				X-R	X					
205	n			R	X	X					VSN 10824+00
206	n			X	R	X					
207	n			R	X	X					

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #2 - Species Present					Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	PHPR3	AGTE	
208	n				X-R	X					Plant cover estimated from photo
209	n			X-R		X					VSM 11025+73
210	n			X	R						
211	PIPELINE	IN	FLOOD-	PLAIN							
212	n				X-R						
213	n				X-R						
214	n				X-R						
215	n				X-R	X					
216	n				X-R	X					
217	n			X-R		X					VSM 11452+59
218	n		R	X		X					
219	n		X-R			X					
220	n			X-R		X					
221	n				X-R	X					
222	n			X-R		X					
223	n			X-R		X					VSM 11780+49
224	n			X	R						
225	n			X-R		X					
226	n	R		X		X					
227	n	R	X			X					
228	n				X-R	X					
229	MONITOR			R	X	X					Stream west of the pad has the potential to erode the workpad - no photo
230	n		R	X		X					
231	n			X	R						
232	n			R	X	X		X			
233	n				X-R						
234	n			R	X	X					Milepost 233.9-a spill during the winter killed plants; area will be backfilled
235	n				X-R	X					

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
236	n	X	R					X		area recently disturbed when anode bags were installed
237	n				X-R	X				VSM 12513+72 a small sink hole exists between mile 236-237--not a problem now--will need fill
238	n				X-R			X		
239	n			R	X			X		VSM 12617+23
240	n				X-R			X		
241	n	R			X					VSM 12731+77
242	n			R	X	X				
243	n				X-R				X	
244	n				X-R					
245	n				X-R	X				
246	n				X-R	X			X	
247	n				X-R	X				VSM 13044+50
248	n				X-R	X	X		X	
249	n	X-R				X				VSM 13139+73 Pad reworked in 1990
250	n			X-R			X		X	
251	n				X-R		X		X	VSM 13256+89
252	n	X			R			X	X	
253	n				X-R	X				Over the last two miles the pad has been reworked, fill has been added to areas of thaw settlement
254	n				X-R		X		X	
255	minor				X-R				X	VSM 13462+49 The ground around the base of the VSMs is subsiding in this area -no photo
256	n				X-R		X		X	
257	n			R	X	X	X	X	X	VSM 13568+28
258	minor	R		X						Thaw settlement causing rough surface on workpad-priority for spring 1992 - no photo
259	n		X	R		X	X		X	
260	n		X	R		X	X		X	
261	n			R	X			X	X	VSM 13782+24
262	n			X-R		X	X	X	X	
263	n		X		R					

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPK3	BRIN2	
264	n		X	R				R		
265	n			R	X				X	VSH 13399+33 Vegetation absent along line that may be the drip line from the edge of the pipeline
266	n			X-R				X	X	
267	n				X-R		X		X	VSH 14095+01
268	n			X-R		X	X		X	
269	n			R	X				X	VSH 14201+13
270	n				X-R				X	
271	n	X	R						X	
272	n			R	X	X		X	X	
273	n		R	X		X			X	VSH 14415+65-
274	n	X-R							X	Fill has been added during the summer-91. Plant cover to 100% where it was undisturbed.
275	n				X-R			X	X	
276	n	R		X						Fill recently added to the roadway
277	n			X-R		X			X	
278	n				X-R					
279	n				X-R			X	X	
280	n				X-R		X	X	X	
281	n				X-R			X	X	
282	n				X-R		X			
283	n				X-R			X		
284	n			X-R			X	X	X	
285	n			R	X			X	X	
286	n				X-R					
287	n				X-R		X	X		Brushed 3 weeks earlier
288	n				X-R		X	X		Brushed 3 weeks earlier
289	n			R	X		X			VSH 15256+05
290	n				X-R			X	X	Brushed 3 weeks earlier
291	n				X-R				X	Brushed 3 weeks earlier

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	BRIN2	
292	n				X-R	X		X	X	
293	n				X-R	X	X	X	X	
294	n				X-R	X	X	X	X	
295	n				X-R		X	X		
296	n				X-R	X		X	X	
297	n				X-R				X	
298	n				X-R		X	X	X	
299	n				X-R	X	X			
300	n				X-R	X	X			
301	n				X-R	X			X	
302	n				X-R			X	X	
303	n		X-R				X		X	Area disturbed--new containment structures?
304	n				X-R	X			X	
305	n				X-R	X		X	X	
306	n				X-R		X	X	X	
307	n				X-R	X				
308	n				X-R	X		X	X	
309	n			X-R		X			X	
310	n		X-R			X			X	
311	n			X-R		X		X	X	
312	n				X-R		X	X		
313	n				X-R	X		X		VSM 16526+34
314	n				X-R			X		
315	n				X-R	X		X	X	VSM 16632+03
316	n				X-R				X	
317	n				X-R	X		X		VSM 16737+60
318	n				X-R			X		
319	n				X-R	X				VSM 16843+29

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	BRIN2	
320	n				X-R	X				
321	n				X-R			X	X	
322	n			X-R				X	X	VSM 17001+16
323	n			X-R				X	X	VSM 17054+40
324	n				X-R	X		X		
325	n	X-R				X		X	X	VSM 17160+36 Plant cover is estimated for vascular plants-non-vascular plant cover (mosses and lichens) adds 25-50 percent more cover.
326	n	X-R						X		
327	n		X-R					X	X	VSM 17265+60
328	n	X-R						X		
329	n		X-R					X		VSM 17371+20
330	n	X-R				X		X		
331	n	X-R				X		X		VSM 17476+80
332	n		X-R			X		X		
333	n		X-R					X	X	VSM 17582+40
334	n		X-R					X		
335	n		X-R					X		VSM 17688+07
336	n	X-R								
337	n			X-R						VSM 17793+60
338	n			X-R				X	X	
339	n				X-R			X	X	
340	n		X-R					X	X	
341	n				X-R			X	X	VSM 18004+80
342	n		X-R					X		
343	n				X-R	X			X	VSM 18110+40
344	n		X-R						X	
345	n		X-R						X	VSM 18216+00
346	n	X-R			X					

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	BRIN2	
348	n		X-R			X			X	
349	n			X-R		X			X	VSM 18427+16
350	n		X-R			X	X		X	
351	n				X-R		X		X	VSM 18532+80
352	n		X-R				X		X	
353	n				X-R					VSM 18638+85 Area recently brushed-woody plant cover had been very dense
354	n				X-R				X	
355	OCCURS	IN PUMP	STATION	6						
356	n			X-R					X	
357	n	X-R				X			X	VSM 18849+60
358	n				X-R		X		X	
359	n			X-R			X		X	VSM 18955+20
360	n				X-R	X		X	X	
361	n			X-R					X	VSM 19060+80 Hand brushed
362	n		X-R						X	
363	n				X-R				X	VSM 19166+40
364	n				X-R			X	X	
365	n				X-R			X	X	
366	n			X-R					X	
367	n				X-R	X	X		X	
368	n		X-R			X			X	
369	n				X-R	X			X	
370	n	X-R				X	X		X	
371	minor			X-R				X	X	Small hole (ice lense?) needs to be backfilled
372	n		X-R			X	X		X	
373	n			X-R					X	VSM 19694+40
374	n			X-R						Plant cover is highly variable
375	n	X-R				X			X	VSM 19800+11

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix Species Present				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	BRIN2	
376	n	X-R				X			X	
377	n		X-R			X			X	VSM 19905+60
378	n	X-R				X				
379	n				X-R			X	X	VSM 20022+27
380	n		X-R			X			X	
381	n			X-R				X	X	VSM 20116+80
382	MISSED									
383	n	X-R								VSM 20222+14 Area recently reworked-should be dormant seeded with Alyeska seed mix #3-fall 1991
384	n	X-R				X			X	
385	n				X-R			X	X	VSM 20328+00
386	n			X-R					X	
387	n		X-R						X	VSM 20433+92
388	n		X-R					X	X	
389	n				X-R			X	X	VSM 20539+24
390	n		X-R					X	X	
391	n				X-R				X	VSM 20644+90
392	minor	X-R				X			X	Minor erosion on access road south of mile 392.
393	n				X-R			X	X	
394	n	X-R				X				Area recently reworked and compacted
395	n				X-R				X	VSM 20862+45 Woody plants have been brushed
396	n		X-R						X	Plant cover highly variable at this location
397	n				X-R			X	X	
398	n			X-R		X			X	
399	n				X-R				X	
400	n			X-R				X	X	
401	n				X-R			X	X	
402	n				X-R			X	X	
403	n			X-R				X	X	Completed the workpad evaluation on this section and north on 9/14/91

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
404	n		X-R			X			X	
405	n			X	R			X	X	VSM 2138400
406	minor				X-R			X		Gravel stockpile - repairs have been delayed because of the late spring. No photo
407	n				X-R					VSM 2148960
408	minor				X-R			X		Surface erosion along access road Mile 408-410. Plan to repair in 1992.
409	minor				X-R			X		"
410	minor				X-R			X		"
411	n				X-R					VSM 2170080
412	n			X	R				X	
413	n			X	R	X				VSM 2180627
414	n			X	R				X	
415	n			R	X					VSM 2191228
416	n			R	X					
417	minor				X-R				X	VSM 2201751 monitor creek crossing between 416-417 ground appears unstable - thermal erosion?
418	SNOWPAD	INACCESS-	IBLE							
419	n		R		X	X		X		
420	n				X-R	X		X		
421	n		X		R	X		X	X	VSM 2222899
422	n		R		X	X	X	X	X	
423	n				X-R			X		VSM 2233440
424	n				X-R	X		X		
425	n				X-R			X		Branches from brush clearing were left in the drive lane making uphill access impossible.
426	n				X-R	X		X	X	
427	n				X-R			X		
428	n			X	R			X		
429	n				X-R	X		X		
430	n				X-R			X		
431	n			X-R				X		VSM 2275715

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
432	n			X	R			X		
433	n			R	X					
434	minor				X-R	X		X		Erosion occurring in tire tracks. Also ATV traffic drive around gate and are creating a mudhole.
435	n			X-R				X	X	VSM 2296800
436	n				X-R	X	X			
437	n	X			R					VSM 2307360 Vegetation concentrated under crossbeam.
438	n		R		X		X	X		
439	n			X-R						VSM 2317891
440	n			X	R			X		Plant cover varies from 50-100 percent.
441	n			X	R				X	VSM 2328480
442	n	X		R						
443	n			X-R						
444	n		X		R			X		Plant cover varies from 25-100 percent.
445	n			R	X	X	X	X	X	
446	n				X-R	X		X		
447	n			X	R			X		Plant cover is less on the top of the buried pipe than the sides and margins of the pipe.
448	n				X-R				X	
449	n				X-R			X		
450	n	X-R								Pipeline viewing area--isolated areas have plant cover to 50 percent.
451	n		X-R					X	X	
452	n				X-R			X		
453	n				X-R		X	X	X	
454	n				X-R			X		
455	n				X-R			X		
456	n				X-R	X				
457	n			X-R					X	VSM 2412939
458	n	R			X	X			X	
459	n				X-R	X			X	

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
460	n		R	X			X			
461	n				X		X	X	X	
462	n				X				X	
463	n				X				X	
464	n		X		X	X		X	X	
465	n	X		X					X	
466	n				X		X		X	
467	n	X		X			X		X	
468	n	X		X			X		X	
469	n			R	X		X		X	
470	n		X	R				X	X	
471	n	X-R							X	
472	n	X-R					X		X	
473	n	R		X		X	X		X	Plant cover is highly variable
474	n				X-R		X		X	
475	n		X-R							VSM 2508916
476	n			X-R						
477	n				X-R	X			X	
478	n			X-R		X			X	
479	n				X-R		X	X	X	VSM 2529120
480	n		R	X				X		
481	n			X-R				X		VSM 2539680
482	n			R	X			X		
483	n				X-R	X	X	X	X	VSM 2550235
484	n			X-R				X		
485	n				X-R			X	X	VSM 2560784
486	n		X-R			X				
487	n		X-R			X	X			VSM 2571376

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #4 - Species Present			Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	
488	n			X-R					Brushed in 1991
489	n		R		X			X	
490	n		X-R			X			
491	n			X-R		X			VSM 2592488
492	n				X-R	X		X	
493	n			X-R					VSM 2603170
494	n			X-R		X		X	
495	minor				X-R	X	X	X	Minor erosion down the drive lane in the tire tracks
496	n		X		R			X	
497	n				X-R			X	
498	n				X-R			X	
499	n			X-R		X			VSM 2634764
500	n				X-R	X		X	
501	n			X-R		X			VSM 2645265
502	n			X-R		X			
503	n		R	X				X	VSM 2655861
504	n				X-R	X			
505	n			R	X	X			VSM 2666412
506	n		X-R			X			ATV tracks to the west of workpad-probably created by a miner
507	n		X	R		X			VSM 2676967 Plant cover is highly variable
508	n		X-R			X			
509	n				X-R	X			VSM 2687552
510	n		R	X		X			
511	n				X-R	X			VSM 2698082
512	n				X-R	X			
513	n				X-R				VSM 2708679
514	n	X-R				X			
515	n		X-R			X			VSM 2719200

Hile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #4 - Species Present			Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	
516	n		R	X		X			
517	n			X-R		X			
518	n	X-R				X			
519	n			X-R					VSH 2740329
520	n			X-R					
521	n		X-R			X			VSH 2750864
522	n		R	X		X			
523	n		X	R		X			VSH 2761440
524	n			R	X	X			Plant cover is highly variable in this area
525	n				X-R	X			VSH 2771978
526	n		X-R			X			
527	n		R	X					VSH 2782484
528	n				X-R	X			
529	n				X-R	X			
530	n				X-R			X	
531	n	X-R				X			
532	n			R	X				
533	n			R	X				
534	n			R	X				
535	n				X-R			X	
536	n		X		R	X			
537	n		X-R						
538	n		X-R						
539	n				X-R				
540	n								
541	n			R	X	X			
542	n				X-R				
543	n			X-R		X			

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #4 - Species Present			Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	
544	n				X-R			X	
545	NO	ACCESS							Military gates prevented access
546	n				X-R	X	X		
547	n				X-R	X	X		
548	n			X	R	X			
549	n				X-R	X			
550	n			X-R		X			
551	n				X-R	X			
552	n			X-R		X			
553	n			X-R		X			VSM 2919848
554	n		R	X		X			
555	n				X-R	X			VSM 2930319
556	n	X	R			X			
557	n		X-R			X			VSM 2940881
558	n			X-R		X			
559	n				X-R	X			VSM 2951520
560	n		X		R	X			
561	n			X-R		X			VSM 2962005
562	n		R	X		X			
563	n				X-R	X			VSM 2972551
564	n				X-R	X			
565	n				X-R	X			VSM 2983089
566	n				X-R	X			
567	n			R	X	X			
568	n				X-R	X			
569	n			R	X	X			
570	n			R	X	X			
571	n				X-R	X			

Hile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #4)				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	BRIN2	
572	n			X-R		X				
573	n				X-R	X			X	
574	n		X			X	X	X		
575	n				X-R	X			X	
576	n				X-R	X				
577	n				X-R	X			X	
578	n			X-R		X			X	
579	n				X-R	X		X	X	
580	n				X-R	X		X	X	
581	n			R	X	X		X	X	
582	n			R	X	X		X	X	
583	n		X-R							
584	n			X-R		X				
585	n			X-R		X			X	
586	n			X-R						
587	n			R	X	X				VSH 3099373
588	n				X-R					
589	n	X-R				X				VSH 3109920
590	n				X-R	X		X	X	
591	n			R	X	X			X	
592	n			X-R		X				
593	n		X-R			X				
594	n			X-R		X				
595	n			X-R		X				VSH 3141601
596	n	X				X				
597	n		X-R			X				VSH 3142160
598	n	X-R				X				
599	n	R	X			X				VSH 3162720

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #4)			Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	
600	IN	RIVER							
601	n		X-R			X			
602	n	X-R				X			
603	n				X-R	X		X	VSM 3183840
604	n	R			X	X		X	
605	n			X-R				X	
606	n			X	R	X		X	
607	n		R	X		X			
608	n		R	X		X		X	
609	n				X-R	X		X	
610	n			X-R		X			
611	n	X-R				X			
612	n	X-R				X			
613	n			X-R		X		X	
614	n		X-R			X			
615	n		R		X	X			VSM 3247204
616	n				X-R	X		X	
617	n			X-R		X			VSM 3257759
618	n		R		X	X			
619	n			X-R		X		X	VSM 3268320
620	n		X-R			X			
621	n			X-R		X		X	VSM 3278888
622	n				X-R	X			
623	n				X-R	X		X	
624	n				X-R	X		X	
625	n			X-R		X			VSM 3300010
626	n			R	X	X		X	
627	n	X-R				X			VSM 3310567

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #4)			Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	
628	n	X-R				X			
629	n	X-R				X			VSM 3321146
630	n	X-R				X			
631	n	X-R				X			VSM 3331695
632	n		X-R			X			
633	n		X-R			X			VSM 3342255
634	n	X-R				X			
635	n		X-R			X			VSM 3352820
636	n	X-R				X			
637	n	X-R				X			VSM 3363360
638	n				X-R	X			
639	n				X-R	X		X	
640	n	R			X	X		X	

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #3)				Comments
		0-25	25-50	50-75	75-100	FERU2	POPR	ALPR3	BRIN2	
641	n				X-R	X			X	VSM 3384480
642	n			X-R		X			X	
643	n				X-R	X		X	X	
644	n	R			X	X			X	
645	n	R			X	X		X	X	VSM 3405600
646	n			R	X	X		X	X	
647	n				X-R	X			X	
648	n			X-R		X		X	X	
649	n				X-R	X		X	X	
650	n	X-R				X				
651	n	X-R							X	VSM 3437398
652	n	X-R				X				
653	n				X-R	X			X	
654	n		X-R					X	X	
655	n		X		R				X	VSM 3458507

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #3)				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BR1#2	
656	n		X	R		X			X	
657	n			X	R	X			X	VSH 3468960
658	n				X-R				X	
659	n		X-R			X			X	VSH 3479520
660	n			X	R					
661	n		X-R							VSH 3490080
662	n		X	R						
663	n		X-R			X			X	VSH 3500640
664	n	X-R				X			X	
665	n				X-R	X		X		VSH 3511156
666	n		R		X	X			X	
667	n	R	X			X			X	VSH 3521760
668	n		X-R			X			X	
669	n	X	R						X	VSH 3532265
670	n		X-R			X			X	VSH 3537609
671	n	R	X			X			X	VSH 3542880
672	n	R	X			X				
673	n	X-R				X			X	VSH 3553512
674	n				X-R	X			X	
675	n				X-R					VSH 3564003
676	n				X-R	X				
677	n			X-R						VSH 3574516
678	n			R	X	X			X	
679	n				X-R		X		X	VSH 358120
680	n		R	X					X	
681	n				X-R				X	VSH 3595680
682	n				X-R	X			X	
683	n			X	R	X			X	VSH 3606166

Hile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix-Species Present (Mix #3)				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
684	n			R	X	X			X	
685	n	R	X						X	VSH 3616748
686	n	X-R								
687	n	X-R				X			X	VSH 3627358
688	n	X-R				X			X	
689	n	X-R				X			X	VSH 3637920
690	n		X-R			X	X		X	
691	n			X-R			X			VSH 3648427
692	n		X-R						X	
693	n			X-R		X			X	VSH 3659899
694	n		X-R						X	
695	n		R	X			X		X	VSH 3669555
696	n			R	X	X			X	
697	n		R		X	X			X	VSH 3680160
698	n	R	X			X			X	
699	n			R	X				X	VSH 3690694
700	n			X-R		X			X	
701	n	R		X		X	X		X	VSH 3701243
702	n	R		X		X			X	
703	n				X-R				X	VSH 3711767
704	n				X-R	X			X	
705	n				X-R	X			X	VSH 3722417
706	n			R	X		X		X	
707	n		R	X					X	VSH 3732960
708	n		X-R			X			X	
709	n								X	VSH 3743506
710	n	R		X		X			X	
711	n	X-R				X			X	

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
712	n			X-R		X			X	
713	n		X-R			X			X	VSM 3764646
714	n				X-R	X			X	
715	n				X-R	X			X	VSM 3775209
716	n			X-R		X			X	
717	n	X-R				X			X	VSM 3785783
718	n			X-R		X			X	
719	n		R		X	X		X	X	
720	n				X-R	X		X	X	
721	n				X-R	X		X	X	VSM 3806880
722	n		X-R			X			X	
723	n			R	X	X			X	
724	n			X-R		X			X	
725	n			X-R					X	VSM 3828000
726	n			X-R		X			X	
727	n							X	X	VSM 3838546 No plant cover was noted.
728	n				X-R	X			X	
729	n				X-R	X			X	VSM 3849092
730	n			X-R		X			X	
731	n			X-R		X		X		
732	n			X-R						
733	n			X-R				X		
734	n				X-R					
735	IN	PUMP	STATION	12						
736	minor			X-R		X			X	The ground is subsiding around the base of the VSM's in this area. No photo
737	n				X-R	X			X	VSM 38913660
738	n			X-R		X		X	X	
739	n			X-R		X		X	X	

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
740	n		X-R			X		X	X	
741	n	X-R				X				
742	n				X-R			X	X	
743	n			X-R		X		X	X	
744	n			X-R				X	X	
745	n			X-R		X		X	X	
746	n				X-R					
747	n				X-R			X	X	
748	n	X-R				X				
749	n				X-R	X				
750	n				X-R	X		X	X	
751	n				X-R	X		X	X	
752	n				X-R	X			X	
753	n				X-R	X		X	X	
754	n			X-R		X			X	
755	n				X-R	X		X	X	
756	n				X-R	X		X	X	
757	n				X-R			X	X	
758	n			R	X	X		X		
759	n				X-R	X		X		
760	n				X-R	X		X		
761	n				X-R	X		X	X	
762	n		X-R			X		X	X	
763	n				X-R	X		X		
764	n				X-R	X		X		
765	n		R		X	X		X	X	
766	n				X-R	X		X	X	
767	n				X-R	X		X		

Mile	Erosion Problem	Total Percent Plant Cover Under or Over Pipeline				Seed Mix #3 - Species Present				Comments
		0-25	25-50	50-75	75-100	FESTUCA	POPR	ALPR3	BRIN2	
768	n				X-R	X		X		
769	n		X-R			X			X	
770	n	R			R	X		X	X	
771	n	X-R						X		Corrosion dig has disturbed the vegetation.
772	n				X-R	X	X	X	X	
773	n			X-R		X			X	
774	n	X-R				X			X	
775	n	X-R				X				Light snow cover. Milepost was missing, so mile 775 was estimated.
776	n				X-R	X				
777	n				X-R			X	X	
778	IN THE	MIDDLE	OF	SHEEP	CREEK					
779	n				X-R			X	X	
780	n				X-R	X		X		
781	n				X-R	X		X		
782	n				X-R	X			X	
783	n				X-R			X		
784	n				X-R			X		
785	n				X-R	X		X		The workpad, from mile 785 to 800 was being brushed at the time of the evaluation.
786	n				X-R			X	X	
787	n				X-R			X	X	
788	n				X-R	X		X	X	
789	n				X-R	X		X	X	
790	n				X-R	X		X		
791	n				X-R	X		X	X	
792	n				X-R	X		X	X	
793	n				X-R					
794	n	X			R	X		X	X	Area surrounding the pipe has been disturbed recently.
795	n				X-R	X		X		Wide access road

SECTION B

LIST OF TAXA BY MILEPOST

PAGE 1

POA
ARLA2
MOSS
FERU2
DRYAS
CRUCI
SALIX
EPLA
GRAMI
ARAR9
COMPO
SAOP
PARNA
LUPIN
CARYO
JUNCU
ERiop
HEDYS
CRNA
OXYTR
ASAL7
ASTER
ACHIL
HOJU
POA SPECIES
ARCTAGROSTIS LATIFOLIA
MOSS SPECIES
FESTUCA RUBRA
DRYAS SPECIES
CRUCIFERAE
SALIX SPECIES
EPILOBIUM LATIFOLIUM
GRAMINEAE
ARTEMISIA ARCTICA
COMPOSITAE
SAXIFRAGA OPPOSITIFOLIA
PARNASSIA SPECIES
LUPINUS SPECIES
CARYOPHYLLACEAE
JUNCUS SPECIES
ERIOPHORUM SPECIES
HEDYSARUM SPECIES
CREPIS NANA
OXYTROPIS SPECIES
ASTRAGALUS ALPINUS
ASTER SPECIES
ACHILLEA SPECIES
HORDEUM JUBATUM

PAGE 2

SHCA
TARAX
POFR4
ALNUS
ARTI
LICHE
EPAN2
SATR5
PAPAV
PICEA
CAREX
POBA2
JUNIP
BEGL
TOFIE
BETUL
EQUIS
RIBES
PYROL
RUBUS
UNKWN
LEDUM
POTEN
POTRT
SHEPERDIA CANADENSIS
TARAXACUM SPECIES
POTENTILLA FRUTICOSA
ALNUS SPECIES
ARTEMISIA TILESII
LICHEN SPECIES
EPILOBIUM ANGUSTIFOLIUM
SAXIFRAGA TRICUSPIDATA
PAPAVER SPECIES
PICEA SPECIES
CAREX SPECIES
POPULUS BALSAMIFERA
JUNIPERUS SPECIES
BETULA GLANDULOSA
TOFIELDIA SPECIES
BETULA SPECIES
EQUISETUM SPECIES
RIBES SPECIES
PYROLA SPECIES
RUBUS SPECIES
UNKNOWN TAXA
LEDUM SPECIES
POTENTILLA SPECIES
POPULUS TREMULOIDES

PAGE 3

VACCI
SPIRA
VAVI
ARCTO3
TRIFO
POAC
MEPA
PLANT
LALA
CASTI
AQUIL
ROSA
CHENO
PEDIC
CORNU
EMNI
FRAGA
SANGU2
LIBO3
ELCO
SAXIF
SIPR
SORBU
TSUGA
FERN
VACCINIUM SPECIES
SPIRAEA SPECIES
VACCINIUM VITIS-IDAEA
ARCTOSTAPHYLOS SPECIES
TRIFOLIUM SPECIES
POLEMONIUM ACUTIFLORUM
MERTENSIA PANICULATA
PLANTAGO SPECIES
LARIX LARICINA ALASKENSIS
CASTILLEJA SPECIES
AQUILEGIA SPECIES
ROSA SPECIES
CHENOPODIUM SPECIES
PEDICULARIS SPECIES
CORNUS SPECIES
EMPETRUM NIGRUM
FRAGARIA SPECIES
SANGUISORBA SPECIES
LINNAEA BOREALIS
ELAEAGNUS COMMUTATA
SAXIFRAGA SPECIES
SIBBALDIA PROCUMBENS
SORBUS SPECIES
TSUGA SPECIES
FERN SPECIES

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC 1	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
0	X	X																						
1	X	X	X																					
2		X		X																				
3	X	X	X		X	X																		
4	X	X	X				X	X																
5				X		X																		
6	X	X		X					X	X														
7			X		X	X	X	X			X													
8		X	X	X																				
9		X	X	X				X																
10						X	X			X		X	X	X										
11		X	X	X		X	X																	
12		X		X		X	X	X		X														
13	X	X	X	X																				
14	X	X		X												X	X							
15	X	X		X													X							
16		X		X																				
17	X	X	X	X												X								
18		X		X				X	X															
19	X	X							X	X														
20	X																							
21				X						X								X	X					
22	----																							
23		X	X	X				X						X										
24				X				X	X															
25				X				X						X										
26				X										X										
27				X				X													X			

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC I	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	OXTR	CRNA	ASAL7	ASTER	ACHIL	HOJU
28	----																							
29		X		X			X	X						X				X						
30	----																							
31				X						X									X					
32				X			X											X	X					
33				X			X	X										X	X					
34				X					X										X					
35				X			X												X					
36				X				X											X					
37				X															X					
38			X	X			X											X	X					
39							X	X	X									X	X					
40		X		X						X								X	X					
41				X						X														
42	X			X											X									
43	X			X										X										
44				X																				
45				X						X				X										
46				X		X									X									
47	X			X																X				
48	X		X	X						X				X									X	
49		X		X																		X		
50				X				X																
51			X	X			X																	
52				X																				
53				X			X											X						
54				X				X																
55				X																				
56		X	X	X			X	X										X			X			

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU 2	DRYAS	CRUC 1	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SADP	PARNA	LUPIH	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
57				X																				
58			X	X			X																	
59		X		X																				
60			X	X																				
61			X	X																				X
62																								
63																								
64																								
65																								
66																								
67																								
68			X	X			X							X										X
69			X	X			X	X						X										
70			X	X										X										
71			X	X															X					
72				X															X		X			
73				X			X		X										X					
74			X	X			X												X					
75	X		X	X											X									
76				X			X												X				X	
77																								
78																								
79																								
80																								
81																								
82																								
83																								
84																								

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU 2	DRYAS	CROU	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOD	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
85				X																				
86				X			X																	
87		X	X	X			X	X																
88				X														X		X				
89		X	X	X																X				
90				X				X										X			X			
91			X	X																	X			
92				X			X	X						X										
93			X	X			X							X				X			X			
94			X	X			X														X			
95				X			X														X			
96				X																	X			
97				X																	X			
98	X			X																	X			
99	X		X	X			X														X			
100	X			X			X														X			
101	X			X										X										
102	X		X	X																	X			
103	X	X		X										X				X			X			
104	X			X																				
105				X										X										
106				X																				
107				X					X															
108				X			X																	
109	X			X																				
110		X		X															X					
111				X											X									
112	X	X		X				X																

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARL2	MOSS	FERU	DRYAS	CROU	SALIX	EPLA	GRANI	ARAR9	COMPO	SADP	PARNA	LUPIN	CARYO	JUNCU	ERLOP	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	NOJU
124		X	X	X																				
125	X			X																				
126	X			X				X																
127	X		X	X			X																	
128			X	X																				
129	X		X	X																				
130			X	X																				
131				X						X														
132			X	X				X																
133	X		X	X			X	X																
134	X		X	X										X										
135			X	X										X										
136	X		X	X																				
137	X		X	X																				
138	X		X	X					X															
139	X		X	X				X							X			X						
140			X	X			X																	
141			X	X	X																X			
142	X						X		X															
143			X	X			X														X			
144				X																				
145	X			X			X																	
146			X	X			X		X															
147	X		X	X			X																	
148			X	X			X																	
149	X			X				X																
150	X		X	X			X		X					X							X	X		
151			X	X			X		X									X			X			

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR ♀	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OKYTR	ASAL7	ASTER	ACHIL	HOJU
152			X	X			X	X																
153			X	X			X								X						X			
154			X	X			X														X			
155			X	X			X														X			
156			X	X			X														X			
157																								
158																								
159																								
160																								
161																								
162																								
163																								
164																								
165																								
166	X		X	X			X	X	X															
167	No	Plant	Cover																					
168	No	Plant	Cover																					
169			X	X			X																	
170			X	X			X	X	X															
171	No	Plant	Cover																					
172																								
173			X	X			X	X	X		X			X								X		
174			X	X			X	X	X															
175				X				X			X													
176			X	X			X	X	X															
177				X			X																	
178								X	X															
179			X	X			X																	

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU 2	DRYAS	CROU	SALIX	EPLA	GRAMI	ASAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	NOJU
180																								
181			FLOOD																					
182			PLAIN																					
183																								
184																								
185				X			X	X																
186				X			X	X										X						
187				X			X																	
188				X					X															
189				X			X											X						
190				X			X													X				
191			X	X			X				X													
192			X	X			X		X		X							X						
193			FLOOD PLAIN																					
194				X																				
195			FLOOD PLAIN																					
196				X			X		X															
197			X	X			X											X						
198			X	X			X																	
199			X	X			X				X													
200			X	X			X				X							X						
201			IMACCESSIBLE																					
202			X	X			X				X							X						
203			X	X			X		X															
204			X	X			X																	
205			X	X			X				X													
206			X	X			X																	
207			X	X			X																	

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CROU	SALIX	EPLA	GRAMI	ARAR 9	COIPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
208			X				X		X															
209			X	X																				
210			X	X					X															
211			IN RIVER																					
212			X				X		X															
213			X				X		X		X													
214			X				X		X		X													
215			X	X																				
216				X										X										
217			X	X										X										
218			X	X			X																	
219			X	X			X																	
220			X	X			X																	
221			X	X							X													
222			X	X			X																	
223			X	X																				
224			X				X											X						
225				X			X		X															
226			X	X			X																	
227			X	X			X																	
228				X			X										X							
229			X	X			X																	X
230			X	X			X																	
231			X	X			X																	
232			X	X			X		X															
233							X		X															
234				X			X		X															X
235				X			X		X															

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	CORPO	SAOP	PARNA	LUPIN	CARYO	JUNOU	ERJOP	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
236							X		X															
237				X			X																	
238			X				X		X															
239			X				X	X	X															
240			X				X	X	X															
241			X																					
242			X	X			X																	
243			X	X			X		X															
244							X		X					X										
245			X	X																				
246				X			X		X															
247			X	X																				
248			X	X			X		X															
249			X	X				X																
250			X				X	X	X															
251			X						X															
252			X	X			X																	
253			X	X			X				X													
254			X				X		X															
255			X						X															
256									X															
257				X					X															
258			X					X	X															
259				X			X		X															
260			X	X				X																
261			X				X	X	X															
262			X	X					X															
7.63			X				X	X			X													

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARAX	POFR4	ALNUS	ARTI	LICHE	EPAN2	SATR2	PAPAV	PICEA	CAREX	POBA2	JUNIP	BEGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN
236	X						X					X											
237				X			X					X					X						
238				X			X					X											
239				X			X					X											
240				X			X					X											
241				X			X					X											
242				X			X					X											
243				X								X				X		X					
244				X			X					X				X			X	X			
245				X			X					X				X							
246				X								X											
247	X			X			X					X											
248				X								X											
249																						X	
250	X			X								X											
251							X					X											
252							X					X					X						X
253										X		X											
254							X					X											
255				X			X					X											
256		X		X			X			X		X											
257		X		X			X			X		X											
258							X					X											X
259				X			X																
260							X																
261				X			X																X
262				X			X					X				X							
263		X		X							X	X											

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ABAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERLOP	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
264			X				X	X	X		X													
265			X				X		X															
266			X				X		X															
267			X				X		X															
268			X	X			X	X	X															
269			X				X		X															
270			X				X		X															
271							X		X															
272				X			X	X	X															
273			X				X		X															
274			X						X															
275			X				X		X															
276			X				X																	
277			X	X			X		X															
278			X				X									X								
279			X				X		X															
280			X				X		X															
281			X				X		X															
282			X				X		X															
283			X				X	X	X															
284							X		X															
285			X				X		X															
286			X				X		X															
287			X				X		X															
288			X				X		X															
289			X				X		X															
290			X				X		X															
291			X				X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TA- RAX	POFR 4	ALNUS	ARTI	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	BEGI	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN	POTRT
264		X		X							X	X												
265				X			X			X		X												
266				X			X			X		X												
267				X		X				X		X					X							
268	X					X				X		X					X							
269						X	X					X												
270				X		X	X					X					X							
271							X					X												
272				X		X	X					X					X							
273						X	X					X												
274						X	X					X					X							
275				X		X	X			X		X					X							
276				X		X	X			X		X					X							
277				X		X	X			X		X					X							
278				X						X								X						
279				X			X							X										
280				X		X				X				X										
281				X		X	X			X														X
282							X							X			X						X	
283				X		X				X														
284						X	X										X							X
285						X	X			X							X							X
286				X		X	X			X							X							
287				X		X				X							X							
288				X		X				X							X							
289				X		X	X			X							X							
290				X		X	X			X							X							
291				X		X	X			X							X							

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ER10P	HEDYS	CRNA	OKYTR	ASAL7	ASTER	ACHIL	NOJU
292			X	X			X		X															
293			X				X		X															
294			X				X		X															
295			X				X		X															
296			X				X		X															
297			X				X		X															
298			X				X		X															
299			X	X					X															
300			X	X			X		X															
301			X	X			X	X	X															
302			X				X		X															
303							X		X															
304			X	X					X															
305			X	X					X															
306			X				X		X															
307			X	X			X																	
308				X					X															
309			X	X					X															
310			X	X					X															
311			X	X			X		X															
312			X	X			X		X															
313			X	X					X															
314			X	X			X		X															
315			X	X			X		X															
316							X		X															
317			X	X			X		X															
318			X				X		X															
319			X	X			X		X															

Mile	SNCA	TARA X	POFR 4	ALNUS	ART1	L1- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	BEGL- MA	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKAN	LEDUM	POTEN	POTRT
292				X		X				X						X								
293				X		X	X			X						X								
294				X		X	X			X						X								
295				X		X						X		X										
296				X		X										X								
297				X		X	X			X						X								
298				X		X	X			X		X				X								
299				X		X	X																	
300				X		X	X									X								
301																								
302						X	X							X		X								
303										X														
304				X		X	X																	
305				X		X	X			X														
306				X		X	X																	
307				X							X													
308				X			X																	
309				X			X																	
310				X			X																	
311				X																				
312				X		X	X							X										
313				X		X	X																	
314				X		X	X							X										
315				X		X	X			X														
316				X		X				X				X										
317				X		X	X																	
318						X	X																	
319				X		X	X			X														

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERTOP	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
320			X	X			X	X																
321									X															
322			X				X		X															
323			X				X		X															
324			X	X					X															
325			X	X			X		X															
326			X						X															
327			X						X															
328							X		X															
329			X						X															
330			X	X					X															
331			X	X					X															
332			X	X			X		X															
333			X						X														X	
334			X						X															
335			X						X															
336			X						X															
337			X				X		X															
338			X						X															
339			X						X															
340			X						X															
341			X				X		X															
342			X				X		X															
343									X															
344			X				X		X															
345			X				X		X															
346			X	X			X		X															
347									X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA X	POFR 4	ALNUS	ART1	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POGA 2	JUNIP	BEG- NA	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKN	LEDUM	POTEN	POTRT
320						X				X														
321				X																				
322				X		X	X																	
323				X		X	X																	
324		X		X		X	X			X														
325							X																	
326				X		X	X			X						X								
327						X	X			X														X
328						X	X			X												X		
329						X	X			X														
330						X	X			X														X
331		X				X	X			X														X
332		X				X	X			X														X
333																								
334										X						X								
335						X				X						X								X
336						X				X		X										X		
337						X				X		X				X								X
338						X	X			X		X				X								X
339		X					X			X						X								X
340						X	X																	
341				X		X	X			X						X								
342				X																				
343							X					X				X								
344										X		X				X								
345				X			X									X								
346	X			X		X	X			X														
347	X					X	X			X		X				X								

TAXA PRESENT AT EACH MILEPOST #3

Mile	VACCI	SPIR A	VAVI	ARCTO 3	TRIFO															
320					X															
321																				
322																				
323																				
324																				
325																				
326																				
327																				
328	X																			
329																				
330					X															
331																				
332																				
333																				
334																				
335																				
336	X		X																	
337																				
338																				
339																				
340																				
341																				
342																				
343																				
344																				
345																				
346																				
347																				

Mile	POGL	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SADP	PANA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
348			X	X			X		X															
349			X	X			X		X															
350			X	X					X															
351			X						X															
352			X				X		X															
353									X															
354			X				X		X															
355			IN PUMP STATION																					
356			X						X															
357			X	X					X															
358			X						X															
359			X						X															
360			X	X			X		X															
361			X				X		X															
362			X						X		X													
363			X				X		X															
364			X				X		X		X													
365			X				X		X		X													
366			X				X		X															
367				X					X															
368			X	X			X		X															
369			X	X			X		X															
370				X			X		X															
371			X				X		X															
372			X	X			X		X															
373			X				X		X															
374			X				X		X															
375			X	X			X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA	POFR	ALMUS	ARTI	LI-CHE	EPAN2	SATR	PAPAV	PICE	CAREX	POBA	JUNIP	BEGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKN	LEDUM	POTEN	POTRT
348	X			X		X	X			X		X												
349	X			X		X	X					X												
350	X					X	X					X												
351	X					X	X			X						X								
352						X	X			X		X												
353	X						X			X														
354				X		X	X			X		X				X								
355				IN PUMP STATION																				
356																								
357				X		X	X																	
358		X					X																	
359		X					X			X														
360						X																		
361		X		X		X	X			X						X								
362	X			X		X	X																	
363		X		X		X						X												
364		X				X										X								
365		X				X				X						X								
366		X		X						X						X								
367		X														X								
368						X				X														
369				X		X	X			X														X
370				X			X					X												
371						X	X																	
372						X	X																	
373	X			X		X	X			X		X				X								
374						X	X			X		X				X								
375				X		X	X																	

Mile	POGL	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OKYTR	ASAL7	ASTER	ACHIL	NOJU
376			X	X			X		X															
377			X	X			X		X															
378			X	X			X																	
379			X				X		X															
380			X	X					X															
381			X				X		X															
382			MISSED																					
383			RECENTLY DISTURBED																					
384			X	X					X															
385			X				X		X															
386			X				X		X															
387			X				X		X															
388			X				X		X															
389			X				X		X															
390			X				X		X															
391			X				X		X															
392			X				X		X															
393			X				X		X															
394				X																				
395									X															
396									X															
397									X															
398				X					X															
399				X					X															
400			X				X		X														X	
401							X		X															
402							X		X															
403																								

Mile	SHCA	TARA X	POFR 4	ALMUS	ARTI	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	B EGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKN	LEDUM	POTEN	POTR
376						X	X									X								
377						X	X			X														
378							X			X		X												
379						X	X			X		X												
380							X					X												
381						X	X			X		X												
382																								
383																								
384						X	X			X														
385		X				X	X			X		X				X								
386				X		X	X			X		X				X								
387				X		X	X			X		X				X								
388				X		X	X					X												
389						X	X			X						X								
390						X	X			X		X				X								
391				X		X	X			X		X				X								
392				X		X	X			X		X				X								
393				X		X	X			X		X				X								X
394				X			X																	
395				X			X			X														
396				X			X			X														
397		X		X																				
398							X																	
399		X				X	X					X				X								
400						X	X			X		X												
401				X																				
402		X					X			X		X												
403		X					X			X		X												

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	NOJU
404			X				X		X		X													
405							X		X															
406			X			X	X		X															
407			X	X			X																	
408							X		X														X	
409							X		X														X	
410			X				X		X															
411							X		X								X						X	
412			X				X		X														X	
413			X	X					X															
414			X				X				X													
415			X																					
416									X															
417			X				X		X															
418							X		X															
419			X	X			X		X															
420			X	X			X		X														X	
421			X	X			X		X															
422			X				X		X															X
423			X				X		X															
424			X	X			X		X															
425			X						X															
426			X	X			X		X															
427			X				X		X													X	X	
428			X				X		X															X
429				X			X		X		X													
430			X				X		X															X
431			X				X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA X	POFR 4	ALNUS	ART1	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	BGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEM	POTRT
404		X				X	X																	X
405							X									X								
406		X		X			X									X								
407		X		X		X	X																	
408		X		X			X									X								
409				X			X					X									X		X	X
410		X		X			X			X						X	X				X		X	
411							X			X		X				X	X							
412		X					X					X				X	X						X	
413				X			X			X						X								X
414		X		X		X	X			X						X								
415		X		X		X	X			X						X					X		X	
416		X		X			X										X							
417				X			X									X	X				X			
418	X			X			X									X								X
419		X		X		X	X			X		X				X					X			X
420		X		X			X					X				X								X
421	X	X		X		X	X			X														X
422		X				X	X			X		X				X							X	X
423				X		X	X			X		X				X								
424				X		X	X			X		X				X								
425				X		X											X							
426		X		X		X	X			X						X							X	
427				X		X	X			X		X												X
428		X		X			X			X		X				X								
429		X										X												
430		X								X		X				X								X
431						X	X			X														X

TAXA PRESENT AT EACH MILEPOST #5

Mile	VACCI	SPIRA	VAVI	ARCTOS	TRIFO	POAC	NEPA	PLANT	LALA	CAST12										
404																				
405																				
406					X															
407																				
408						X														
409																				
410							X													
411																				
412								X												
413							X	X												
414					X															
415							X	X												
416					X															
417																				
418	X							X												
419					X															
420					X															
421			X																	
422																				
423	X																			
424					X															
425																				
426																				
427					X															
428					X					X										
429					X															
430																				
431					X															

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SACQ	PARRA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OKYTR	ASAL7	ASTER	ACHIL	HOJU
432			X				X		X															
433			X				X		X															
434				X			X		X															
435			X																					
436						X	X		X		X													
437			X				X										X							
438			X				X		X														X	
439			X				X																	
440			X				X		X															
441			X				X		X															
442							X																	X
443			X				X																X	
444			X	X			X		X															
445			X	X			X		X															
446			X	X			X								X									
447			X				X		X						X									
448							X		X		X													
449							X		X															
450			X				X		X															X
451			X				X		X															
452			X						X						X									
453									X		X													X
454			X						X															X
455							X		X															X
456			X	X			X		X								X							
457			X				X		X															
458			X	X			X		X															
459				X					X															

Mile	SHCA	TARA X	POFR 4	ALNUS	ARTI	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	BGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN	POTRT
432				X		X				X		X				X						X		X
433				X		X	X			X		X				X						X		X
434				X			X			X						X								X
435				X		X	X			X		X				X	X							X
436		X		X			X									X								
437						X	X					X				X						X		
438		X				X	X			X		X				X	X					X		X
439				X		X	X			X		X										X		X
440						X				X		X				X								X
441		X				X	X									X								X
442		X					X									X				X		X		X
443		X				X	X			X		X				X								X
444		X				X				X		X				X						X		X
445		X		X		X	X			X		X				X								X
446		X		X			X																	
447		X		X		X	X					X				X						X		X
448	X	X		X			X					X				X								X
449		X																						
450		X		X			X																	X
451		X				X	X					X				X								X
452		X		X			X					X												X
453		X					X																	
454		X		X			X									X								X
455		X										X				X	X							X
456	X			X		X	X				X	X												
457		X		X		X	X					X				X						X		
458		X		X		X	X			X						X								X
459		X					X					X												X

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FEST U	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OKYTR	ASAL7	ASTER	ACHIL	HOJU
460							X		X															
461							X		X															
462			X				X		X				X											
463							X		X		X													
464				X			X		X															
465							X		X		X													
466							X		X															
467			X				X		X															
468							X		X															
469							X		X		X													
470									X															
471																								
472			X						X													X		
473			X					X	X															
474									X															
475			X				X		X															
476				X			X		X															
477			X	X					X															
478				X			X		X															
479							X		X		X													X
480			X				X		X															
481			X				X		X															
482			X				X		X													X		
483			X	X					X														X	
484			X				X		X															
485			X				X		X															
486			X	X			X		X															
487	X		X	X			X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA X	POFR 4	ALMUS	ARTI	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	B EGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKNW	LEDUM	POTEN	POTRT
460		X					X					X												
461		X					X			X											X			
462				X						X		X				X	X							X
463		X										X												
464		X					X					X				X								X
465		X	X				X					X												
466		X										X					X							
467		X										X												X
468		X	X				X					X				X								X
469		X	X				X																	
470		X	X														X							
471		X	X		X																			
472		X					X					X												
473		X					X					X				X								
474		X	X				X																	
475		X				X						X				X								
476		X				X	X			X		X				X								
477		X	X				X					X												
478		X	X	X			X									X					X			
479		X					X																	
480	X	X				X				X		X											X	
481		X				X				X		X												X
482		X				X				X		X				X	X					X		X
483		X				X	X									X	X							X
484		X				X				X						X						X		X
485						X	X			X		X				X						X		X
486						X				X		X				X								X
487						X				X		X				X								

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FEST - U	DRYAS	CRUC	SALIX	EPLA	GRAHI	ARAR 9	COHPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
488			X						X														X	
489							X		X															
490			X	X					X															
491			X	X			X		X															
492				X			X		X													X		
493			X				X																	
494			X	X			X		X															
495				X			X		X															
496									X		X				X							X	X	
497			X				X		X															
498			X				X		X		X													X
499			X	X			X		X															
500			X	X			X		X		X													
501			X	X			X		X															
502			X	X			X																	
503			X				X		X															
504				X			X																	
505			X	X			X		X						X									X
506			X	X			X		X															
507			X				X				X													
508			X	X			X														X			X
509			X	X			X		X												X			
510			X	X			X		X															X
511			X	X			X													X		X		X
512				X			X		X															
513			X				X																	
514			X	X			X																	
515				X			X											X			X	X		X

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARAX	POFR 4	ALNUS	ART1	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA2	JUNIP	BEGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKW	LEDUM	POTEN	POTRT
488		X		X		X	X									X								X
489							X					X					X							
490		X		X		X	X			X		X				X								X
491		X				X	X					X				X								X
492				X			X					X				X						X		X
493						X	X			X		X				X						X		X
494				X		X	X					X												
495		X		X			X									X								
496		X		X			X					X				X	X							
497				X			X		X			X				X								
498				X		X	X					X				X						X		
499	X					X	X			X		X				X	X							
500				X		X				X		X				X	X							
501						X	X			X		X				X	X					X		X
502				X		X	X			X						X	X					X		X
503		X		X		X	X			X		X				X	X					X		
504				X		X				X		X				X	X							
505				X		X	X			X		X				X	X					X		X
506				X		X	X			X		X							X					X
507	X			X		X	X			X						X								X
508				X		X	X			X		X												X
509				X		X	X			X		X				X					X	X		X
510			X			X	X			X						X								
511				X		X	X			X						X								
512				X			X			X						X								
513		X		X		X	X			X		X												
514	X					X	X			X						X						X		X
515		X		X			X																	

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA2	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRANI	ARAR9	COMPO	SAOP	PARNA	LUPIN	CARTO	JUNCU	ERLOP	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	NOJU
516				X					X															
517				X					X															
518			X	X			X		X									X						
519			X				X		X															
520			X				X		X												X			X
521			X	X			X		X		X										X			X
522			X	X			X		X					X							X			X
523			X	X			X		X		X					X					X			X
524			X	X			X		X				X					X			X			
525			X	X			X		X		X			X			X	X			X			X
526				X			X														X			
527			X				X										X	X						
528			X	X			X														X			X
529			X	X			X		X		X			X							X			
530			X				X		X		X			X										X
531			X	X					X															
532			X				X		X									X						
533			X				X		X															
534			X				X				X										X	X		X
535			X				X		X												X			
536			X	X			X				X													
537			X				X		X															
538			X				X		X		X										X			
539			X				X		X												X			
540			X			X	X		X												X			
541				X			X				X													
542							X				X			X										
543			X	X			X		X					X				X			X			

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARAX	POFR 4	ALMUS	ARTI	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POGA 2	JUNIP	BEGJ	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN	POTRT
516		X		X			X									X								
517	X	X					X			X		X				X								X
518	X	X				X	X			X						X								X
519	X	X				X	X			X						X				X				
520	X					X	X			X		X		X		X								X
521	X		X			X	X									X								X
522						X						X												X
523						X											X		X					X
524						X						X					X							
525		X												X										
526	X		X			X	X					X				X								X
527									X		X			X		X	X				X			
528	X		X			X				X		X				X	X							
529		X				X	X			X														X
530		X				X				X						X							X	X
531		X					X			X		X												
532		X					X			X		X				X								
533		X	X				X																	
534		X	X			X	X			X		X				X							X	
535		X		X		X	X			X														
536		X	X			X						X												
537	X	X	X			X	X																	
538	X	X				X				X						X								X
539		X				X	X			X		X				X	X							X
540		X	X			X	X			X		X				X								X
541							X			X		X												X
542		X								X		X												X
543		X				X	X					X												X

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA2	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARARQ	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
544							X		X															
545																								
546				X					X		X									X	X	X	X	
547			X	X			X		X		X			X										
548			X	X							X													
549				X			X				X													
550			X	X							X			X							X	X		
551			X	X							X			X				X		X				
552				X			X											X		X				
553			X	X			X				X			X				X		X				
554			X	X							X				X						X			
555			X	X			X											X		X				
556				X			X		X									X		X		X		
557			X	X	X		X								X			X		X				
558			X	X			X							X							X			X
559			X	X			X						X								X			
560			X	X			X						X	X							X			
561			X	X			X														X			
562			X	X			X		X		X			X							X			
563			X	X			X														X			
564			X	X			X														X			
565			X				X														X			
566			X	X			X														X			
567			X	X			X																	X
568			X	X			X				X							X			X			
569			X	X			X							X							X			
570			X	X																				
571			X	X			X		X		X							X		X				

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA X	POFR 4	ALMUS	ART1	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	BEGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKW	LEDUM	POTEN	POTRT	
544		X										X												X	
545																									
546		X										X											X		
547	X	X	X			X	X			X		X											X	X	
548		X		X		X	X					X											X	X	
549		X		X			X					X									X			X	
550							X					X											X	X	
551						X	X																	X	
552		X		X			X			X		X											X	X	
553		X				X	X					X												X	
554				X		X						X											X		
555				X		X	X		X								X								
556				X			X					X					X								
557			X	X		X						X				X	X							X	
558				X		X	X																X	X	
559				X	X	X	X																		
560						X															X				
561						X						X				X									
562						X	X									X									
563						X	X		X		X														
564				X					X			X													
565				X			X		X					X											
566				X		X	X		X													X			
567				X					X																
568				X					X			X				X									
569									X			X													
570				X					X			X				X									
571		X							X			X													

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	ROSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR 9	COMPO	SACF	PARNA	LEGUM	CARYO	JUNCU	ERIOF	NEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU	
580			X	X			X		X									X		X					
581				X			X		X																
582				X			X		X																
583							X							X				X		X	X				
584			X	X			X											X		X					
585				X			X		X									X							
586							X																		
587			X	X			X																		
588			X				X							X											
589			X	X			X											X							
590			X	X			X		X																
591			X	X			X		X		X														
592				X			X											X		X					
593			X	X																					
594			X	X			X																		
595			X	X			X										X								
596			X	X																					
597			X	X																					
598				X				X																	
599				X										X											
600																									
601				X			X				X					X									
602			X	X																					
603			X	X			X		X																
604				X			X		X																
605							X		X																
606			X	X			X		X		X														
607			X	X			X																		

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA X	POFR 4	ALNUS	ARTEM	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	BGL	TOFIE	BETUL	EQVIS	RIBES	PYROL	RUBUS	UNKN	LEDUM	POTEN	POTRT
580				X			X																	
581				X																				
582				X																				
583																								
584							X																	
585				X																				
586							X																	
587							X			X														
588				X			X			X														
589							X																	
590							X																	
591				X	X	X	X																	
592				X																				
593				X			X																	
594				X	X																			
595																								
596																								
597				X			X																	
598																								
599				X																				
600																								
601																								
602																								
603							X																	
604							X																	
605																								
606																								
607											X													

TAXA PRESENT AT EACH MILEPOST #3

Mile	VACCI	SPIR A	VAVI	ARCTO 3	TRIFO				SIPR											
580																				
581																				
582																				
583																				
584																				
585																				
586																				
587																				
588																				
589																				
590																				
591																				
592																				
593																				
594																				
595																				
596																				
597																				
598																				
599																				
600																				
601																				
602																				
603																				
604																				
605																				
606																				X
607																				

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	MOSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRAHI	ARAR 9	COMPO	SAOP	PARNA	LEGM	CARYO	JUNCU	ERIOF	HEDYS	CRRA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
608				X			X		X															
609			X	X			X		X								X							
610				X			X																	
611				X			X																	
612				X			X				X													
613				X			X		X															
614				X					X															
615			X	X			X																	
616			X	X			X		X															
617			X	X			X		X															
618			X	X			X	X	X															
619			X	X			X	X	X															
620				X			X	X	X															
621			X	X			X	X	X															
622			X	X			X		X															
623				X			X		X															
624			X	X			X		X															
625			X	X			X																	
626			X	X			X		X															
627			X	X			X																	
628			X	X																				
629			X	X			X																	
630			X	X			X																	
631			X	X																				
632			X	X			X		X															
633			X	X			X		X															
634			X	X			X		X															
635			X	X																				

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA X	POFR 4	ALNUS	ARTEM	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POGA 2	JUNIP	B EGL	TOFIE	BETUL	EOVIS	RIBES	PYROL	RUBUS	UNKN	LEDUM	POTEN	POTRT
608																								
609																								
610																								
611																								
612																								
613							X																	
614							X																	
615	X					X	X																	
616							X																	
617							X																	
618	X																							
619																								
620							X																	
621							X																	
622							X																	
623							X																	
624				X			X			X														
625							X																	
626						X																		
627						X				X														
628																								
629																								
630																								
631																								
632										X														
633							X			X														
634						X				X														
635						X																		

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA 2	ROSS	FERU	DRYAS	CRUC	SALIX	EPLA	GRANI	ARAR 9	COMPO	SAOP	PARNA	LEGUM	CARYO	JUNCU	ERIOF	HEDYS	ORNA	OXYTR	ASAL7	ASTER	ACHIL	NOJU
636			X	X			X																	
637			X	X			X																	
638			X	X			X		X															
639			X	X			X		X															
640			X	X			X		X															
641			X	X			X		X															
642			X	X			X		X														X	
643			X	X			X		X												X			
644			X	X			X		X															
645			X	X			X		X															
646			X	X			X		X															
647				X					X															
648			X	X			X		X															
649			X	X			X		X												X			
650			X	X			X														X			
651							X		X															
652			X	X			X																	
653				X					X		X												X	
654			X				X		X															
655			X				X		X		X										X		X	
656			X	X			X	X	X												X			
657			X	X			X		X		X										X			
658			X				X		X												X		X	
659			X	X			X				X													
660			X				X		X					X	X						X			
661			X																		X	X		
662			X				X		X		X													
663			X	X			X		X		X													

TAXA PRESENT AT EACH RILEPOST #2

Rile	SHCA	TARA X	POFR 4	ALNUS	ARTI	LI- CHE	EPAN2	SATR 2	PAPAV	PICE A	CAREX	POBA 2	JUNIP	B EGL	TOFIE	BETUL	EOVIS	RIBES	PYROL	RUBUS	UNKN	LEDUM	POTEN	POTRT
636						X																		
637						X	X			X														
638						X				X														
639						X	X			X														
640						X																		
641				X		X	X					X												
642						X																		
643						X																		
644		X		X																				
645		X		X																				
646						X																		
647				X																				
648				X		X																		
649																								
650	X					X																		
651	X						X			X														
652						X	X			X														
653		X					X														X			
654						X	X																	
655						X	X			X		X						X						
656						X	X			X		X						X					X	
657		X				X	X					X						X						
658	X	X				X	X			X		X												
659	X					X	X				X	X						X						
660	X	X				X	X			X	X	X						X			X			X
661	X	X				X	X			X		X												
662	X					X	X					X						X						X
663	X			X		X	X			X		X												

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA2	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
664			X	X			X		X															
665			X	X			X		X		X													
666			X	X					X												X			
667			X	X			X		X		X													
668			X	X			X		X		X													
669			X	X			X		X		X													
670			X	X			X		X															
671			X	X			X		X															
672			X	X			X		X		X													
673			X	X			X		X		X													
674			X	X			X		X		X													
675			X	X			X		X													X		
676			X	X			X				X							X		X				
677			X				X		X		X													
678			X	X			X		X		X			X							X			
679			X				X		X		X			X							X			
680			X				X		X		X							X						X
681			X				X		X					X				X		X				
682			X	X			X		X		X							X		X				X
683			X	X			X		X					X							X			
684				X			X		X												X			
685			X				X		X									X		X				X
686			X																					
687				X					X															
688			X	X			X		X															
689			X	X			X		X		X													X
690			X	X			X		X		X			X							X			X
691			X				X		X		X													X

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARA	POFR	ALMUS	ARTI	LI- CRE	EPAN2	SATR	PAPAV	PICE	CAREX	POGA	JUNIP	BEGI	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKW	LEDUM	POTEN	POTRT
664		X				X	X										X							X
665						X	X			X	X	X					X							X
666	X					X	X			X	X	X					X							X
667	X					X						X					X							X
668	X					X						X					X							X
669	X					X	X			X		X					X							X
670	X					X	X					X												X
671	X					X	X					X												X
672	X					X				X		X												X
673	X	X				X	X					X												
674	X	X				X						X												
675	X					X				X		X										X		
676	X					X	X					X					X							
677	X					X	X			X		X					X							
678	X	X				X	X			X		X												
679	X	X				X	X					X												
680	X					X	X					X												
681	X	X				X				X		X					X							
682	X					X				X		X												
683	X					X	X			X		X					X							X
684	X						X			X		X					X							
685	X					X				X		X												X
686	X	X										X												
687	X									X		X												
688						X	X			X		X												
689	X					X	X			X		X												
690	X					X				X		X												X
691	X					X	X			X		X					X					X		

TAXA PRESENT AT EACH MILEPOST #3

Mile	VACCI	SPIRA	VAVI	ARCTOS	TRIFO	POAC	HEPA	PLANT	LALA	CASTI2	AQUIL	ROSA	CHENO	PEDIC	CORNU	EMPET	FRAGA	SANQU2	LIBO	ELOO	SAXIF	SIPR		
664																								
665																								
666																								
667																								
668																								
669																								
670																								
671																								
672																								
673																								
674				X																				
675																								
676																								
677																								
678																								
679																								
680																								
681																								
682																								
683																								
684				X																				
685																								
686																								
687						X																		
688																								
689																								
690																								
691																								

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA2	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR9	COHPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OKYTR	ASAL7	ASTER	ACHIL	HOJU
692			X				X		X		X			X								X		
693			X	X			X		X					X				X						X
694			X				X		X		X							X						
695			X				X		X					X										
696			X						X					X										
697						X			X					X				X						X
698				X			X		X					X										
699			X				X		X															
700			X	X			X		X									X		X				
701			X	X			X		X															
702			X	X					X									X						X
703			X				X		X		X										X			
704			X	X			X		X		X							X						X
705			X	X			X		X		X							X						X
706			X						X															
707			X				X		X		X							X		X				X
708			X	X			X		X					X							X			
709			X				X		X		X			X							X			
710			X	X			X		X															
711				X					X															
712			X	X			X		X		X			X										
713			X	X			X		X									X			X			
714			X	X			X		X															
715			X	X			X		X															
716			X	X			X		X		X													
717				X					X									X						
718			X	X			X		X															
719			X	X			X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARAX	POFR 4	ALNUS	ARTI	LICHE	EPAN2	SATR 2	PAPAV	PICEA	CAREX	POBA 2	JUNIP	BEGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN	POTRT
692	X	X				X				X		X												
693	X					X				X		X												
694	X					X	X			X		X												
695	X					X				X		X												
696		X				X				X		X												
697		X						X				X												
698	X						X			X		X												X
699	X	X				X	X					X					X							X
700	X					X	X			X		X					X							
701	X					X	X			X		X												
702	X					X	X			X		X												
703	X					X				X		X					X					X		
704	X					X	X					X												
705	X					X	X					X												
706	X					X				X		X												
707	X			X		X				X														
708						X				X		X												X
709				X		X				X		X												
710		X		X		X						X												
711		X																						
712	X	X		X		X	X			X														
713	X			X		X	X																	
714		X				X	X					X												
715				X		X				X		X										X		
716	X	X				X						X												
717												X												
718	X	X		X		X	X			X		X												
719		X				X						X												

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLA2	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	NOJU
720			X						X															
721			X	X					X															
722			X	X			X																X	
723				X					X															
724				X					X															
725			X			X			X														X	
726			X	X		X	X		X														X	
727			X			X			X															
728			X	X			X		X															
729			X	X		X	X		X															
730			X	X			X		X															
731			X	X			X		X															
732			X				X	X	X						X									
733			X						X						X								X	
734			X				X																	
735			IN PUMP STATION 12																					

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLAZ	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR9	COMPO	SAGP	PARNA	LUPIN	CARYD	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
736			X	X			X		X															
737			X	X					X					X										
738			X	X					X					X										
739			X	X					X															
740			X	X			X		X															
741				X			X																	
742									X															
743			X	X			X		X															
744			X				X		X								X							
745			X	X					X															
746			X	X			X		X															X
747									X															
748			X	X																				
749				X																				
750				X			X		X															
751				X					X															
752				X					X															
753			X	X					X															
754			X	X					X															
755				X					X															
756			X	X					X															
757			X						X															
758			X	X			X		X															
759				X			X		X					X								X		
760			X	X					X															
761			X	X					X															
762			X	X					X															
763			X	X			X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SHCA	TARAX	POFR 4	ALNUS	ARTI	LICHE	EPAN2	SATR 2	PAPAV	PICEA	CAREX	POBA 2	JUNIP	BEGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN	POTRT
736				X		X				X														
737				X			X																	
738				X																				
739				X		X	X			X														
740		X																						
741				X			X																	
742				X								X												
743				X			X									X								
744				X																				
745				X								X												
746				X			X					X												
747		X					X					X												
748												X												
749				X								X												
750										X		X												
751				X						X		X												
752				X						X		X												
753		X		X			X			X		X												
754				X			X					X												
755		X		X			X																	
756				X								X												
757				X																				
758				X																				
759				X	X																			
760				X						X		X												
761				X			X																	
762				X								X												
763				X						X														

TAXA PRESENT AT EACH RILEPOST #5

File	VACCI	SPIRA	VAVI	ARCTO3	TRIFO	POAC	NEPA	PLANT	LALA	CAST12	AQUIL	ROSA	CHEWO	PEDIC	CORNJ	EMPET	FRAGA	SANGUJ	LIBO	ELCO	SAXIF	SIPR			
736					X																				
737																									
738	X				X																				
739					X																				
740					X																				
741																									
742					X																				
743																									
744																									
745					X																				
746					X																				
747					X																				
748																									
749					X																				
750																									
751					X																				
752																									
753					X																				
754																									
755																									
756																									
757					X																				
758					X																				
759																									
760																									
761																									
762																									
763					X																				

TAXA PRESENT AT EACH MILEPOST #1

Mile	POA	ARLAZ	MOSS	FESTU	DRYAS	CRUC	SALIX	EPLA	GRAMI	ARAR9	COMPO	SAOP	PARNA	LUPIN	CARYO	JUNCU	ERIOF	HEDYS	CRNA	OXYTR	ASAL7	ASTER	ACHIL	HOJU
764				X			X		X															
765				X					X															
766			X	X			X	X	X															
767			X	X			X	X	X															
768			X	X			X		X															
769			X	X					X															
770				X			X		X															
771									X															
772			X	X			X		X															
773				X			X		X															
774			X	X			X		X															
775							X	X																
776							X	X																
777			X				X		X															
778			X				X		X															
779			X				X		X					X										
780			X				X		X															
781			X				X		X															
782				X					X															
783			X				X		X															
784			X				X		X															
785			X	X			X		X															
786			X				X		X															
787			X				X		X															
788							X		X															
789				X			X		X															
790			X	X			X		X				X											
791			X				X		X															

TAXA PRESENT AT EACH MILEPOST #2

Mile	SRCA	TARAX	POFR 4	ALNUS	ARTI	LICHE	EPAN2	SATR 2	PAPAV	PICEA	CAREX	POGA 2	JUN1P	B EGL	TOFIE	BETUL	EQUIS	RIBES	PYROL	RUBUS	UNKWN	LEDUM	POTEN	POTRT
764				X			X										X							
765				X			X					X												
766				X			X																	
767				X			X																	
768				X								X												
769				X		X	X					X												
770				X								X												
771																								
772				X																				
773				X	X																			
774						X																		
775																								
776																								
777				X																				
778				X																				
779				X																				
780				X																				
781				X																				
782				X																				
783				X																				
784				X																				
785				X			X					X												
786				X			X			X		X					X							
787				X			X			X		X					X							
788		X		X						X		X												
789				X						X		X					X							
790				X						X		X												
791				X								X												

TAXA PRESENT AT EACH MILEPOST #3

Mile	VACCI	SPIRA	VAVI	ARCTOS	TRIFO	POAC	NEPA	PLANT	LALA	CAST12	AQUIL	ROSA	CHENO	PEDIC	CORNU	EMPET	FRAGA	SANGU2	LIBO	ELCO	SAXIF	SIPR	SORBU	
764																								
765					X																			
766																								
767																								
768																								
769																								
770																								
771																								
772																								
773																								
774																								
775																								
776																								
777																								
778																								
779																								
780																								
781																								
782																								
783																								
784																								
785																								
786																								
787																								
788																								X
789																								X
790																								
791																								

TAXA PRESENT AT EACH MILEPOST #3

Mile	VACCI	SPIRA	VAVI	ARCTOS	TRIFO	POAC	MEPA	PLANT	LALA	CAST12	AQUIL	ROSA	CHENO	PEDIC	CORNU	EMPET	FRAGA	SANGU2	LIBO	ELCO	SAXIF	SIPR	SORBU	TSUGA	
793	X																								X
794																									
795																									
796																									
797					X																				
798																									
799																									
800																									

**ASSESSMENT OF EROSION AND PLANT COVER
ON THE TRANS ALASKA PIPELINE
RIGHT OF WAY
MILEPOSTS 0 TO 800
VOLUME 2**

**PREPARED FOR
THE STATE PIPELINE COORDINATOR'S OFFICE
ALASKA DEPARTMENT OF NATURAL RESOURCES
SEPTEMBER, 1992**

**PREPARED BY
NANCY J. MOORE
ALASKA PLANT MATERIALS CENTER
DIVISION OF AGRICULTURE
ALASKA DEPARTMENT OF NATURAL RESOURCES**

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SECTION P

MILEPOST PHOTOGRAPHS



Milepost 1.





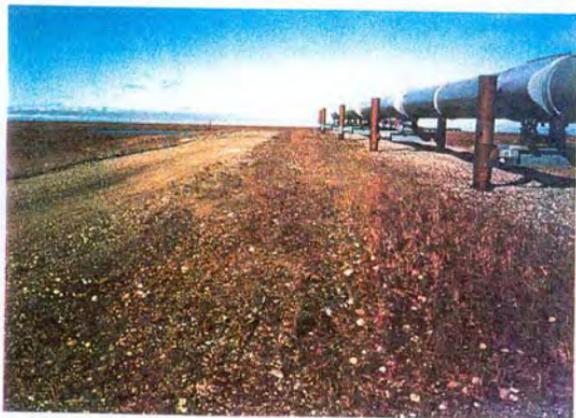
Milepost 3.





Milepost 5.





Milepost 7.





Milepost 9.





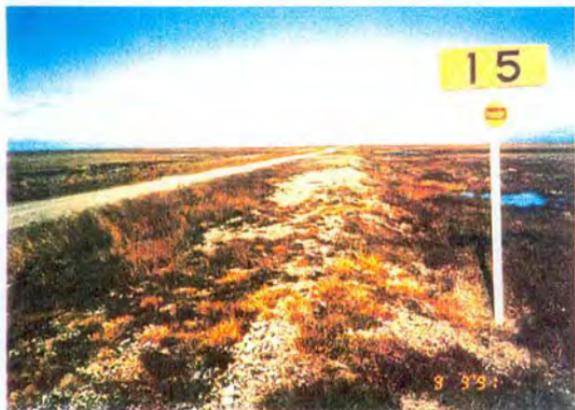
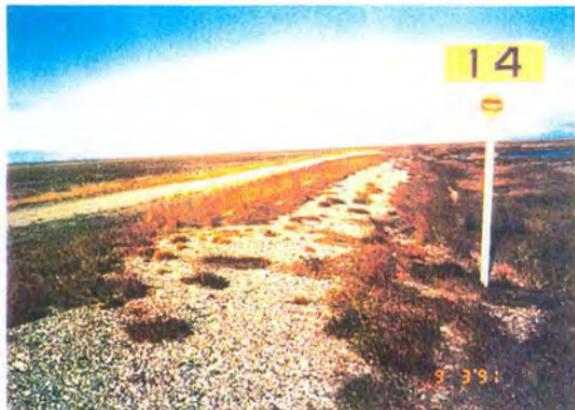
Milepost 11.





Wellpost 12.







Milepost 16.



Milepost 17.













Milepost 28 in the floodplain.



























Photographs missing for
Mileposts 54 - 62.





Mileposts 63 and 64. Thermokarst activity (refers to all four photographs).







Photographs for Mileposts
68 and 69 are missing.

















Milepost 84 in the floodplain.



Milepost 85.



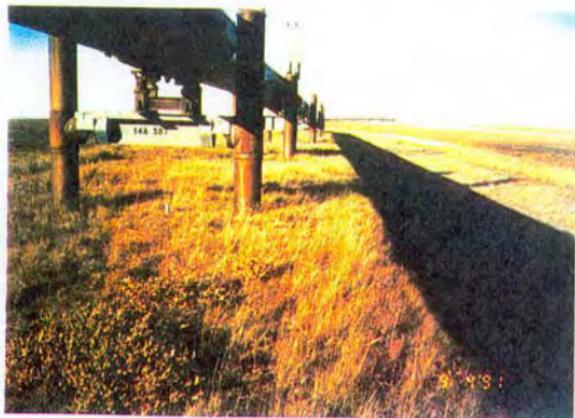


Milepost 87.





Milepost 89.





Milepost 91.





Milepost 93.





Milepost 95.





Milepost 97.





Milepost 99.





Milepost 101.





Milepost 103.









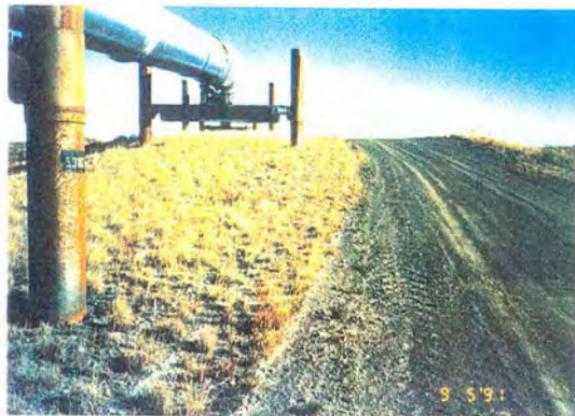


Milepost 111.



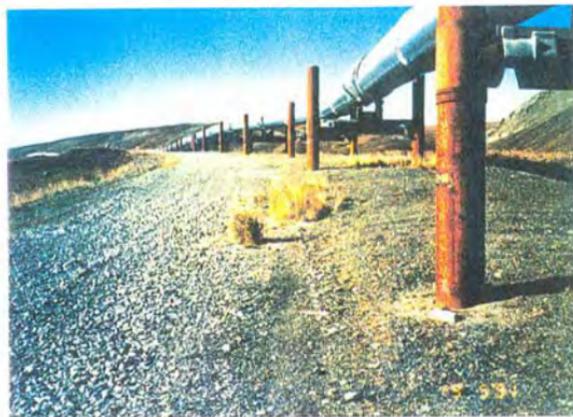


Milepost 113.





Мілопост 115.





Milepost 117.

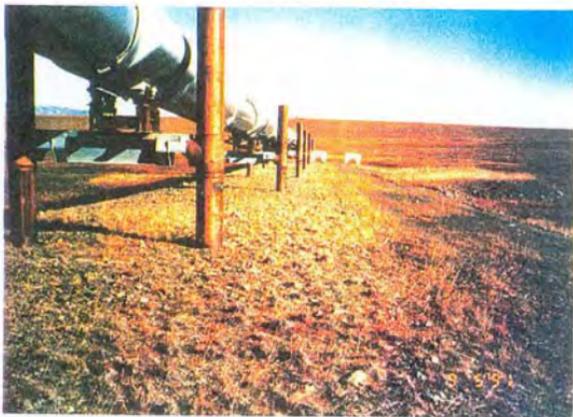




Milepost 119.



Mileposts 120 - 123 on snowpad
(no photographs).



Milepost 125.





Milepost 127.



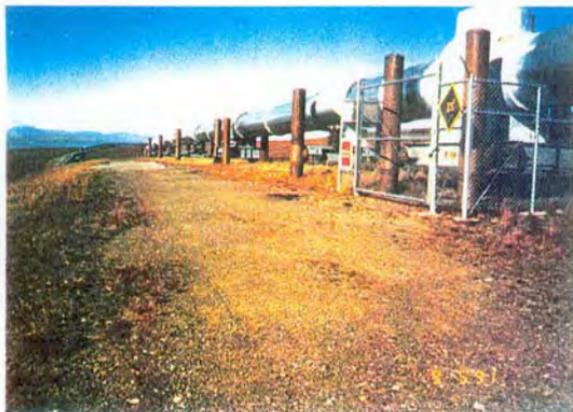


Milepost 129.





Milepost 130.



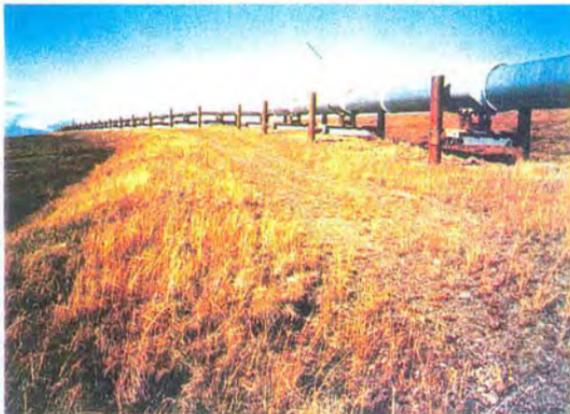
Milepost 131.





Milepost 133.





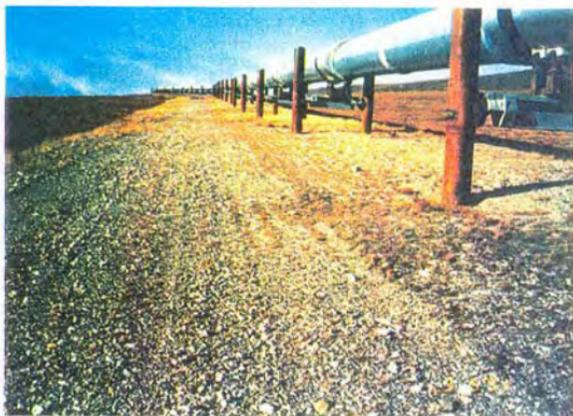
Milepost 135.





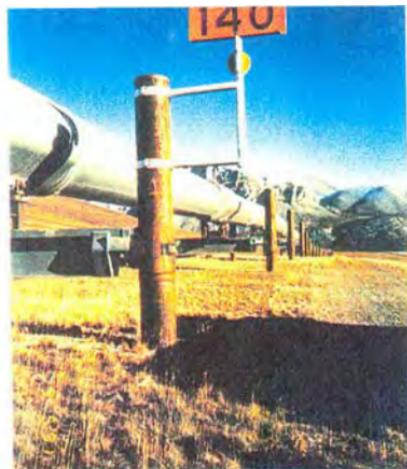
Milepost 137.





Milepost 139.



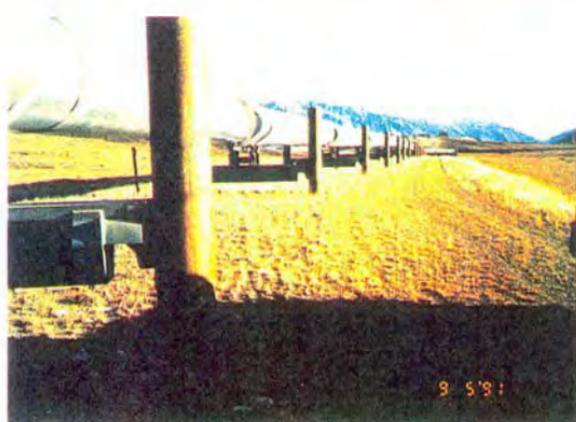


Milepost 141.





Milepost 143.





Milepost 144.



Milepost 145.





Milepost 147.





Milepost 149.





Milepost 151.





Мілеpost 153.





Milepost 153.





Milepost 155.





Mileposts 157 - 165 inaccessible,
Atigun Reroute Project.





Milepost 167.



Milepost 168.







Mileposts 172 - 172.2. After corrosion dig in 1992 - workpad is subsiding.







Thermokarst adjacent to workpad at approximately 174.8.



Milepost 175.







Milepost 179.



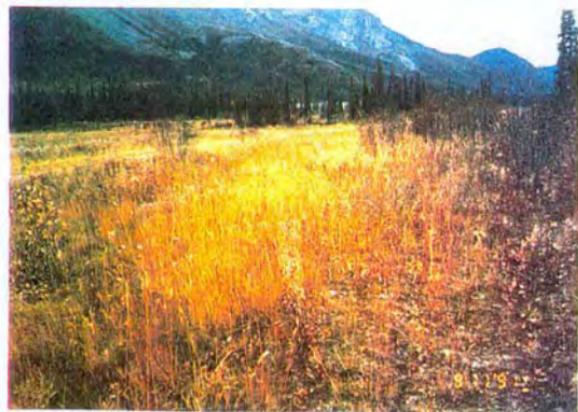


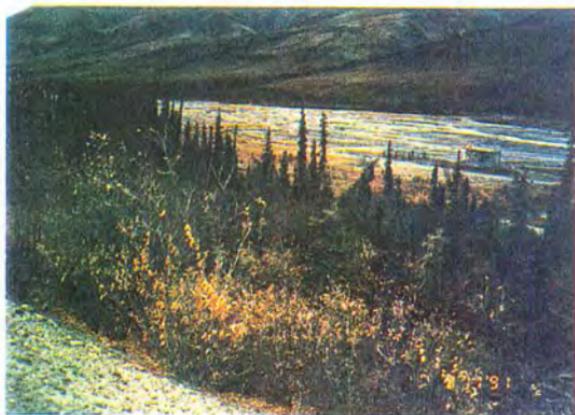






Milepost 191.





Milepost 194
taken from road.

Milepost 195 in the floodplain.





Milepost 197.





Milepost 199.





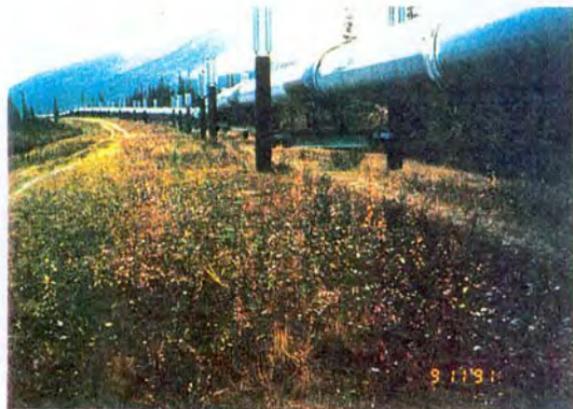
Milepost 203.





Milepost 205.





Milepost 207.





Milepost 209.





Milepost 211 in the floodplain.





Milepost 213.



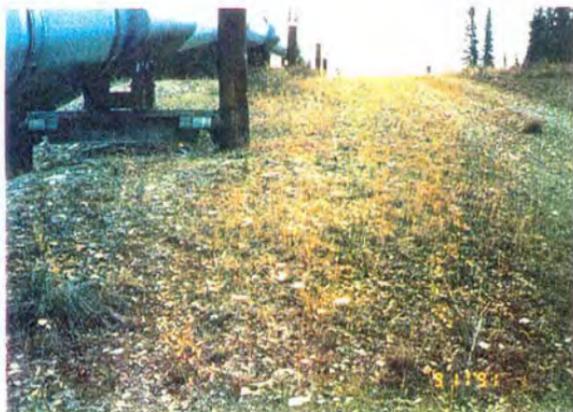


Milepost 215.



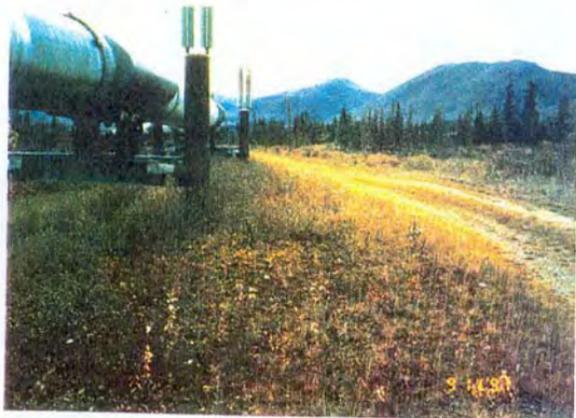


Milepost 217.





Milepost 219.





Milepost 221.



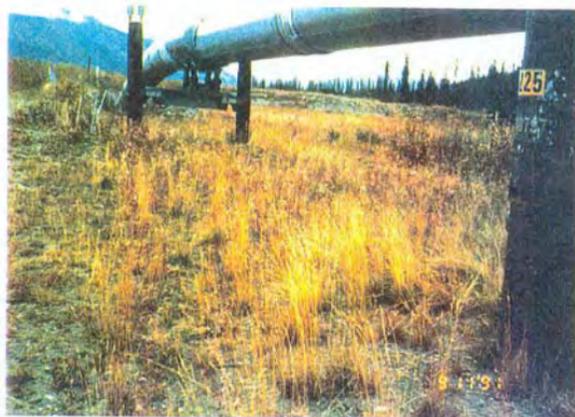
Milepost 222.





HiTepost 223.









**ASSESSMENT OF EROSION AND PLANT COVER
ON THE TRANS ALASKA PIPELINE
RIGHT OF WAY
MILEPOSTS 0 TO 800
VOLUME 3**

**PREPARED FOR
THE STATE PIPELINE COORDINATOR'S OFFICE
ALASKA DEPARTMENT OF NATURAL RESOURCES
SEPTEMBER, 1992**

**PREPARED BY
NANCY J. MOORE
ALASKA PLANT MATERIALS CENTER
DIVISION OF AGRICULTURE
ALASKA DEPARTMENT OF NATURAL RESOURCES**

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SECTION P
MILEPOST PHOTOGRAPHS



Milepost 401.



9 14 '91



402





Мілепост 405.









Milepost 411.







Milepost 413.





Milepost 415.





Creek crossing between Mileposts 416 and 417 should be monitored.
Thermal erosion occurring upstream.





Milepost 417.



Milepost 418
on snowpad -
inaccessible.





Milepost 421.





Milepost 423.





Milepost 425.









Milepost 431.







Milepost 435.





Milepost 437.





Milepost 439.





Miljopost 441.



6.25.92





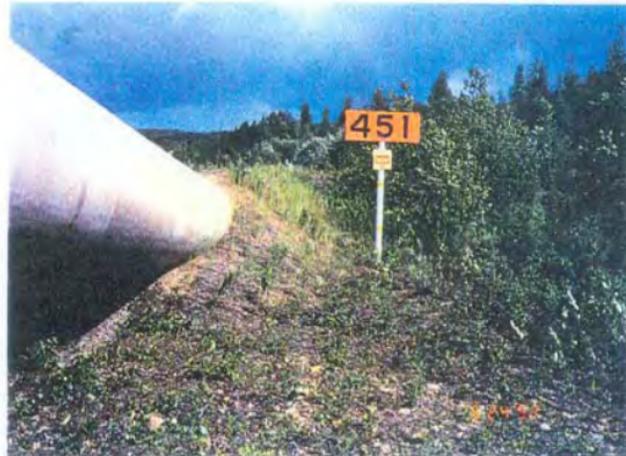




Milepost 448.













Milepost 457.



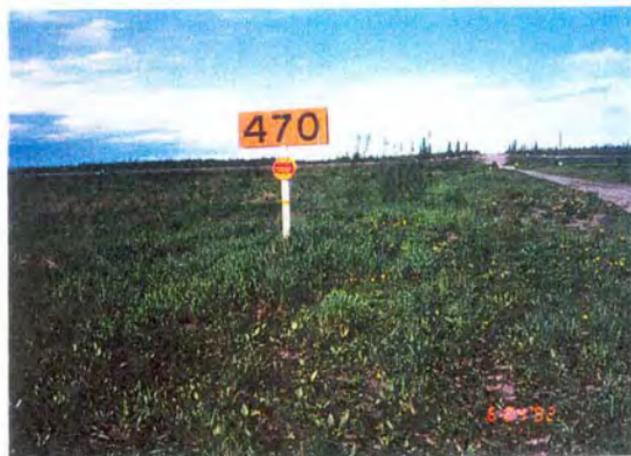












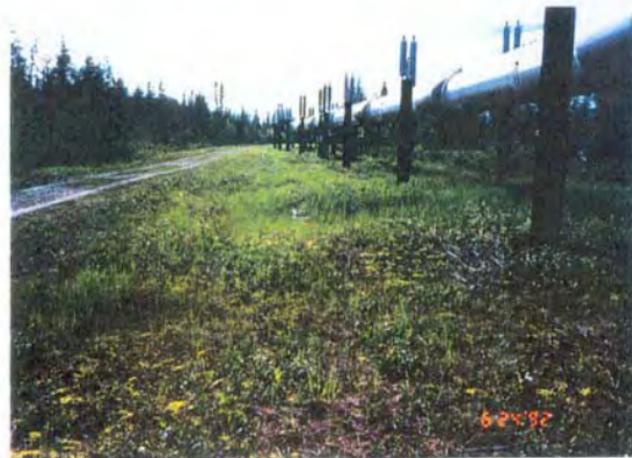






Milepost 475.









Milepost 481.





Milepost 483.





Milepost 485.



Milepost 486.





Milepost 487.







Milepost 491.





Milepost 493.









Milepost 499.





Milepost 501.





Milepost 503.





Milepost 505.





Milepost 507.





Milepost 509.





Milepost 511.





Milepost 513.

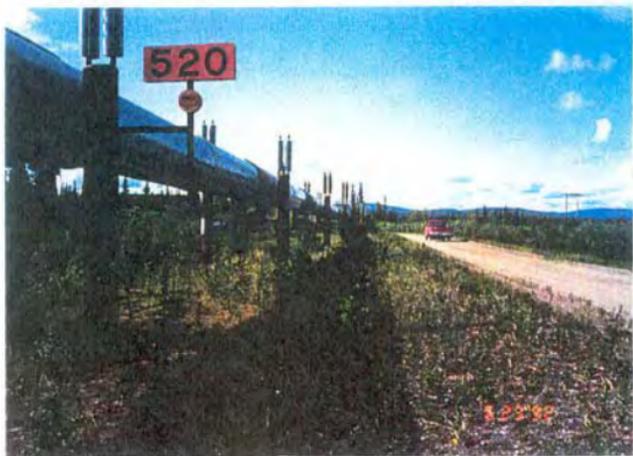








Milepost 519.





Milepost 521.





Milepost 523.





Milepost 525.





Milepost 527.







Milepost 531.

















Milepost 546.









Milepost 555.





Milepost 557.





Milepost 559.





Milepost 561.





Milepost 563.





Milepost 565.





Milepost 567.





Milepost 569.





















Milepost 587.





Milepost 589.



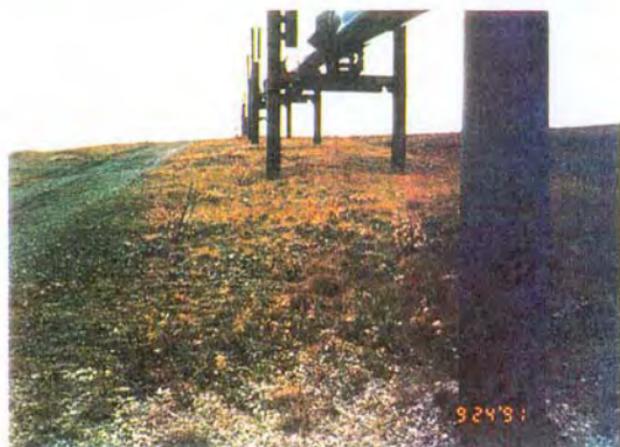






MIlepost 595.





Milepost 597.



