

ALASKA POWER AUTHORITY

SUSITNA HYDROELECTRIC PROJECT

PROGRESS REPORT

FOR

DECEMBER, 1980

ALASKA POWER AUTHORITY  
SUSITNA HYDROELECTRIC PROJECT  
MONTHLY PROGRESS REPORT

REPORT NO. 12

PERIOD: December, 1980

Progress Report No. 12 covers activities on the Susitna Hydroelectric Project for the month of December, 1980.

The limited work on Task 1 is continuing as scheduled.

The Task 2 surveys and operation of site facilities proceeded on schedule. Watana base camp operations continued at a reduced winter level. A fuel resupply was carried out. A review of requirements by CIRI-H&N is underway for 1981 operations and land ownership maps were completed.

Work on Task 3, Hydrology, is proceeding as scheduled. Development of computer software for data processing is in progress.

Task 4, Seismic Studies, is continuing on schedule. Acres issued its comments on WCC interim report. WCC is continuing work on the Task 4 interim report which will be issued in draft in January.

Task 5, Geotechnical Exploration, is proceeding as planned. Work continued on the 1980 Geotechnical Report and planning of 1981 Exploration Program.

Task 6, Design Development, continued on the investigation of tunnel alternatives including general arrangements and cost estimates. Work continued on the refinement of energy simulation runs for the preferred schemes for Alternative Susitna Development. Work started on the conceptual design of the fill dam cross section at Watana.

Task 7, Environmental Studies, continued with the final report on "Preliminary Environmental Assessment of Tunnel Alternatives" was reviewed by Acres and incorporated into Acres overall review of tunnel alternatives. A meeting was held with TES in early December to discuss Susitna development options. A meeting was held between Commonwealth Associates and TES to discuss transmission line studies. Work continued on Fish, Wildlife, and Plant Ecology Studies with emphasis placed on the Annual Report.

Task 8, Transmission, continued as scheduled. A draft of the Project Overview Report was started in this period. The centerline of the preliminary route between Watana, Devil Canyon and Gold Creek was located on a map.

Task 11, Financing, continued on the preparation of the Project Overview Report. Software facilities for the Susitna Project Risk Analysis were set up on Acres Computer.

Task 13, Project Administration, continued as scheduled.

## TASK 1 - Power Studies

### Subtask 1.01 - Review of Iser

The draft Closeout Report for this activity was reviewed by the APA. The final report will be issued in January, 1981.

### Subtask 1.02 - Forecasting Peak Load Demand

#### WCC ACTIVITIES

The final report for this subtask was being prepared and will be submitted in early January, 1981.

## TASK 2 - SURVEY AND SITE FACILITIES

### ACRES FACILITIES

#### Subtask 2.02 - Field Camp and Logistical Support

Acres continued to monitor day to day activities and coordinate logistics support for the field camp.

#### CIRI/H&N ACTIVITIES

The camp maintenance and operations staff remained at three people. A fuel resupply consisting of 18,400 gallons of Jet B fuel was completed. CIRI/H&N received quotations for additional fuel resupply for 1981.

CIRI/H&N continued its regular inspection of camp facilities and operations. Request for quotations for the winter mobilization of approximately 120,000 gallons of fuel were solicited and received from local ground and air transport service companies.

Recommendations regarding the winter mobilization efforts have been forwarded to Acres American for review. Bids have also been solicited by CIRI/H&N for the maintenance of all camp communication facilities. Quotations will be reviewed in mid-January.

#### Subtask 2.04 - Land Ownership

#### CIRI/H&N ACTIVITIES

The land ownership maps prepared by the CIRI land department were completed and a Subtask 2.04 completion report prepared by CIRI/H&N.

Acres American has requested our definition of how land acquisition analyses will be carried out once proposed transmission corridor, access, and reservoir areas are delineated by Acres American. CIRI/H&N recommendations concerning the land acquisition analyses will be forwarded to Acres in late January.

Subtask 2.06 - Right of Entry

ACRES ACTIVITIES

Acres redefined the access needs for 1981 for both resupply and geotechnical exorations as well as completed status on the 1980 work.

CIRI/H&N ACTIVITIES

The permit coordinator submitted revisions for 1981 permits to BLM for review and approval.

Subtask 2.07, 2.08, 2.09 - Surveys and Aerial Photography

ACRES ACTIVITIES

Acres continued coordination of all survey and air photo work with R&M Consultants.

TASK 3 - HYDROLOGY

ACRES ACTIVITIES

Subtask 3.03 - Field Data Collection and Processing

Routine monitoring of R&M field work continued. Development of computer software for data processing is in progress. Snow creep measurement system details were finalized. Installation of the two stations in the field are expected to be complete by late January.

Subtask 3.05 - Flood Studies

Detailed supervision and coordination of the flood peak and volume frequency analysis being conducted by R&M was provided.

Subtask 3.06 - Hydraulic and Ice Studies

Preliminary analysis of freeze up and river cross section data has commenced.

Subtask 3.08 - Climatic Studies for Transmission Lines

The final report on preliminary design parameters was reviewed internally. A design transmittal will be issued January 1981.

Subtask 3.10 - Lower Susitna Studies

R&M status report on the studies was reviewed and comments sent to R&M on further work.

## TASK 4 - SEISMIC STUDIES

### ACRES ACTIVITIES

Task 4 is being performed by Woodward-Clyde Consultants. Acres continued to review the seismic geology evaluation report.

### WCC ACTIVITIES

#### Task 4 - Seismic Studies

##### Subtask 4.06 - Evaluation and Reporting

Review comments on the Task 4 draft report were received from WCC's project review board and from Acres' reviewers. Review comments were incorporated into the report as appropriate. A meeting will be held with Acres' reviewers during the week of January 5, 1981 to discuss the comments and to clarify selected portions of the report.

##### Subtask 4.07 - Preliminary Ground Motion Studies

The earthquake engineering analyses were completed and a draft report on "Preliminary Earthquake Ground Motion Studies" was submitted on December 12, 1980.

#### Report

Issuance of the task 4 Interim Report for 1980 is approximately one month behind the schedule anticipated at the end of November 1980. The delay is due to a number of factors, the primary one being a longer than planned response time for some of the review comments. It has been decided to include the results of all subtasks conducted during 1980 as a single report. The current schedule is to complete the report on January 16, 1981 and submit it to Acres as a proof copy as per their request. Upon receipt of any additional comments the report will be revised, if appropriate, and given to the printer. It will probably be ready for distribution by mid-February 1981.

## TASK 5 - GEOTECHNICAL EXPLORATION

### ACRES ACTIVITIES

#### Subtask 5.01 - Data Collection and Review

Subtask has been completed. Detailed information will be included in the 1980 Geotechnical report to be produced (tentatively) in February, 1981.

#### Subtask 5.03 - Exploratory Program Design, 1980

Subtask complete.

#### Subtask 5.04 - Exploratory Program, 1980

Field work has been completed.

Subtask 5.05 - Exploratory Program Design 1981

A preliminary 1981 Exploration Plan is currently being reviewed and finalized for the winter drilling. Winter field work is tentatively scheduled to begin in February, 1981.

Subtask 5.08 - Data Reduction

The data reduction from Subtask 5.04 is in progress in Buffalo and Anchorage offices. The results will be included in the 1980 Geotechnical Report.

TASK 6 - DESIGN DEVELOPMENT

Subtask 6.01 - Review Previous Studies

Internal review of closeout report has been completed.

Subtask 6.02 - Investigate Tunnel Alternatives

Preliminary layouts for Scheme 3 were completed including general arrangement of the re-regulation dam and power facilities. A final refinement of the cost estimate was started. Work commenced on writing the closeout report.

Subtask 6.03 - Evaluate Susitna Alternatives and  
Subtask 6.06 - Watana/Devil Canyon Staged Development Alternatives

Monthly energy simulation runs and refinement of energy estimates were carried out for a short list of three preferred schemes.

Plan 2A Stage 1 - Watana (2000) 400 MW  
Stage 2 - Watana (2200) and 400 MW if required  
Stage 3 - Devil Canyon (1450) 400 MW and 200 MW if required.

Note: Consideration is being given to installing a re-regulation dam downstream of the 800 MW Watana dam development prior to the construction of the Devil Canyon dam.

Plan 3A Stage 1 - Watana (2200) 400 MW  
Stage 2 - Watana (2200) add 400 MW if required  
Stage 3 - Devil Canyon (1450) 400 MW and 200 MW if required

Note: As for Plan 2A.

Plan 6A Stage 1 - High Devil Canyon (1760) 400 MW  
Stage 2 - High Devil Canyon (1760) add 400 MW if required  
Stage 3 - Vee (2360) 400 MW

Note: Consideration is being given to adding in a 150 ft high dam just upstream from Portage Creek (referred to as the Portage Creek site). It would act as a re-regulation dam to the High Devil Canyon site and could generate up to 150 MW of power.

Work continued on refining layouts for the several selected sites.

#### Subtask 6.04 - Devil Canyon Arch Dam Evaluation

A first draft closeout report of the subtask was completed and the subtask closed out.

#### Subtask 6.05 - Development Selection Report

A final outline of the report was prepared and circulated. Initial drafts of certain sections of the report were prepared.

#### Subtask 6.07 - Preliminary Watana Dam Alternatives

Work was started on a conceptual design of the fill dam cross section. The staged concrete and fill dam layouts development under Subtask 6.06 were refined and completed. Preliminary cost studies indicate the fill dam to be economically superior to the concrete dam alternative.

#### Subtask 6.08 - Preliminary Devil Canyon Dam Alternatives

A detailed arch dam design review meeting was held with members of the internal review panel and M. Copen. The WPRS (formerly the USBR) computer programs for arch dam stress analysis (ADSAS) and for temperature analysis (HEATFLOW) were obtained and set up on the Acres computer. The layouts for the gravity arch dam were completed.

#### Subtask 6.32 - Thermal Generator Reservoir

Capital cost estimates for the thermal generating options were finalized as were fuel price opportunity values consistent with Alaskan experience market prices. Report preparation for the Project Overview and Development Selection Report was drafted.

#### Subtask 6.33 - Hydroelectric Generation Sources

Power Analyses were performed at most of the sites (Operation Type 1 - environmental was completed for all ten sites/Operation Type 2 - power was completed for eight sites). The installed capacities were selected and the energy production data for the generation planning task was estimated.

Quantity and cost estimates were compiled for six dam sites.

#### Subtask 6.34 - Establish Methodology

The environmental screening process for hydro sites was completed, pending Steering Committee evaluation of sites selected for detailed investigation. The Task 6.34 Status Report was commenced.

#### Subtask 6.35 - Load Management and Conservation

Report on potential for load management and energy conservation was completed. Conceptual approaches for including load management and energy conservation in generation planning were formulated, and possible effects in reducing energy consumption were discussed and taken into account in the load forecasts.

### Subtask 6.36 - Generation Planning

Initial system analysis for the with and without Susitna plans for the middle and high load forecasts was done. Three separate arrangements for staging of project components were reviewed. Preliminary findings show that the Susitna alternatives supply a large portion of demand in summer months with other projects needed for the winter. Generally, system costs for the with Susitna alternatives are high compared to the without case for several years, decreasing as a result of fuel savings through five to six years and less expensive for the remaining years of study.

Initial economic analysis showed complete favorability to Susitna; thus, the staging assessment was done using financial parameters.

## TASK 7 - ENVIRONMENTAL STUDIES

### ACRES ACTIVITIES

#### Subtask 7.01 - Administration

The final report on "Preliminary Environmental Assessment of Tunnel Alternatives" as prepared by TES was reviewed and incorporated into our overall review of tunnel alternatives.

A meeting was held in early December with TES to discuss Susitna development options. Technical information on these options was submitted to TES who are now in the process of preparing a preliminary environmental review. Discussions continue on the establishment of design criteria with a meeting planned for February to include Dr. Milo Bell.

TES response to the Susitna Hydro Steering Committee's comments were received in late December and are in the process of being reviewed by Acres.

A master list of information needs was received from TES and is presently being reviewed by Acres task supervisors.

Draft environmental sections of the Project Overview Report are being prepared for completion in early January.

#### Subtask 7.09 - Susitna Transmission Corridor Assessment

A meeting was held with Commonwealth Associates and TES to discuss transmission line studies. Information was exchanged and avenues for future communication established.

#### Subtask 7.10 - Fish Ecology Studies

Discussions were held with Woody Trihey to clarify his involvement in the instream flow program. Mr. Trihey is in the process of assisting ADF&G develop this program and in establishing an instream flow work plan. Dr. Milo Bell was contacted and requested to supply information on gas bubble decrease/spillway design.



### Subtask 7.11 - Wildlife Ecology Studies

APA was requested to contact government agencies regarding representation on the Wildlife Mitigation Task Force. The first meeting of this Task Force is scheduled for January 30, 1981.

### TES ACTIVITIES

#### Subtask 7.01 - Administration

TES prepared and submitted to Acres on December 23, a comprehensive response to the Steering Committee final comments on Task 7 Procedures Manuals received by TES on December 11.

#### Subtask 7.05 - Socioeconomic Analysis

Work continued on Work Package 2, Work Items c and d, and on Work Package 4, Work Item d.

Formats and information on the socioeconomic profiles are being assembled prior to development of detailed profiles. Geographic study areas have also been tentatively defined. This will facilitate incorporation of raw census data when it becomes available in the spring, in addition to other information.

A preliminary analysis of the access route alternatives was prepared (under Work Package 3) in accordance with established data procedures.

#### Subtask 7.06 - Cultural Resource Investigations

Eighty percent of the graphics for the Annual Report have been completed. Draft finals for both the geology and paleontology are also complete. Three radiocarbon dates are still outstanding but should be available within a week. All C<sup>14</sup> dates will be included in the Annual Report. Analysis of artifacts and faunal material has been completed. Site-specific data is presently being prepared for all sites discussed in the report.

Finally, TES staff reviewed the comments of the Steering Committee on the Archeology Procedures Manual and passed these comments along to the U. of A. for their review.

#### Subtask 7.07 - Land Use Analysis

Work continued on the land use analysis for incorporation in the upcoming Annual Report. The U. of A. prepared a preliminary statement regarding analysis of access route alternatives. Also, TES staff prepared a response to comments by the Steering Committee on the Land Use Procedures Manual.

#### Subtask 7.08 - Recreation Planning

Work continued on the recreation survey, including a follow-up on the survey and analysis of results. A lower-than-anticipated response to date has necessitated some additional follow-up activity which originally was not planned. The Principal Investigator, by means of statewide television and radio, requested recipients of the survey forms to complete and return them. In addition, notices to this effect were placed in newspapers.

#### Subtask 7.09 - Transmission Corridor Assessment

On December 1, TES (J. Barnes, B. Root) attended a transmission coordination meeting in Acres' Buffalo office. Also attending the meeting were K. Young and R. Sarofim (Acres) and Michael Barningham of Commonwealth Associates (CA).

Discussed were the plans and schedules of CA with respect to the Intertie Project, progress to date, and requirements for future data exchange. Susitna Project literature collection and review also was undertaken during December.

#### Subtask 7.10 - Fish Ecology Studies

During the month of December work continued on the Annual Report. The Annual Report will address the areas described in the Procedures Manual: Fish Ecology Impact Assessment and Mitigation Planning. TES will attempt to evaluate the progress made during the past year and define information that must be obtained by December 1981 in order to answer the impact questions posed in the Procedures Manual.

R.W. Williams, as well as several staff members from TES, met with Acres on December 2, 1980 to discuss schemes for power development. A few areas of concern that arose during the meeting were: spillway design to reduce plunging flows, thus reducing the possibility of excessive dissolved oxygen and dissolved nitrogen; maintaining constant flows downstream; and the levels of water intakes. During February we will meet again to continue this discussion.

During December a response to comments by the Steering Committee on the Fish Ecology Procedures Manual was also prepared.

#### Subtask 7.11 - Wildlife Ecology Studies

The vast majority of all efforts expended under Subtask 7.11 in December concerned the analysis of data and writing of the first Annual Report. The only field work that took place in December was by members of the furbearer group. The Wildlife Ecology Group Leader devoted a considerable effort to preparing a response to the Steering Committee's comments, organizing coordination meetings for January, and reviewing pertinent literature.

#### Subtask 7.12 - Plant Ecology Studies

Work continued on the vegetation habitat maps as well as on the writing of the first Annual Report. Reproductions of the 1:250,000 scale maps were ordered. To facilitate report writing, TES provided the AAES with an annotated technical content outline.

Additionally, TES notified Acres that maps of the direct impact areas will be prepared at a scale of 1:24,000 instead of 1:25,000 due to an error in scale on the U<sup>2</sup> aerial photographs.

#### Subtask 7.14 - Access Roads

TES began to receive input from subcontractors and ADF&G Big Game Investigators with respect to impact issues and environmental concerns of the alternative access routes. As a result, a consolidated list of all concerns and issues is being prepared.

## ADF&G - HYDRO AQUATIC STUDIES

### ADMINISTRATION/COORDINATION

#### Review of Tasks Scoped for December 1980

- A. The intradepartmental review of the studies and program needs is continuing. A redraft of the Anadromous Adult Project is continuing and a work draft of the recommended revision of the sonar - fish wheel program was provided in late December. A "discussion" draft is expected in the first two weeks of January. Several other program revision or clarification "pieces" for data processing and anadromous stock separation are also expected in early January.

We need all the recommended revisions for our review before the project leaders and Aquatic Studies Coordinator can identify the deficiencies or recommended changes in our proposed program due to new information or accelerated program needs.

- B. The budget review and accounting procedures set up for the Commercial Fisheries Division has not been projected for completion in December. This has not been done but no problems are expected in completing this task in the next month or two.

### FIELD STUDIES

#### Resident and Juvenile Anadromous Project

The Resident and Juvenile Anadromous project staff continued to sample roadside locations in the Susitna River from Willow Creek to Talkeetna. During field work by three biologists, juvenile coho and chinook salmon, and burbot were captured at a number of sampling sites.

Extreme cold weather and almost total lack of snow made it impossible to travel any distance with snow machines, and therefore limited our efforts to sample at more remote locations.

The Resident and Juvenile Project Leader together with the project leader for the instream flow segment spent two days in the Gold Creek-Devils Canyon area during which time a cabin was rented and logistical support was planned. A second trip was made to the Gold Creek area in late December to set up the rented cabin. Lodging facilities for field staff were also arranged at the Montana Creek Lodge and at the Galberts Camp on Alexander Creek.

#### Aquatic Habitat and Instream Flow Project

Two days were expended to reconnoiter the Gold Creek and Devils Canyon area with the Resident and Juvenile Studies Project Leader. Efforts are also underway by the 2 project leaders to coordinate their study activities when possible.

In progress is the revised RSA amendment for the aquatic habitat and instream flow studies. Once the services of the instream flow hydraulic engineer becomes available, more detailed study plans for this and related segments of the study can be initiated.

## TASK 8 - TRANSMISSION

A draft report of the Project Overview Report was commenced in this period. There were also three figures produced to accompany the report, namely the transmission line preliminary route maps, Anchorage - Cook Inlet and Fairbanks - Tanana Valley existing electrical system single line diagrams. A preliminary copy of the report was issued.

### Subtask 8.01 - Transmission Line Corridor Screening

Additional aerial photographs were received together with the land status maps for the intertie corridor.

Work continued on this subtask primarily on gathering additional information from photographs and transferring into U.S.G.S. maps.

### Subtask 8.02 - Electric System Studies

Investigation of transmission capabilities and voltage levels for Susitna transmission continued. The main transmission alternatives were defined and single line diagrams of these prepared. Load flow studies for the alternative transmission schemes were started.

### Subtask 8.03 - Route Selection

The centerline of the preliminary route between Watana, Devil Canyon and Gold Creek was located on the potential access road maps (1 inch = 2,000 feet).

## TASK 10 - LICENSING

### Subtask 10.04 - Coordinate Exhibit Preparation

Continue drafting and scheduling a final FERC exhibit preparation.

## TASK 11 - MARKETING AND FINANCE

### Subtask 11.01 - Project Overview Preparation and Update

Work proceeded within Task 11 on the preparation chapters in the Project Overview Report (POR) of Chapter 12 - Analysis of Economic Feasibility and Net Economic Benefits, Chapter 13 - Power and Energy Marketing, Chapter 16 - Financial Analysis and Chapter 17 - Security of Project Capital Structure. Overall editing and coordination of the POR was carried out by staff assigned to Task 11.

### Subtask 11.02 - Interim Reports

In coordination with Task 6 the inputs required for financial analysis were determined and then tested as models on the selected feasible program. Initial test runs were followed by a series model analyses covering various schedules of

capital expenditures, debt arrangements and other financial parameters. Consultation took place with specialist advisors on financial structuring and risk assessment and their inputs were used in the modeling process. Research was undertaken into likely regulatory constraints that could apply to utilities providing Susitna output.

#### Subtask 11.03 - Alternative Power Source Risk Analysis

During December software products were set up and tested on the Company's Central Facilities and will be now available for processing the Susitna Project Risk Analysis. Inputs were provided to Chapter 9 of the POR.

#### Subtask 11.05 - Susitna Base Plan Extension and Revision

Preparations made to initiate work on this subtask on the first quarter of 1981. Risk considerations were discussed in the content of the financial analysis during December 1980.

#### Subtask 11.06 - Susitna Financing Risk Analysis

This task has not yet been funded but with the selection of managing underwriters in mid December 1980. Access is now provided to specialist advice on the matter.

#### Subtask 11.07 - Resolution of Tax Exempt Bond Issue

In the hours of preparation of Chapter 17 - Security of Project Costs and Revenues Preliminary Consideration has been given to risk sharing arrangements for the project.

#### Subtask 11.09 - Revenue Assurance Procedures

With the appointment by APA of a managing underwriters group activity under this task began through opening discussions with first southwest to plan for briefing meetings with first Boston Corporation and their associates.

### TASK 12 - PUBLIC PARTICIPATION

Continued discussions were held regarding the scheduling of public meetings and workshops for 1981. Responses to questions received as part of the action list program were prepared.

### TASK 13 - PROJECT ADMINISTRATION

#### Subtask 13.04 - Schedule Monitoring

Project schedule was updated to January, 1981 with appropriate changes being made in logic and durations. Copies of the revised schedule and computer generated bar chart are appended to this progress report. Schedule monitoring is continuing.

Subtask 13.05 - Cost Control

The November Cost Report was issued after being revised per our November report.

The December report will be issued in early January, 1981.

TASK 14 - ADF&G SUPPORT

ACRES ACTIVITIES

Acres continued to handle purchasing requirements for ADF&G. Equipment for both field and office for the month required an expenditure of approximately \$22,600.00

WORK COMPLETED:  
TO JANUARY 5, 1981

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT

PAGE 1  
TIME NOW: 5:45:51

CFM ANALYSIS LISTING

I-NODE	J-NODE	DUR	SELECT	CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL
10000	10600	0	C	OPB 1 C2	101	REVIEW OF METHODOLOGIES						COMPLETE
10400	10500	0	C	OPB 1 C2	102	FCST PEAK LOAD DEMAND TRANS						COMPLETE
12100	11800	0	C	OPB 1 C2	103	INDENT OF POWER ALTERNAT						COMPLETE
20200	20300	0	C	OFA C2	2021	FIELD CAMP SET-UP						COMPLETE
20300	20400	0	C	OFA C2	2021	FIELD CAMP SET-UP						COMPLETE
20800	21000	0	C	OFA C2	206	RIGHT OF ENTRY						COMPLETE
23000	23200	0	C	OFA C3	2081	AIR PHOTOS & MAPPING-1980						COMPLETE
23600	23800	0	C	OFA C3	209	CONTROL NETWORK SURVEYS						COMPLETE
24400	24600	0	C	OFA C3	216	HYDROGRAPHIC SURVEYS						COMPLETE
32600	32800	0	C	OPB 1 C4	301	REVIEW AVAILABLE MATERIAL						COMPLETE
36200	36400	0	C	OPB 1 C4	3021	FIELD DATA INDEX-SETUP						COMPLETE
36400	36600	0	C	OPB 1 C4	3021	FIELD DATA INDEX-SETUP						COMPLETE
37000	37200	0	C	OPB 1 C4	3031	FIELD DATA COLLECTION-SPECS						COMPLETE
37400	37500	0	C	OPB 1 C4	3032	FIELD DATA COLLECTION 80-81						COMPLETE
32800	33200	0	C	OPB 1 C4	3041	WATER RSRCS-FLOW EXTENSION						COMPLETE
34200	34400	0	C	OPB 1 C4	3043	WATER RSRCS-RESERVOIR STUDY						COMPLETE
31600	31800	0	C	OPB 1 C4	3053	FLOODS-RESERVOIR ROUTING						COMPLETE
30000	30200	0	C	OPB 1 C4	3061	HYDRLS&ICE-CHANNEL WTR LVLS						COMPLETE
38000	38200	0	C	OPB 1 C4	3081	TRANSMN LINE-PRLM PARAMTR						COMPLETE
43100	43200	0	C	OPB 1 C1	401	REVIEW AVAILABLE DATA						COMPLETE
43200	43400	0	C	OPB 1 C1	401	REVIEW AVAILABLE DATA						COMPLETE
43400	41200	0	C	OPB 1 C1	401	REVIEW AVAILABLE DATA						COMPLETE
44000	44200	0	C	OFA C4	402	SHORT TERM MONITORNG PROGRAM						COMPLETE
44200	41200	0	C	OFA C4	402	SHORT TERM MONITORNG PROGRAM						COMPLETE
40000	40200	0	C	OPB 1 C1	403	PRELIM RESERV INDUCT SEISMIC						COMPLETE
40300	40600	0	C	OPB 1 C1	404	REMOTE SENSING IMAG ANALYSIS						COMPLETE
40600	40800	0	C	OPB 1 C1	404	REMOTE SENSING IMAG ANALYSIS						COMPLETE
40800	42000	0	C	OPB 1 C1	404	REMOTE SENSING IMAG ANALYSIS						COMPLETE
42200	42400	0	C	OFA C4	405	SEISMIC GEOLOGIC RECONASANCE						COMPLETE
41000	41200	0	C	OPB 1 C1	406	PRELIM EVALUATN&REPORT-DRAFT						COMPLETE
45600	45800	0	C	OPB 1 C1	408	DAM STABILITY						COMPLETE
50000	50200	0	C	OPB 1 C1	501	DATA COLLECTION						COMPLETE
50200	50400	0	C	OPB 1 C1	501	DATA COLLECTION						COMPLETE
50400	50600	0	C	OPB 1 C1	501	DATA COLLECTION						COMPLETE
50200	51200	0	C	OPB 1 C1	502	AIR PHOTO INTERPRETATION						COMPLETE
50200	51600	0	C	OPB 1 C1	503	1980 PROGRAM DESIGN						COMPLETE
51000	51600	0	C	OFA C4	504	1980 EXPLORATION PROGRAM						COMPLETE
62500	625A0	0	C	OPB 1 C4	601	REVIEW PREVIOUS STUDIES						COMPLETE
625A0	62600	0	C	OPB 1 C4	601	REVIEW PREVIOUS STUDIES						COMPLETE
62600	626A0	0	C	OPB 1 C4	603	EVAL ALT SUSITNA DEVELOPMENT						COMPLETE
626A0	62700	0	C	OPB 1 C4	603	EVAL ALT SUSITNA DEVELOPMENT						COMPLETE
62700	627A0	0	C	OPB 1 C4	603	EVAL ALT SUSITNA DEVELOPMENT						COMPLETE
627A0	62800	0	C	OPB 1 C4	603	EVAL ALT SUSITNA DEVELOPMENT						COMPLETE
62800	62900	0	C	OPB 1 C4	603	EVAL ALT SUSITNA DEVELOPMENT						COMPLETE
69100	69200	0	C	OPB 1 C6	604	DEVL CAN ARCH DAM EVALUATION						COMPLETE
69200	69300	0	C	OPB 1 C6	604	DEVL CAN ARCH DAM EVALUATION						COMPLETE
65900	659A0	0	C	OPB 1 C4	606	STAGED DEVELOPMENT ALTS						COMPLETE
63000	63100	0	C	OPB 1 C5	607	PRELIM WATANA DAM ALTERNATES						COMPLETE
63100	631A0	0	C	OPB 1 C5	607	PRELIM WATANA DAM ALTERNATES						COMPLETE
64400	64500	0	C	OPB 1 C6	608	PRELIM DEVIL CANYON DAM ALT						COMPLETE
64500	64600	0	C	OPB 1 C6	608	PRELIM DEVIL CANYON DAM ALT						COMPLETE

16-JAN-81 14:57:59  
ACRES CPM SYSTEM

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT

PAGE 2  
TIME NOW: 5 JAN 81

REF01

CPM ANALYSIS LISTING

I-NODE	J-NODE	DUR	SELECT	CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL
6A500	6A600	0	C	OPB 1 C2	632 THERMAL GENERATION RESOURCE	ST						COMPLETE
6A600	6A700	0	C	OPB 1 C2	632 THERMAL GENERATION RESOURCE	CT1						COMPLETE
6A700	6A800	0	C	OPB 1 C2	632 THERMAL GENERATION RESOURCE	FIN						COMPLETE
6A900	6B100	0	C	OPB 1 C2	633 HYDRO GENERATION RESOURCES	ST						COMPLETE
6B100	6B200	0	C	OPB 1 C2	633 HYDRO GENERATION RESOURCES	CT-1						COMPLETE
6B200	6B300	0	C	OPB 1 C2	633 HYDRO GENERATION RESOURCES	FIN						COMPLETE
6B500	6B600	0	C	OPB 1 C8	6341 ENVIRONMENT ASSESSMENT	ST						COMPLETE
6B600	6B700	0	C	OPB 1 C8	6341 ENVIRONMENT ASSESSMENT	CT1						COMPLETE
6B700	6C300	0	C	OPB 1 C8	6341 ENVIRONMENT ASSESSMENT	FIN						COMPLETE
6D100	6D200	0	C	OPB 1 C2	6351 GENERATION PLAN PARAMETERS							COMPLETE
6D300	6D3A0	0	C	OPB 1 C2	6362 GENERAT PLAN ANALY & REPORT	ST						COMPLETE
6D3A0	6D400	0	C	OPB 1 C2	6362 GENERAT PLAN ANALY & REPORT	CT-1						COMPLETE
70800	71000	0	C	OPB 1 C8	7011 STUDY COORD-ALTERNATIVE SITE	ST						COMPLETE
71000	71200	0	C	OPB 1 C8	7011 STUDY COORD-ALTERNATIVE SITE	CT-1						COMPLETE
79200	79300	0	C	OPB 1 C8	702 MONITOR FIELD ACTIVITIES	ST						COMPLETE
80000	80200	0	C	OPB 1 C3	801 SELECT INITIAL CORRIDORS	ST						COMPLETE
A2000	A1600	0	C	FLC C110	10021 ESTABLISH REGULATORY REQUIRE							COMPLETE
C0300	C0200	0	C	OPB 1 C810	12021 CONDUCT PUBLIC MEETING #1							COMPLETE
D0200	D0400	0	C	PSB 2 C310	13011 PROJECT PROCED MANUAL-DRAFT	ST						COMPLETE
D0400	D0600	0	C	PSB 2 C310	13011 PROJECT PROCED MANUAL-DRAFT	CT-1						COMPLETE
D0600	D0800	0	C	PSB 2 C310	13011 PROJECT PROCED MANUAL-DRAFT	FIN						COMPLETE
D0800	D1000	0	C	PSB 2 C310	13012 PROJECT PROCED MANUAL-FINAL							COMPLETE
D0000	D0600	0	C	PSB 2 C310	1302 FINANCIAL CONTROL PROCEDURES							COMPLETE
D1400	D1500	0	C	PSB 2 C310	1303 PROJECT MASTER SCHEDULE							COMPLETE
D2000	D2200	0	C	PSB 2 C310	13041 SCHEDULE CONTROL SYSTEM-DEV							COMPLETE
D2600	D2800	0	C	PSB 2 C310	13051 COST CONTROL SYSTEM-DEV							COMPLETE
D3200	D3400	0	C	PSB 2 C310	13061 MANPOWER LOADING SCHEULE-DEV							COMPLETE
D1600	D0600	0	C	PSB 2 C410	1307 DEVELOP ACCOUNTING POLICIES							COMPLETE
D1800	D1900	0	C	PSB 2 C310	1308 DOCUMENTATION CONTROL							COMPLETE





20-JAN-81 15:41:59  
ACRES CPM SYSTEM

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT

PAGE 2  
TIME NOW: 8JAN81

CPM ANALYSIS LISTING

REF01

I-NODE	J-NODE	DUR	SELECT	CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL	
33400	33600	12	DPB	1 C4	3072 RIVER MORPHOLOGY	ST	16MAR81	5JUN81	19OCT81	8JAN82	31	0 1	
33600	33800	4	DPB	1 C4	3072 RIVER MORPHOLOGY	CT-1	8JUN81	3JUL81	11JAN82	5FEB82	31	30 1	
33800	34000	4	DPB	1 C4	3072 RIVER MORPHOLOGY	FIN	1FEB82	26FEB82	8FEB82	5MAR82	1	1 1	
38200	38400	6	DPB	1 C4	3082 TRANSMN LINE-DET PARAMTR	ST	5JAN81	13FEB81	2FEB81	13MAR81	4	4 1	
38400	38600	4	DPB	1 C4	3082 TRANSMN LINE-DET PARAMTR	FIN	16MAR81	10APR81	16MAR81	10APR81	0	0 1	
31100	31300	30	DPB	1 C4	309 ACCESS ROADS HYDROLOGY	FIN	9FEB81	4SEP81	20JUL81	12FEB82	23	23 1	
30800	31000	1	R	DPB	1 C4	3101 LWR SUSITNA STUDIES-PRELIM	ST	5JAN81	9JAN81	5JAN81	9JAN81	0	0 1
31000	31200	8	DPB	1 C4	3101 LWR SUSITNA STUDIES-PRELIM	FIN	12JAN81	6MAR81	12JAN81	6MAR81	0	0 1	
31200	31400	47	DPB	1 C4	3102 LWR SUSITNA STUDIES-FOLLOWUP	FIN	9MAR81	29JAN82	9MAR81	29JAN82	0	0 1	
41200	41400	2	R	DPB	1 C1	406 PRELIM EVALUATN&REPORT-DRAFT	FIN	5JAN81	16JAN81	5JAN81	16JAN81	0	0 1
44200	45000	3	R	DPB	1 C1	407 PRELIM GROUND MOTION STUDIES	FIN	5JAN81	23JAN81	5JAN81	23JAN81	0	0 1
45800	46000	23	DPB	1 C1	408 DAM STABILITY	CT-1	26JAN81	3JUL81	26JAN81	3JUL81	0	0 1	
46000	46200	6	DPB	1 C1	408 DAM STABILITY	FIN	6JUL81	14AUG81	17MAY82	25JUN82	45	45 1	
42800	43000	31	OFA	C4	409 LONG TERM MONITORING PROGRAM	FIN	13JUL81	12FEB82	23NOV81	25JUN82	19	19 1	
40200	41800	9	DPB	1 C1	410 RESERVOIR INDUCED SEISMICITY	FIN	5JAN81	6MAR81	7SEP81	6NOV81	35	35 1	
42400	42600	27	R	OFA	C4	411 SEISMIC GEOLOGY-FIELD STUDY	FIN	5JAN81	10JUL81	19JAN81	24JUL81	2	0 1
41400	41600	40	DPB	1 C1	412 EVALUATION & REPORT DRAFT	ST	19JAN81	23OCT81	19JAN81	23OCT81	0	0 1	
41600	41800	2	DPB	1 C1	412 EVALUATION & REPORT DRAFT	CT-1	26OCT81	6NOV81	26OCT81	6NOV81	0	0 1	
41800	42000	4	DPB	1 C1	412 EVALUATION & REPORT DRAFT	FIN	9NOV81	4DEC81	9NOV81	4DEC81	0	0 1	
44400	44600	15	DPB	1 C1	413 GROUND MOTION STUDIES	ST	26JAN81	8MAY81	13APR81	24JUL81	11	9 1	
44600	41800	15	DPB	1 C1	413 GROUND MOTION STUDIES	FIN	13JUL81	23OCT81	27JUL81	6NOV81	2	2 1	
45600	41800	36	DPB	1 C1	414 DAM STABILITY CONSULTING	FIN	5JAN81	11SEP81	2MAR81	6NOV81	8	8 1	
45200	45400	22	DPB	1 C1	415 SOIL SUSCEPTITY-SEISMIC FAIL	FIN	26JAN81	26JUN81	6JUL81	4DEC81	23	4 1	
51200	51600	2	R	DPB	1 C1	502 AIR PHOTO INTERPRETATION	FIN	5JAN81	16JAN81	13APR81	24APR81	14	0 1
52000	52200	3	R	DPB	1 C1	505 1981 PROGRAM DESIGN	ST	5JAN81	23JAN81	16MAR81	3APR81	10	0 1
52200	52600	2	DPB	1 C1	505 1981 PROGRAM DESIGN	FIN	26JAN81	6FER81	6APR81	17APR81	10	7 1	
52400	52600	12	OFA	C4	506 1981 EXPLORATION PROGRAM	ST	5JAN81	27MAR81	26JAN81	17APR81	3	0 1	
52600	52700	20	OFA	C4	506 1981 EXPLORATION PROGRAM	FIN	30MAR81	14AUG81	20APR81	4SEP81	3	0 1	
53800	54000	9	DPB	1 C1	507 1982-4 PROGRAM DESIGN	FIN	6JUL81	4SEP81	18JAN82	19MAR82	28	28 1	
51400	51600	2	R	DPB	1 C1	5081 DATA ASSEMBLY-1980-DRAFT	ST	5JAN81	16JAN81	13APR81	24APR81	14	0 1
51600	51800	1	DPB	1 C1	5081 DATA ASSEMBLY-1980-DRAFT	FIN	19JAN81	23JAN81	27APR81	1MAY81	14	0 1	
52800	53000	3	DPB	1 C1	5082 DATA ASSEMBLY-1981-DRAFT	ST	5JAN81	23JAN81	3AUG81	21AUG81	30	0 1	
53000	53200	2	DPB	1 C1	5082 DATA ASSEMBLY-1981-DRAFT	FIN	26JAN81	6FER81	24AUG81	4SEP81	30	27 1	
53400	53600	7	DPB	1 C1	5083 DATA ASSEMBLY FINAL-DRAFT	FIN	17AUG81	2OCT81	1MAR82	16APR82	28	28 1	
64300	62700	4	R	DPB	1 C4	602 INVESTIGATE TUNNL ALTERNATVS	FIN	5JAN81	30JAN81	26JAN81	20FEB81	3	0 1
66900	669A0	7	R	DPB	1 C4	6051 SELECT REPORT DRAFT	FIN	5JAN81	20FEB81	5JAN81	20FEB81	0	0 1
669A0	67000	3	DPB	1 C4	6052 SELECT FINAL REPORT	ST	23FEB81	13MAR81	23FEB81	13MAR81	0	0 1	
67000	67100	1	DPB	1 C4	6052 SELECT FINAL REPORT	CT-1	16MAR81	20MAR81	16MAR81	20MAR81	0	0 1	
67100	67200	2	DPB	1 C4	6052 SELECT FINAL REPORT	FIN	23MAR81	3APR81	23MAR81	3APR81	0	0 1	
659A0	659B0	1	R	DPB	1 C4	606 STAGED DEVELOPMENT ALTS	CT-1	5JAN81	9JAN81	16FEB81	20FEB81	6	0 1
659B0	66000	3	DPB	1 C4	606 STAGED DEVELOPMENT ALTS	FIN	12JAN81	30JAN81	2MAR81	20MAR81	7	7 1	
631A0	63200	8	R	DPB	1 C5	607 PRELIM WATANA DAM ALTERNATES	CT-2	23FEB81	17APR81	4MAY81	26JUN81	10	0 1
63200	63300	1	DPB	1 C5	607 PRELIM WATANA DAM ALTERNATES	CT-3	20APR81	24APR81	29JUN81	3JUL81	10	10 1	
63300	633A0	0	DPB	1 C5	607 PRELIM WATANA DAM ALTERNATES	FIN	6JUL81	3JUL81	6JUL81	3JUL81	0	0 1	
64600	64700	9	R	DPB	1 C6	608 PRELIM DEVIL CANYON DAM ALT	CT-2	23FEB81	24APR81	4MAY81	3JUL81	10	10 1
64700	64800	0	DPB	1 C6	608 PRELIM DEVIL CANYON DAM ALT	FIN	6JUL81	3JUL81	6JUL81	3JUL81	0	0 1	
69100	69200	1	DPB	1 C4	609 ESTAB WATANA DESIGN CRITERIA	ST	5JAN81	9JAN81	25MAY81	29MAY81	20	3 1	
69200	69300	7	DPB	1 C4	609 ESTAB WATANA DESIGN CRITERIA	CT-1	2FEB81	20MAR81	1JUN81	17JUL81	17	15 1	
69300	69400	7	DPB	1 C4	609 ESTAB WATANA DESIGN CRITERIA	CT-2	6JUL81	21AUG81	20JUL81	4SEP81	2	0 1	
69400	69500	1	DPB	1 C4	609 ESTAB WATANA DESIGN CRITERIA	FIN	24AUG81	28AUG81	7SEP81	11SEP81	2	0 1	
63400	63500	1	DPB	1 C4	610 ESTAB DEVIL CANYN DESGN CRIT	ST	5JAN81	9JAN81	1JUN81	5JUN81	21	2 1	

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
CFM ANALYSIS LISTING

REF01

I-NODE	J-NODE	DUR	SELECT CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL	
63500	63600	7	OPB 1 C4	610 ESTAB DEVIL CANYN DESGN CRIT	CT-1	26JAN81	13MAR81	8JUN81	24JUL81	19	16	1
63600	63700	7	OPB 1 C4	610 ESTAB DEVIL CANYN DESGN CRIT	CT-2	6JUL81	21AUG81	27JUL81	11SEP81	3	0	1
63700	63800	1	OPB 1 C4	610 ESTAB DEVIL CANYN DESGN CRIT	FIN	24AUG81	28AUG81	14SEP81	18SEP81	3	0	1
66200	66300	11	OPB 1 C5	611 PRELIM DESIGN WATANA DAM	ST	6JUL81	18SEP81	6JUL81	18SEP81	0	0	1 CRITICAL
66300	66400	11	OPB 1 C5	611 PRELIM DESIGN WATANA DAM	CT-1	21SEP81	4DEC81	21SEP81	4DEC81	0	0	1 CRITICAL
66400	66500	4	OPB 1 C5	611 PRELIM DESIGN WATANA DAM	FIN	7DEC81	1JAN82	7DEC81	1JAN82	0	0	1 CRITICAL
65200	65300	11	OPB 1 C6	612 PREL DESIGN DEVIL CANYON DAM	ST	6JUL81	18SEP81	6JUL81	18SEP81	0	0	1 CRITICAL
65300	65400	11	OPB 1 C6	612 PREL DESIGN DEVIL CANYON DAM	CT-1	21SEP81	4DEC81	21SEP81	4DEC81	0	0	1 CRITICAL
65400	65500	4	OPB 1 C6	612 PREL DESIGN DEVIL CANYON DAM	FIN	7DEC81	1JAN82	7DEC81	1JAN82	0	0	1 CRITICAL
69800	69900	11	OPB 1 C4	613 DAM SELECTION REPORT-DRAFT	ST	6JUL81	18SEP81	19OCT81	1JAN82	15	15	1
69900	68500	5	OPB 1 C4	613 DAM SELECTION REPORT-DRAFT	FIN	4JAN82	5FEB82	4JAN82	5FEB82	0	0	1 CRITICAL
61100	61200	3	OPB 1 C4	614 SPILLWAY DESIGN CRITERIA	ST	2FEB81	20FEB81	6APR81	24APR81	9	8	1
61200	61300	8	OPB 1 C4	614 SPILLWAY DESIGN CRITERIA	FIN	20APR81	12JUN81	27APR81	19JUN81	1	0	1
61300	60600	6	OPB 1 C5	615 WATANA SPILLWAY ALTERNATIVES	ST	15JUN81	24JUL81	22JUN81	31JUL81	1	0	1
60600	60700	10	OPB 1 C5	615 WATANA SPILLWAY ALTERNATIVES	FIN	27JUL81	20OCT81	3AUG81	9OCT81	1	0	1
61300	61400	3	OPB 1 C6	616 DEVL CAN SPILLWAY ALTERNATIVE	ST	15JUN81	3JUL81	29JUN81	17JUL81	2	0	1
61400	61500	8	OPB 1 C6	616 DEVL CAN SPILLWAY ALTERNATIVE	FIN	6JUL81	28AUG81	20JUL81	11SEP81	2	0	1
621A0	62200	4	OPB 1 C5	617 PRELIM DESGN WATANA SPILLWAY	ST	5JAN81	30JAN81	14SEP81	9OCT81	36	35	1
62200	62300	4	OPB 1 C5	617 PRELIM DESGN WATANA SPILLWAY	CT-1	5OCT81	30OCT81	12OCT81	6NOV81	1	0	1
62300	62400	13	OPB 1 C5	617 PRELIM DESGN WATANA SPILLWAY	FIN	2NOV81	29JAN82	9NOV81	5FEB82	1	0	1
61500	61600	6	OPB 1 C6	618 PRELIM DES DEVIL CAN SPILWAY	ST	31AUG81	9OCT81	14SEP81	23OCT81	2	0	1
61600	61700	15	OPB 1 C6	618 PRELIM DES DEVIL CAN SPILWAY	FIN	12OCT81	22JAN82	26OCT81	5FEB82	2	1	1
64900	65000	6	OPB 1 C4	619 SPILLWAY SELECTN REPRT-DRAFT	ST	5OCT81	13NOV81	28DEC81	5FEB82	12	11	1
65000	65100	5	OPB 1 C4	619 SPILLWAY SELECTN REPRT-DRAFT	FIN	1FEB82	5MAR82	8FEB82	12MAR82	1	1	1
6A000	6A100	3	OPB 1 C5	620 ACCESS & CAMP FACILITIES	ST	5JAN81	23JAN81	16NOV81	4DEC81	45	26	1
6A100	6A200	8	OPB 1 C5	620 ACCESS & CAMP FACILITIES	FIN	27JUL81	18SEP81	7DEC81	29JAN82	19	0	1
60000	60100	6	OPB 1 C5	621 WATANA DIVERSION SCHEMES	ST	5JAN81	13FEB81	7SEP81	16OCT81	35	33	1
60100	60200	10	OPB 1 C5	621 WATANA DIVERSION SCHEMES	FIN	5OCT81	11DEC81	19OCT81	25DEC81	2	0	1
67300	67400	11	OPB 1 C6	622 DEVIL CANYON DIVERSN SCHEMES	ST	5JAN81	20MAR81	12OCT81	25DEC81	40	23	1
67400	67500	0	OPB 1 C6	622 DEVIL CANYON DIVERSN SCHEMES	FIN	31AUG81	28AUG81	28DEC81	25DEC81	17	0	1
61800	61900	3	OPB 1 C4	623 OPT WATANA POWER DEVELOPMENT	ST	6JUL81	14AUG81	3AUG81	11SEP81	4	0	1
61900	62000	10	OPB 1 C4	623 OPT WATANA POWER DEVELOPMENT	CT-1	17AUG81	23OCT81	14SEP81	20NOV81	4	0	1
62000	62100	5	OPB 1 C4	623 OPT WATANA POWER DEVELOPMENT	FIN	26OCT81	27NOV81	23NOV81	25DEC81	4	0	1
65600	65700	3	OPB 1 C4	624 OPT DEVL CANYN POWER DEVELOP	ST	17AUG81	25SEP81	12OCT81	20NOV81	8	0	1
65700	65800	5	OPB 1 C4	624 OPT DEVL CANYN POWER DEVELOP	FIN	28SEP81	30OCT81	23NOV81	25DEC81	8	4	1
63900	64000	6	OPB 1 C4	625 OPTIMIZE DAM HEIGHTS	ST	5JAN81	13FEB81	16NOV81	25DEC81	45	41	1
64000	64100	5	OPB 1 C4	625 OPTIMIZE DAM HEIGHTS	CT-1	30NOV81	1JAN82	28DEC81	29JAN82	4	4	1
64100	64200	0	OPB 1 C4	625 OPTIMIZE DAM HEIGHTS	FIN	1FEB82	29JAN82	1FEB82	29JAN82	0	0	1 CRITICAL
69500	69600	16	OPB 1 C5	626 PREL DESGN WATAN POWER DEVEL	ST	31AUG81	18DEC81	14SEP81	1JAN82	2	0	1
69600	69700	5	OPB 1 C5	626 PREL DESGN WATAN POWER DEVEL	FIN	21DEC81	22JAN82	4JAN82	5FEB82	2	1	1
66600	66700	15	OPB 1 C6	627 PREL DES DEVL CAN POWR DEVEL	ST	31AUG81	11DEC81	21SEP81	1JAN82	3	0	1
66700	66800	5	OPB 1 C6	627 PREL DES DEVL CAN POWR DEVEL	FIN	14DEC81	15JAN82	4JAN82	5FEB82	3	2	1
67600	67700	5	OPB 1 C4	628 POWER DEVELOPMNT REPRT-DRAFT	ST	31AUG81	2OCT81	28DEC81	29JAN82	17	17	1
67700	67800	1	OPB 1 C4	628 POWER DEVELOPMNT REPRT-DRAFT	CT-1	1FEB82	5FEB82	1FEB82	5FEB82	0	0	1 CRITICAL
67800	67900	1	OPB 1 C4	628 POWER DEVELOPMNT REPRT-DRAFT	CT-2	8FEB82	12FEB82	8FEB82	12FEB82	0	0	1 CRITICAL
67900	68000	4	OPB 1 C4	628 POWER DEVELOPMNT REPRT-DRAFT	FIN	15FEB82	12MAR82	15FEB82	12MAR82	0	0	1 CRITICAL
60300	60400	6	OPB 1 C5	629 WATANA GENERAL ARRANGEMENT	ST	14DEC81	22JAN82	28DEC81	5FEB82	2	1	1
60400	60500	5	OPB 1 C5	629 WATANA GENERAL ARRANGEMENT	FIN	1FEB82	5MAR82	8FEB82	12MAR82	1	0	1
60500	605A0	0	OPB 1 C5	629XX EXHIBIT J MATERIAL COMPLETE		8MAR82	5MAR82	19APR82	16APR82	6	6	1
60800	60900	6	OPB 1 C6	630 DEVL CAN GENERAL ARRANGEMENT	ST	31AUG81	9OCT81	28DEC81	5FEB82	17	16	1
60900	61000	5	OPB 1 C6	630 DEVL CAN GENERAL ARRANGEMENT	FIN	1FEB82	5MAR82	8FEB82	12MAR82	1	0	1

REP01

I-NODE	J-NODE	DUR	SELECT	CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL
61000	610A0	0	OPB	1 C5	630XX EXHIBIT K MATERIAL COMPLETE	8MAR82	5MAR82	15MAR82	12MAR82	1	1	1
68000	680A0	0	OPB	1 C4	630XX EXHIBIT H MATERIAL COMPLETE	15MAR82	12MAR82	19APR82	16APR82	5	5	1
68400	68500	1	OPB	1 C4	631 PROJECT FEASIBL REPORT-DRAFT ST	21SEP81	25SEP81	1FEB82	5FEB82	19	19	1
68500	68600	4	OPB	1 C4	631 PROJECT FEASIBL REPORT-DRAFT CT-1	8FEB82	5MAR82	8FEB82	5MAR82	0	0	1 CRITICAL
68600	68700	1	OPB	1 C4	631 PROJECT FEASIBL REPORT-DRAFT CT-2	8MAR82	12MAR82	8MAR82	12MAR82	0	0	1 CRITICAL
68700	68800	1	OPB	1 C4	631 PROJECT FEASIBL REPORT-DRAFT CT-3	15MAR82	19MAR82	15MAR82	19MAR82	0	0	1 CRITICAL
68800	68900	4	OPB	1 C4	631 PROJECT FEASIBL REPORT-DRAFT CT-4	22MAR82	16APR82	22MAR82	16APR82	0	0	1 CRITICAL
68900	69000	0	OPB	1 C4	631 PROJECT FEASIBL REPORT-DRAFT FIN	19APR82	16APR82	19APR82	16APR82	0	0	1 CRITICAL
69000	690A0	0	OPB	1 C4	631XX EXHIBIT L MATERIAL COMPLETE	19APR82	16APR82	19APR82	16APR82	0	0	1 CRITICAL
6C600	6C700	4	OPB	1 C8	6342 ENVIRONMENT ASSESSMENT-FINAL	5JAN81	30JAN81	26JAN81	20FEB81	3	3	1
6C800	6C900	1 R	OPB	1 C2	635 LOAD MANAGE & CONSERVE	5JAN81	9JAN81	16FEB81	20FEB81	6	6	1
6D400	6D500	4 R	OPB	1 C2	6362 GENERAT PLAN ANALY & REPORT CT-2	5JAN81	30JAN81	5JAN81	30JAN81	0	0	1 CRITICAL
6D500	6D600	3	OPB	1 C2	6362 GENERAT PLAN ANALY & REPORT FIN	2FEB81	20FEB81	2FEB81	20FEB81	0	0	1 CRITICAL
6C100	6C200	9	OPB	1 C2	637 UPDATE GENERATION PLAN	5JAN81	6MAR81	1MAR82	30APR82	60	68	1
6B800	6B900	76 R	OPB	1 C2	638 LIAISON FOWER ALTS CONSULTANT	5JAN81	18JUN82	12JAN81	25JUN82	1	1	1
71200	71400	3 R	OPB	1 C8	701 STUDY COORD-ALTERNATIVE SITE CT-2	5JAN81	23JAN81	5JAN81	23JAN81	0	0	1 CRITICAL
71400	71600	0	OPB	1 C8	7011 STUDY COORD-ALTERNATIVE SITE FIN	26JAN81	23JAN81	26JAN81	23JAN81	0	0	1 CRITICAL
71600	71800	18	OPB	1 C8	7012 STUDY COORD-PRELIM ALTERNATV ST	26JAN81	29MAY81	26JAN81	29MAY81	0	0	1 CRITICAL
71800	72000	0	OPB	1 C8	7012 STUDY COORD-PRELIM ALTERNATV FIN	1JUN81	29MAY81	1JUN81	29MAY81	0	0	1 CRITICAL
72000	72200	35	OPB	1 C8	7013 STUDY COORD-OPTIMIZED DESIGN	1JUN81	29JAN82	1JUN81	29JAN82	0	0	1 CRITICAL
79300	79400	68 R	OPB	1 C8	702 MONITOR FIELD ACTIVITIES CT-1	5JAN81	23APR82	9MAR81	25JUN82	9	0	1
79400	79500	0	OPB	1 C8	702 MONITOR FIELD ACTIVITIES FIN	26APR82	23APR82	28JUN82	25JUN82	9	9	1
71000	71100	1 R	OPB	1 C8	7041 WATER RESOURCE ALT SITES	5JAN81	9JAN81	19JAN81	23JAN81	2	2	1
71600	70000	17	OPB	1 C8	7042 WTR RES-PRE WAT&DEVL CAN ALT	26JAN81	22MAY81	2FEB81	29MAY81	1	1	1
72000	70600	34	OPB	1 C8	7043 WTR RES-OPT WAT&DEVL CAN DES	1JUN81	22JAN82	8JUN81	29JAN82	1	1	1
73000	73200	60 R	OPB	1 C8	705 SOCIOECONOMIC ANALYSIS ST	5JAN81	26FEB82	12JAN81	5MAR82	1	1	1
73200	73400	0	OPB	1 C8	705 SOCIOECONOMIC ANALYSIS FIN	8MAR82	5MAR82	8MAR82	5MAR82	0	0	1 CRITICAL
7B600	7B700	35 R	OPB	1 C8	7061 CULTURAL-ALTERNATIVE SITES ST	5JAN81	4SEP81	19JAN81	18SEP81	2	0	1
7B700	79000	0	OPB	1 C8	7061 CULTURAL-ALTERNATIVE SITES FIN	7SEP81	4SEP81	21SEP81	18SEP81	2	0	1
78900	79000	8	OPB	1 C8	7062 CULTURAL PRELIM ALTERNATIVES ST	5JAN81	27FEB81	27JUL81	18SEP81	29	27	1
79000	79100	10	OPB	1 C8	7062 CULTURAL PRELIM ALTERNATIVES CT-1	7SEP81	13NOV81	21SEP81	27NOV81	2	0	1
79100	79700	0	OPB	1 C8	7062 CULTURAL PRELIM ALTERNATIVES FIN	16NOV81	13NOV81	30NOV81	27NOV81	2	0	1
79600	79700	15	OPB	1 C8	7063 CULTURAL-OPTIMIZED DESIGN ST	5JAN81	17APR81	17AUG81	27NOV81	32	30	1
79700	79800	20	OPB	1 C8	7063 CULTURAL-OPTIMIZED DESIGN CT-1	16NOV81	2APR82	30NOV81	16APR82	2	0	1
79800	79900	0	OPB	1 C8	7063 CULTURAL-OPTIMIZED DESIGN FIN	5APR82	2APR82	19APR82	16APR82	2	0	1
79900	799A0	0	OPB	1 C8	706XX EXHIBIT V MATERIAL COMPLETE	5APR82	2APR82	19APR82	16APR82	2	2	1
75200	75300	35 R	OPB	1 C8	7071 LAND USE ALTERNATIVE SITES ST	5JAN81	4SEP81	30MAR81	27NOV81	12	0	1
75300	76000	0	OPB	1 C8	7071 LAND USE ALTERNATIVE SITES FIN	7SEP81	4SEP81	30NOV81	27NOV81	12	0	1
75900	76000	8	OPB	1 C8	7072 LAND USE PRELIM ALTERNATIVES ST	5JAN81	27FEB81	5OCT81	27NOV81	39	27	1
76000	76100	10	OPB	1 C8	7072 LAND USE PRELIM ALTERNATIVES CT-1	7SEP81	13NOV81	30NOV81	5FEB82	12	0	1
76100	76800	0	OPB	1 C8	7072 LAND USE PRELIM ALTERNATIVES FIN	16NOV81	13NOV81	8FEB82	5FEB82	12	0	1
76700	76800	15	OPB	1 C8	7073 LAND USE OPTIMIZED DESIGN ST	5JAN81	17APR81	26OCT81	5FEB82	42	30	1
76800	76900	20	OPB	1 C8	7073 LAND USE OPTIMIZED DESIGN CT-1	16NOV81	2APR82	8FEB82	25JUN82	12	0	1
76900	77000	0	OPB	1 C8	7073 LAND USE OPTIMIZED DESIGN FIN	5APR82	2APR82	28JUN82	25JUN82	12	12	1
72400	72600	19 R	OPB	1 C8	708 RECREATION PLANNING ST	5JAN81	15MAY81	21SEP81	29JAN82	37	37	1
72600	72800	5	OPB	1 C8	708 RECREATION PLANNING FIN	1FEB82	5MAR82	1FEB82	5MAR82	0	0	1 CRITICAL
71200	73500	3 R	OPB	1 C8	7091 TRANS LINE ASSESS SCREENING	5JAN81	23JAN81	26JAN81	13FEB81	3	0	1
73500	73600	12	OPB	1 C8	7092 TRANS LINE ASSESS RTE SELECTN	26JAN81	17APR81	13JUL81	20OCT81	24	21	1
736A0	73700	16 R	OPB	1 C8	7101 FISH ECOLOGY ALTERNATV SITES ST	5JAN81	24APR81	25MAY81	11SEP81	20	0	1
73700	73800	11 R	OPB	1 C8	7101 FISH ECOLOGY ALTERNATV SITES CT-1	27APR81	10JUL81	14SEP81	27NOV81	20	0	1
73800	74200	0	OPB	1 C8	7101 FISH ECOLOGY ALTERNATV SITES FIN	13JUL81	10JUL81	30NOV81	27NOV81	20	0	1

20-JAN-81 15:41:59  
ACRES CPM SYSTEM

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
CPM ANALYSIS LISTING

PAGE 5  
TIME NOW: 5JAN81

REF01

I-NODE	J-NODE	DUR	SELECT CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL
74100	74200	8	OPB 1 C8	7102 FISH ECOLOGY PRELIM ALTERNAT ST	5JAN81	27FEB81	5OCT81	27NOV81	39	19	1
74200	74300	10	OPB 1 C8	7102 FISH ECOLOGY PRELIM ALTS CT-1	13JUL81	18SEP81	30NOV81	5FEB82	20	0	1
74300	74600	0	OPB 1 C8	7102 FISH ECOLOGY PRELIM ALTERNAT FIN	21SEP81	18SEP81	8FEB82	5FEB82	20	19	1
74500	74600	15	OPB 1 C8	7103 FISH ECOLOGY OPTIMIZED DESGN ST	5JAN81	17APR81	26OCT81	5FEB82	42	41	1
74600	74700	20	OPB 1 C8	7103 FISH ECOLOGY OPTIMIZED DESGN CT-1	1FEB82	18JUN82	8FEB82	25JUN82	1	0	1
74700	74800	0	OPB 1 C8	7103 FISH ECOLOGY OPTIMIZED DESGN FIN	21JUN82	18JUN82	28JUN82	25JUN82	1	1	1
74900	75000	35	R OPB 1 C8	7111 WILDLIFE ECOLOGY ALTER SITES ST	5JAN81	4SEP81	30MAR81	27NOV81	12	0	1
75000	75100	0	OPB 1 C8	7111 WILDLIFE ECOLOGY ALTER SITES FIN	7SEP81	4SEP81	30NOV81	27NOV81	12	0	1
75500	75600	8	OPB 1 C8	7112 WILDLIFE ECOLOGY PRELM ALTER ST	5JAN81	27FEB81	5OCT81	27NOV81	39	27	1
75600	75700	10	OPB 1 C8	7112 WILDLIFE ECOLOGY PRELM ALTER CT-1	7SEP81	13NOV81	30NOV81	5FEB82	12	0	1
75700	76400	0	OPB 1 C8	7112 WILDLIFE ECOLOGY PRELM ALTER FIN	16NOV81	13NOV81	8FEB82	5FEB82	12	0	1
76300	76400	15	OPB 1 C8	7113 WILDLIFE ECOLOGY OPTIM DESGN ST	5JAN81	17APR81	26OCT81	5FEB82	42	30	1
76400	76500	20	OPB 1 C8	7113 WILDLIFE ECOLOGY OPTIM DESGN CT-1	16NOV81	2APR82	8FEB82	25JUN82	12	0	1
76500	76600	0	OPB 1 C8	7113 WILDLIFE ECOLOGY OPTIM DESGN FIN	5APR82	2APR82	28JUN82	25JUN82	12	12	1
77100	77200	35	R OPB 1 C8	7121 PLANT ECOLOGY ALTERNATIVE SITES ST	5JAN81	4SEP81	30MAR81	27NOV81	12	0	1
77200	77500	0	OPB 1 C8	7121 PLANT ECOLOGY ALTERNATIVE SITES FIN	7SEP81	4SEP81	30NOV81	27NOV81	12	0	1
77400	77500	8	OPB 1 C8	7122 PLANT ECOLOGY PRELM ALTERNAT ST	5JAN81	27FEB81	5OCT81	27NOV81	39	27	1
77500	77600	10	OPB 1 C8	7122 PLANT ECOLOGY PRELM ALTERNAT CT-1	7SEP81	13NOV81	30NOV81	5FEB82	12	0	1
77600	77900	0	OPB 1 C8	7122 PLANT ECOLOGY PRELM ALTERNAT FIN	16NOV81	13NOV81	8FEB82	5FEB82	12	0	1
77800	77900	15	OPB 1 C8	7123 PLANT ECOLOGY OPTIMIZED DESGN ST	5JAN81	17APR81	26OCT81	5FEB82	42	30	1
77900	78000	20	OPB 1 C8	7123 PLANT ECOLOGY OPTIMIZED DESGN CT-1	16NOV81	2APR82	8FEB82	25JUN82	12	0	1
78000	78100	0	OPB 1 C8	7123 PLANT ECOLOGY OPTIMIZED DESGN FIN	5APR82	2APR82	28JUN82	25JUN82	12	12	1
71000	74000	19	R OPB 1 C8	714 ACCESS RD ENVIRONMENT ANALYS ST	5JAN81	15MAY81	18MAY81	25SEP81	19	0	1
78200	78300	9	OPB 1 C8	715 PREP FOR FERC EXHIBIT-DRAFT ST	5JAN81	6MAR81	4JAN82	5MAR82	52	52	1
78300	78400	6	OPB 1 C8	715 PREP FOR FERC EXHIBIT-DRAFT CT-1	8MAR82	16APR82	8MAR82	16APR82	0	0	1 CRITICAL
78400	78500	0	OPB 1 C8	715 PREP FOR FERC EXHIBIT-DRAFT FIN	19APR82	16APR82	19APR82	16APR82	0	0	1 CRITICAL
78500	785A0	0	OPB 1 C8	715XX EXHIBIT W MATERIAL COMPLETE	19APR82	16APR82	19APR82	16APR82	0	0	1 CRITICAL
78500	785B0	0	OPB 1 C8	715XX EXHIBIT S MATERIAL COMPLETE	19APR82	16APR82	17MAY82	14MAY82	4	4	1
80200	80400	3	R OPB 1 C3	801 SELECT INITIAL CORRIDORS FIN	26JAN81	13FEB81	16FEB81	6MAR81	3	0	1
81600	81800	2	R OPB 1 C3	8021 LOAD FLOW ANALYSIS ST	5JAN81	16JAN81	13APR81	24APR81	14	0	1
81800	82800	6	OPB 1 C3	8021 LOAD FLOW ANALYSIS FIN	19JAN81	27FEB81	27APR81	5JUN81	14	14	1
82400	82600	10	OPB 1 C3	80221 PRELIMINARY ELEC SYSTEM ST	5JAN81	13MAR81	2FEB81	10APR81	4	4	1
82600	82800	8	OPB 1 C3	80221 PRELIMINARY ELEC SYSTEM CT-1	13APR81	5JUN81	13APR81	5JUN81	0	0	1 CRITICAL
82800	83000	0	OPB 1 C3	80221 PRELIMINARY ELEC SYSTEM FIN	8JUN81	5JUN81	8JUN81	5JUN81	0	0	1 CRITICAL
85700	85800	39	OPB 1 C3	80222 RECOMMEND ELEC SYS ST	8JUN81	5MAR82	8JUN81	5MAR82	0	0	1 CRITICAL
80600	80800	24	OPB 1 C3	803 FINAL ROUTE SELECTION 1981 ST	16FEB81	31JUL81	9MAR81	21AUG81	3	0	1
80800	81000	6	OPB 1 C3	803 FINAL ROUTE SELECTION 1981 CT-1	3AUG81	11SEP81	24AUG81	2OCT81	3	0	1
81000	81200	6	OPB 1 C3	803 FINAL ROUTE SELECTION 1981 CT-2	14SEP81	23OCT81	5OCT81	13NOV81	3	0	1
81200	81400	0	OPB 1 C3	803 FINAL ROUTE SELECTION 1981 FIN	26OCT81	23OCT81	16NOV81	13NOV81	3	0	1
83200	83400	8	OPB 1 C3	804 TOWER HARDWARE&CONDUCTR STUDY ST	5JAN81	27FEB81	7SEP81	30OCT81	35	14	1
83400	83600	2	OPB 1 C3	804 TOWER HARDWARE&CONDUCTR STUDY CT-1	8JUN81	19JUN81	2NOV81	13NOV81	21	18	1
83600	85400	10	OPB 1 C3	804 TOWER HARDWARE&CONDUCTR STUDY FIN	26OCT81	1JAN82	16NOV81	22JAN82	3	0	1
84600	84800	8	OPB 1 C3	805 SUBSTATIONS ST	5JAN81	27FEB81	5OCT81	27NOV81	39	14	1
84800	85400	8	OPB 1 C3	805 SUBSTATIONS FIN	8JUN81	31JUL81	30NOV81	22JAN82	25	22	1
84000	84200	8	OPB 1 C3	806 DISPATCH CTR & COMMUNICATNS ST	5JAN81	27FEB81	5OCT81	27NOV81	39	14	1
84200	85400	8	OPB 1 C3	806 DISPATCH CTR & COMMUNICATNS FIN	8JUN81	31JUL81	30NOV81	22JAN82	25	22	1
85200	85400	2	OPB 1 C3	807 TRANS LINE COST ESTIMATES ST	5JAN81	16JAN81	11JAN82	22JAN82	53	50	1
85400	85600	6	OPB 1 C3	807 TRANS LINE COST ESTIMATES FIN	4JAN82	12FEB82	25JAN82	5MAR82	3	3	1
90200	90400	2	OPB 1 C7	901 ASSEMBLE COST-SCHEDULE DATA ST	6APR81	17APR81	24AUG81	4SEP81	20	0	1
90400	90600	4	OPB 1 C7	901 ASSEMBLE COST-SCHEDULE DATA FIN	20APR81	15MAY81	21SEP81	16OCT81	22	2	1
90800	91000	6	OPB 1 C7	902 PREP PRELIM CST ESTIMATES ST	20APR81	29MAY81	7SEP81	16OCT81	20	0	1



20-JAN-81 15:41:59  
ACRES CPM SYSTEM

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
CPM ANALYSIS LISTING

PAGE 7  
TIME NOW: 5JAN81

REP01

I-NODE	J-NODE	DUR	SELECT	CODES	DESCRIPTION	E.S.	E.F.	L.S.	L.F.	T.F.	F.F.	CL	
D3400	D3600	76	R	FSB 2 C310	13062	MANPOWER LOADNG SCHED-UPDATE	5JAN81	18JUN82	12JAN81	25JUN82	1	1	1
D3800	D4000	76	R	FSB 2 C310	1310	SUB CONTRACT ADMINISTRATION	5JAN81	18JUN82	12JAN81	25JUN82	1	1	1
D1200	D1300	0		10	XXX	PROJECT COMPLETE	28JUN82	25JUN82	28JUN82	25JUN82	0	0	1 CRITICAL

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
 C P M SCHEDULE

REMAINING WORK:  
 FROM JANUARY 5, 1981

81											82										
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
011	2001	2001	2301	2201	1200	1220	1220	112301	2201	1200	12301	2201	1200	1200	1220	11201	12301	2201	1200	12301	22
5296	2963	2963	0630	6307	4185	1852	9630	7307	4174	1852	9629	6307	4184	1851	8521	8529	5296	3074	1741	8529	6307

108	TERMINATION REPORT	XXXXL																				
2022	FIELD CAMP OPERATIONS	XXL																				
203	RESUPPLY & EMERGENCY SERVICE	XXL																				
204	LAND STATUS RESEARCH	XXX																				
204XX	EXHIBIT F MATERIAL COMPLETE	.																				
205	LAND AQUISITION ANALYSIS	. XXXXX																				
206	RIGHT OF ENTRY	FIN XXXXXXXXXXXXXXXXXXXXXXXXXXXX																				
207	SITE SPECIFIC SURVEYS	ST XXX L																				
207	SITE SPECIFIC SURVEYS	FIN . XXXX L																				
2081	AIR PHOTOS & MAPING-1980	FIN XXX L																				
2082	AIR PHOTOS & MAPING-1981	.XXXXXXXXXX																				
210	ACCESS ROAD	ST XXXXX																				
210	ACCESS ROAD	CT-1. XX																				
210	ACCESS ROAD	FIN . XXXXXXXXXX																				
211	MAP & PHOTO SEARCH	CCCCCCCCCCL																				
212	FIELD RECON FOR RSRVR CLEAR	ST XXX L																				
212	FIELD RECON FOR RSRVR CLEAR	FIN . CCCCCCL																				
213	MRKTABILITY AND DISPOSAL STDY	XXXXX																				
214	CST ESTMTS RSVR CLEARING	ST XX																				
214	CST ESTMTS RSVR CLEARING	FIN . XXX																				
215	SLOPE EROSION & STBLTY STUDY	ST XXXX L																				
215	SLOPE EROSION & STBLTY STUDY	FIN . CCCL																				
216	HYDROGRAPHIC SURVEYS	FIN XXXXXX L																				
301	REVIEW AVAILABLE MATERIAL	FIN XXXX L																				
3022	FIELD DATA INDEX OPERATION	XXL																				
3032	FIELD DATA COLLECTION 80-81	FIN CCCCCCCL																				
3033	FIELD DATA COLLECTION 81-82	ST . XXXL																				
3033	FIELD DATA COLLECTION 81-82	FIN . XXXL																				
3041	WATER RSRCS-FLOW EXTENSION	FIN XXXX L																				
3042	WATER RSRCS-FREQ ANALYSIS	. XXXX																				
3043	WATER RSRCS-RESERVOIR STUDY	CT-1XXXXXXXXXXXXXXXXL																				
3043	WATER RSRCS-RESERVOIR STUDY	CT-2. XXXXXXL																				
3043	WATER RSRCS-RESERVOIR STUDY	CT-3. XXXXXXXXXXXXXXXXXXXXXXXXXXXL																				
3043	WATER RSRCS-RESERVOIR STUDY	FIN . XXXXXXXXL																				
3044	WATER RSRCS-PRE&POST PROJECT	ST . XXXX L																				
3044	WATER RSRCS-PRE&POST PROJECT	FIN . XXXXL																				
3046	WATER RSRCS-GLACIAL STUDIES	CC																				
304XX	EXHIBIT H MATERIAL COMPLETE	.																				
304XX	EXHIBIT I MATERIAL COMPLETE	.																				
3051	FLOODS-FREQUENCY ANALYSIS	XX L																				
3052	FLOODS PMF REVIEW	XXXXXX L																				
3053	FLOODS-RESERVOIR ROUTING	CT-1. XXXXXXXXXXXX																				
3053	FLOODS-RESERVOIR ROUTING	FIN . XXXXX L																				
3061	HYDR&ICE-CHANNEL WTR LVLS	CT-1CCCCCCCCCL																				
3061	HYDR&ICE-CHANNEL WTR LVLS	FIN . CCC																				
3062	HYDR&ICE RSRVR FREEBRD	. XXXXXX L																				
3063	HYDR&ICE-RESER SLIDE SURGE	ST XXXXXXXL																				
3063	HYDR&ICE-RESER SLIDE SURGE	FIN . XXXXXXXXL																				



ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
C P M SCHEDULE

ACSR190

DESCRIPTION

81  
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP  
0112001200123012201120012201220112301220112001230122011200120012201120112301220112001230122  
5296296329630630741851852963073074174185296296307418418518521852952963074174185296296306307

DESCRIPTION	81	82
	JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP	JAN FEB MAR APR MAY JUN JUL AUG SEP
3064 HYDR&ICE-RSVR TEMP REGIME	. XXXXXXXX L	
3071 SEDIMENT YIELD & DEPOSITION	ST XXXX L	
3071 SEDIMENT YIELD & DEPOSITION	FIN . XXXXXX	L
3072 RIVER MORPHOLOGY	ST . XXXXXXXXXXXXX	L
3072 RIVER MORPHOLOGY	CT-1. XXXX	L
3072 RIVER MORPHOLOGY	FIN .	XXXXL
3082 TRANSMSN LINE-DET PARAMTR	ST XXXXXX L	
3082 TRANSMSN LINE-DET PARAMTR	FIN . CCCL	
309 ACCESS ROADS HYDROLOGY	. XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
3101 LWR SUSITNA STUDIES-PRELIM	ST L	
3101 LWR SUSITNA STUDIES-PRELIM	FIN .CCCCCCL	
3102 LWR SUSITNA STUDIES-FOLLOWUP	. CCC	
406 PRELIM EVALUATN&REPORT-DRAFT	FIN CL	
407 PRELIM GROUND MOTION STUDIES	CCL	
408 DAM STABILITY	CT-1. CCCCCCCCCCCCCCCCCCCCCCL	
408 DAM STABILITY	FIN .	XXXXXX L
409 LONG TERM MONITORING PROGRAM	. XXX	L
410 RESERVOIR INDUCED SEISMICITY	XXXXXXXXXX	L
411 SEISMIC GEOLOGY-FIELD STUDY	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX L	
412 EVALUATION & REPORT DRAFT	ST . CCC	
412 EVALUATION & REPORT DRAFT	CT-1. CL	
412 EVALUATION & REPORT DRAFT	FIN . CCCL	
413 GROUND MOTION STUDIES	ST . XXXXXXXXXXXXXXXX L	
413 GROUND MOTION STUDIES	FIN . XXXXXXXXXXXXXXXX L	
414 DAM STABILITY CONSULTING	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX L	
415 SOIL SUSCEPTITY-SEISMIC FAIL	. XXXXXXXXXXXXXXXXXXXXXXXX L	
502 AIR PHOTO INTERPRETATION	FIN XX L	
505 1981 PROGRAM DESIGN	ST XXX L	
505 1981 PROGRAM DESIGN	FIN . XX L	
506 1981 EXPLORATION PROGRAM	ST XXXXXXXXXXXX L	
506 1981 EXPLORATION PROGRAM	FIN . XXXXXXXXXXXXXXXXXXXXXXXX L	
507 1982-4 PROGRAM DESIGN	. XXXXXXXX L	
5081 DATA ASSEMBLY-1980-DRAFT	ST XX L	
5081 DATA ASSEMBLY-1980-DRAFT	FIN . X L	
5082 DATA ASSEMBLY-1981-DRAFT	ST XXX L	
5082 DATA ASSEMBLY-1981-DRAFT	FIN . XX L	
5083 DATA ASSEMBLY FINAL-DRAFT	. XXXXXXXX L	
602 INVESTIGATE TUNNL ALTERNATVS	XXXX L	
6051 SELECT REPORT DRAFT	CCCCCCL	
6052 SELECT FINAL REPORT	ST . CCL	
6052 SELECT FINAL REPORT	CT-1. L	
6052 SELECT FINAL REPORT	FIN . CL	
606 STAGED DEVELOPMENT ALTS	CT-1X L	
606 STAGED DEVELOPMENT ALTS	FIN .XXX L	
607 PRELIM WATANA DAM ALTERNATES	CT-2. XXXXXXXX L	
607 PRELIM WATANA DAM ALTERNATES	CT-3. X L	
607 PRELIM WATANA DAM ALTERNATES	FIN . L	
608 PRELIM DEVIL CANYON DAM ALT	CT-2. XXXXXXXX L	

- 24 -

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
C P M SCHEDULE

ACSB190

DESCRIPTION

81  
JAN FEB MAR AFR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR AFR MAY JUN JUL AUG SEP  
0112001200123012201120012201123012201123012201120012301220112001230122  
5296296329630630741851852963073074174185296296307418418518521852952963074174185296296306307

NO.	DESCRIPTION	81	82
608	PRELIM DEVIL CANYON DAM ALT FIN .		L
609	ESTAB WATANA DESIGN CRITERIA ST X		L
609	ESTAB WATANA DESIGN CRITERIA CT-1. XXXXXXX	L	
609	ESTAB WATANA DESIGN CRITERIA CT-2.		L
609	ESTAB WATANA DESIGN CRITERIA FIN .		XXXXXXXX L
610	ESTAB DEVIL CANYN DESGN CRIT ST X		X L
610	ESTAB DEVIL CANYN DESGN CRIT CT-1. XXXXXXX	L	
610	ESTAB DEVIL CANYN DESGN CRIT CT-2.		L
610	ESTAB DEVIL CANYN DESGN CRIT FIN .		XXXXXXXX L
611	PRELIM DESIGN WATANA DAM ST .		X L
611	PRELIM DESIGN WATANA DAM CT-1.		CCCCCCCCCCL
611	PRELIM DESIGN WATANA DAM FIN .		CCCCCCCCCCL
612	FREL DESIGN DEVIL CANYON DAM ST .		CCCCCCCCCCL
612	FREL DESIGN DEVIL CANYON DAM CT-1.		CCCCCCCCCCL
612	FREL DESIGN DEVIL CANYON DAM FIN .		CCCCCCCCCCL
613	DAM SELECTION REPORT-DRAFT ST .		CCCCCCCCCCL
613	DAM SELECTION REPORT-DRAFT FIN .		CCCCCCCCCCL
614	SPILLWAY DESIGN CRITERIA ST . XXX		CCCCCCCCCCL
614	SPILLWAY DESIGN CRITERIA FIN .	L	XXXXXXXXXX
615	WATANA SPILLWAY ALTERNATIVES ST .	L	XXXXXXXXXX
615	WATANA SPILLWAY ALTERNATIVES FIN .	L	XXXXXXXXXX
616	DEVL CAN SPILLWAY ALTERNATIVE ST .	L	XXXXXXXXXX
616	DEVL CAN SPILLWAY ALTERNATIVE FIN .	L	XXXXXXXXXX
617	PRELIM DESGN WATANA SPILLWAY ST XXXX		XXXXXXXXXX
617	PRELIM DESGN WATANA SPILLWAY CT-1.		XXXXXXXXXX
617	PRELIM DESGN WATANA SPILLWAY FIN .		XXXXXXXXXX
618	PRELIM DES DEVIL CAN SPILWAY ST .		XXXXXXXXXX
618	PRELIM DES DEVIL CAN SPILWAY FIN .		XXXXXXXXXX
619	SPILLWAY SELECTN REPRT-DRAFT ST .		XXXXXXXXXX
619	SPILLWAY SELECTN REPRT-DRAFT FIN .		XXXXXXXXXX
620	ACCESS & CAMP FACILITIES ST XXX		XXXXXXXXXX
620	ACCESS & CAMP FACILITIES FIN .		XXXXXXXXXX
621	WATANA DIVERSION SCHEMES ST XXXXXX		XXXXXXXXXX
621	WATANA DIVERSION SCHEMES FIN .		XXXXXXXXXX
622	DEVIL CANYON DIVERSN SCHEMES ST XXXXXXXXXXXXX		XXXXXXXXXX
622	DEVIL CANYON DIVERSN SCHEMES FIN .		XXXXXXXXXX
623	OFT WATANA POWER DEVELOPMENT ST .		XXXXXXXXXX
623	OFT WATANA POWER DEVELOPMENT CT-1.		XXXXXXXXXX
623	OFT WATANA POWER DEVELOPMENT FIN .		XXXXXXXXXX
624	OFT DEVL CANYN POWER DEVELOP ST .		XXXXXXXXXX
624	OFT DEVL CANYN POWER DEVELOP FIN .		XXXXXXXXXX
625	OFTIMIZE DAM HEIGHTS ST XXXXXX		XXXXXXXXXX
625	OFTIMIZE DAM HEIGHTS CT-1.		XXXXXXXXXX
625	OFTIMIZE DAM HEIGHTS FIN .		XXXXXXXXXX
626	PREL DESGN WATAN POWER DEVEL ST .		XXXXXXXXXX
626	PREL DESGN WATAN POWER DEVEL FIN .		XXXXXXXXXX
627	PREL DES DEVL CAN FOUR DEVEL ST .		XXXXXXXXXX
627	PREL DES DEVL CAN FOUR DEVEL FIN .		XXXXXXXXXX



ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
C P H SCHEDULE

ACSB190

PAGE 5  
TIME NOW 5JAN81

DESCRIPTION

81  
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP  
01120012001230122011200122012201123012201120012301220112001200122011201123012201230122  
5295296329630630741851852963073074174185296296307418418518521852952963074174185296296306307

82

- 27 -

DESCRIPTION	81	82
7072 LAND USE PRELIM ALTERNATIVES CT-1.	XXXXXXXXXX	L
7072 LAND USE PRELIM ALTERNATIVES FIN .		L
7073 LAND USE OPTIMIZED DESIGN ST XXXXXXXXXXXXXXXX		L
7073 LAND USE OPTIMIZED DESIGN CT-1.		L
7073 LAND USE OPTIMIZED DESIGN FIN .	XXXXXXXXXXXXXXXXXXXXX	L
708 RECREATION PLANNING ST XXXXXXXXXXXXXXXXXXXX		L
708 RECREATION PLANNING FIN .		CCCCCL
7091 TRANS LINE ASSESS SCREENING XXX L		
7092 TRANS LINE ASSESS RTE SELECTN . XXXXXXXXXXXXX		
7101 FISH ECOLOGY ALTERNATV SITES ST XXXXXXXXXXXXXXXX	L	
7101 FISH ECOLOGY ALTERNATV SITES CT-1.	XXXXXXXXXXXX	
7101 FISH ECOLOGY ALTERNATV SITES FIN .		L
7102 FISH ECOLOGY PRELIM ALTERNAT ST XXXXXXXX		L
7102 FISH ECOLOGY PRELIM ALTS CT-1.	XXXXXXXXXXXX	
7102 FISH ECOLOGY PRELIM ALTERNAT FIN .		L
7103 FISH ECOLOGY OPTIMIZED DESGN ST XXXXXXXXXXXXXXXX		L
7103 FISH ECOLOGY OPTIMIZED DESGN CT-1.		L
7103 FISH ECOLOGY OPTIMIZED DESGN FIN .		XXXXXXXXXXXXXXXXXXXXXL
7111 WILDLIFE ECOLOGY ALTER SITES ST XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		L
7111 WILDLIFE ECOLOGY ALTER SITES FIN .		L
7112 WILDLIFE ECOLOGY PRELM ALTER ST XXXXXXXX		L
7112 WILDLIFE ECOLOGY PRELM ALTER CT-1.	XXXXXXXXXXXX	
7112 WILDLIFE ECOLOGY PRELM ALTER FIN .		L
7113 WILDLIFE ECOLOGY OPTIM DESGN ST XXXXXXXXXXXXXXXX		L
7113 WILDLIFE ECOLOGY OPTIM DESGN CT-1.		L
7113 WILDLIFE ECOLOGY OPTIM DESGN FIN .	XXXXXXXXXXXXXXXXXXXXX	L
7121 PLANT ECOLOGY ALTERNATV SITES ST XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		L
7121 PLANT ECOLOGY ALTERNATV SITES FIN .		L
7122 PLANT ECOLOGY PRELM ALTERNAT ST XXXXXXXX		L
7122 PLANT ECOLOGY PRELM ALTERNAT CT-1.	XXXXXXXXXXXX	
7122 PLANT ECOLOGY PRELM ALTERNAT FIN .		L
7123 PLANT ECOLOGY OPTIMIZD DESGN ST XXXXXXXXXXXXXXXX		L
7123 PLANT ECOLOGY OPTIMIZD DESGN CT-1.		L
7123 PLANT ECOLOGY OPTIMIZD DESGN FIN .	XXXXXXXXXXXXXXXXXXXXX	L
714 ACCESS RD ENVIRONMENT ANALYS XXXXXXXXXXXXXXXXXXXX	L	
715 PREP FOR FERC EXHIBIT-DRAFT ST XXXXXXXX		L
715 PREP FOR FERC EXHIBIT-DRAFT CT-1.		CCCCCL
715 PREP FOR FERC EXHIBIT-DRAFT FIN .		L
715XX EXHIBIT W MATERIAL COMPLETE .		L
715XX EXHIBIT S MATERIAL COMPLETE .		L
801 SELECT INITIAL CORRIDORS FIN . XXX L		
8021 LOAD FLOW ANALYSIS ST XX	L	
8021 LOAD FLOW ANALYSIS FIN . XXXXX	L	
80221 PRELIMINARY ELEC SYSTEM ST XXXXXXXX	L	
80221 PRELIMINARY ELEC SYSTEM CT-1.	CCCCCCCC	
80221 PRELIMINARY ELEC SYSTEM FIN .		L
80222 RECOMMEND ELEC-SYS .	CC	
803 FINAL ROUTE SELECTION 1981 ST . XXXXXXXXXXXXXXXXXXXXXXXX L		

ACSB190

DESCRIPTION

B1  
 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP  
 011200120012301220112001220112301220112001230122011200120012201120112301220112001230122  
 5296296329630630741851852963073074174185296296307418418518521852952963074174185296296306307

B2

803	FINAL ROUTE SELECTION 1981	CT-1.		XXXXXX	L															
803	FINAL ROUTE SELECTION 1981	CT-2.			XXXXXX	L														
803	FINAL ROUTE SELECTION 1981	FIN																		
804	TOWER HARDWRE&CONDUCTR STUDY	ST	XXXXXXXXXX																	
804	TOWER HARDWRE&CONDUCTR STUDY	CT-1.		XX																
804	TOWER HARDWRE&CONDUCTR STUDY	FIN																		
805	SUBSTATIONS	ST	XXXXXXXXXX																	
805	SUBSTATIONS	FIN		XXXXXXXXXX																
806	DISPATCH CTR & COMMUNICATNS	ST	XXXXXXXXXX																	
806	DISPATCH CTR & COMMUNICATNS	FIN		XXXXXXXXXX																
807	TRANS LINE COST ESTIMATES	ST	XX																	
807	TRANS LINE COST ESTIMATES	FIN														XXXXXX	L			
901	ASSEMBLE COST-SCHEDULE DATA	ST		XX																
901	ASSEMBLE COST-SCHEDULE DATA	FIN		XXXX																
902	PREP PRELIM CST ESTIMATES			XXXXXX																
903	COST ESTIMATE UPDATES																			
903XX	EXHIBIT N MATERIAL COMPLETE																			
9041	ENGR COST & SCHEDULE PRELIM																			
9042	ENGR COST & SCHEDULE FINAL																			
904XX	EXHIBIT O MATERIAL COMPLETE																			
905	CONTINGENCY ANALYSIS																			
1001	IMPACT OF NEW FERC REGULATIONS		XXXXXXXXXX																	
10022	1ST UPDATE-REGULATORY REQ			XXXX																
10023	2ND UPDATE-REGULATORY REQ															XXXX				
1003	DATA FROM OTHERS			XXXXX																
1003XX	EXHIBIT A B & C MATERIAL COMPLETE.																			
1004	COORD EXHIBIT PREPARATION	ST																		
1004	COORD EXHIBIT PREPARATION	CT-1.																		
1004	COORD EXHIBIT PREPARATION	CT-2.																		
1004	COORD EXHIBIT PREPARATION	CT-3.																		
1004	COORD EXHIBIT PREPARATION	CT-4.																		
1004	COORD EXHIBIT PREPARATION	CT-5.																		
1004	COORD EXHIBIT PREPARATION	FIN																		
10051	PREPARE EXHIBIT E																			
10052	PREPARE EXHIBIT D																			
1006	PREPARE EXHIBIT R	ST																		
1007	PREPARE EXHIBIT T	ST																		
1007	PREPARE EXHIBIT T	FIN																		
1008	PREP APPLICATN FORM-DRAFT	ST																		
1008	PREP APPLICATN FORM-DRAFT	FIN																		
1009	REVIEW AND CORRECT																			
1010	EXTERNAL REVIEW																			
10XXX	PRINT LICENSE APPLICATION																			
1101	PROJECT OVERVIEW		XX L																	
1102	INTERNAL REPORTS		CCC L																	
1102XX	EXHIBIT U MATERIAL COMPLETE																			
11031	ALT POWR SRCE RISK ANAL-PREL	ST	XXXXXXXXXX																	
11031	ALT POWR SRCE RISK ANAL-PREL	FIN		XX																

ACRES AMERICAN SUSITNA HYDRO-ELECTRIC PROJECT  
C P M SCHEDULE

ACSB190

DESCRIPTION

81 82  
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP  
01120012001230122011200122012201123012201120012301220112001200122011230122  
5296296329630630741851852963073074174185296296307418418518521852952963074174185295296307

DESCRIPTION	81	82
11032 ALT POWR SRCE RISK ANAL-REFN	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1104 BASE PLAN RISK ANALYSIS ST	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1104 BASE PLAN RISK ANALYSIS FIN		L
1105 SUSITNA FINANCE RISK ANALYSIS	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1106 RESOLUTION TAX ISSUE	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1107 IDENTIFY PARTIES INTEREST	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1108 REVENUE ASSURANCE	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1109 LIAISON APA BOND UNDERWRITER	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1109XX EXHIBIT G MATERIAL COMPLETE		L
12022 CONDUCT PUBLIC MEETING #2	XXXX	L
12023 CONDUCT PUBLIC MEETING #3		L
12031 CONDUCT WORKSHOPS 1,2,3	XXXX	L
12032 CONDUCT WORKSHOPS 4,5,6		L
1204 PREP PUBLISH DISTRIB MATERIAL	XXXXXXXXXXXX	L
1205 PREP MAINTAIN ACTION LIST	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
13013 PROJECT PROCED MANUAL-UPDATE	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
13042 SCHEDULE CONTROL SYS UPDATE	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
13052 COST CONTROL SYSTEM-OP	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
13062 MANPOWER LOADNG SCHED-UPDATE	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
1310 SUB CONTRACT ADMINISTRATION	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	L
XXX PROJECT COMPLETE XXX		L