

Mitigate or Avoid? You Can Get There From Here!

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Terrace, Illinois. His current responsibilities include direct supervision and decision-making for matters involving 4,000 miles of pipeline right of way in the states of Colorado, Kansas, Nebraska, S. Dakota, Utah and Wyoming. He has 14 years of experience involving all facets of right of way, including direct acquisition as an agent, supervisor of right-of-acquisition for major pipeline projects, and superintendent for pipeline right-of-way acquisition and project management. He has been a member of IRWA's International Pipeline Committee for the past four years.

employed on any linear construction project. The normal process for addressing cultural resource concerns will be contrasted with the methods used on this project. Although the focus is on the BLM process, with slight modification, it could pertain to all federal agencies.

THE PROJECT

The AMOCO Elk Basin Interstate Pipeline project was implemented in Northern Wyoming (Figure 1). This eight-inch diameter pipeline crossed two BLM resource areas, two BLM districts, and two BLM state jurisdictions (Wyoming and Montana). Also involved were several other state and federal agencies, including the Wyoming Game and Fish Department, the State Historic Preservation Office (SHPO), and the U.S. Army Corp of Engineers, along with several private ownerships. While minimal in length by industry standards, the pipeline project carried with it all the requirements, pitfalls, and the real and potential problems of any pipeline. The pipeline was to be placed through an area known to have a high density of cultural resource locations. As usual, cultural resources were a major concern. AMOCO Pipeline had legitimate concerns regarding construction schedules and required delivery dates. A major additional concern was the "weather factor" in the construction area which could have significantly increased both the cost and completion time of the project if construction was delayed into the sometimes harsh winters in Wyoming and Montana.

THE NORMAL PROCESS

The normal process for cultural resource consideration during pipeline construction projects consists of several related periods of work and projects. Keep in mind that this project was an interstate pipeline,

INTRODUCTION

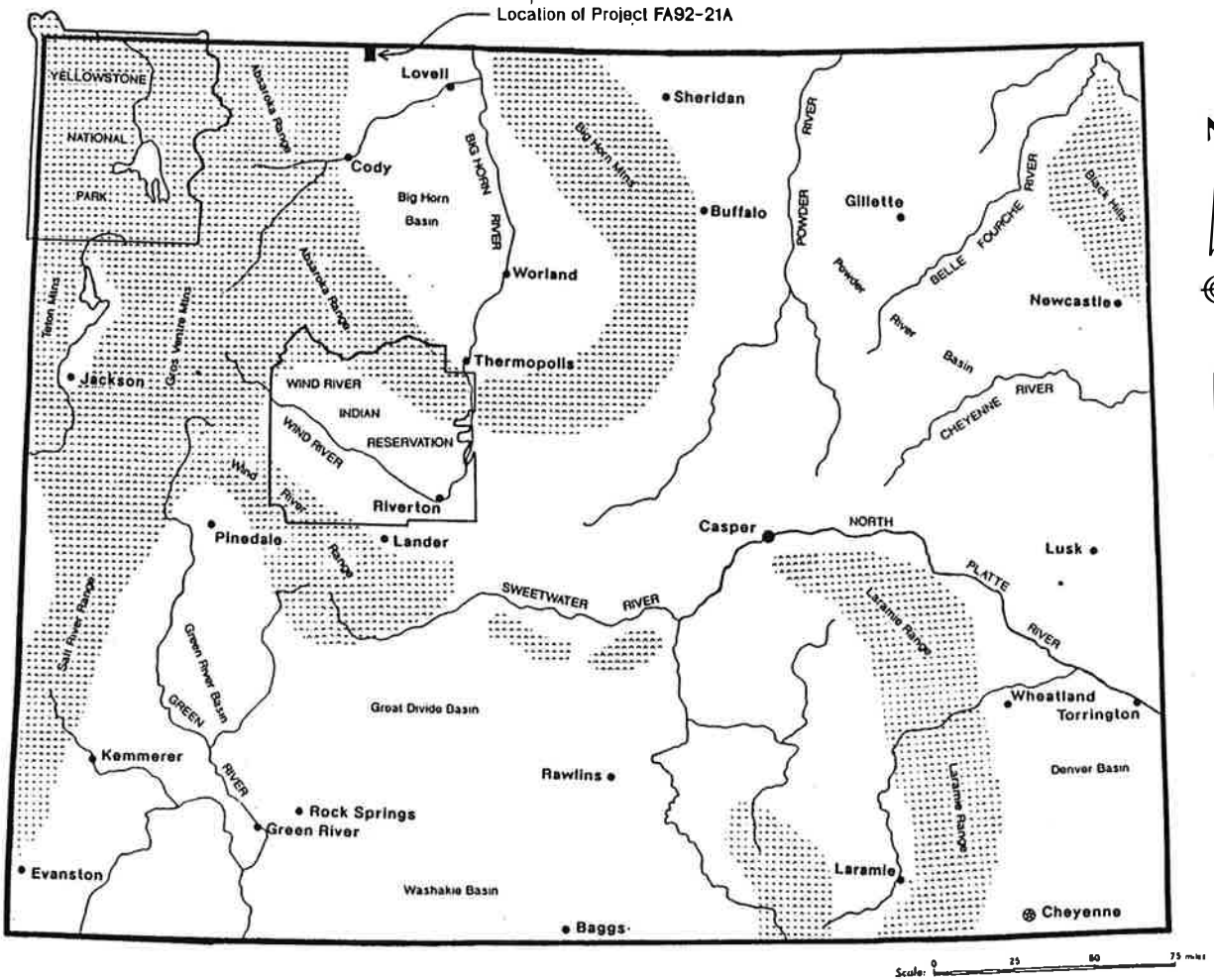
This article discusses an issue of concern to construction and right-of-way activities. The issue often cited for delaying pipeline construction and causing difficulties throughout the implementation of a project is called "cultural resources" by federal and state agencies. Many in right of way know this issue as "archaeology" or by other names, not all of which are complementary. Whatever you call it, most of you have probably been involved with this concern in one form or the other.

Cultural resources and the requirements for compliance are often shrouded in mystery (some intentional), maligned, blamed for almost everything, and usually the most contentious point on any construction project. The cultural resource compliance process is solidly based on law and regulation but subject to the vagaries of interpretation, personalities (both corporate and individual), and personal predilections. The concepts and requirements are not well understood nor accepted by all parties. Some try to circumvent the requirements, some ignore them, and some

may use the issue to slow, impede or stop projects. On the other hand, some individuals genuinely try to meet the compliance requirements while at the same time meeting the requirements of industry. Discussions about cultural resources between industry and federal agencies are often adversarial and counterproductive. Unfortunately the bad experiences, both real and imagined, perpetuate themselves, and subsequent efforts are affected by historical outcomes. There is, in general, little trust between the participants and the motives of each are the subject of some consideration.

However, cultural resources need not be an impediment to meeting the needs of industry. There are ways to address both the compliance and construction requirements. What follows is a discussion of how cultural resources were considered and the compliance needs met for one project: the AMOCO Elk Basin Interstate Pipeline in northern Wyoming, a nine-mile, interstate oil pipeline. The concepts and methods employed can be generalized and effectively

FIGURE 1 PROJECT LOCATION



crossing two BLM resource areas, districts, and state jurisdictions. Consultation with the state historical preservation officers (SHPOs) of Wyoming and Montana would be required.

The process is operationalized through the method described below. Note that the process outlined in Figure 2 has a decidedly project management look. While it was originally designed to look and operate as project management, it is rarely implemented as such. It is most often implemented in a stand-alone mode with little real consideration of the construction project it is in concert with. The sequencing and actions discussed are not absolute and some actions may not be relevant to a particular project. The sequences may be more or less complicated than those depicted when applied to a particular project, therefore the depictions are only generalizations. The description

below does not include every possible step or action in implementing a project, but only provides a general overview of the process.

Sequence Action

- 1 The applicant may call and notify the realty specialist that they are contemplating making an application for a right of way. The realty specialist may ask the cultural resource specialist if a survey is needed. Between this and the next step, many months, or even years, may transpire depending upon industry decisions.
- 2 Cultural staff personnel reviews the application to ascertain the necessity for a cultural resource class three survey (intensive pedestrian). In almost all cases, a survey is required if the area is undisturbed or if an existing survey does not cover the

project area. The cultural review will not take place until the filing of a formal application for the right of way. The determination of the cultural requirements can take between a week and a month to complete. Consultation with the respective SHPO is required. In the case of an interstate line (as in this instance), consultation is required with each state involved.

- 3 The cultural specialist notifies the realty specialist who in turn gives written notification to the applicant what the cultural and other requirements, e.g., Plan of Development (POD), will be to allow further processing of the application. This written notification can take several weeks to complete, depending upon the work load of the realty specialist.

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- 4 Applicant hires an approved cultural contractor who conducts the survey of the proposed route and any reroutes, prepares a report, and sends the report to the BLM for review and comment. This report puts forth the contractor's survey findings and recommendations for site eligibility. The contractor will often recommend that some sites be revisited for the purposes of testing for eligibility for the National Register. The survey report usually results in sites being placed into three categories: not eligible, eligible, or don't know or not enough information available to make a determination. The completion of the survey and report may take weeks, months or years to complete depending upon the availability of a contractor, weather and other factors. The initial BLM review of the report may take several months to complete.
- 5 If problems exist with the survey report, the report is sent back to the applicant and contractor for correction and resubmittal. Report correction can take months to complete depending upon the severity of the failing, the requirements for correction, and the willingness of the contractor to correct the report.
- 6 Once an acceptable survey report is received, it is sent to the SHPO for review and concurrence with BLM determinations concerning adequacy of survey, project effects and site eligibility. The SHPO has 30 days to respond with a concurrence or nonconcurrence with the BLM determinations.
- 7 If the SHPO disagrees with the BLM, an open-ended period of negotiation begins to resolve the dispute. The Keeper of the National Register may become involved in final determinations of eligibility. This aspect is not a part of every project.
- 8 If the SHPO agrees with the BLM determinations, the cultural specialist prepares an action memorandum for the area manager's signature recommending that the project be authorized. Once the memo is signed, the cultural specialist notifies the realty specialist in writing, usually by providing a copy of the action memo and SHPO letter, of the findings and further work requirements. Preparation of the action memorandum may take a month to complete.
- 9 The applicant is notified in writing of the requirement to revisit sites for the purposes of National Register evaluation. Any other requirements are also sent to the applicant at this time. Preparation of this notification may also take a time period extending from a week to several weeks.
- 10 The applicant notifies the cultural resource consultant of the additional requirements. The consultant prepares a testing and evaluation plan, and submits it to the BLM for review and approval. If the plan is found acceptable, the BLM sends the plan to the SHPO for review and comment. The BLM may also be required to consult with native Americans. If any comments are applicable, the BLM sends the plan back to the applicant/consultant for correction. An amended plan is submitted and, if found acceptable, the plan is authorized for implementation. The BLM notifies the applicant that the plan is authorized for implementation. Again, this may take many months or even years to complete.
- 11 If testing and evaluation is required, a second report is usually written to address the testing and evaluation phase of the project. This report is reviewed by the BLM and, if acceptable, sent to the SHPO for review and concurrence. If the SHPO agrees with the BLM determinations, the project can proceed to the next step. If not, a period of negotiations is carried out to resolve the differences. Ultimately another round of site study may be required to address the concerns addressed by the SHPO or BLM. Until the BLM and SHPO agrees on the adequacy of the inventory, evaluation effort and results, the project may not proceed. This phase can also take many months to complete.
- When all the foregoing steps are completed, the result is an acceptable class three survey with the known surface sites identified and evaluated. Arriving at this point may take several years for medium or large projects, and up to a year on smaller projects.
- The next step involves asking the applicant to make a decision concerning the routing of the pipeline. The applicant has the choice to reroute the project so as to avoid cultural resources or continue on the proposed route.
- If the project is to be rerouted, a cultural survey of the new routes is performed and the process begins anew. If no sites are identified in the new routes and there is no effect to cultural resources, the project may be authorized subject to any necessary stipulations. In usual practice, reroutes are surveyed at the time of the original survey. The stated preferred method is avoidance of cultural resources.

Sequence Action

- 12 If the applicant elects to proceed and eligible sites will be affected by the project, a treatment plan is required. If data recovery is applicable, and it usually is in

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these circumstances, the applicant must have a data recovery plan prepared and implemented by the cultural contractor before construction begins. This plan must be reviewed and approved by the BLM, SHPO, native Americans, and advisory council before it is implemented. All treatment plans must be agreed to by the consulting parties: BLM, SHPO and advisory council. The applicant will be invited to concur in the plan since they will be implementing it. Consultation on the treatment plan may take several months. The regulations of the advisory council provides 30 days to respond after their receipt of the plan. The SHPO has no time limit. The SHPO's concurrence with the treatment plan is required. Usually the plan is sent to the SHPO and native Americans first, and when the SHPO and native Americans is in agreement, it is sent to the advisory council. However, the plan can be submitted to both simultaneously. Consultation on the plan results in a binding agreement to be executed. The agreement is binding on the BLM, SHPO and advisory council but not the applicant. However, the applicant must adhere to the tenets of the agreement if the project is to proceed. The project is then authorized for implementation, subject to this plan.

- 13 The treatment plan is implemented and a report is written. If acceptable, the report is sent to the SHPO and advisory council for review and assurance that it was faithfully implemented. When agreement is reached, the applicant is notified that construction can begin in accordance with any required stipulations. Most often the stipulations attached to authorizations

to proceed are the oil and gas projects standard stipulation for cultural resources and construction monitoring, but may include any others required by the SHPO and/or advisory council or others necessary to accommodate native American concerns.

Usually the next step is to monitor construction. This means overseeing the right-of-way blading and trench digging. If cultural manifestations are discovered, work stops until instructed to proceed by the authorized officer. The SHPO is also consulted.

powered to commit the organization). This can take substantial time to affect.

This process continues until the pipe trench is complete and the pipe is in the ground.

- 16 A monitoring report is written and submitted for BLM and SHPO review and concurrence. This report discusses the findings of the monitoring effort, makes recommendations for site eligibility and additional work. If significant sites were discovered or affected during construction, a treatment plan is

All in all, the usual cultural resource process is protracted, cumbersome, unnecessary, and may penalize industry in terms of time and money.

Sequence Action

- 14 The BLM has five days to tell the applicant if the site is significant or not. If not, the project may proceed. If a site is significant, some sort of data recovery is probably warranted and will probably be required. Project construction at the point of discovery cannot proceed until appropriate treatment has been completed. At any rate, a delay of five days or longer is apparent.
- 15 The applicant has options such as: proceeding with the project and funding data recovery; rerouting the line away from the discovery with new survey; or waiting until the BLM has stabilized and/or recovered the data from the discovery and then proceeding with construction. If the applicant elects to continue on the present line data recovery, or significant testing, this usually takes place before the pipe is laid. These decisions are made at each individual discovery point and most often require letter correspondence with the applicant (someone who is em-

also developed for these sites.

- 17 For all sites requiring data recovery, a treatment plan is developed, consulted upon, and implemented using the same steps outlined above.
- 18 Upon completion of the performance of the treatment plan, a report is written and submitted to the BLM and SHPO. If found acceptable, the applicant is informed that the compliance is complete and the trench may be filled. The project is then complete as pertaining to cultural resources. Standard stipulations for unanticipated discoveries are usually attached to the approval.

The above process is a "worst-case" scenario and may result in taking years to get a pipeline in the ground. In practice, the process is often modified in some respects. Even so, several reports, consultations, site visits for eligibility determinations, testing and many work stoppages are common.

All in all, the usual cultural resource process is protracted, cumbersome, unnecessary, and may penalize

industry in terms of time and money. More often than not, the process is not agreeable to the applicants schedule (delays in schedules may have deleterious effects on industry and the public by causing penalties, missed delivery dates, tariff and permit concerns). Minimum amounts of cultural resource information are usually obtained and what is obtained is protracted over months or years.

Larger projects may have an agreement negotiated between the agency, SHPO and advisory council that addresses some or all of the above procedural requirements. The agreement may take a year to complete. Before the agreement is in place no construction may take place, and the initial cultural resource survey probably has not begun.

Contrast the usual scenario with the process utilized for the AMOCO Elk Basin Pipeline project implementation. This process is discussed in the following.

THE ELK BASIN-SILVERTIP INTERSTATE PIPELINE PROJECT

In discussion of the Elk Basin process, please note there were significant differences in approach and methods from the usual cultural resource procedures as previously discussed. The result was considerable savings in time and money, and the project being completed within AMOCO time frames. In addition, more information was gained from the identified cultural resources using this Elk Basin process than would have occurred under the normal process, and in a shorter time.

Before submitting an application, AMOCO requested a pre-application meeting at the resource area to discuss the proposed Elk Basin interstate pipeline. During this meeting, various items of interest were discussed, including cultural resource requirements. BLM management stressed at this meeting that discussions were

not binding, because Cody Resource Area (CRA) may not be designated the lead for the project. However, it was stressed that if CRA were designated the lead, then our recommendations and decisions would hold.

Cultural resources were the major topic of conversation since they had, and have, the greatest potential to delay a project (see the above discussion). AMOCO asked how they were to be addressed during the project. Several options were discussed. The usual manner of addressing cultural, and the standard cultural stipulation for oil and gas, was described in detail and several alternatives were discussed.

One option discussed was the usual preferred mode of avoidance of all sites. The Resource Area (RA) suggested that this may not be the best option under all circumstances. The RA offered an alternative and suggested that proceeding with construction and accepting any site evaluation and data recovery, as a cost associated with construction, should be considered as a viable option.

Another option was to conduct a survey and to describe a route with no sites as the proposed route, with no reroutes. The report would contain sufficient information to make determinations of eligibility for all located, affected, sites. All sites would be placed into one of two-site eligible categories: yes or no. "I don't know" or "we need more information" to make a determination of eligibility would be unacceptable. The selected contractor would exit the field with enough information to make supported judgments concerning site eligibility. The contractor would also submit a proposed mitigation plan, along with the survey report, for any eligible sites located. The pipeline construction would be monitored and all sites discovered would be tested for their eligibility for the National Register. Where pos-

sible, dates and other analyses would support the evaluation. The RA could require testing outside the disturbed area but any mitigation would be confined to the right of way. Any testing and evaluation would be conducted in such a manner as to address eligibility concerns and to constitute a phase-one data recovery, if required. Decisions as to what to do at each resource would be made on the fly between the contractor, BLM, SHPO (both states) and AMOCO. Other consultations were to be in the field and over the phone, if at all possible. The objective would be to acquire information in support of the eligibility and phase-one data recovery at the same time. The RA would anticipate the questions to be asked by third parties, including the SHPO, and acquire the information necessary to address their concerns.

Construction would be allowed to continue unabated if AMOCO would agree to this scenario. The limited impacts to the sites would be allowed to facilitate construction schedules if AMOCO agreed to the proposal. At each point of discovery, AMOCO would be asked again to make a preliminary decision as to whether to proceed or go around, even though AMOCO had already made the decision to proceed with construction and accept testing and data recovery as the preferred option. However, the RA was asking that the testing and evaluation be performed on all located discoveries. AMOCO would be allowed to exercise their options under the standard cultural stipulation for oil and gas, for mitigation, up to the time the pipe was placed in the trench. At that time, there were no options and AMOCO was committed to mitigation of any affected eligible sites.

AMOCO was informed of the high probability of locating subsurface sites along the area considered for the pipe. There were to be only two reports. An initial survey report which

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was expected to be negative, or at most, a no-effect determination, would get the survey accomplished and authorize the project, subject to the above described monitoring and other considerations. However, in the event significant sites were located during the survey, a mitigation plan was to accompany the inventory report. A second report addressing the monitoring, testing, evaluation and mitigation of discovered sites would be completed after the project was complete.

The RA suggestion was predicated upon certain assumptions which were also discussed at length with AMOCO. These assumptions were based upon years of keeping statistics on this very issue.

- All sites located within the area of potential effect would be evaluated and tested

- For every 10 located sites, at the most only two or three would be found eligible for the National Register
- Of the two or three eligible, only one, if any at all, would in all likelihood require anything beyond a phase-one data recovery effort. In other words, the RA would probably require additional work on only one out of 10 sites and then only if it was of extraordinary importance
- Delays, rerouting and engineering costs would, in most cases, exceed the cost associated with testing and evaluation of discovered sites. Except in rare cases, the costs associated with reroutes would probably exceed the cost of mitigation. It makes very little economic sense not to spend some money to evaluate sites and to

spend more money to reroute the pipeline. If the costs associated with the RA proposal were compared to the costs associated with delays, reroutes, engineering and so on, it would be less expensive, and more prudent, to accept the RA proposal

The proposal under consideration was relatively simple in concept, but not easy to accept. AMOCO was being asked to consider accepting evaluation, phase-one data recovery, and mitigation on all located sites as a preferred strategy during the project implementation based upon economics, long-term historical information and trust. It was stressed that the only way to ensure success of the project was to have a truly cooperative team effort between AMOCO, BLM, SHPO (both states), and the cultural contractor. If this were not forthcoming, the project would fail or be extraordinarily difficult to accomplish.

In turn, the BLM would modify the usual laborious and time-consuming process and allow a limited degradation of the sites impacted by construction and allow construction to proceed unabated, provided all parties adhered to the agreement. The BLM would also conduct all compliance activities in the most appropriate and expeditious manner and would commit the BLM archaeologist to working closely with the cultural contractor and AMOCO. It was also stressed that the AMOCO representative should be empowered to commit AMOCO to a particular course of action. It was stressed that the RA would take a dim view of only tacit agreement, and then start with go arounds.

AMOCO agreed to consider the proposal but wanted assurance that they could still exercise their options under the standard oil and gas stipulation. AMOCO's major concern was that they did not want to commit, site unseen, to mitigation on the most

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important, and potentially costly, sites (the "Taj Mahal") without knowing the details. Details would provide the information necessary for a sound economic decision concerning the cost effectiveness of various options available. AMOCO was informed that this was always an option and should sites be located that were of exceptional importance a solution for that particular site would be negotiated with AMOCO. One solution would include the right for Amoco to reroute the pipeline and avoid the costs to mitigate.

All of the above was accomplished in a four-hour meeting.

AMOCO submitted their draft POD which reflected the discussion on cultural resources, together with the application to the BLM on February 24, 1992. Another meeting to discuss cultural and other concerns occurred on March 12, 1992. As part of this meeting, an infield inspection of the general pipeline route was conducted. AMOCO also asked for a meeting to include their cultural contractor, and the BLM. The purpose of the meeting was to discuss the handling of cultural resources and to ensure that the cultural resource consultant understood how cultural resources were to be addressed during the project. This meeting was held on March 16, 1992. Several others (March 17 and 23, 1992), were held with the cultural consultant, AMOCO's project engineer, the construction contractor, and inspection personnel. All left those meetings with a firm grasp of the cultural requirements for the project and how they were to be addressed. At these meetings pre-work decisions, in consonance with the AMOCO POD and previous discussions, were made concerning the most common cultural resource decision points:

1. How to handle sites encountered in the trench and during blading of the construction areas? Mark and forge ahead; return later to con-

duct evaluation and testing.

2. What is to be done at each encountered site? Date, float, place test units in sufficient number and location, inside and outside construction areas, to ascertain the nature and extent of the site. All testing to be controlled, take whatever action is warranted to obtain necessary and sufficient information; information in support of determinations, e.g., radiometric assays, are to be sent off as they are collected.
3. Based upon information obtained under decision 2, above, make a determination as to the eligibility of the site.
4. If warranted and the site is thought to be eligible, test sufficiently (at the same time as evaluation is taking place) to satisfy phase-one data recovery requirements if any are warranted. It was believed this could be done without constructing a data recovery plan. The RA could conduct the testing in such a way as to satisfy any requirement for a phase-one. The RA would anticipate the requirement and test accordingly. Once the testing was completed, the RA would make a case for having recovered sufficient data to have satisfied any requirement for a phase-one data recovery. The RA would be able to conclude and justify the conclusion that the testing had acquired sufficient data to constitute a phase-one data recovery effort and that no further work would be required.

To this point, the RA would have addressed every site, determined their eligibility, and recovered sufficient data to constitute a phase-one data recovery effort. It was believed that few, if any, sites would require a more extensive effort beyond this point in the process. However, the RA did develop a scenario for considering the possibility of additional

work at extraordinary sites. This decision is reflected below as decision 5. All of the above were to be accomplished in the field, with AMOCO concurring, on the fly with periodic consultation with the SHPO's by phone. The objective was to construct the pipeline as quickly as possible and take care of the archaeology concerns during and after construction.

5. At extraordinarily important sites, a phase-two data recovery plan would be conducted. The plan would have to be concurred with, between BLM, SHPO and advisory council, before implementation. If the pipeline was already in ground, AMOCO would be committed to this action.

To this time, a total of five days had been spent on the project, other than preliminary application, POD preparation, and other preliminary measures.

AMOCO submitted a revised POD on March 20, 1992 which reflected the discussions and decisions concerning cultural resources to date. The portion of the POD dealing specifically with cultural is reproduced below.

"Cultural/Historical resources: An archaeological survey shall be conducted on the entirety of the route including private, state, and federal lands for 50' on each side of the proposed pipeline centerline. The ditch area shall be trench monitored by an outside approved archaeologist, under the supervision of the Cody Resource Area specialist. Should a significant cultural or historical find be revealed, AMOCO shall continue construction, and mitigate the area in a timely, but post construction manner. Should a significant subsurface find be discovered, AMOCO's preferred method of mitigation shall be further studies of that area as opposed to a reroute. However,

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AMOCO requests the right to reroute the pipeline should the subsurface area be determined to contain highly significant findings which could significantly increase the costs of studies beyond those costs associated with a reroute through the area. Should avoidance and reroute become more economically prudent than the conducting of further studies, AMOCO shall cease all construction activities in that area, until the area for the reroute is permitted. AMOCO's preferred method of mitigation shall be limited to the granted right-of-way width only."

Note: the standard stipulation for cultural resources and oil and gas was added. AMOCO POD dated March 16, 1992.

right of way with no cultural resources to be considered. This objective was met. AMOCO submitted a survey map of the proposed and preferred right of way on April 21, 1992.

The cultural class three survey was performed on March 19, 20, 23, 24 and April 1 and 2, 1992 and a report was submitted to the BLM on April 22, 1992. The report identified one site within the Wyoming portion of the proposed right of way. The site was recommended as not eligible for the National Register. The report was approved by the BLM and submitted to both the Wyoming and Montana SHPO's on April 29, 1992 with four recommended stipulations. These stipulations were the standard cultural stipulation for oil and gas, two stipulations for inspection of the bladed right of way, and monitoring

Montana SHPO responded on May 11, 1992 and the Wyoming SHPO responded on May 20, 1992. The SHPO's did not object and officially the project moved to the next phase: monitoring of construction. The action memorandum was signed on May 26, 1992 by the archaeologist, formally recommending the project's approval to the area manager.

Construction and monitoring began on June 15, 1992 with monitoring completed on July 31, 1992. In this period, 14 cultural resource sites were encountered in the bladed areas or within the trench. The first was encountered approximately 1/2 mile into the project, the last near the end of the route in Montana. Over the next few weeks, all cultural manifestations were individually considered and evaluated. Each time a cultural manifestation was encountered, a field collaboration between the BLM, the contract archaeologists, and AMOCO ensued. A decision of what was to be done was made. Usually this meeting was the next day or within two days of the discovery. The SHPO was then consulted via telephone. Throughout the life of the project, the BLM archaeologist made at least two visits a week to the project to consult with the contract archaeologist and AMOCO on the progress of the project and the development of cultural resource considerations. Construction was never delayed because of cultural resources. The cultural work was oriented around the construction schedule. In only one case was the trenching operation required to skip over a location. The skip was for a distance of approximately 100 meters. This was required because of the nature of the particular cultural resource and the manner in which it was discovered. This site was discovered during blading. Pipe placement was not hindered by the skip because cultural work was accomplished prior to the pipeline being placed in the ditch at this location. In no instance was the

Construction was never delayed because of cultural resources. The cultural work was oriented around the construction schedule. In only one case was the trenching operation required to skip over a location.

Subsequent infield and in-office meetings between BLM, AMOCO and the contracted consulting archaeologist, were held to pick a route that most fit the engineering requirements of the pipeline and that was least affected by cultural resources. The objective was to produce a report with no sites identified in the right of way or other possible effected areas, thereby resulting in a "no effect" for the project. A single preferred and selected construction corridor was to be identified in the report. No reroutes were to be considered or described in the report. Any sites identified during survey work outside the area of potential effect (the selected right of way) were to be noted and recorded in passing. No further work would be required at these sites. The final objective was to have a simple survey report describing a preferred

of the trench during construction. The last stipulation required a professional BLM cultural resource use permit holder and a report time frame.

At the same time, the project was verbally recommended for approval to the area manager by the archaeologist. The RA notified the SHPO's that the project survey results revealed no sites in Montana, and no significant sites in Wyoming, resulting in a classification of "no effect." The RA gave the SHPO's 15 days to object to these determinations. The RA did not wait for the SHPO's reply before approving the project. The RA assumed there was little chance of a disagreement with a report prepared by a respected cultural contractor that had been accepted and concurred with by the BLM, and, which identified no sites to be affected by the project. The

placement of pipe delayed. Construction was complete and oil began flowing on August 3, 1992. In total, including pipeline construction and inspection time, 4.2 months elapsed from the date of the filing of the application to the first operation of the new pipeline.

At different times during the project, the Wyoming SHPO compliance specialist and other BLM archaeologists attended infield meetings to discuss the progress of the project and to consult on the eligibility of located resources and the suitability of the testing and evaluation work. Each of these visits were conducted at a point in the project where the trench and blading was complete and the pipe was in the process of being placed. There were no complaints or criticisms of what the RA had deemed as appropriate. The SHPO's

were kept informed of the project progress, findings and actions on a regular basis, not less than once a week. At no time did the SHPO, or other visitors, offer criticism of the manner in which the project and cultural resource considerations were being conducted.

The single remaining site, the first discovered, was a highly significant site and required special consideration. The BLM and contract archaeologist, in consultation with the SHPO, developed a testing regime (plan) for the "subsurface component" of this site rather than the usual test-the-site scenario. The RA and cultural resource consultant were confident that the site was significant. The RA and SHPO required test excavation to determine the significance of the subsurface component. The subsurface testing plan was written

by the consulting archaeologist with suggestions by BLM, reviewed by the BLM, amended by the consulting archaeologist, and faxed to the SHPO for comment and in preparation for an on-site visit in four days. The Wyoming SHPO compliance specialist visited the Elk Basin location two days after the faxed testing plan was received and agreement on the testing plan was reached in an hour. There were minimal changes and the RA and consulting archaeologist immediately proceeded under the agreed plan. Parties at this meeting were BLM, SHPO, AMOCO, and consulting archaeologist representatives. Upon return to his office the SHPO compliance specialist forwarded a formal letter of agreement with the testing plan to the BLM.

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THE RESULTS

The POD and application were filed on March 20, 1992. The cultural resource class three survey was accomplished between March 19 and April 2, 1992. A report was submitted on April 22, 1992. The preferred right-of-way map was filed on April 21, 1992. Construction began on June 18, 1992 and ended on August 1, 1992. The Environmental Analysis was written and signed on June 5, 1992. The right-of-way grant was issued on June 15, 1992 with the Washington office's "verbal designation" of Wyoming as the lead state. A close-out meeting was held in Cody on August 27, 1992 to discuss what was good, bad and ugly about the project.

From the initial filling of the draft POD to the first operated date, a total of 4.5 months elapsed. The continuous construction of the pipeline went unimpeded from any cultural concerns.

An important point to keep firmly in mind is that all of the cultural work, compliance, and consultation was accomplished in the field or over the phone between the project participants: BLM, AMOCO, SHPO's, and consulting archaeologist. All of the work, with the exception of the last site to be worked on, was accomplished before oil began flowing. Work at the last site was completed several weeks after oil began flowing. At no time did cultural resources delay or impede the project. The most important point to remember is that the project could not have been accomplished without a team effort between the participating parties.

As of this writing, the pipe is in the ground, oil is flowing, everyone is pleased with the progress and implementation of the project, and the report is being written. The BLM archaeologist is still involved in the project as a participant in the report writing.

SUMMARY

With open communications, trust and ingenuity, solutions can be found that meet mandated cultural resource compliance requirements while meeting industry project requirements. In this particular case, more information was gained in a shorter time than would have been gained from implementing the usual pattern. Cultural resources concerns were addressed and AMOCO's schedule was maintained.

It is absolutely essential to understand that without an enlightened and willing BLM management, a company willing to try something different from the norm, a central point of contact and decision-making, a cultural contractor willing to participate cooperatively in cultural resource work, an experienced SHPO compliance person, and a willing federal archaeologist, the project would have failed. The bottom line is that all parties were willing to trust each other and try something new!

In other circumstances and with different players, this project process may not be appropriate and may have not been suggested. However, it does indicate that the preferred alternative of avoidance is not always the best or most cost-effective alternative. Project implementation should not be rote. Each project should be considered on its own merits and solutions must be found that fit the problem at hand. It is also absolutely essential that all parties truly understand the meanings of words and concepts that are used in any discussion concerning cultural resources. Never assume that you know what a word or concept means in this arena or how it is being used. It is the responsibility of both the applicant and the agency to ensure absolute understanding of such key terms as testing, eligibility, mitigation, and so on. Both agency and applicant have the responsibility to ensure understanding of terms associated with the project's implementa-

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Sitting on a Goldmine

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tion. When there is the slightest doubt, ask.

In summary, there is little reason for cultural resources to delay or impede projects provided adequate planning and decision-making is accomplished, and agreed to, before implementation. During implementation, the decisions already made must be adhered to as much as practical. The manner in which cultural resources were considered during this project is a case of a team, "risk management" and "project management."




Records Management, Disposal and Retention

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future decisions and can be of unique value to historians and students. These records need to be identified for permanent preservation. When records need to be maintained for longer periods of time or permanently preserved, microforms should be considered.

Microforms can save space and ensure the integrity of the records. When microforms are created in accordance with the required standards, the master negative is stored in a security vault. In case of disaster, a complete duplicate from the microform file can be created. Though microforms have many obvious advantages, their use should be carefully considered. The conversion of hard copy records to microform is costly. The costs and benefits of maintaining the records in hard copy should be weighed against the costs and benefits of converting to a microform before a decision is made to convert to microforms.

Now is the time for businesses that do not have a records management program in existence, to create and develop a program that meets their needs so they will be prepared for the accumulation of records. 

organizing for asset management. The asset management team will do many of the first steps in the asset management team. After all, the city knows the staff's backgrounds and has the best access to important documentation, such as tax assessor's records and deeds and titles to the property.

3. Developing a property information system. The asset management team should first do a preliminary evaluation of its real estate holdings and develop that into a property information system. Denver's city code has, for years, required the city to maintain an inventory of city-owned real estate. A simple list from the assessor's office has in the past served this purpose. However, a computer run of addresses, lots and blocks and schedule numbers tells little about improvements, current use, future opportunities or even market value.

Therefore, the asset management team should inspect any parcels whose location or use is not immediately apparent. Denver's asset management office began a physical site inspection on each of its 2,500 properties to develop a market-oriented, useful inventory. Two graduate school interns were hired to work on the project that is approximately 40 percent complete.

Uses for the inventory are numerous. The most immediate benefit is that the city is now able to respond rapidly to public inquiries regarding public real estate. From the portfolio manager's perspective, however, there are two primary uses—to identify opportunities and to determine excesses and needs. By sorting for key underdeveloped or highly marketable properties, the portfolio of 2,500 can be pared down to perhaps 200 properties requiring further evaluation. Mismatches of use and value then become the basis for a specific property strategy.

The inventory can also be used to determine excesses and needs. For example, Denver wants to encourage

downtown housing, but has little suitable surplus property available. Hence the city may need to acquire property. Conversely, there is an overabundance of city-owned industrial land in city fringe areas whose disposition could finance other projects.

4. Preparing Analyses and Planning. Once the priority sites have been identified, those having private development potential should be more carefully evaluated for their economic and physical development potential. The city should do a market analysis to determine the feasible uses for the site. This study should include land-use and environmental factors, as well as economic factors that affect the value of the site. A financial feasibility study (appraisal) should also be done to determine the highest and best use of the site, and the city should do a community impact analysis. At this stage, a phase one toxic analysis is also appropriate. A phase one analysis involves checking past uses of the property through a deed search for any indication of potential toxic problems.

Denver's Office of Asset Management provides the city with a centralized source for rigorous financial analysis and feasibility review on issues such as lease versus purchase decisions; sway versus sale decisions; renovation versus abandonment decisions; public-private project structure; reuse options; and financial alternatives.

Examples of projects handled by the office to date include: reuse plans for a surplus wastewater treatment plant, an airport, convention center, community theater and historic fire station; acquisition and remodeling of a new city administrative center acquisition and resale of an historic temple to avoid demolition; and development of a ten-year facility master plan for administrative space.

The office's planning function encompasses the evaluation of immediate-, medium- and long-range

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