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JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

Department of Natural Resources

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

June 12, 2006

Jay Marshall, Resident Agent
UtahAmerican Energy, Inc.
P.O. Box 986
Price, Utah 84501

Subject: Comments from Consulting Parties on Archeological Survey and Request for Final Sampling Plan Design – Lila Canyon Extension, UtahAmerican Energy, Inc., Horse Canyon Mine, C/007/0013, Outgoing File

Dear Mr. Marshall:

Enclosed please find comments for your review from the consulting parties (State Historic Preservation Office [SHPO], Southern Utah Wilderness Alliance [SUWA], the Hopi Tribe, and Office of Surface Mining [OSM]) for the proposed sampling plan design for a Class II inventory of the potential subsidence area of the Lila Canyon extension that you submitted to the Division on May 16, 2006.

After your review of these comments and in conjunction with the results of the cultural survey that UtahAmerican Energy Inc.[UEI] voluntarily commenced at their own risk of the proposed sampling plan design on May 22, 2006, please let the Division know if UEI would like to augment their sampling plan.

Please submit the final sampling plan design to the Division by June 23, 2006.

If you have any questions, please call me at (801) 538-5306.

Sincerely,

For Mary Ann Wright
Associate Director, Mining

pgl/sm
Enclosures (5)
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Department of Community and Culture
RICHARD J. BRADFORD
Executive Director

Division of State History / Utah State Historical Society
PHILIP F. NOTARIANNI
Division Director

State of Utah
JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
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RECEIVED
MAY 30 2006
DIV. OF OIL, GAS & MINING

Incoming
C/007/0013

May 24, 2006

Pamela Grubagh-Littig
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City UT 84114-5801

RE: Request for input on proposed sampling design for a Class II inventory of the potential subsidence area of the Lila Canyon Extension

In reply, please refer to Case No.: 05-0305

Dear Pam:

The Utah State Historic Preservation Office received your request for comment on the above referenced project on May 17, 2006. You provided a proposed sampling design that is intended to provide a first step in identification efforts for potential rockshelters and granaries within the potential subsidence area of the above referenced mine. You requested our input and comments on this design, per 36CFR800.4(a)(3).

We have reviewed the enclosed document and attached detailed comments. In summary, we agree that the proposed simple random sample of areas likely to contain rockshelters and granaries will be a valid first step towards completing reasonable and good faith efforts to identify a portion of the cultural resources in the project area that could be adversely affected by subsidence. We do not find the proposed opportunistic sample to be a scientifically defensible way to evaluate the results of the random sample. However, the random sample, in and of itself, should provide adequate data to determine if additional inventory for rockshelters/granaries is needed and help determine (if necessary) how best to conduct such additional evaluation.

We do note that your office has indicated to us that subsidence can potentially cause cracking in the ground surface. Such ground cracking, while having the potential to irrevocably damage rockshelters/granaries, also has the potential to adversely affect other archaeological and historical sites known from overviews to be present in the area. Therefore, as detailed in the attachment, we are open to considering additional identification efforts or a modification of the proposed identification efforts to define these resources. We are also open to alternative ways (such as a Programmatic Agreement or Memorandum of Agreement) to mitigate the potential for adverse effects to such other sites from cracking due to subsidence.

This letter serves as our comment at your request, within the consultation process specified in §36CFR800.4. If you have questions, please contact me at (801) 533-3555 or mseddon@utah.gov.

Sincerely,

Matthew T. Seddon, Ph.D., RPA
Deputy State Historic Preservation Officer-Archaeology

cc. Montgomery Archaeological Consultants; P.O. Box 147; 322 East 100 South; Moab UT 84532

Utah SHPO Comments on Patterson (2006)
and comments regarding identification efforts for the
potential subsidence area of Lila Canyon Extension Coal Mine
SHPO Case No.: 05-0305

This document provides detailed comment explaining our reasoning provided in a letter to the Utah Division of Oil, Gas, and Mining (UDOGM) regarding a proposal to conduct a sampling inventory for cultural resources in the potential subsidence area of the Lila Canyon Extension Coal Mine. We greatly appreciate UDOGM's careful consideration of what is a difficult issue, and we appreciate UDOGM's consideration of our comments. These comments are provided in the spirit of helping UDOGM comply with the National Historic Preservation Act (16 U.S.C. 470 with implementing regulations at 36CFR800) and Utah Code 9-8-404. We will discuss the general appropriateness of a sample survey, what we understand to be the overall goals of the sampling, the appropriateness of the proposed sampling strategy as a means of meeting these goals, specific issues with the proposal, and finally a discussion of other potential identification efforts.

The Use of Sample Surveys as Identification Methods under 36CFR800.4(b)(1)

Under 36CFR800.4(b)(1) a federal agency "shall make a reasonable and good faith effort to carry out appropriate identification efforts" to find cultural resources within a project Area of Potential Effects (APE). The regulations further stipulate that these can include "*sample* field investigation, and field survey" (36CFR800.4(b)(1); emphasis added). The regulations do not require that every cultural resource in the APE be identified, nor do they require a particular identification method, such as the Class III inventory popular in the intermountain west (c.f. King 2004:100). Generally the most appropriate identification efforts are considered relative both to the type of proposed action and it's potential effects on cultural resources and the types of resources present.

In our opinion, sampling inventories are not only appropriate under the regulations in general, but are appropriate in this particular instance. Firstly, *all* current cultural resource field inventories are sample inventories, including Class III inventories. Class III inventories will not find all cultural resources in the area, nor are they intended to find all resources. Sampling at other levels of intensity, such as a Class II inventory, are also appropriate means of identifying resources. We believe they are particularly appropriate in this case because (a) the area of potential subsidence is large, (b) the exact location of subsidence effects (if any) is not and cannot be known in advance, and (c) such effects will affect different types of resources in different ways. Therefore, in our opinion, targeted sampling is a valid means of identifying resources under 36CFR800.4(b)(1) in this case.

Goals of the Proposed Sampling Strategy

The appropriateness of any particular sampling strategy must be judged relative to the goals of the strategy (Drennan 1996; Flannery 1976; Orton 2000). As stated in the proposed strategy, the goals are to "locate and identify rockshelters, as well as standing structures such as granaries, prehistoric room blocks, historic cabins, and buildings" (Patterson 2006:1). These resources are

targeted because they are "likely to be adversely affected by ground subsidence" (Patterson 2006:2). Other known resources in the area (c.f. Spangler 2005) are implied to be less likely to be affected by subsidence as "the land moves, more or less, as a unit causing only minor alterations in subsurface contexts" (Patterson 2006:1).

We agree that rockshelters, granaries, prehistoric room blocks, historic cabins, and buildings (hereinafter referred to as "architectural sites"), if present, could be adversely affected by any form of subsidence. We agree that sag-subsidence, described by Wayne Western of UDOGM as "a gentle, gradual setline of the surface" (personal communication, 5/24/2006) is not likely to affect non-architectural sites. We do not agree that other resources known to be in the area, such as prehistoric camps, room blocks, historic cabins, etc. would not be adversely affected by other forms of subsidence. We note that in an email provided to us by Wayne Western of UDOGM, there is some known potential for "large surface cracks" (personal communication, 5/24/2006). Such cracks could potentially adversely impact architectural sites such as cabins and prehistoric room blocks by causing collapse of the structures. Cracking could adversely affect non-architectural sites by disturbing subsurface features (fire pits, storage pits), or altering the spatial relationships between artifacts and/or features on the camps (such spatial relationships are critical to archaeological interpretations of such sites).

Nevertheless, we wish to note that, in our opinion, the types of adverse effects that could occur from possible subsidence cracking are different for architectural and non-architectural sites. In the case of architectural sites, the results have the potential to be irrevocable, as rockshelters collapse and damage/bury sites, as prehistoric walls are altered or destroyed, and as historical cabins are damaged. In the case of non-architectural sites, cracking would adversely affect the site, but the effects are not irrevocable. Archaeological data recovery, for example, could mitigate the adverse effects of cracking.

These differences influence our overall comments. We believe the sampling strategy is a good one to use as a first step towards identifying a large portion of the most sensitive of the architectural sites (rockshelters and granaries). We will discuss this concurrence next. We will discuss possible alternatives within the Section 106 process that UDOGM could consider for addressing the potential adverse effects of cracking on non-architectural sites last.

The Proposed Class II Sampling Strategy

In our opinion, the proposed simple random sample is a valid, and even recommended, first step towards identifying rockshelters and granaries in the project area, and as such we concur with the author in that regard (Patterson 2006). The definition of potential rockshelter/granary areas is carefully and defensibly done. The use of a simple random sample is a well-supported means of gaining an estimation of the number and density of sits within a given sample area (Drennan 1996; Orton 2000; Plog 1976; Plog et al. 1978). The use of small (20 acre) quadrats, is a particularly well-supported technique (Orton 2000: Plog 1976; Plog et al. 1978). Both the proposed sample fraction (34%) and sample size (600 acres in 30 quadrats) are, in our opinion, robust and defensible. We believe that the simple random sample will provide a scientifically valid means of estimating the total number and general location of rockshelter/granary sites in

the project area, help determine if additional identification efforts for rockshelters/granaries are needed, and, if so, help determine how to efficiently conduct such efforts.

We do not believe that the "opportunistic sample," described as examining areas "as they are encountered" (Patterson 2006:4) will allow "for a reasonable approximation of design's (sic) utility in accurately estimating the number and density of rock shelters" (Patterson 2006:5). Although we admit that the literature on statistics is vast, we are not aware of any statistical technique that utilizes non-systematic samples as a means of judging the statistical validity of systematic samples. We are specifically not aware of a technique that utilizes an assessment of normal distributions (Patterson 2006:5) of differentially sampled subsets as a means of assessing sample accuracy. Furthermore, we are not certain that rockshelter density would be normally distributed. If the author can provide references that contradict our understanding as stated here, we will happily consider them. While we do not object to conducting the opportunistic sample, we do not consider it a valid way of evaluating the accuracy or statistical validity of the (excellent) random sample.

However, this observation does not obviate our opinion that the simple random sample is a valid first step towards identifying the potential density and locations of rockshelter/granary sites in the project area. We firmly believe that the simple random sample is sufficiently well designed and robust in size that it will provide good information regarding whether additional rockshelter/granary sites are likely to occur in the area. This information can then be used both to assess whether additional identification efforts for rockshelters/granaries are warranted and, how these efforts can most efficiently be addressed. We do wish to note, as does the author, that additional identification efforts (Patterson 2006:5), may result from the sample inventory. We would suggest that UDOGM consider the number, density, and distribution of any rockshelters/granaries identified in the sample survey (if any), rather than data from the opportunistic survey, in evaluating whether further identification efforts are necessary.

Other Potential Identification Efforts/Mitigation Strategies

As noted above, the sample inventory, as designed, will not identify resources other than rockshelters/granaries, such as historic cabins, prehistoric camps, Fremont Complex architectural sites, that are known to occur in the general region (Spangler 2005), have potential to be present in the project APE, and which could be adversely affected by subsidence cracking. We are open to a variety of identification methods to identify such resources, if considered appropriate by UDOGM. Such identification methods could utilize simple random sampling of the high probability areas identified by Spangler (2005:9-11) as a first step. Indeed, a slight modification of the proposed sampling area to include high probability areas beyond simply areas likely to contain rockshelters might accomplish enable UDOGM to assess the need for further inventory to identify resources other than rockshelters/granaries without a significant amount of additional survey area. We are willing to consider other proposed techniques that would enable an assessment of the full range (not simply rockshelters/granaries) of resources that could be adversely affected by subsidence cracking.

We are also open to addressing potential effects to such resources via other means. Spangler (2005) has identified the resources likely to be present and some of the distribution of these

resources. Because the impacts of cracking on resources such as prehistoric camps could be mitigated through archaeological data recovery, we are amenable to ideas, potentially addressed in a Programmatic Agreement or Memorandum of Agreement, such as monitoring of the project area for cracking, followed by archaeological inspection of cracking areas, evaluation of impacts to archaeological sites (if any), and data recovery to mitigate the impacts (if necessary). We are also open to other ideas to address this difficult issue.

Summary

In summary, we agree that the proposed simple random sample of areas likely to contain rockshelters and granaries will be a valid first step towards completing reasonable and good faith efforts to identify a portion of the cultural resources in the project area that could be adversely affected by subsidence. We do not find the proposed opportunistic sample to be a scientifically defensible way to evaluate the results of the random sample. However, the random sample, in and of itself, should provide adequate data to determine if additional inventory for rockshelters/granaries is needed and help determine (if necessary) how best to conduct such additional evaluation.

Because of the potential for ground cracking to adversely affect other archaeological and historical sites known from overviews to be present in the area, we are open to considering either additional identification efforts to define these resources or alternative ways (such as a Programmatic Agreement or Memorandum of Agreement) to mitigate the potential for adverse effects to such other sites from cracking due to subsidence.

References

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1996 *Statistics for Archaeologists: A Commonsense Approach.* Plenum Press, New York.

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1976 *The Early Mesoamerican Village.* Academic Press, New York.

King, Thomas F.
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2000 *Sampling in Archaeology.* Cambridge University Press, Cambridge.

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2005 A Proposal and Sampling Design for a Class II Inventory of the Area of Potential Subsidence, Lila Canyon Extension, Emery County, Utah. Montgomery Archaeological Consultants, Moab, Utah.

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1976 Relative Efficiencies of Sampling Techniques for Archeological Surveys. In *The Early Mesoamerican Village*; edited by Kent V. Flannery, pp.136-158. Academic Press, New York.

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Spangler, Jerry D.
2006 A Class I Analysis of Previous Archaeological Research, Lila Canyon Area, Emery County, Utah. Colorado Plateau Archaeological Alliance, Ogden, Utah.

southern
utah
wilderness
alliance

VIA FIRST CLASS MAIL

May 25, 2006

Incoming
C/007/0013

Mary Ann Wright
Pamela Grubaugh-Littig
Utah Division of Oil, Gas and Mining
1594 West North Temple
P.O. Box 145801
Salt Lake City, Utah 84114

Re: UEI Proposal and Sampling Design for Class II Inventory
Horse Canyon Mine, Lila Canyon Extension C/007/013

Dear Mary Ann and Pam:

This letter responds to the two electronic mail messages (sent May 17th and May 18th) that I received last week from Pam regarding UEI's "Proposal and Sampling Design for a Class II Inventory of the Area of Potential Subsidence, Lila Canyon Extension, Emery County." In her second e-mail, Pam clarified the Division's request for comment on UEI's proposal for a Class II inventory and confirmed that UEI's decision to immediately proceed with surveying – without comment from SUWA, SHPO, and native American tribes – was at the company's own risk:

> We are seeking comments from consulting parties and we will consider your comments in making a final determination of the scope of the identification effort.
>
> Although UEI's consultant, Montgomery Archaeological Consultants, is commencing work next week, that was a decision of UEI to proceed. The scope of work may change based on additional comments and our consideration.
>
> We are requesting your input pursuant to 36 CFR 800.4(a)(3). Please send us your comments soon.

Electronic mail from Pamela Grubaugh-Littig to Stephen Bloch and others (May 18, 2006) (attached hereto).

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DIV. OF OIL, GAS & MINING

425 East 100 South
Salt Lake City, Utah 84111
Phone: 801-486-3161
Fax: 801-486-4233
Website: www.suwa.org

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SUWA appreciates the opportunity to review UEI's proposal and sampling design and provides the following comments:

1. SUWA disagrees with UEI's consultant's premise that "subsidence has little impact on buried resources," and thus we question the decision by UEI to focus exclusively on what the proposal terms "rock shelters" (a term that UEI defines to include prehistoric rock structures, granaries, cabins, and other standing structures). Unlike the impacts from geophysical exploration projects – which UEI's proposal analogizes subsidence impacts to – subsidence has been shown at other coal mines in Utah to cause deep fissures and cracks several hundred feet long and up to three feet wide. In addition, in other parts of the country, subsidence has resulted in deep "sink holes." DOGM should require UEI's consultant to provide scientific documentation to support the assertion that subsidence "has little impact on buried resources" and allow SUWA, SHPO, and native American tribes an opportunity to review and comment on these sources.

2. SUWA disagrees with UEI's proposed sampling design for several reasons. First, UEI's sampling design presupposes that subsidence will only threaten surface resources, when in fact SUWA believes that subsidence may adversely both surface and subsurface resources. See supra. Second, UEI's proposed sampling design is a stratified sample in that they focus it on areas likely to contain topographic features likely to contain cultural resources (i.e., rock shelters and cliff faces). SUWA agrees that those features, if identified, are likely to contain sites with a high likelihood of eligibility to the National Register. These are most likely not, however, the only locales where such sites will be identified. For example, there could be surface camps, rock art on small boulders, etc. in areas outside those selected within the stratified sample. UEI should conduct surveys in all locations of the project area to test the hypothesis that significant sites will only be located in or around "rock shelters." In other words, UEI needs a control sample if it intends to use a stratified sample.

3. SUWA disagrees that previously inventoried areas within the zone of subsidence (i.e., areas surveyed by Rauch in the 1980s) should be excluded from UEI's proposal. Recent studies by the Colorado State Historic Preservation Office have demonstrated that Class III surveys conducted generally before 1990 did not identify all sites eligible for the National Register. Subsequent resurveys have located approximately 10-20% more sites. Utah BLM has raised similar concerns about the reliability of pre-1990 Class III surveys.

In sum, SUWA has a number of concerns regarding UEI's proposal and sampling design which could have been addressed before UEI's contactor began work, had UEI decided to share this proposal with the Division and the other necessary parties (SUWA, SHPO, native American tribes). As DOGM has plainly stated, UEI's decision to proceed – without first receiving input from these parties was a calculated business risk and does not relieve the Division or UEI of their obligations under the National Historic Preservation Act. Even if UEI addresses the concerns raised above by SUWA, a Class II survey (along with the Class I report prepared by SUWA's contractor) is only the first step to complying with Section 106. As SUWA has explained in

earlier correspondence with DOGM – to fully comply with Section 106, DOGM must require UEI to conduct a comprehensive Class III inventory of the undertaking's area of potential effect (i.e., at a minimum the zone of subsidence).

Per 36 C.F.R. §§ 800.5 and 800.6, SUWA looks forward to reviewing DOGM's findings regarding the effects of the proposed undertaking on historic properties. Feel free to contact me with any questions regarding the above: 486-3161 x. 3981.

Sincerely,

Stephen Bloch
Staff Attorney

cc: Advisory Council on Historic Preservation
State Historic Preservation Office
Hopi Cultural Preservation Office

To: <Blaine_Miller@blm.gov>,"james kohler" <James_Kohler@blm.gov>,
"steve rigby" <SWRigby@blm.gov>, <rsacco@co.carbon.ut.us>,
<gary@co.emery.ut.us>, <commissioner@em.co.ut.us>,
<bwilson@etv.net>, <FKirby@osmre.gov>, <steve@suwa.org>,
Cc: <jmarhsall@coalsource.com>,<ddragoo@swlaw.com>,
"Jerriann Ernstsen" <JERRIANNERNSTSEN@utah.gov>,
"Mary Ann Wright" <MARYANNWRIGHT@utah.gov>,
"Wayne Hedberg" <WAYNEHEDBERG@utah.gov>
Subject: Re: Clarification: Class II Inventory - UtahAmerican Energy, Inc, Lila Canyon Extension, C/007/0013

Clarification Regarding Request for Comments:

We are seeking comments from consulting parties and we will consider your comments in making a final determination of the scope of the identification effort.

Although UEI's consultant, Montgomery Archaeological Consultants, is commencing work next week, that was a decision of UEI to proceed. The scope of work may change based on additional comments and our consideration.

We are requesting your input pursuant to 36 CFR 800.4(a)(3). Please send us your comments soon.

Thank you.

Pam

>>> Pam Grubaugh-Littig 5/17/2006 4:19 PM >>>
Attached is the UEI proposal and sampling design for a Class II inventory of potential subsidence for the Lila Canyon Extension of the Horse Canyon Mine.

You are being notified for your comments and/or suggestions as a consulting party. Montgomery Archaeological Consultants will begin work next week which will extend for about two weeks.

Please notify me and Wayne Hedberg (waynehedberg@utah.gov) by next week if you have any questions and comments.

Thank you.

Pam

THE HOPI TRIBE

Ivan L. Sidney
CHAIRMAN

Todd Honyaoma, Sr.
VICE CHAIRMAN

May 30, 2006

Mary Ann Wright, Associate Director, Mining
Attention: Pamela Grubaugh-Littig
State of Utah, Department of Natural Resources, Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210, P.O. Box 145801
Salt Lake City, Utah 84114-5801

Incoming
C/007/0013

Dear Ms. Wright,

Thank you for the May 19, 2006 correspondence on behalf of the federal Office of Surface Mining, with an enclosed Class II cultural resources survey proposal, regarding the Lila Canyon Extension of the Horse Canyon Mine. As you know from our February 13 and March 27, 2006, letters and your subsequent telephone consultations on this project with our office, the Hopi Tribe claims cultural affiliation to prehistoric cultural groups in Utah, and therefore we appreciate your continuing solicitation of our input and your efforts to address our concerns.

As you also know from our previous letters and consultations on this project, the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties. In our previous letters we stated that we understood that 42 acres of the 4,660 acre project area has been surveyed for cultural resources, and three prehistoric sites have been identified.

In our March 27th letter, we stated that we consider sites 42EM2255, 42EM2256, and 42EM2517 to be Traditional Cultural Properties. We further stated that your March 7, 2006, correspondence describing a "phased identification and evaluation" did not satisfy the federal Office of Surface Mining's obligations pursuant to the National Historic Preservation Act to identify cultural resources that may be eligible for listing on the National Register of Historic Places, so that a determination of effect for the project, and proposed mitigation of adverse effects, can be appropriately made and addressed.

We have now reviewed *A Proposal and Sampling Design for a Class II Inventory of the Area of Potential Subsidence, Lila Canyon Extension, Emery County, Utah*, by Montgomery Archaeological Consultants. We have also reviewed the Southern Utah Wilderness Alliance letter dated May 25, 2006, regarding the proposed sampling design.

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DIV. OF OIL, GAS & MINING

We find the Southern Utah Wilderness Alliance comments compelling. We are aware of prehistoric sites in Utah and New Mexico that have been impacted or destroyed by subsidence. Therefore, we agree that the project proponent should be required to provide documentation to support the assertion that subsidence "has little impact on buried resources" and allow the State Historic Preservation Office, the Hopi Tribe, and other interested parties the opportunity to review and comment on those sources. We also agree that areas previously surveyed in the 1980s should not be excluded from the proposed sampling design, and appreciate that the proponent's decision to proceed with the proposed sampling design does not relieve the State Division or the federal Office of Surface Mining of their obligations under the National Historic Preservation Act.

The Hopi Cultural Preservation Office defers to, and will concur with, the State Historic Preservation Office determination whether a Class II or Class III cultural resources survey is appropriate for this undertaking. Please provide us with a copy of the survey report approved by the State Historic Preservation Office for this undertaking, and any subsequent testing or data recovery plans for review and comment.

Should you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Morgart for

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: Utah State Historic Preservation Office
Stephen Bloch, Southern Utah Wilderness Alliance

May 30, 2006

From: "Foster Kirby" <FKirby@osmre.gov>
To: "Jerriann Ernstsen" <jerriannernstsen@utah.gov>
Date: 5/22/2006 9:38:03 AM
Subject: RE: Lila Plan

Jerriann, Pam and Wayne:

The Montgomery Plan presents a well reasoned approach to providing additional survey coverage for the Lila Canyon Mine. Though rock shelter identification is the trust of the survey design other resources that are located will be recorded and factored into the survey evaluation. Based on the results of this survey coupled with the previous work in the area the need for additional survey and/or mitigation can be addressed. I look foreword to reviewing the results.

Foster

-----Original Message-----
From: Jerriann Ernstsen [mailto:jerriannernstsen@utah.gov]
Sent: Thursday, May 18, 2006 12:24 PM
To: Foster Kirby
Cc: Pam Grubaugh-Littig; Wayne Hedberg
Subject: Lila Plan

Hi Foster,
Have any comments on the Lila Arch plan that you would like me to pass along?

The crew plans to start on Monday and it sounds like they may be out there for 2-3 weeks. During this time we will be reviewing and consulting with the parties (OSM, SHPO, Counties, SUWA, BLM, and 8 Tribes - Hopi, Navajo, and Bands of the Goshute and Paiute). We let UEI know that until we are completed with our consultation effort for this plan, that we have not formally accepted the plan. We agreed that we will work in parallel to reach each of our goals.

The contractor decided not to survey the remainder of the 2 channels that you pointed out. He stated that the area was unlikely to have shelters and that they are the main concern for impacts from subsidence. If you want us to persuade them otherwise, let me know.

The contractor will have an expert in the area of TCPs contact the tribes. Sounds like there is some kind of mutual trust between the tribes and Dr. Fritz.

If you have any comments, please email Pam, Wayne Hedberg (waynehedberg@utah.gov), and me. Pam will be mostly out for the month of June and I will be out for the next week.

Cheers,

Jerriann Ernstsen, Ph.D.
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