Alan L. Schneider, OSB No. 68147 1437 SW Columbia Street, Suite 200 Portland, OR 97201

Telephone: (503) 274-8444 Facsimile: (503) 274-8445

George L. Kirklin, OSB No. 62046
Paula A. Barran, OSB No. 80397
LANE POWELL SPEARS LUBERSKY LLP
520 SW Yamhill Street, Suite 800
Portland, OR 97204

Telephone: (503) 226-6151 Facsimile: (503) 224-0388

Attorneys for Plaintiff

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

| ROBSON BONNICHSEN, C. LORING BRACE,) GEORGE W. GILL, C. VANCE HAYNES JR., RICHARD L. JANTZ, DOUGLAS W. OWSLEY, DENNIS J. STANFORD and D. GENTRY STEELE, | |
|--|-----------------------|
| Plaintiffs, |) } |
| v. |)) |
| UNITED STATES OF AMERICA, DEPARTMENT OF THE ARMY, U.S. ARMY CORPS OF ENGINEERS, ERNEST J. HARRELL, DONALD R. CURTIS and LEE TURNER, | ,)))) |
| Defendants. | , |
| STATE OF Machine ton) County of Benton) | - |

I, James Chatters, being first duly sworn, do depose and state as rollows:

- 1. As agent for the Benton County Coroner, State of Washington, I took physical possession of the Kennewick Man skeleton (or portions thereof) from July 28, 1996, through August 30, 1996. The purpose of such possession was to assist the Coroner in his forensic investigation to determine, if possible, the cause of death and the identity of the individual. When our investigation commenced, we were not aware that we were dealing with an important archaeological discovery. That fact did not become known until the geologic age of the skeleton was established through radiocarbon dating.
- 2. During the short period of time that I had possession of the skeleton, I was able to take only limited measures to stabilize and preserve it. These measures consisted principally of the following:
- A. Each of the bones was carefully dried to remove as much excess moisture as possible. The final stage in this process involved slow drying of each bone in a partially closed bag to reduce risks of cracking and warping.
- B. To the extent possible, bones were cleaned of most sediments and concretions by gentle brushing and careful use of a dental pick. Only those surfaces needed for inspection or measurement were thoroughly cleaned (where possible).
- C. During the drying process, tiny cracks began to form in the brain case and in one tooth. To halt the progression of these cracks, all skull parts were treated with a dilute solution of water soluble polymer. In addition, the skull was bound with broad rubber bands to prevent further cracking while the polymer dried.
- 3. My treatment and examination of the skeleton was not completed when I was ordered to turn it over to the Benton County Sheriff for later transfer to the custody of the

PAGE 2 AFFIDAVIT OF JAMES CHATTERS

Army Corps of Engineers. I was given only two hours advance notice of the turn-over, and as a result I was not able to adequately prepare the skeleton for storage.

- 4. All of the bones of the Kennewick Man skeleton were placed in ziploc plastic bags. The bones of each hand and foot were placed in a single bag (one for each hand or foot), as were the fragments of the left and right ribs. To the best of my recollection, each of the other skeletal elements was placed in a separate bag to keep these bones from rubbing together. Since there was insufficient time to wrap the bones individually or to obtain padding to insert in or around the bags, air was left in the bags to provide some cushioning between the bones. This was a temporary expedient and should not be continued on a long-term basis as it can contribute to the growth of mold and bacteria. I did not have time to label the bags or the individual bones.
 - 5. After they were bagged, all of the Kennewick Man bones were put in a single box. To reduce risks of crushing, the heavier bones were arranged in the bottom of the box with the lighter or more delicate bones on the top.
 - 6. The above measures are not adequate for long-term preservation of a skeleton of this importance. Among other things, the following steps should be taken (at a minimum):
 - (a) All of the bones should be inspected to see if more drying is needed.
 - (b) Those bones that are in a weakened condition should be stabilized to prevent further deterioration.
 - (c) The bones should be surrounded with archival protective padding or repacked in rigid cushioned containers.
 - (d) The skeleton should be stored in an air-tight, moisture proof container.
 - (e) The bones and/or their containers should be properly labeled.

PAGE 3 AFFIDAVIT OF JAMES CHATTERS

- (f) Organic materials (such as plants) and other foreign substances should not be added to the storage container, with the exception (if needed) of desiccants and other suitable preservative agents.
- 7. All of the above matters could have been ascertained by the Army Corps of Engineers through examination of the skeleton and my investigation notes. Copies of my notes were provided to the Corps in mid-September, 1996.

DATED this 22 day of September 1997.

Lames Chatters, Ph.D.

SUBSCRIBED and SWORN to before me this 22 day of September 1997.

NOTARY PUBLIC FOR RUMAN My Commission Expires: 6/09

```
Alan L. Schneider, OSB No. 68147
  1437 SW Columbia Street, Suite 200
  Portland, OR 97201
   Telephone (503) 274-8444
2
  Facsimile: (503) 274-8445
3 1
  George L Kirklin, OSB No. 62046
   Paula A. Barran, OSB No. 80397
   LANE POWELL SPEARS LUBERSKY LLP
   520 SW Yamhill Street, Suite 800
6 Fortland, OR 97204
   Telephone: (503) 226-6151
   Facsimile (503) 224-0388
7
8
   Attorneys for Plaintiff
9
                       IN THE UNITED STATES DISTRICT COURT
10
                            FOR THE DISTRICT OF OREGON
11
12
    ROBSON BONNICHSEN, C. LORING BRACE, )
    GEORGE W. GILL, C. VANCE HAYNES JR.,
    RICHARD L JANTZ, DOUGLAS W. OWSLEY, ) USDC CV No. 96-1481 JE
13
    DENNIS J. STANFORD and D. GENTRY
                                                AFFIDAVIT OF CAROLYN LECKIE
    STEELE,
 15
                             Plaintiffs,
 16
           ₹.
 17
     UNITED STATES OF AMERICA,
 18
     DEPARTMENT OF THE ARMY,
     U.S. ARMY CORPS OF ENGINEERS,
 18
     ERNEST J. HARRELL, DONALD R. CURTIS
     and LEE TURNER
 20
                              Defendants.
 21
 22
      STATE OF COLORADO
  23
                              )88.
      County of __
  24
            I, Carolyn Leckie, being first duly sworn, do depose and state as follows:
  25
  26
```

TAGE 1 - ASSEDAVIT OF CAROLYN LECKIE

ALAN L. SCHNEIDER 1457 SW Columbia, #200 Portland, Oregon 97201 (503) 274-8444

P.02

25

26

 I am the head of the Conservation Department, Denver Museum of Natural History, Denver, Colorado.

My professional qualifications are as follows: I hold a Masters degree in Art 2 Conservation (artifacts) which I received in 1989 from Queen's University, Kingston, Ontario, and a Bachelor's degree in Science (honors) which I received in 1986 from the University of Waterloo, Waterloo, Ontario. Following my graduation from Queen's University, I received two years of further advanced conservation training as an Ethnology Fellow with the Canadian Conservation Institute which is a world leader in preventative conservation. That training program was followed by a year of contract work assessing the preservation needs of natural science collections across the country. I have co-authored four published papers on conservation subjects, and have received over a half dozen grants for conservation projects. As head of the Denver Museum's Conservation Department, I am responsible for the preservation of all museum collections, including artifacts, human remains, nonhuman remains and archival documents. The Denver Museum holds collections of both human and nonhuman skeletal remains. Among other things, the Museum is currently conserving the partial skeletal remains of an individual who is believed to have lived more than 9,000 years ago. The design and implementation of the preservation measures being used for those partial remains is one of my duties for the museum.

- 3. Preservation of human and other skeletal remains is a matter of identifying and responding to the agents of deterioration that can result in damage or loss of value (both scientific and cultural) to the remains. To effectively preserve skeletal remains, the party responsible for their care must assess and implement appropriate strategies to deal with the following factors:
 - (a) the purpose for which the skeleton is being preserved (i.e., the scientific and/or cultural values to be protected);

PAGE 2 - AFFIDAVIT OF CAROLYN LECKIE

ALAN L SCHNEDER 1437 SW Columbia, \$200 Portland, Oregon \$7201 (503) 274-8444

- (b) its present condition and susceptibility to further deterioration;
- (c) the nature of the facility or building where it will be stored:
- (d) the hardware (i.e., cabinets, containers, etc.) in which it will be stored;
- (e) the policies and procedures for its curation.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

28

The following discussion is based upon considerations relevant to skeletal remains that have been recovered from a long-term buried (i.e., below ground) environment that was wet but believed to be free of salts. Different considerations may apply to remains recovered from other environments.

L Purpose For Preservation

4. The purpose for which the remains are being preserved will play an important role in determining what preservation measures should be employed. See Chart 1 attached. If the purpose is to preserve the remains for possible future scientific study, the most advisable approach is usually a conservative one that involves as little alteration as possible to the composition and structure of the remains. Such a conservative approach maximizes the preservation of potential scientific information and avoids potential contamination of the remains by minimizing any measures that might render the remains unsuitable for future studies and tests (including ones that have yet to be developed). This goal is best achieved through "preventive conservation". Such an approach is also generally compatible with any special cultural or spiritual values of the remains.

IL Condition of the Remains

5. The potential for deterioration and damage is always present when skeletal remains are recovered from a long-term buried environment. Skeletal remains survive over time in a buried environment only because they have become stabilized by, and are now in equilibrium with, a particular preservation environment (i.e., the sediments, moisture content,

PAGE 3 - AFFIDAVIT OF CAROLYN LECKIE

ALAN L SCHNEDER 1437 SW Columbia, \$200 Portland, Oregon . \$7207 (503) 274-8444

pH level, oxygen level, etc. prevailing in that specific depositional context). When the skeleton is removed (uncovered) from its original preservation environment, it is susceptible to deterioration by various mechanical, chemical and biological processes that can affect the composition and structural integrity of the skeleton and its cellular (and subcellular) components. If left unchecked, these processes can lead to a loss of scientific values and in some cases to eventual destruction of the skeleton itself. Therefore, the specimen must be brought into a stable equilibrium with the new ambient environment.

- 6. When a party assumes responsibility for preservation of skeletal remains, the first step that should be taken is to assess and document the baseline condition of the skeleton and to determine whether any immediate stabilization or other preservation measures are needed. This will normally require a thorough examination of the skeleton. A written record should be made of the examination findings and any emergency preservation measures taken (e.g., dealing with moldy or damaged bones, etc.). Any adverse conditions (such as bone cracks, surface delaminations, etc.) that are observed should be carefully documented Gocation, type of damage, dimensions, etc.) with detailed drawings and/or photographs to provide a baseline for future monitoring.
 - ascertain the circumstances of the skeleton's recovery and what interim measures, if any, were taken to stabilize or protect the skeleton. This is particularly critical in the case of skeletal remains recovered from a wet environment. Among other things, the conservator must seek to determine the original physical condition of the bones when recovered, what procedures were followed to dry the bones, and whether they were treated with any preservatives or stabilizing compounds. In addition, it is important in such cases to determine whether the buried environment contained any salts which can contribute to serious physical deterioration

PAGE 4 - AFFIDAVIT OF CAROLYN LECKIE

DOI 01874

ALAN L SCHNEIDER 1437 SW Columbia, \$200 Portland, Oregon 97201 (503) 274-8444 of the bones if not properly treated. Any information on these matters should be included as part of the examination records.

III Building

- The facility or building where the skeletal remains are being stored should be 8. assessed in terms of how well it will protect the skeleton from both catastropic and cumulative agents of deterioration. Catastropic agents are those events (such as fire, water, theft, vandalism and gross physical forces) which occur infrequently but can cause tremendous damage in a single occurrence. Cumulative agents are events (such as vibration, abrasion, inadequate support, other minor physical forces, pests, lights, contaminants, extremes or fluctuations in temperature or relative humidity) which occur at slower rates but can still result in significant damage if allowed to continue over an extended period of time. See Chart 2 for an outline of the different agents and the types of deterioration they can produce. Many catastropic and cumulative agents can be caused by a variety of factors. For example, damage from physical forces can be caused by improper handling, vibrations, abrasions and inadequate support for bones during storage. Similarly, skeletal remains can be contaminated as a result of oily residues from handling, pollutants, off-gassing of chemicals from storage materials, smoke from fires, and contaminants from floods or sewer backup. Precautions should be taken against all agents common to the area where the remains are being stored.
 - 9. The facility or building should provide the first line of defense against both catastropic and cumulative sources of deterioration or damage. Among other things, the building should feature systems that will:
 - inhibit the outbreak of fire and contain fire if it should occur
 - suppress fire while minimizing potential damage due to water or harmful chemicals

PAGE 5 - AFFIDAVIT OF CAROLYN LECKIE

ALAN L SCHNEDER 1437 SW Columbia, #200 Portland, Oregon 97201 (503) 274-8444 DOI 01875

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

9

12 13

14

16 17

18

19

20

21

22 23

24

25

26

PAGE 6 - AFFIDAVIT OF CAROLYN LECKIE

ALAN L. SCHNEIDER 1437 SW Columbia, \$200 Portiend, Oregon \$7201 (503) 274-8444

protect against water damage in the event of floods, rain water leakage, etc.

 prevent temperature and relative humidity extremes or fluctuations in storage and examination areas

filter out airborne contaminants (e.g., dust, dirt, vehicle exhausts)

• prevent intruders and the unauthorized removal of collection materials

See Chart 3 for other examples.

agents of deterioration (e.g., fire, water, intruders, etc.), the level of protection may not be sufficiently high for irreplaceable specimens. Additionally, many modern buildings may not be designed to provide suitable levels of protection against cumulative agents of deterioration (e.g., temperature and RH levels, etc.). As a result, it cannot be assumed that a building, however modern, will automatically provide suitable protection for all different types of archaeological collections. Therefore, the party responsible for the preservation of human skeletal remains should conduct a risk assessment of how well the building will protect against the types of hazards to which skeletal remains are susceptible. Any deficiencies should be noted and strategies developed to counter those deficiencies through improvements to the building or alternatively through storage hardware and/or the policies and procedures to be employed.

IV. Storage Hardware

Although the building is the first line of defense, it cannot protect against all sources of deterioration or damage. Moreover, as noted above, buildings vary in the quality of the protection they provide against different harmful agents. These potential deficiencies in protection can be offset through careful selection of the hardware used to hold

DOI 01876

97%

1

2

5

7 8

9 10

11 12

14

13

15 16

17

18

19

20 21

22

23

24

25

26

12. The hardware selected for any given situation should be consistent with the hazards to be countered, the composition or nature of the archaeological collection involved, and the scientific or other values to be promoted through preservation. In the case of human skeletal remains where optimal protection is the goal, the hardware package or system should include the following elements:

A. The storage furniture should consist of a tightly sealed vault or metal cabinet with stable and non-emissive gaskets and paints (e.g. powder coated). It should also have metal drawers that use non-emissive paints and that have stops to prevent the drawers from being accidentally pulled onto the floor. The vault or cabinet should be fire proof and impervious to water.

B. Within the vault or cabinet, the skeletal remains should be held in a container that is strong, with rigid walls to provide adequate physical protection. To permit the creation of a stable relative humidity or "RH" (which is often different from the outside or "ambient" RH), the container should be relatively impermeable to moisture (e.g., made of archival plastic) and well sealed to reduce the number of air exchanges.

The goal of physical protection and stable humidity can usually be best achieved by using a "box within a box" system. This system involves the use of smaller internal boxes or subcontainers to hold different portions of the skeleton. These inner containers should meet the same criteria of physical protection and RH stabilization as the outer container. The inner containers must be isolated with packing material to prevent movement or shifting and it is especially important that they not expose the specimen to possible contamination through off-gassing of non-archival materials. In most cases, this can

PAGE 7 - AFFIDAVIT OF CAROLYN LECKIE

ALAN L. SCHNEIDER 1437 SW Colombia, #200 Portland, Oregon 97201 (503) 274-8444 DOI 01877

P.08

PAGE 8 - AFFIDAVIT OF CAROLYN LECKIE

be achieved through use of archival plastic or rigid paper materials having a neutral pH. By grouping the bones in subcontainers or trays in a logical arrangement, unnecessary handling can be reduced whenever access to the skeleton is needed for examination or monitoring purposes.

- D. Particularly delicate or significant bones (e.g., the cranium, mandible, pelvis, etc.) should be protected from physical damage by placing them in custom fitted storage mounts so they will be handled indirectly; immobilized; fully supported; and separated from contact with other bones or container walls. Such storage mounts can be carved from archival foam blocks (polypropylene or polyethylene). They should be padded with polyester batting and covered with cotton muslin sheeting before they are placed in their individual storage containers. The entire custom mount (which is usually in the shape of a block) should fit snugly inside a lidded archival box so nothing can be placed directly on top of the bone.
- E Packets of silica gel (conditioned between 45-65% RH) should be placed in the holding containers to create a suitable RH level within the container. These packets will establish a suitable set point and will also help to buffer large RH fluctuations if the building does not provide a stable ambient environment. The silica get should be in a form (e.g. in a bag or other type of breathable container) that will prevent any silica dust from contaminating the specimens
- F. To prevent deterioration or contamination, all materials used in storage of the skeleton should be of archival quality (i.e., they should be non-reactive, neutral pH, and non-emissive of gases or other substances). In addition, any material in contact with the specimen should be non-abrasive, and should not leave residues or create risks of snagging.
- 13. Scientifically or culturally important skeletal remains should not be stored in conventional cardboard boxes or on open shelves. Open storage in cardboard boxes provides

5

8

9

7

10 11

12

13

14

15 16

17

18

19

20 21

ZZ

23

24

25 25

PAGE 9 - AFRIDAVIT OF CAROLYN LECKIE

ALAN L. SCHNEIDER 1457 SW Columbia, #200 Portland, Oregon #7201 (503) 274-8444

fluctuating RH. In addition, over long periods of time cardboard boxes can damage the organic portions of the bone or associated residues through the release of acids and other harmful breakdown products. It is also not advisable to place large numbers of bones in a single container without sub-dividing them into smaller groups that are cushioned and supported to prevent physical damage such as breaks, cracks and abrasions.

14. As noted above, the choice of storage hardware is especially important if the

14. As noted above, the choice of storage hardware is especially important it the building being used does not provide an optimal protective environment. Extra care in the choice of hardware should also be taken to facilitate safe handling and transportation in those situations where the skeletal remains are subject to frequent on-site examination or analysis or where they may be subject to future transport to another facility.

V. Policies and Procedures

- 15. A party entrusted with the responsibility of caring for scientifically or culturally important human skeletal remains must also develop and implement suitable curatorial policies and procedures to reduce the risk of damage and deterioration. If appropriate policies and procedures are not developed or if they are not followed on a consistent basis, preservation of the skeleton and its associated values can be seriously jeopardized.
- 16. Examples of policies and procedures that should be employed for important skeletal remains include the following:
- A. Access to the skeletal remains should be controlled to prevent theft (both complete or partial), vandalism, contamination (whether accidental or intentional) or damage by unauthorized parties. Among other things, the storage vault or cabinet should be locked and passes should be required for all persons seeking access to the remains. A written log should be maintained of all persons who are given access.

25

26

B. Access to the remains should be supervised at all times to ensure that the safety and integrity of the collection are not jeopardized by improper handling or unauthorized acts.

C. Strict inventory controls should be instituted to ensure that the skeleton is kept intact to prevent loss of any parts and to keep a correct association with the excavation documentation.

- D. The remains should always be transported in their storage containers and on a cart to prevent damage from dropping, accidental impacts, and the like. In addition, examinations should be conducted over a padded, snag-free surface to reduce risks of accidental damage. Persons handling the remains should wear archival plastic gloves (unpowdered) to reduce risks of contamination.
- E. The condition of the remains should be monitored and compared to their initial documented condition on a regular basis to determine the adequacy and effectiveness of the preservation measures being employed. The results of each inspection should be recorded for future reference if needed.
- F. RH levels both within and outside the container should be monitored so appropriate precautions can be taken to deal with fluctuations. Differences between inside and outside RH levels should be allowed to equalize before examinations or inspections are conducted. If the difference is extreme (+/- 10%), the remains should not be removed from the container. The same is true if the ambient RH is less than 40%.
- 17. Precautions should also be taken against loss of vital information relating to the remains being preserved. This problem must be addressed on several levels. One level involves the need to ensure continued accurate identification of the skeleton and all of its constituent parts. This can be accomplished by labeling all containers, and if necessary each of the individual bones. Labeling helps to confirm that all of the parts were collected from

PAGE 10 - AFFIDAVIT OF CAROLYN LECKIE

1 were excavated. These relationships are critical to understanding the scientific or cultural 2 significance of the skeleton. Another level involves the need to preserve documentation (such 3 as excavation notes, drawings, photographs, etc.) relating to the excavation and removal of the 4 skeleton from its original site. Such documentation provides the only record or proof of the 5 original contextual information concerning the skeleton. Copies of all critical documents 6 should be preserved in archival enclosures and stored in the same facility as the skeleton. 7 VI Other Comments 8 As noted above in Paragraph 3, the Denver Museum is currently acting as the 15. 9 conservator for a partial Paleoamerican skeleton dated to more than 9000 years before present. 10 To preserve these partial remains, we are using the measures outlined in this affidavit, 11 including those described in Paragraphs 12, 16 and 17. In my professional opinion, such 12 measures provide an appropriate model for other important ancient skeletal remains, such as 13 14 the Kennewick Man skeleton. 15 DATED this & day of Sententies. 1997. 16 Carolyn Letkie 17 18 SUBSCRIBED and SWORN to before me this 30 day of September 19 20 27 22 My Commission Expires 31 March 1994 23 24 c\richland man \affidav\leckics aff 25 26

one site, and it confirms their original relationship to each other and to the site where they

PAGE 11 - AFFIDAVIT OF CAROLYN LECKIE

ALAN L. SCHNEDER 1437 SW Columbia, \$200 Portland, Oragon 97201 (503) 274-8444

CHART I. POTENTIAL SCIENTIFIC INFORMATION

| SKELETAL COMPONENTS | POTENTIAL SCIENTIFIC |
|-----------------------------------|----------------------------------|
| · · | INFORMATION |
| MACROSCOPIC | |
| Bones | morphology & nucrics |
| Bonca | e.g. physical size & proportions |
| | pathological anomalies |
| • | cultural modification |
| Tech | morphology & metrics |
| 1660 | |
| A GENOSCOPIC | |
| MICROSCOPIC | pathological anomalies |
| Bottes - structure surface detail | |
| * | |
| internal bone structure | |
| Books -organic components | protein pathology |
| protein | genetic analysis |
| DNA | British are |
| anipodies | |
| Tech - structure | विव्यापु कामेपुरांड |
| wear barrenz | cultural modification |
| | STUDEN TO STUDENTS |
| Tech - organic | |
| proteins | protein pathology |
| Residues in Teeth | F |
| plaque - phytoliths | dietary analysis |
| | <u> </u> |
| CURATORIAL INFO | |
| Documentation | aise madaging |
| व्यादकाच्ये जिल्लाकांट्य | preservation mechanism |
| and associations | mornery precioes |
| | demographic profile |

Leckie Affidavit

| Ŏ |
|-----|
| 91 |
| 018 |
| 83 |

| AGENTS OF DETERIORATION | COMMON CAUSES OF DAMAGE | SPECIFIC TYPES OF DAMAC | | Teath Structure | Teeth - Residues |
|----------------------------|---|---|--|--|--|
| DETERIORS | D/NO (OZ | Bone Structure macroscopic microscopic | Bone Chemistry | macroscopic microscopic | -loss of loosely attached |
| PHYSICAL | -poor handling -inadequate comparementalization or cushioning | -breakage -wear of surface dotails, broken edges | | -breakage -teeth falling out -wear to microscopic surface detail | residues e.g. pollen, seeds |
| SECURITY theft | -poor security -inadequate inventory control | -loss of all or part | | -toss of all or part | -loss of all or part |
| vendalism | -poor supervision during access | -breakage, scarring, staining | -contamination | | -possible contembation |
| FIRE | -inadequate fire prevention and containment system | -complete/partial loas -charring | | -complete/partial loss -cherring -water damage | -complete/partial toss |
| | -damage caused in fire extinguishing e.g.water, chemicals | .water damage (see below) | -contamination from smoke or fire extinguishers | | - contamination from smoke of fire extinguishers |
| WATER | -roof leaks -plumbing leaks -floods | -warping/cracking if not dried out in a controlled fashion | if not dried out in a | -cracking if not dried out in a controlled fashion | -degradation if not dried out in a controlled fashion |
| R | -prolonged exposure to lights | | controlled fashion N/S | N | I/ N/S |
| visible ultraviolet | -prolonged exposure to incandescent lights | -desiccation /differential heating may cause cracking | • | -desiccation/differential heating may cause cracking | |

| | | | | | 1 | |
|----------------------------------|---|--|---|-------------------------------------|--------------------------------|-------------------|
| ESTS insecta mold | | N/S | -mold growth/ contamination | | -mold growth/ contamination | |
| CONTAMINANTS | -using bare hands or powdered gloves for handling | | -residues: oils, lint posvder | | | |
| | -storage in non-archival materials e.g. acidic paper, unstable plastics | | -acids or atkalis could after organic components -contamination from off- gassing unstable plastics | na de cario mai | -potential contaminants | |
| | -introduced materials c.g. plants, food stuffs | (possible change in RH - see below) | -potential contaminants | (possible change in RH - see below) | e.g. seeds, pollen | $\left\{ \right.$ |
| RELATIVE HUMIDITY extremes | RH>70%, 3 days | - possible cracking | -mold/contamination | -cracking of teeth | | |
| fluctuations TEMP extremes | fluctuating RH not significant except for impact on RH | - further cracking | | | | |

Leckie Affidavit

| Agent of Deterioration | PRESERVATION STI | Duilding | Herdware | Procedures numinize handling by logical |
|------------------------|--|---|--|--|
| Physical Damage | bones are always fully supported bones do not abrade against other bones or packing materials minimize handling a relatively stable set point | Average regional RII is As 6584 | cabineta/shelves containers compartmentalize cushion alter anshiem RM to a more acceptable level within the storage | ensure object can not be accidentall dropped transport objects on a cart handle objects over a padded surface monitor the ambient environment and do not remove the object from |
| Hurnidky (RH) | somewhere between 45-65%RH (gradual seasonal drifts are acceptable) | consistently between 45-65%, or alter ambient RH to a more acceptable level centralized HVAC, or locatized humidiflor/dehumidiflor | container buffering materials o.g. saics get | the container if the ambient RH is below 40% (teeth cracking) or above 70% (risk of mold) monitor the ambient environment |
| Fluctuating RH | fluctuations loss than +10%? | well insulated building interior room or wall suitable HVAC | reduce number of air exchanges closed cabinets closed containers (guard against condensation) buffering materials absorbent cellulosics | and if it is more than 10% different than the RH in the container npen the container such that the difference in RH has time to slowly equilibrate |
| | | | e.g. paper, fabric pocific buffering materials e.g. silica gel | avoid prolonged use of "hot" examination or photography lights which can cause localize drying ou of the bone |
| Contaminants | 4 do not contaminant objects | clean air supply air intakes avoid obvious pollutants e.g. roadways HVAC filtered air <1 micro filtration | all material in association with the object should be archival (neutral pH), non-reactive, non-emissive do not leave residues e.g. cotton batting could stag, PVC film could leave plasticizers non-abresive | handle with archival plastic gloves (unpowdered) do not add any materials that coul be contaminate research information.g. plants, amoke |

Note: wherever possible use archival storage materials that are "natural" since they are generally preferable to tribal representatives e.g. used paper or fabric instead of plantics.

Tookie 1561 doubte.

ALAN L. SCHNEIDER

1437 S. W. Colombia St., Stite 200 PORTLAND, OREGON 97201 Telephone (503) 274-8444 (Faccinile) (503) 274-8445 1445 Willemetta, Suite 9
P. O. BOX 10552
ELEME OREITN 97440
(541) 434-5413

October 1, 1997

Ms. Robin N. Michael U.S. Department of Justice General Litigation Section Envir. & Natural Resources FAX No.: (202) 305-0429

Re: Bonnichsen et.al. v. U.S. Quarterly Status Report

Dear Ms. Michael:

Enclosed is a copy of plaintiffs' Status Report (with attachments) that is being filed today with the Court. A copy will also be mailed to you by Lane Powell Spears Lubersky.

Olson L. Schweider

Alan L. Schneider

ALS/dmc Enclosure

cc:

P. Barran

D. Rubanoff

c:\richland.man\letters\michael2.ltr

DRAFT Alan L. Schneider, OSB No. 68147 1437 SW Columbia Street, Suite 200 Portland, Oregon 97201 Telephone: (503) 274-8444 Facsimile: (503) 274-8445 3 Paula A. Barran, OSB No. 80397 LANE POWELL SPEARS LUBERSKY LLP 520 SW Yambill Street, Suite 800 5 Portland, Oregon 97204-1383 Telephone: (503) 226-6151 6 Facsimile: (503) 224-0388 7 Attorneys for Plaintiffs 8 IN THE UNITED STATES DISTRICT COURT 9 FOR THE DISTRICT OF OREGON 10 CV No. 96-1481 JE ROBSON BONNICHSEN, C. LORING 11 BRACE, GEORGE W. GILL, C. VANCE HAYNES, JR. RICHARD L. JANTZ, PLAINTIFFS' STATUS REPORT FOR 12 DOUGLAS W. OWSLEY, DENNIS J. OCTOBER 1, 1997 STANFORD and D. GENTRY STEELE, 13 Plaintiffs, 14 Y. 15 UNITED STATES OF AMERICA, 16 DEPARTMENT OF THE ARMY, U.S. ARMY CORPS OF ENGINEERS, 17 ERNEST J. HARRELL, DONALD R. CURTIS,) and LEE TURNER, 18 Defendants. 19 20 21 The following status report and attached affidavits are submitted to the Court as 22 plaintiffs' status report in accordance with the Court's decision of June 27, 1997. After inquiry 23 by plaintiffs, the parties conferred and declined to file a joint status report. 24 25 26 PAGE 1 - PLAINTIFFS' STATUS REPORT

FORTLAND:59041 v01

LACE POWEL STARS LUMBERT LLP LIP TW TAXONIL STREET, SUITS SID PORTLAND CRECON PTRE-LIPS BOI) 25-4151 DOI 01887

94%

P.02

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

DRAFT

| . ACTIVITY | 1. | ACTIONS BY THE DEFENDANTS |
|------------|----|---------------------------|
|------------|----|---------------------------|

| 1 | 1. | ACIT | UNS BI ALL | <u>~</u> | | | | | | hut | nat | secular |
|---|-------|------|------------|---------------|----|---------|-----|----------|-------------|-------------|-----|----------|
| 2 | | (a) | Permitting | <u>೩</u> ೧೯೮ಽ | to | remains | for | Lepsionz | ceremonies, | Du • | | |
| 3 | ршгро | ses. | | | | | | | | | | e tadiaa |

Plaintiffs have learned that the Corps has permitted various representatives of Indian tribes that are claiming the remains to have access to the skeleton for the purposes of conducting religious ceremonies. On information and belief, tribal representatives have been permitted to have such access to the skeleton on at least six separate occasions.

After it became generally known that the Corps had granted religious access rights to representatives of the tribes, the Corps also permitted the Asatru Folk Assembly to conduct a religious ceremony in the presence of the skeleton.

The Corps continues to deny plaintiffs access to the skeleton.

(b) Actions inconsistent with the Court's directive to store the skeleton in a manner consistent with preservation of its scientific values.

Plaintiffs believe that the Corps is not adhering to the Court's order that it preserve the scientific value of the remains. The following concerns are raised based upon information provided by newspaper accounts and other sources. Because of the importance of this issue, plaintiffs are supplying for the Court's consideration the following information and the attached affidavits of Dr. James Chatters and Carolyn Leckie.

(1) According to reports from representatives of the Asatru Folk Assembly (who were permitted to conduct a religious ceremony), the skeleton they were permitted to see is stored in a simple cardboard box. Such a container provides little (or no) protection against moisture, pests, fire or other potentially adverse agents. Plaintiffs know nothing about the paper composition of the cardboard or whether it is, for example, acid-free paper (which seems unlikely). On information and belief, Dr. Chatters who initially examined the bones did not place them in such a potentially harmful container.

26

PAGE 2 - PLAINTIFFS' STATUS REPORT

DOI 01888

LAST POWELL STRAIG LUBERRY OF SPORT AMBELL STREET, SUTTE AND PORTLAND, ORDERN 9780-1361 (MD) 270-1351 503+2240/388

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

DRAFT

| (2) | It is plaintiffs' understanding that the bones are being kept in unsupported, |
|--------------|---|
| uncushioned | plastic bags which creates a risk of damage or loss from pressure, abrasion, |
| handling acc | idents, and from other causes. |

- (3) It is plaintiffs' understanding that neither the bones nor the plastic bags in which they are stored have been marked or labeled with accession or lot numbers. Such marking or labeling is necessary to ensure accurate identification and tracking of the remains.
- (4) On information and belief, the Corps has taken inadequate precautions and failed to adhere to sound curation procedures during the tribal religious ceremonies. Among other things, they permitted tribal representatives to handle the skeleton which creates a risk of possible DNA and other contamination. They also permitted tribal representatives to place cedar boughs in the box containing the skeleton which exposes the skeleton to risk of damage due to pests, moisture, oils, bacteria, pesticides, and other contaminants. They also permitted tribal representatives to add unprovenienced and undocumented bone specimens to the collection which could introduce harmful agents such as pests, bacteria, moids and moisture, and in addition threatens the scientific integrity of the collection. Plaintiffs are not aware whether cedar boughs or needles, additional bone fragments, dirt or other contaminants still remain in the box with the bones.
- (5) If the records previously produced by defendants are accurate, the Corps has not conducted any risk assessment to determine what measures were and are needed for proper curation and/or preservation of the skeleton. Plaintiffs are not aware of any efforts by the Corps to monitor the skeleton's condition to determine the adequacy of the preservation methods and/or procedures being employed.
- 23 (6) The Corps did not advise plaintiffs in advance of any of the religious ceremonies 24 involving the skeleton so plaintiffs would have an opportunity to approach the Court or otherwise 25 advise the Corps to ensure that damage was not done from these visits.

26

DOI 01889

PAGE 3 - PLAINTIFFS' STATUS REPORT

LACE POWELL SPEAK LUBERING UP SO SW YANDELL STREET, SUITE FOR PORTLAND, OSSOON 97704-1951 (NOT) 204-431 503+2246/383

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

DRAFT

(c) Corps proposals regarding the site which would be inconsistent with scientific values.

Based on documents in the administrative record, in October 1996 the Corps prepared, and discussed with tribal representatives, plans to cover the discovery site with boulders, cobbles and vegetation. Plaintiffs have advised the Corps that such actions, if carried out, could cause irreparable damage to any archaeological deposits that might be present at the site and could make it impossible to conduct a valid scientific investigation of the site. Among other things, such an investigation is necessary and appropriate to determine whether the geologic age of the site is consistent with the radiocarbon age of the skeleton, and whether the skeleton's presence at the site was due to an intentional burial or to other causes.

Plaintiffs have asked for information from the Corps about these plans; the Corps has not responded.

(d) Response to application for ARPA site examination permit.

On August 26, 1997, Dr. Gary Huckleberry of Washington State University submitted an application to the Corps for a permit (under the Archaeological Resources Protection Act of 1979) to allow a geoarchaeological examination of the site. The purpose of the proposed examination is to determine, inter alia, whether there are any intact archaeological deposits at the site, whether the geologic age of the site is consistent with the age of the skeleton, whether the skeleton was intentionally buried or was deposited at the site by other causes, what contributed to the preservation of the skeleton, and whether the site is subject to any unusual conditions that might affect the reliability of the radiocarbon age of the skeleton. Dr. Huckleberry intends to be assisted by several nationally and internationally known experts, including two of the plaintiffs.

An Army Corps spokesman told newspaper reporters that the Corps "probably" will not grant the request. Representatives of the Corps did not meet with Dr. Huckleberry to discuss his permit application until September 30, 1997, even though Dr. Huckleberry had requested permission to commence work by October 11, 1997. As of noon on October 1, 1997, it is

PAGE 4 - PLAINTIFFS' STATUS REPURT

DOI 01890

LANG POPILL SPEAK LIPERATE IN 19 50 TANOOLL STREET, MITH POP 100TLAND, ORMOON 97894-1931 (875) 204-4151 58/3+2248/388 ٠,

6

7

DRAFT

- plaintiffs' counsel's understanding that the Corps has not determined whether it will approve or 1 deny Dr. Huckleberry's request.
- 2 The Corps' delay in responding to this request may preclude any meaningful study of the 3 site this year as bad weather will soon be setting in. The site has already gone through one winter 4
- high water season since the discovery of the skeleton. 5

ACTIONS BY PLAINTIFFS.

- Efforts to participate in administrative process. (2)
- Since the Court's ruling staying these proceedings, plaintiffs have made a number of 8 efforts to participate in the Corps's administrative proceedings and to provide pertinent 9 information to the Corps for its consideration. However, the Corps has refused to permit 10 plaintiffs to have any information beyond the incomplete portions of the record it produced on 11 January 22, 1997 (and which are essentially limited to 1996 information), the direct 12 correspondence between the parties, and third hand sources such as newspaper reports. 13
- Requests for full administrative record (denied). 14
- On August 13, 1997, plaintiff requested a current copy of the administrative record 15 pursuant to the Freedom of Information Act. The Corps denied this request on the grounds that 16 the matter is in litigation which, it contends, suspends operation of that law. Plaintiffs have 17 provided apposite case law which confirms that FOIA rights survive litigation, but the Corps 18 continues to adhere to its position that it will not provide plaintiffs with any portions of the 19 administrative record beyond the portions produced on January 22, 1997. On information and 20 belief, the Corps has not taken this same position with representatives of the claiming tribes or 21 with members of the media. 22
- Requests for ARPA permit. 23
- Plaintiffs propose to collaborate with Dr. Huckleberry on his site examination, should the 24
- Corps grant his ARPA permit application in sufficient time to permit work at the site this year. 25

PAGE 5 - PLAINTIFFS' STATUS REPORT

DOI 01891

LANCE POWELL SPEAKS LUBERSKY LLP TO THE TAXONEL STREET, STATE OF PORTLAND, DRESON PROLITED (70) 234-4151 503+2240388

26

DRAFT

| , | (d) Equal protection claim. |
|---|---|
| 1 | The Court has asked plaintiffs to submit to the Corps all arguments they intend to assert |
| 2 | The Court has asked plantains to summer to the summer those |
| 3 | in this case pertaining to equal protection, and to make any record that is needed to support those |
| - | contentions. Court's Opinion filed June 27, 1997 at p. 45. Plaintiffs will prepare and submit a |
| 4 | contentions. Court's Opinion and a second without However, plaintiffs' factual |
| 5 | legal memorandum to the Corps and the Court if the Court wishes. However, plaintiffs' factual |
| _ | analysis necessarily will be incomplete because they have not been permitted to see portions of |
| 6 | ghalysis necessary |

the record after December 1996. PLAINTIFFS' REQUESTS FOR ACTION BY THE COURT. 8

- Plaintiffs ask the Court to review the attached information on whether the Corps is (a) complying with the Court's order to maintain the skeleton in a manner which preserves its scientific value.
- Plaintiffs ask the Court to clarify whether its stay has the effect of suspending **(b)** their rights to receive documents under their continuing request for production in this litigation, and whether the stay has the effect of suspending plaintiffs' independent rights under FOIA.
- Plaintiffs ask the Court to clarify whether they should submit a legal memorandum and/or amended complaint regarding their equal protection claim(s) before they have had an opportunity to review the complete administrative record.

18

9

10

11

12

13

14

15

16

17

19

20

21

22

23

24

25

26

PAGE 6 - PLAINTHIPS' STATUS REPORT

DOI 01892

LANK POWELL STARS LUMERSKY LL DO FO TANGOLL STREET, SLITTE ME PORTLAND, ORBODE \$730-1761 (200) 225-4151

FORTLAND:59041 +01

DCT-81-1997 11:27

583+2248388

96%

P.27

DRAFT Respectfully submitted this _____ day of October, 1997. 1 2 3 Alan L. Schneider, OSB No. 68147 Attorney for Plaintiffs 5 LANE POWELL SPEARS LUBERSKY LLP 8 9 Paula A. Barran, OSB No. 80397 Attorneys for Plaintiffs 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

PAGE 7 - PLAINTIFFS' STATUS REPORT

LANE POWELL SPEAKS LUMBERS LANGE SEND TANGELL SPEAKS, EATH SEND COUNTY STORE (1922) (2027) 28-4151

PORTLANDSMI +01

DOI 01893

TOTAL P.08