VIDEOTAPE/AUDIOTAPE CONDITION/PRESERVATION

Accession #:

Collection Name:

Title/Main Entry:

Tape Information:

Production/Original Record Date: Length: Brand/Manufacturer:

Format:

☐ 2" Quad	☐ S-VHS	☐ DVCPro	☐ ¼" Open Reel
☐ 1" Type C	☐ Video 8	☐ D2	☐ Audio Cassette
☐ 1/2"Open Reel	☐ Hi8	☐ D3	☐ DAT
☐ 3/4" Umatic	☐ Digital 8	☐ Betacam SP	☐ Disc
☐ Betamax	☐ MiniDV	☐ Digital Betacam	☐ Other
☐ VHS	☐ DVCam		

Generation:

☐ Original/Master/1st Gen.	☐ Analog	☐ Sound
☐ Submaster	☐ Digital	☐ Audio Channel 1
☐ Duplicate/Copy	☐ Color	☐ Audio Channel 2
☐ Other	☐ Black and white	☐ Recording Speed
		☐ Other

Original Label Information (Include handwritten notes and manufacturer's info):

Known Storage History:

Tape Condition/Damage:

Tape housed in: ☐ Cardboard Sleeve ☐ Plastic Case ☐ Shipping Container ☐ Other

Container/Cassette Damage:

Tape Edge: ☐ Patterned black, brown or mustard color ☐ Fungus

Binder Deterioration: ☐ Tape Odor (Describe):

Tape Pack: Chemical Deterioration:

☐ Popped Strands	☐ Spoking	☐ Black / Brown Oxide Flakes
☐ Stepped Pack	☐ Slotted Hub	☐ Particulate Contamination /Staining
☐ Edge Curl (Head/Tail)	☐ Shiners	☐ White Powder / Crystalline Residue
☐ Cinching	☐ Loose Pack	☐ Evidence of Vinegar Syndrome
☐ Flange Pack	☐ Edge Damage	
☐ Windows	☐ Other	

Reel-to-Reel: ☐ Physical Distortion ☐ Binder Base Adhesion Failure

Splices:

Notes:

Condition Assessed By: Date:

Content Information:

Synopsis (Brief Description/Abstract of Videotape Content):

Image Quality:

Tape Generation and Format Viewed: Equipment Used:

Tape Viewed On: Tape Viewed By:

Preservation/Conservation Actions

Preservation Master Created on:

Format: Tape Brand:

Access/Viewing Copy/Copies Created on:

Format: Tape Brand:

Vendor Name:

Contact/Work Performed By:

Address:

Phone Number: Email Address:

Technical Information/Details:

Conservation Actions:

Date:

Vendor Name: Contact/Work Performed By:

Address: Phone Number: Email Address:

Description of Conservation Work:

VIDEOTAPE/AUDIOTAPE
CONDITION/PRESERVATION WORK REPORT

GUIDE to the VIDEOTAPE CONDITION/PRESERVATION WORK REPORT

Tape Information:

- Gather as much information as possible from existing records or from the audiotape or videotape itself including the date the tape was recorded, it's length, the format, the brand of tape or the manufacturer, the format, generation, whether it's digital, analog, black and white, color, or if there is sound on the videotape and what channels it might have been recorded on and, if it's open reel, the speed of recording, if possible.
- Record the original label information as completely as possible.
- Include any information relating to how the tape has been stored, if known.

Tape Condition/Damage:

- **Tape Housed In:** The type of container the tape is stored in
- **Container/Cassette Damage:** Check physical container for damage that compromises the structural integrity of the container itself. Breakage is a strong indication of improper handling. If the container, reel or cassette is damaged, the tape inside is also likely to have suffered damage or contamination. Does the container need to be replaced?
- **Tape Edge:** Check the interior of the container and the edges of the tape for patterned black, brown, or mustard colored contamination and for fuzzy or thread-like growths that indicate the presence of fungus. Fungus can grow on tape after it has been exposed to high humidity. Tapes with fungus should be isolated and treated by professionals as soon as possible. ***Tape with fungus can present a health hazard: if fungus is suspected do not continue inspection!***
- **Binder Breakdown:** Smell the tape as soon as it is removed from its container. Hydrolytic breakdown of polyester binder creates esters that have distinctive odors but dissipate quickly. The most common odors can be characterized as "waxy," "dirty socks," or "astringent/pungent" depending on the binder. Some early tapes using an acetate base will also give off an odor of "vinegar" if the base is beginning to decay. Tapes with binder hydrolysis are in the process of self-destruction and can stick in the machine during playback, causing additional damage. Binder hydrolysis can be treated: acetate breakdown is permanent.
- **Tape Pack:** With light source above and slightly behind, tilt tape edge-on at approximately 45° away from the light source and inspect tape pack. Check for spoking, popped strands, stepped pack, edge damage, "shiners" and windows. These terms refer to irregularities in the way the tape is wound onto the hub and are indications of improper handling, storage or a badly set up machine.
    - **Popped strands** and **stepped pack** refer to individual or groups of tape wraps that stick up from the edge of the pack.
    - **Edge curl**usually occurs on the outside one-sixteenth inch of the video tape. If the tape is sufficiently deformed it will not make proper tape contact with the

playback heads. An upper curl (audio edge) crease may affect sound quality. A lower curl (control track) may result in poor picture quality.

- **Cinching** is thewrinkling, or folding over, of tape on itself in a loose tape pack. Normally occurs when a loose tape pack is stopped suddenly, causing outer tape layers to slip past inner layers, which in turn causes a buckling of tape in the region of slip. Results in large dropouts or high error rates.
- **Flange pack** is a condition that occurs when the tape is either wound up against one flange by a poorly aligned recorder, or has fallen against the flange due to a loose wind and flat storage. Flange packing often leads to damaged edges from the tape scraping against the edge of the flange as it unwinds through the recorder or winds back to the reel. When a poor wind with popped strands is also present, the strands that stick out of the pack can be severely bent when the tape is flange packed.
- **Windows** are gaps in the tape pack caused by the tape becoming loose on the hub and often indicate a place where the tape has folded back over on itself.
- **Spoking** shows up as a pattern radiating out from the hub and is the result of improper tension.
- **Slotted Hubs**: This is not a tape pack problem but a condition that causes pack problems. We define slotted hub as the existence of one or more extra wide slots on the hub of the two flanges that hold the tape pack. The outer, round part of an unslotted hub is unbroken—there is a solid surface for the tape to rest against all the way around. Many sets of flanges have at least one small slot used for threading the tape. The extreme is the existence of three wide, open slots. The tape, under pressure within the tape pack, begins to sag into the open space, causing or contributing to problems such as drop-outs, windowing and/or spoking. These flanges are most often found on older, acetate-based tapes. If there are wide slots, you are most likely to see three of them.
- **Shiners:** When you shine the light on the tape, "shiners" show up as thin strips of greater reflection resulting from the edge of the tape being torn or folded.
- **Loose Tape Pack**:
  - For open reel tapes; pull on the end-of-tape and notice if the tape pack slips. If the pack rotates, the tape is packed too loose.
  - For a cassette tape; rotate the two hubs in opposite directions and observe if the pack slips severely.
  - Alternatively; look for any space between layers. Any noticable space indicates a loose pack.
  - Look at the tape pack and notice if there are any pack distortions radiating out from the hub

- **Edge damage** Physical distortion of the top or bottom edge of the magnetic tape, usually caused by pack problems such as popped strands or stepping. Affects audio and control track sometimes preventing playback.

Chemical Deterioration:

- **Black/brown oxide flakes:** Check the interior of the container for signs of flakes of oxide. This symptoms, caused by a variety of conditions, indicate that the tape is beginning to break down.

- **Particulate Contamination/Staining:** Check the tape edge and the reel/cassette/cartridge for particulate contamination and for signs of staining that may indicate liquid contamination. Any visible contamination is an indication of poor storage or handling. Particulate contamination can block the signal during playback and can scratch both the tape and the playback heads. Liquid contamination will accelerate tape decay and can often result in tape wraps sticking together.
- **White powder or crystalline residue:** Check the tape edgefor signs of residue. This symptom, caused by a variety of conditions, indicate that the tape is beginning to break down.
- **Vinegar syndrome**: Characteristic of the decomposition of acetate based magnetic tape where acetic acid is a substantial by-product that gives the tape a vinegar-like odor. After the onset of the vinegar syndrome, acetate tape backings degrade at an accelerated rate--the hydrolysis of the acetate is catalyzed further by the presence of acetic acid by product.
- **Reel-to-Reel Damage:** allow a few outer wraps to hang loose and examine for physical distortion and binder/base adhesion failure.
    - Physical distortion caused by improper tension will often show up on a loose piece of tape as wavy or "scalloped" edges.
    - Binder/base failure is identified by sections of the tape that appear a different color where the binder has come off. Note: If transparent or masking tape has been used to secure the tape end, binder loss in the isolated area under the adhesive is <u>not</u> an indication of binder/base failure.

Preservation/Conservation Actions

- Note Dates that Preservation Masters and Viewing/Access copies were made, onto which videotape format and the brand of manufacturer.
- Record the vendor contracted to create the preservation master and access copies with as much contact information as possible
- Gather technical information about the transfer as possible and include any additional comments that might be relevant for future preservation work.
- Note the date any conservation actions were implemented, who performed the work and what was done.

Content Information:

- Provide a brief description of the content of the tape
- Describe the image quality of the videotape during the viewing—note glitches, wrinkles, etc.
- Note which generation of the tape was viewed (i.e. original 3/4”Umatic) and which equipment was used (i.e. Umatic deck Model #), the date the tape was viewed, and by whom.

Resources:
http://www.dlib.indiana.edu/projects/sounddirections/facet/facet_formats.pdf
http://cool.conservation-us.org/byorg/bavc/bavcterm.html
http://www.specsbros.com/whitepaper.html
http://www.dlib.indiana.edu/projects/sounddirections/facet/facet_formats.pdf
http://www.clir.org/pubs/reports/pub54/care_and_handling.html